

II. LIST OF STRAINS (保存株リスト)

1. 保存株リストの利用方法

保存株は、学名のアルファベット順に掲載されています。学名が同じ場合は株番号順に掲載されています。各株には株番号が付されていますが、命名法などの改定や再同定の結果、株の学名が変更されることはあっても、この株番号が変更されることはありません。株番号を表示する際には、数字の前に“NIES-”を付けて使用してください(例:NIES-44)。

個々の項目に関する詳細な説明は下記を参照してください。

MICROCYSTIS¹⁾: Cyanophyceae²⁾

Microcystis aeruginosa (Kützing) Lemmermann³⁾

Syn.⁴⁾ *Microcystis aeruginosa* (Kützing) Kützing, *M. ichthyoblabe* Kützing, *M. novacekii* (Komárek) Compère, *M. viridis* (A. Braun) Lemmermann, *M. wesenbergii* (Komárek) Komárek in Kondratieva

44⁵⁾ **History**⁶⁾: <IAM Other collection strain no⁷⁾: IAM M-176 **Locality**⁸⁾: Lake Kasumigaura/ Ibaraki/ Japan(1974-08-**) **Isolator**⁹⁾: Watanabe, Makoto M. **Identified by**¹⁰⁾: Watanabe, Makoto M. **Formerly identified as**¹¹⁾: *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States**¹²⁾: Unialgal; Clonal; Axenic **Culture conditions**¹³⁾: CB; 25°C; 20-30 μmol/m²/s; 20 D **Habitat**¹⁴⁾: Freshwater (lake water) **Characteristics**¹⁵⁾: Cyanobacterial water bloom (aoko) **Gene data**¹⁶⁾: 16S rRNA (AB015361); 16S-23S ITS region (AB015361) **Other strain no.**¹⁷⁾: TAC 44 **References**¹⁸⁾: 1, 2 **Remarks**¹⁹⁾: Cryopreserved

1) 属名

2) 網名: 網名が不明の場合は、門名とともに“*incertae sedis* (所属不明)”と表示した(例: *Metamonada incertae sedis*)。

3) 学名および著者名: 属あるいは種における多系統性が指摘されているにもかかわらず、新属の設立等の分類学的措置が行われていない場合(例えばクロレラ属等)、本リスト中では属名または種名を引用符で囲んで示した(例: ‘*Chlorella saccharophila*’ や ‘*Chlorella ellipsoidea*’)。シアノバクテリアのアナベナ属で、種名の後に*を付してある株は、アキネートの位置や形態の観察なしに同定された種名であることを示している。

4) シノニム

5) 株番号: NIES-44のように、NIESコレクションのアクロニムであるNIESを必ずハイフンでつないで表示すること。

6) 株の履歴: NIESコレクションに寄託されるまでの経路。寄託年がわかる場合はカッコ内に示した。

7) 他の機関における株番号: 株番号の前のアクロニムは以下の機関を示している。

ATCC : 米国タイプカルチャーコレクション
 CAUP : プラハ カレル大学藻類コレクション
 CCAP : 英国藻類原生動物カルチャーコレクション
 CCMP : 米国プロバゾーリ・ギラード国立海産プランクトン保存センター
 CGC (CC) : 米国クラミセンター
 IAM : 東京大学分子細胞生物学研究所 IAM コレクション
 (2007年3月に閉鎖され、ほとんどの藻類株はNIESコレクションに移管された)
 IFO : 財団法人発酵研究所
 IPPAS : ロシア科学アカデミー植物生理学研究所微細藻類カルチャーコレクション
 JCM : 理化学研究所バイオリソースセンター
 KAGAWA : 香川県赤潮研究所
 NIVA : ノルウェー水質研究所
 PCC : フランスパスツール研究所シアノバクテリアカルチャーコレクション

| | |
|-------|---|
| SAG | : ドイツゲッチンゲン大学藻類カルチャーコレクション |
| TAC | : 国立科学博物館植物研究部 (ほとんどの藻類株は NIES コレクションに移管された) |
| TISTR | : タイ国立科学技術研究所 |
| TKB | : 筑波大学大学院生命環境科学研究科 |
| UTEX | : 米国テキサス大学藻類カルチャーコレクション (前 BIU, インディアナ大学藻類カルチャーコレクション) |

- 8) 採集地: 詳細な記録がある場合は, 採集地名 / 県名 / 国名の順に表示してある。カッコ内は採集年月日。
- 9) 分離者: 姓・名の順に示した。
- 10) 同定者: 姓・名の順に示した。再同定された場合は, 再同定者を示した。NIES コレクションにおける DNA 塩基配列解析によって再同定された場合は, “Re-identified at NIES by DNA sequencing” と表示し, 再同定によって種名が適切であると判断された場合は, “Confirmed at NIES by DNA sequencing” と表示した。
- 11) 前名: 再同定前に使用されていた学名で, DNA 解析や詳細な形態観察から誤同定であったことが確認された学名である場合が多い。*Microcystis aeruginosa* の場合は, 以前使用されていた 5 つの形態種名を示した。
- 12) 株の状態: 単藻, クローン, 無菌など, 培養株の状態を示した。
- 13) 培養条件: 培地 [寒天培地の場合は (agar), 軟寒天培地の場合は (semi-solid) と示し, 液体培地は無表示], 培養温度, 光量子密度, 植え継ぎ期間 (D は日, M は月を示す) を示した。前培養が必要な場合は, その条件 (培養温度と光量子密度) をカッコ内に示した。明暗周期は 12 時間毎である。
- 14) 生息場: 生息場が寄託者によって示されている場合は, 生息場およびカッコ内に分離源を示した。主要な生息場として, “Freshwater (淡水)”, “Brackish (汽水)”, “Marine (海)”, “Salt water (塩水)”, “Hot spring (温泉)”, “Terrestrial (土壌・地衣・樹皮など)” を用いた。
- 15) 特性: 環境, 生理, 分類, その他の特性を示した。新種記載の基礎となった株の場合で真核藻類と原生動物の場合は “Authentic strain”, シアノバクテリアの場合は “Type strain” と表示した。*Microcystis aeruginosa* 株については, 種内の遺伝的多様性を示すためにシークエンスタイプ(ST)を示した。絶滅危惧種については, 2007 年に改訂された環境省版レッドリスト(Ref. 474) に示されている, CR+EN (絶滅危惧 I 類), VU (絶滅危惧 II 類), NT (準絶滅危惧種) のカテゴリーを示した。
- 16) 遺伝子データ: 遺伝子名と遺伝子バンクにおけるアクセッション番号をカッコ内に示した。
- 17) 他の株番号: 分離者によって使用された株番号を示した。
- 18) 文献: 株が利用された文献の番号を示した。文献番号は, VIII 章 (p. 277 ~ 323) の文献番号に対応する。
- 19) 注意事項: 株を注文する際の注意点で, 以下の内容を示す。
 - Cryopreserved (凍結保存株): 融解後に培養してから送付するため, 送付までに時間がかかる場合がある。
 - Difficult to transport (輸送困難): 輸送中に死滅する可能性があり, 直接引き取りに来ていただいたり, 複数回の輸送が必要な場合がある。
 - Toxic (有毒): 毒素を産生するなどの報告があり, 株の取り扱いに注意を要する。
 - Unstable (不安定): 増殖が悪く分譲できない場合や, NIES コレクションで長期間維持できない可能性がある。

II. LIST OF STRAINS

1. How to use the list of strains

The strains are listed in alphabetical order of the scientific name. Strains with an identical scientific name are arranged according to their strain numbers. The strain number assigned to a given strain remains the same, regardless of any change in nomenclature or re-identification. We request that users hyphenated the strain number with the acronym “NIES”, e.g. “NIES-44”. A detailed example of a strain description is as follows:

MICROCYSTIS¹⁾ : Cyanophyceae²⁾

Microcystis aeruginosa (Kützing) Lemmermann³⁾

Syn.⁴⁾ *Microcystis aeruginosa* (Kützing) Kützing, *M. ichthyoblabe* Kützing, *M. novacekii* (Komárek) Compère, *M. viridis* (A. Braun) Lemmermann, *M. wesenbergii* (Komárek) Komárek in Kondratieva

44⁵⁾ History⁶⁾: <IAM Other collection strain no⁷⁾: IAM M-176 **Locality⁸⁾**: Lake Kasumigaura/Ibaraki/ Japan(1974-08-**) **Isolator⁹⁾**: Watanabe, Makoto M. **Identified by¹⁰⁾**: Watanabe, Makoto M. **Formerly identified as¹¹⁾**: *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States¹²⁾**: Unialgal; Clonal; Axenic **Culture conditions¹³⁾**: CB; 25°C; 20-30 µmol/m²/s; 20 D **Habitat¹⁴⁾**: Freshwater (lake water) **Characteristics¹⁵⁾**: Cyanobacterial water bloom (aoko) **Gene data¹⁶⁾**: 16S rRNA (AB015361); 16S-23S ITS region (AB015361) **Other strain no.**¹⁷⁾: TAC 44 **References¹⁸⁾**: 1, 2 **Remarks¹⁹⁾**: Cryopreserved

- 1) Genus name.
- 2) Class name: If the class name is uncertain, we use “*incertae sedis*” with the phylum name, e.g. *Metamonada incertae sedis*.
- 3) Scientific name with authority: We put the genus or species name in single quotation marks (such as ‘*Chlorella saccharophila*’ or ‘*Chlorella ellipsoidea*’), if the polyphyly of genera or species is clear from DNA sequencing. In the cyanobacterial genus *Anabaena*, scientific names followed by * indicate those identified without observation on akinete position and morphology.
- 4) Synonym(s).
- 5) Strain number: Please add a hyphen and the acronym NIES before the number, e.g. “NIES-44”.
- 6) History: How and by whom the strain was deposited in the NIES-Collection through other culture collections, researchers or an isolator. Deposit year is shown in parentheses if available.
- 7) Other collection strain no.: Strain designation in other culture collections or institutions. Acronyms placed before strain numbers refer to the following culture collections and institutions:

| | |
|----------|--|
| ATCC | : American Type Culture Collection, U.S.A. |
| CAUP | : Culture Collection of Algae of Charles University of Prague, Czech |
| CCAP | : Culture Collection of Algae and Protozoa, U.K. |
| CCMP | : The Provasoli-Guillard National Center for Culture of Marine Phytoplankton, U.S.A. |
| CGC (CC) | : Chlamydomonas Genetic Centre, U.S.A. (Chlamy Center, at present), U.S.A. |
| IAM | : Institute of Molecular and Cellular Biosciences, University of Tokyo, Japan (Almost all algal strains were moved to the NIES-Collection until the end of March 2007, when the IAM Collection was closed). |
| IFO | : Institute for Fermentation, Osaka, Japan |
| IPPAS | : Culture Collection of Microalgae, Institute of Plant Physiology, Russian Academy of Sciences, Russia |

| | |
|--------|--|
| JCM | : Japan Collection of Microorganisms, RIKEN, Japan |
| KAGAWA | : Akashiwo Research Institute of Kagawa Prefecture, Japan |
| NIVA | : Norwegian Institute for Water Research, Norway |
| PCC | : Pasteur Culture Collection of Cyanobacteria, Institut Pasteur, France |
| SAG | : Culture Collection of Algae at the University of Göttingen, Germany |
| TAC | : Tsukuba Botanical Garden, National Science Museum, Japan (almost all algal strains were deposited to the NIES-Collection) |
| TISTR | : Thailand Institute of Scientific and Technological Research, Thailand |
| TKB | : Graduate School of Life and Environmental Science, University of Tsukuba, Japan |
| UTEX | : The Culture Collection of Algae at the University of Texas at Austin, U.S.A. (Formerly BIU, The Culture Collection of Algae at the Indiana University, Bloomington) |

- 8) Locality: The place where the strain was collected, in order of place/prefecture/country, if full data are available, with collection date in parentheses if available.
- 9) Isolator's name in order of family name, then first name.
- 10) Identified by: The person who gave the scientific name shown herein in order of family name, then first name. If the strain was re-identified, the re-identifying person(s) is also shown. If re-identification was conducted at the NIES-Collection by DNA sequencing, this is shown as "Re-identified at NIES by DNA sequencing". If scientific names were found to be proper by DNA sequencing, this is shown as "Confirmed at NIES by DNA sequencing".
- 11) Formerly identified as: The scientific name that was formerly used and mostly found to be misidentified after re-identification by DNA sequencing and/or detailed morphological studies. In the case of the cyanobacterium *Microcystis aeruginosa*, formerly used morphospecies names are indicated, if available.
- 12) States: The state of culture strains, indicating whether or not they are unialgal, clonal, and axenic.
- 13) Culture conditions: In order of medium [with (agar) or (semi-solid) if medium is a agar slant or a soft agar medium; unless otherwise noted the phase of medium is liquid], culture temperature, illumination as photon flux density, interval for subculture maintenance (Days or Months), with pre-culture conditions for active growth (culture temperature and photon flux density) in parentheses, if necessary. The light-dark photo-regime is 12 h light and 12 h dark.
- 14) Habitat: The habitats specified by the depositors, with the source of isolation in parentheses. We often use "Freshwater" "Brackish" "Marine" "Salt water" "Hot spring" or "Terrestrial" to indicate the habitat of the strain.
- 15) Characteristics: Environmental, physiological, taxonomic, and miscellaneous characteristics of the strains. We use "Authentic strain" for strains used as a basis for the description of new species of eukaryotic algae and protozoa, and "Type strain" for cyanobacterial type strains. For the cyanobacterium *Microcystis aeruginosa*, we also show the sequence type (ST) to clarify the genetic diversity within a same single species. For endangered species, we show the categories revised by the Ministry of Environment in 2007 (Ref. 474); i.e. CR+EN (critically endangered and endangered), VU (vulnerable), and NT (near threatened).
- 16) Gene data: Gene names, with accession numbers in parentheses.
- 17) Other strain no.: Strain designation given by isolators.
- 18) Reference number(s): Publications in which the strain was used. The number corresponds to publications listed below in section VIII. (pp. 277-323).
- 19) Remarks: Notes relevant to ordering, such as "Cryopreserved", "Difficult to transport", "Toxic", or "Unstable". We deliver "Cryopreserved" strains after thawing and recovery of normal culture state, so that a longer time is required when ordering "Cryopreserved" strains, though their viability is ensured. We may need several trials to deliver successfully "Difficult to transport" strains, or we may not be able to deliver them. For "Toxic" strains, caution in handling is required. "Unstable" strains are sometimes not available if their growth is poor at that time, and are usually difficult to maintain permanently at the NIES-Collection.

2. List of strains (保存株リスト)

ACARYOCHLORIS : Cyanophyceae

Acaryochloris marina Miyashita et Chihara

- 2412** **History:** < Miyashita, Hideaki **Locality:** Hokkaido University Marine Station/Hokkaido/Japan (2004-06-20) **Isolator:** Miyashita, Hideaki **Identified by:** Miyashita, Hideaki (2004-08-**) **States:** Unialgal **Culture conditions:** IMK; 20°C; 10 µmol/m²/s; 1 M **Habitat:** Marine (Seaweed) **Characteristics:** Contains chlorophyll *d* **Other strain no.:** Murooran strain

ACHNANTHES : Bacillariophyceae

Achnanthes kuwaitensis Hendey

- 1349** **History:** < Mayama, Shigeki **Locality:** Morito Beach/Kanagawa/Japan (2003-04-19) **Isolator:** Shono, Naoko **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Marine (A polyethylene bag on a beach)

Achnanthes subconstricta (Meister) Toyoda

- 330** **History:** < Sawaguchi, Tomohiro **Locality:** Imaiama/Shizuoka/Japan (1985-05-22) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Nagumo, Tamotsu **Formerly identified as:** *Achnanthes longipes* Agardh **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 15-20 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** IMHB-5 **References:** 122, 302

ACHNANTHIDIUM : Bacillariophyceae

Achnanthidium minutissimum (Kützing) Czarnecki

Syn. *Achnanthes minutissima* Kützing

- 71** **History:** < Yuri, Akira **Locality:** Kosaka River/Akita/Japan (1983-04-19) **Isolator:** Yuri, Akira **Identified by:** Mizuno, Makoto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSI; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Other strain no.:** A15-6 **References:** 122, 564, 758, 916, 917
- 407** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 4st-0-8 **Reference:** 917
- 408** **History:** < Kasai, Fumie **Locality:** Watarase River System/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Idei, Masahiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** AT5-23 **Reference:** 917
- 409** **History:** < Kasai, Fumie **Locality:** Watarase River System/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Idei, Masahiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** Ast-3-3 **Reference:** 917
- 410** **History:** < Kasai, Fumie **Locality:** Watarase River System/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** AT4-18 **Reference:** 917
- 411** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 1st-3-17 **References:** 916, 917
- 412** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 1st-1-1 **References:** 916, 917
- 413** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 1st-2-8 **References:** 916, 917
- 414** **History:** < Kasai, Fumie **Locality:** Ooe River (Ozegahara)/Fukushima/Japan (1987-10-16) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 0-25 **Reference:** 917

- 1350** **History:** < Mayama, Shigeki **Locality:** Tama River/Tokyo/Japan (2002-11-26) **Isolator:** Shono, Naoko **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi/5; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Freshwater (River stone) **Characteristics:** Benthic; Epilithic

Achnantheidium minutissimum (Kützing) Czarnecki var. *saprophilum* Kobayasi et Mayama
Syn. *Achnanthes minutissima* Kützing var. *saprophila* Kobayasi et Mayama

- 372** **History:** < Sawaguchi, Tomohiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1985-12-19) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CSi; M Chu No.10; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Plant) **Other strain no.:** KAAC-6

ACINETOSPORA : Phaeophyceae

Acinetospora crinita (Carmichael) Sauvageau

- 548** **History:** < Kuroiwa, Tsuneyoshi **Locality:** Tuscan/Italy (1991-**-**) **Isolator:** Hagiwara, Tomiji **Identified by:** Sartoni, G. **Formerly identified as:** *Tribonema marinum* J. Feldmann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 4-10 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Marine **Gene data:** 18S rRNA (AF038005); *coxI* (AF037996); *tufA* (AF038004) **References:** 64, 122, 224, 801

ACTINASTRUM : Trebouxiophyceae

Actinastrum hantzschii Lagerheim

- 415** **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-07-22) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Gene data:** *coxI* (D63660) **Other strain no.:** F7-4 **References:** 171, 515, 1047 **Remarks:** Cryopreserved

ADENOIDES : Dinophyceae

Adenoides eludens (Herdman) Balech

- 1367** **History:** < Murray, Shauna **Locality:** Suzu/Ishikawa/Japan (2004-05-25) **Isolator:** Murray, Shauna **Identified by:** Murray, Shauna **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Benthic **Remarks:** Difficult to transport
- 1402** **History:** < TKB **Locality:** Wakayama/Japan (2003-04-19) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-063 (AK-05) **Remarks:** Difficult to transport

AKASHIWO : Dinophyceae

Akashiwo sanguinea (Hirasaka) Hansen et Moestrup

Syn. *Gymnodinium sanguineum* Hirasaka

- 1832** **History:** < TKB **Locality:** Mie/Japan (2005-04-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-263 **Remarks:** Difficult to transport
- 1987** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW10 **Remarks:** Difficult to transport

ALEXANDRIUM : Dinophyceae*Alexandrium catenella* (Whedon et Kofoid) BalechSyn. *Protogonyaulax catenella* (Whedon et Kofoid) Taylor

- 674 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1980-06-17) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** MNK; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Mating type (+) **Other strain no.:** Ac 1 **Remarks:** Difficult to transport
- 675 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1980-06-17) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Mating type (-) **Other strain no.:** Ac 5 **Remarks:** Difficult to transport
- 677 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Yamakawa Bay/Kagoshima/Japan (1988-03-28) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Acy-6 **Remarks:** Difficult to transport

Alexandrium hiranoi Kita et Fukuyo

- 612 **History:** < Kita, Takumi **Locality:** Kawasaki/Kanagawa/Japan (1984-08-**) **Isolator:** Kita, Takumi **Identified by:** Kita, Takumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Toxic **References:** 360, 368, 369, 528 **Remarks:** Toxic; Difficult to transport

Alexandrium insuetum Balech

- 678 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Shodo Isl., Uchiumi Bay/Kagawa/Japan (1985-06-06) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport

Alexandrium sp.

- 1988 **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW6 **Remarks:** Difficult to transport
- 1989 **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW7 **Remarks:** Difficult to transport
- 1990 **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 15°C; 10-15 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Other strain no.:** MHW1 **Remarks:** Difficult to transport
- 1991 **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 15°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW2 **Remarks:** Difficult to transport
- 1993 **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 15°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW4 **Remarks:** Difficult to transport
- 1994 **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 15°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW5 **Remarks:** Difficult to transport
- 2328 **History:** < Sawaguchi, Tomohiro **Locality:** Noumea/New Caledonia (1987-03-06) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** NCD-4 **Remarks:** Difficult to transport

AMPHIDINIUM : Dinophyceae*Amphidinium carterae* Hulburt

- 331 **History:** < Sawaguchi, Tomohiro **Locality:** Iriomote Isl./Okinawa/Japan (1986-01-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** *psbA* (AB025586) **Other strain no.:** IIDA **References:** 128, 934 **Remarks:** Unstable; Difficult to transport

Amphidinium klebsii Coll

- 613 **History:** < Murata, Michio **Locality:** Aburatsubo Bay/Kanagawa/Japan (1993-04-21) **Isolator:** Murata, Michio **Identified by:** Fukuyo, Yasuo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** *GapC1* (AB106698); *GapC2* (AB106699) **Other strain no.:** AK-1 **References:** 203, 204, 205, 523, 524, 931 **Remarks:** Difficult to transport

Amphidinium operculatum Claparede et Lachmann

- 1368 **History:** < Murray, Shauna **Locality:** Suzu/Ishikawa/Japan (2004-05-25) **Isolator:** Murray, Shauna **Identified by:** Murray, Shauna **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Benthic **Remarks:** Difficult to transport

Amphidinium testudo Kofoid et Swezy

- 1268 **History:** < Moriya, Mayumi **Locality:** Saipan/U.S.A. (2002-04-**) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** M-44 **Remarks:** Difficult to transport

ANABAENA : Cyanophyceae*Anabaena affinis* Lemmermann

- 40 **History:** < IAM (1983) **Other collection strain no.:** IAM M-168 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **References:** 215, 435, 515, 605, 1047, 1107 **Remarks:** Unstable
- 1639 **History:** < TAC **Locality:** Lake Shirarutoro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 439 **Reference:** 609
- 1640 **History:** < TAC **Locality:** Lake Shirarutoro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 440 **Reference:** 609
- 1641 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 442 **Reference:** 609
- 1642 **History:** < TAC **Locality:** Lake Tsukui/Kanagawa/Japan **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 454

Anabaena akankoensis M. Watanabe

- 1875 **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (2002-09-10) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 13-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 505
- 1876 **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (2002-09-10) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 13-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 506
- 1906 **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (2002-09-10) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 13-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 571

1907 **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (2002-09-10) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 13-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 572

Anabaena aphanizomenoides Forti

1643 **History:** < TAC **Locality:** Tsukuba-shi, Chuo-koen/Ibaraki/Japan (1999-10-05) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 456

1644 **History:** < TAC **Locality:** Tsukuba-shi, Chuo-koen/Ibaraki/Japan (1999-10-12) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 457

Anabaena circinalis Rabenhorst ex Bornet et Flahault

- 41** **History:** < IAM (1983) **Other collection strain no.:** IAM M-169 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AB042859) **References:** 175, 202, 215, 515, 604, 605, 719, 859, 899, 900, 1047 **Remarks:** Unstable
- 1645** **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (2001-09-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 482 **Reference:** 1069
- 1646** **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 496
- 1647** **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 497 **Reference:** 1069
- 1648** **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 498
- 1649** **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 499
- 1650** **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 501 **Reference:** 1069
- 1877** **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 502
- 1878** **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 503
- 1879** **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (2002-09-23) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 508
- 1908** **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-09-19) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 552
- 1909** **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-09-19) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 553

1929 **History:** < TAC **Locality:** Rebun Isl., Lake Kushu/Hokkaido/Japan (2006-07-21) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko (2007-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 585

1930 **History:** < TAC **Locality:** Rebun Isl., Lake Kushu/Hokkaido/Japan (2006-07-21) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko (2007-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 586

*Anabaena circinalis** Rabenhorst ex Bornet et Flahault

1880 **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (2002-09-23) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 507

Anabaena compacta (Nygaard) Hickel

806 **History:** < Li, Renhui < CCAP **Other collection strain no.:** CCAP 1403/24 **Locality:** Rostherne Mere/Cheshire/U.K. **Isolator:** Jaworski, G. H. M. **Identified by:** Li, Renhui **Formerly identified as:** *Anabaena spiroides* Klebahn **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko)

835 **History:** < Li, Renhui < CCAP **Other collection strain no.:** CCAP 1403/29 **Locality:** Esthwaite Water/England, Cambria/U.K. **Isolator:** Butterwick **Identified by:** Li, Renhui **Formerly identified as:** *Anabaena spiroides* Klebahn **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Reference:** 186

Anabaena crassa (Lemmermann) Komárková-Legnerová et Cronberg

77 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Anabaena spiroides* Klebahn f. *spiroides* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 31 (K-TAN-31) **References:** 333, 515, 1047 **Remarks:** Unstable

78 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-07-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 30 (K-TAN-30) **References:** 202, 435, 515, 604, 605 **Remarks:** Unstable

1652 **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 436 **References:** 434, 609, 1029

1653 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-07-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 443 **References:** 434, 609

1654 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-07-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 444

1655 **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (1996-08-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 468 **Reference:** 609

1656 **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 473 **Reference:** 1069

1657 **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 474

- 1658 **History:** < TAC **Locality:** Lake Biwa, Akanoi/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 485
- 1659 **History:** < TAC **Locality:** Lake Biwa, Akanoi/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 486 **Reference:** 1069
- 1660 **History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 487
- 1661 **History:** < TAC **Locality:** Lake Biwa, Hikone/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 488
- 1662 **History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 490 **Reference:** 1069
- 1663 **History:** < TAC **Locality:** Niigata/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 492 **Reference:** 1069
- 1664 **History:** < TAC **Locality:** Niigata/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 493
- 1665 **History:** < TAC **Locality:** Niigata/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 494
- 1666 **History:** < TAC **Locality:** Niigata/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 495
- 1881 **History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (2002-10-14) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 512
- 1882 **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 518
- 1883 **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 519
- 1884 **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 520
- 1885 **History:** < TAC **Locality:** Mannou/Kagawa/Japan (2002-10-02) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 522
- 1886 **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 524
- 1887 **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 525

- 1888** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 526
- 1889** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 527
- 1890** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 528
- 1891** **History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 529
- 1892** **History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 532
- 1910** **History:** < TAC **Locality:** Minakami-ike Pond/Nara/Japan (2003-05-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 562
- 1911** **History:** < TAC **Locality:** Minakami-ike Pond/Nara/Japan (2003-05-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 563
- 1912** **History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 567
- 1913** **History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 573
- 1914** **History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 574
- 1915** **History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 575
- 1916** **History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 576
- 1917** **History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 577
- 1918** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-06-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 587
- 1919** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-06-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 588

*Anabaena crassa** (Lemmermann) Komárková-Legnerová et Cronberg

- 1893** **History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (2002-10-14) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 513
- 1894** **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (2002-09-23) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 514
- 1895** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 515
- 1896** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 516
- 1897** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 517
- 1898** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 521
- 1899** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 523
- 1900** **History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 530
- 1901** **History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 531
- 1902** **History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 533

Anabaena cylindrica Lemmermann

- 19** **History:** < IAM (1983) **Other collection strain no.:** IAM M-1 (= M-253) **States:** Unialgal; Non-clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Characteristics:** Nitrogen fixation **Gene data:** 16S rRNA (AF247592); *gylB* (AB074770); *rpoC1* (AB074793); *rpoD1* (AB074820) **References:** 18, 19, 38, 89, 90, 93, 94, 95, 96, 97, 98, 99, 100, 101, 117, 126, 169, 187, 188, 215, 265, 386, 387, 427, 485, 515, 536, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 706, 707, 708, 709, 710, 711, 712, 764, 765, 766, 784, 848, 904, 906, 980, 1013, 1021, 1047, 1075, 1102, 1103, 1104, 1105, 1106, 1107

Anabaena danica (Nygaard) Komárková et Eloranta

- 1667** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 453 **Reference:** 434

Anabaena flos-aquae Brébisson ex Bornet et Flahault

Syn. *Anabaena flos-aquae* Brébisson ex Bornet et Flahault f. *flos-aquae*

- 73** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AB042858) **Other strain no.:** TAC 32 (K-TAN-32) **References:** 202, 333, 515, 605, 719, 760, 761, 762, 877, 1047, 1139 **Remarks:** Unstable

- 75 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 43 (K-TAN-43) **References:** 515, 560, 1047 **Remarks:** Unstable
- 1668 **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1984-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 99
- 1669 **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1984-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** TAC 100 **Remarks:** Toxic
- 1670 **History:** < TAC **Locality:** Hirosaki Castle/Aomori/Japan (1990-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Other strain no.:** TAC 430 **Reference:** 609
- 1671 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 445 **Reference:** 609
- 1672 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 446 **References:** 434, 609
- 1903 **History:** < TAC **Locality:** Hirosaki Castle/Aomori/Japan (1990-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Other strain no.:** TAC 429

*Anabaena heterospora** Nygaard

- 1697 **History:** < TAC **Locality:** Watarase-yuusuichi/Tochigi/Japan (1991-06-16) **Isolator:** Iikura **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Water*) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 447

Anabaena kisseleviana Elenkin

- 74 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Anabaena flos-aquae* Brébisson ex Bornet et Flahault f. *flos-aquae* **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 33 (K-TAN-33) **References:** 45, 297, 515, 533, 534, 535, 760, 761, 762, 1047 **Remarks:** Unstable
- 807 **History:** < Li, Renhui < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 34

Anabaena lemmermannii Richter

- 808 **History:** < Li, Renhui < TAC **Locality:** Lake Akan/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui; Watanabe, Masayuki (Reidentify) **Formerly identified as:** *Anabaena mendotae* Trelease **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 437 (A28)
- 833 **History:** < Li, Renhui < NIVA **Other collection strain no.:** NIVA CYA 82 **Locality:** Buskerud, Lake Steinsfjorden/Norway **Identified by:** Li, Renhui **Formerly identified as:** *Anabaena circinalis* Rabenhorst ex Bornet et Flahault **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Remarks:** Unstable
- 1673 **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 438 **References:** 434, 609

- 1674** **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 475
- 1675** **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 476
- 1676** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (2001-09-26) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 483
- 1920** **History:** < TAC **Locality:** Rebun Isl., Lake Kushu/Hokkaido/Japan (2006-07-21) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 583
- 1921** **History:** < TAC **Locality:** Rebun Isl., Lake Kushu/Hokkaido/Japan (2006-07-21) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 584

Anabaena minispora M. Watanabe

- 1922** **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 554
- 1923** **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 555
- 1924** **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 556

Anabaena mucosa Komárkova-Legnerová et Eloranta

- 809** **History:** < Li, Renhui < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 426 (A10) **Remarks:** Unstable
- 1677** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 425 **References:** 434, 609, 1069

*Anabaena mucosa** Komárkova-Legnerová et Eloranta

- 1925** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-10-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 534
- 1926** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-10-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 535
- 1927** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-10-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 536
- 1928** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-10-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 537

Anabaena oumiana M. Watanabe

- 829** **History:** < Li, Renhui **Other collection strain no.:** TISTR 9193 **Locality:** Chon Buri/Thailand (1998-05-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Ana T1 **Remarks:** Distribution for academic purpose only
- 1678** **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (1996-08-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 464
- 1679** **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (1996-08-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 466 **Reference:** 1069
- 1904** **History:** < TAC **Locality:** Funada-ike Pond/Chiba/Japan (2002-08-28) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 509
- 1931** **History:** < TAC **Locality:** near Koyama-ike Pond/Tottori/Japan **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 568
- 1932** **History:** < TAC **Locality:** near Koyama-ike Pond/Tottori/Japan **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 569
- 1933** **History:** < TAC **Locality:** near Koyama-ike Pond/Tottori/Japan **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 570

Anabaena planctonica Brunnthaler

Syn. *Anabaena solitaria* Klebahn f. *planctonica* (Brunnthaler) Komárek

- 80** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Anabaena solitaria* Klebahn f. *solitaria* **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 70-90 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 42 (K-TAN-42) **References:** 202, 435, 515, 605, 1047 **Remarks:** Unstable
- 810** **History:** < Li, Renhui < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 421 (A3) **References:** 186, 435
- 811** **History:** < Li, Renhui < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 422 (A4)
- 812** **History:** < Li, Renhui < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 424 (A7)
- 813** **History:** < Li, Renhui < TAC **Locality:** Lake Tofutsu/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 434 (A25)
- 814** **History:** < Li, Renhui < TAC **Locality:** Lake Tofutsu/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 435 (A26)
- 815** **History:** < Li, Renhui < CCAP **Other collection strain no.:** CCAP 1403/19 **Locality:** Esthwaite Water/England, Cambria/U.K. **Isolator:** Jaworski, G. H. M. **Identified by:** Li, Renhui **Formerly identified as:** *Anabaena solitaria* Klebahn **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko)

- 816 **History:** < Li, Renhui < CCAP **Other collection strain no.:** CCAP 1403/27 **Locality:** Bletham Tarn/England, Cambria/U.K. **Isolator:** Jaworski, G. H. M. **Identified by:** Li, Renhui **Formerly identified as:** *Anabaena solitaria* Klebahn **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 12-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko)
- 817 **History:** < Li, Renhui **Locality:** Lake Inbanuma/Chiba/Japan (1995-05-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor **Other strain no.:** Inba 2
- 834 **History:** < Li, Renhui < NIVA **Other collection strain no.:** NIVA CYA 66 **Locality:** Aust-Agder, Lake Langsævatn/Norway (1979-**-**) **Identified by:** Li, Renhui **Formerly identified as:** *Anabaena solitaria* Klebahn f. *planktonica* (Brunnthal) Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko)
- 1680 **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 423 **Reference:** 609
- 1681 **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (1996-08-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 465
- 1682 **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 471
- 1683 **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 472
- 1723 **History:** < Li, Renhui **Locality:** Lake Yamanaka/Yamanashi/Japan (1998-07-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1998-07-**) **States:** Unialgal **Culture conditions:** CT; 20°C; 12-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Offensive odor; Resting spore forming **Other strain no.:** yama-2
- 1934 **History:** < TAC **Locality:** Lake Shinotsu/Hokkaido/Japan (2003-07-29) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 561

Anabaena pseudocompacta M. Watanabe

- 79 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-07-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Anabaena spiroides* Klebahn f. *spiroides* **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 70-90 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 28 (K-TAN-28) **References:** 202, 435, 515 **Remarks:** Unstable
- 1684 **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 477 **Reference:** 1069
- 1935 **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-07-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Ditch water) **Other strain no.:** TAC 539
- 1936 **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-07-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Ditch water) **Other strain no.:** TAC 541
- 1937 **History:** < TAC **Locality:** Lake Shirarutoro/Hokkaido/Japan (2004-08-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 589
- 1938 **History:** < TAC **Locality:** Lake Shirarutoro/Hokkaido/Japan (2004-08-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 590

*Anabaena pseudocompacta** M. Watanabe

- 1939** **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-07-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Ditch water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 538
- 1940** **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-07-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Ditch water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 540

Anabaena reniformis Lemmermann emend. Aptekarji

- 1685** **History:** < TAC **Locality:** Tsukuba-shi, Chuo-koen/Ibaraki/Japan (1999-10-05) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 458
- 1686** **History:** < TAC **Locality:** Tsukuba-shi, Chuo-koen/Ibaraki/Japan (1999-09-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 459
- 1687** **History:** < TAC **Locality:** Shikata-futago-ike Pond/Hyogo/Japan (1990-09-17) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 460
- 1688** **History:** < TAC **Locality:** Koya-ike Pond/Hyogo/Japan (1996-07-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 461
- 1689** **History:** < TAC **Locality:** Koya-ike Pond/Hyogo/Japan (1996-07-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 462
- 1690** **History:** < TAC **Locality:** Shin-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 478 **Reference:** 1069
- 1691** **History:** < TAC **Locality:** Shin-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 479
- 1692** **History:** < TAC **Locality:** Shin-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 480
- 1693** **History:** < TAC **Locality:** Tatsugaya-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 481 **Reference:** 1069
- 1694** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (2001-09-26) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 484
- 1941** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 542
- 1942** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 543
- 1943** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 544

- 1944** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 545
- 1945** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 546
- 1946** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 547
- 1947** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 548
- 1948** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 549
- 1949** **History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 550

Anabaena smithii (Komárek) M. Watanabe

- 818** **History:** < Li, Renhui < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 116
- 819** **History:** < Li, Renhui < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 428 (A14) **Reference:** 186
- 820** **History:** < Li, Renhui < TAC **Locality:** Hirosaki/Aomori/Japan (1990-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 431 (A18)
- 821** **History:** < Li, Renhui < TAC **Locality:** Hirosaki/Aomori/Japan (1990-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 432 (A19) **Reference:** 435
- 822** **History:** < Li, Renhui < TAC **Locality:** Lake Akan/Hokkaido/Japan (1991-07-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 450 (A51)
- 823** **History:** < Li, Renhui < TAC **Locality:** Lake Okutama/Tokyo/Japan (1991-07-**) **Isolator:** Watanabe, Masayuki **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor **Other strain no.:** TAC 452 (210) **Remarks:** Unstable
- 824** **History:** < Li, Renhui **Locality:** Hasse River/Tokyo/Japan (1998-03-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor **Other strain no.:** Ana Ha 1
- 830** **History:** < Li, Renhui **Other collection strain no.:** TISTR 9194 **Locality:** Lam Takong/Thailand (1997-07-05) **Isolator:** Li, Renhui **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Ana130 **Remarks:** Distribution for academic purpose only
- 831** **History:** < Li, Renhui **Other collection strain no.:** TISTR 9195 **Locality:** Chon Buri/Thailand (1998-05-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Ana T3 **Remarks:** Distribution for academic purpose only

- 1695** **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 451 **References:** 434, 609, 1069
- 1724** **History:** < Li, Renhui **Locality:** Lake Yamanaka/Yamanashi/Japan (1998-07-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1998-07-**) **States:** Unialgal **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Nitrogen fixation; Resting spore forming **Other strain no.:** yama-1

Anabaena sp.

- 1651** **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 500
- 1953** **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 564
- 1954** **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 565
- 1955** **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 566
- 2348** **History:** < Li, Renhui **Other collection strain no.:** TISTR 9200 **Locality:** Chon Buri/Thailand (1998-05-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Ana T2 **Remarks:** Distribution for academic purpose only

Anabaena spiroides Klebahn

- 76** **History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-06-16) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AB047104) **Other strain no.:** K-A-12 **References:** 435, 515, 605, 719, 720, 1047 **Remarks:** Unstable
- 1905** **History:** < TAC **Locality:** Soe-ike Pond/Hyogo/Japan (2001-11-03) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 504
- 1950** **History:** < TAC **Locality:** Mishima-ike Pond/Shiga/Japan (2001-10-22) **Isolator:** Tsujimura, Shigeo **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 551

Anabaena ucrainica (Schkorbatow) M. Watanabe

- 263** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-07-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Anabaena spiroides* Klebahn f. *spiroides* **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 25°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 27 (K-TAN-27) **References:** 515, 1047 **Remarks:** Unstable
- 825** **History:** < Li, Renhui < TAC **Locality:** Lake Sagami/Kanagawa/Japan (1991-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 448 (A48) **Reference:** 435
- 826** **History:** < Li, Renhui < TAC **Locality:** Lake Sagami/Kanagawa/Japan (1991-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 449 (A50) **References:** 186, 435

1696 **History:** < TAC **Locality:** Lake Tsukui/Kanagawa/Japan **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 455 **Reference:** 1069

Anabaena variabilis Kützing ex Bornet et Flahault

23 **History:** < IAM (1983) **Other collection strain no.:** IAM M-2 **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 4 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **References:** 19, 63, 82, 83, 84, 98, 99, 100, 187, 215, 515, 546, 547, 548, 780, 904, 981, 1013

2093 **History:** < IAM (2007) < Meyers, Jack **Other collection strain no.:** IAM M-3 **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater **Characteristics:** Mostly fragmented **Gene data:** 16S rRNA (AB016520); *gyrB* (AB074772); *rpoC1* (AB074795); *rpoD1* (AB074822) **References:** 2, 3, 4, 5, 188, 261, 262, 334, 343, 418, 419, 473, 485, 503, 509, 511, 537, 538, 734, 810, 811, 812, 813, 814, 815, 816, 848, 906, 988, 991, 1006, 1083

2094 **History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-58 **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater **Other strain no.:** Ishikawa 99.J403w. **Reference:** 906

2095 **History:** < IAM (2007) < Fujiwara, Shoko (1990) **Other collection strain no.:** IAM M-204; ATCC 29413 **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater **Gene data:** 16S rRNA (AB074502); *gyrB* (AB074766); *rpoC1* (AB074789); *rpoD1* (AB074816) **References:** 848, 871

Anabaena viguieri Denis et Fremy

827 **History:** < Li, Renhui < TAC **Locality:** Shikata-futago-ike Pond/Hyogo/Japan (1990-09-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 433 (A23)

*Anabaena viguieri** Denis et Fremy

1951 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 559

1952 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 560

ANABAENOPSIS : Cyanophyceae

Anabaenopsis circularis (G. S. West) Woloszynska et Miller

21 **History:** < IAM (1983) **Other collection strain no.:** IAM M-4 **Isolator:** Watanabe, Atsushi **Identified by:** Hirano **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 4 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Gene data:** 16S rRNA (AB043537); 16S rRNA (AF247595); *gyrB* (AB074773); *rpoC1* (AB074796); *rpoD1* (AB074823) **References:** 19, 215, 515, 536, 719, 848, 1013, 1015, 1020, 1047 **Remarks:** Cryopreserved

Anabaenopsis sp.

1698 **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 427

1725 **History:** < Li, Renhui **Locality:** Shinobazu-no-ike Pond, Ueno Park/Tokyo/Japan (1998-10-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1998-10-**) **States:** Unialgal **Culture conditions:** CT; 20°C; 12-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Resting spore forming **Other strain no.:** Anabaenopsis (Ueno)

ANACYSTIS : Cyanophyceae

Anacystis marina (Hansgirg) Drouet et Dailey

2096 **History:** < IAM (2007) < Safferman, R. S. **Other collection strain no.:** IAM M-122 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 13-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater **Other strain no.:** SEC 142

ANKISTRODESMUS : Chlorophyceae*Ankistrodesmus angustus* Bernard

- 2190** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-302; SAG 202-3; UTEX 188 **Isolator:** Rodhe, W. **Formerly identified as:** *Ankistrodesmus falcatus* (Corda) Ralfs **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Pro (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater **References:** 35, 463
- 2191** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-303; UTEX 241; (BIU 241); CCAP 202/4A; SAG 202-4 **Locality:** Czechoslovakia **Isolator:** Czurda, V. **Formerly identified as:** *Ankistrodesmus falcatus* (Corda) Ralfs var. *mirabilis* W. et G. S. West **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater
- 2192** **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-548 (= C-91); CCAP 202/2; UTEX 189; SAG 202-2; ATCC 30448 **Locality:** Switzerland **Isolator:** Vischer, W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Vischer 9

Ankistrodesmus braunii (Nägeli) Brunnthaler

- 2193** **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-90; UTEX 87; CCAP 202/9; SAG 202-9; ATCC 30447; (BIU 187) **Isolator:** George, E. A. **Formerly identified as:** *Ankistrodesmus falcatus* (Corda) Ralfs var. *duplex* (Kützing) G. S. West **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater
- 2194** **History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-96; CCAP 202/7B; UTEX 245; SAG-7b **Locality:** South Africa **Isolator:** George, E. A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater **References:** 35, 463

Ankistrodesmus falcatus (Corda) Ralfs var. *acicularis* (A. Braun) G. S. West

- 2195** **History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-88; UTEX 101; CCAP 202/11D (?) **Locality:** Indiana/U.S.A. **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater **Reference:** 463

Ankistrodesmus falcatus (Corda) Ralfs var. *stipitatus* (Chodat) Lemmermann

- 2196** **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-304; CCAP 202/5A; UTEX 242; SAG 202-5; Prague 262 **Locality:** Czechoslovakia **Isolator:** Czurda, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater

Ankistrodesmus nannoselene Skuja

- 2197** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-305; CCAP 202/6A; SAG 202-6; UTEX 243 **Locality:** Siggeforsajon/Sweden **Isolator:** Rodhe, W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Rodhe 1632

ANORTHONEIS : Bacillariophyceae*Anorthoneis* sp.

- 1962** **History:** < TKB **Locality:** Kagoshima Bay/Kagoshima/Japan (2006-03-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-335

APHANIZOMENON : Cyanophyceae*Aphanizomenon flos-aquae* (L.) Ralfs ex Bornet et Flahault

- 1258** **History:** < Sano, Tomoharu **Locality:** Lake Suigetsu/Fukui/Japan (2000-12-05) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 70-90 µmol/m²/s; 1 M **Habitat:** Brackish (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** SUI-CT-1
- 1726** **History:** < Li, Renhui **Locality:** U.K. (1997-08-**) **Identified by:** Li, Renhui (1997-08-**) **States:** Unialgal **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Nitrogen fixation; Motile; Resting spore forming **Other strain no.:** Aph E

- 1727** **History:** < Li, Renhui **Locality:** Germany (1997-07-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1997-07-**) **States:** Unialgal **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Aph Gmü
- 1728** **History:** < Li, Renhui **Locality:** Lake Inbanuma/Chiba/Japan (1997-05-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1997-05-**) **States:** Unialgal **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Nitrogen fixation; Resting spore forming **Gene data:** 16S rRNA (AB195320); 16S rRNA (AY196083) **Other strain no.:** Aph Inba

Aphanizomenon flos-aquae (L.) Ralfs ex Bornet et Flahault f. *gracile* (Lemmermann) Elenkin

- 81** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-01-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 70-90 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 1 (K-TAN-1) **References:** 175, 202, 435, 515, 532, 605, 877, 1047, 1097, 1139 **Remarks:** Unstable

APHANOCAPSA : Cyanophyceae

Aphanocapsa montana Cramer

- 416** **History:** < Watanabe, Makoto M. **Locality:** Toyamasawa/Tochigi/Japan (1987-04-30) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 4 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** NK-24 **References:** 124, 515, 917 **Remarks:** Cryopreserved

APIOCYSTIS : Chlorophyceae

Apiocystis brauniana Nägeli

- 1020** **History:** < Moriya, Mayumi **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2002-02-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Epiphytic **Other strain no.:** #115

ASTERIONELLOPSIS : Bacillariophyceae

Asterionellopsis glacialis (Castracane) Round

Syn. *Asterionella glacialis* Castracane

- 265** **History:** < Sawaguchi, Tomohiro **Locality:** Matoya Bay/Mie/Japan (1984-09-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 15-20 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** MB-B-1
- 417** **History:** < Riquelme, Carlos E. **Locality:** Maizuru Bay/Kyoto/Japan (1985-10-12) **Isolator:** Riquelme, Carlos E. **Identified by:** Riquelme, Carlos E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Not growing under axenic condition

ASTEROCHLORIS : Trebouxiophyceae

Asterochloris cf. *glomerata* (Warén) Friedl

- 1298** **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Cladia aggregata* on humus) **Characteristics:** Symbiotic **Other strain no.:** AYO4871
- 1299** **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Cladonia macilenta* on wood) **Characteristics:** Symbiotic **Other strain no.:** AYO4872 **Remarks:** Cryopreserved

- 1300** **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Cladia aggregata* on a stone wall) **Characteristics:** Symbiotic **Other strain no.:** AYO4874 **Remarks:** Cryopreserved
- 1301** **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Cladia aggregata* on soil) **Characteristics:** Symbiotic **Other strain no.:** AYO4875 **Remarks:** Cryopreserved

ASTEROCOCCUS : Chlorophyceae

Asterococcus superbis (Cienkowski) Scherffel

- 1331** **History:** < Nakazawa, Atsushi **Locality:** Tamiyaji-ohike Pond/Mie/Japan (2000-09-**) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** *rbcL* (AB175937); *rbcL* (AB175938); *rbcL* (AB175939) **Other strain no.:** Asteroco-4 **Reference:** 600
- 2198** **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-299; CCAP 3/3A; UTEX 88 **Locality:** Amiens/France **Isolator:** George, E. A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater

ASTREPHOMENE : Chlorophyceae

Astrephomene gubernaculifera Pocock

- 418** **History:** < Nozaki, Hisayoshi **Locality:** Kanagawa/Japan (1981-04-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VTAC; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 20 D **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-419 **Gene data:** *atpB* (AB014022); *atpB* (AB014023); *psaA* (AB044233); *psaA* (AB044234); *psaB* (AB044458); *psbC* (AB044513); *psbC* (AB044514); *rbcL* (D63428); *rbcL*-462 intron (AB076095) **Other strain no.:** 1520-4 (-) **References:** 515, 623, 646, 663, 666, 668, 671
- 419** **History:** < Nozaki, Hisayoshi **Locality:** Kaisei, Yoshidajima/Kanagawa/Japan (1981-04-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VTAC; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-418 **Other strain no.:** 1520-1 (+) **References:** 515, 623
- 628** **History:** < Nozaki, Hisayoshi **Locality:** Hayama/Kanagawa/Japan (1980-12-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (-) **Other strain no.:** 1727-1 (-) **Reference:** 515
- 853** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1392 **Locality:** Emmet County/Michigan/U.S.A. (1961-07-**) **Isolator:** Brooks, A. E. **Identified by:** Brooks, A. E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB-V; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 20 D **Habitat:** (Soil) **Characteristics:** Mixotrophic; Heterothallic **Reference:** 36
- 854** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1394 **Locality:** Monroe County/Indiana/U.S.A. (1962-10-**) **Isolator:** Brooks, A. E. **Identified by:** Brooks, A. E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 20 D **Habitat:** (Soil) **Characteristics:** Mixotrophic; Heterothallic **Gene data:** *atpB* (AB044181); *psaA* (AB044235); *psaB* (AB044459); *psbC* (AB044515); *psbC* (AB044516); *psbC* (AB044517); *rbcL* (AB044169); *rbcL* (AB044170) **References:** 36, 663
- 855** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1398 **Locality:** Tulare County/California/U.S.A. (1953-08-**) **Isolator:** Nelson, R. W. **Identified by:** Brooks, A. E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 20 D **Habitat:** (Soil) **Characteristics:** Mixotrophic; Heterothallic **Reference:** 36

Astrephomene perforata Nozaki

- 564** **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2474 **Locality:** Hayama/Kanagawa/Japan (1980-12-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Isogamy; Mating type (+); Crosses with NIES-565 **Gene data:** *atpB* (AB014024); *psaA* (AB044236); *psaA* (AB044237); *psaA* (AB044238); *psaB* (AB044460); *psbC* (AB044518); *psbC* (AB044519); *rbcL* (D63429) **Other strain no.:** 1620-3-2 **References:** 515, 623, 646, 663, 666, 668

- 565** **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2475 **Locality:** Hayama/Kanagawa/Japan (1980-12-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Isogamy; Mating type (-); Crosses with NIES-564 **Other strain no.:** 1620-4-1 **References:** 515, 623, 645

AULACOSEIRA : Bacillariophyceae

Aulacoseira granulata (Ehrenberg) Simonsen

- 333** **History:** < Hiwatari, Takehiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-05-09) **Isolator:** Hiwatari, Takehiko **Identified by:** Mizuno, Makoto; Kawachi, Masanobu (Reidentify) **Formerly identified as:** *Melosira granulata* (Ehrenberg) Ralfs var. *angustissima* O. Müller f. *spiralis* O. Müller **States:** Unialgal; Clonal; Axenic **Culture conditions:** CSI; 15°C; 10-18 µmol/m²/s; 1 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** K-Melo **References:** 122, 877 **Remarks:** Unstable

AULOSIRA : Cyanophyceae

Aulosira laxa Kirchner ex Bornet et Flauhault

- 50** **History:** < IAM (1983) **Other collection strain no.:** IAM M-128 **Locality:** Pusa/India **Isolator:** Venkataraman, G. S. **Formerly identified as:** *Aulosira fertilissima* Ghose (in IAM) **States:** Unialgal; Non-clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Nitrogen fixation **References:** 202, 215, 515, 1047 **Remarks:** Cryopreserved

AUREARENA : Aurearenophyceae

Aurearena cruciata Kai, Yoshii, Nakayama et Inouye

- 1863** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-05-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 25°C; 30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Authentic strain **Other strain no.:** TKB-337 **Reference:** 305
- 1864** **History:** < TKB **Locality:** Noma Beach/Aichi/Japan (2004-06-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 25°C; 30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-338 **Reference:** 305
- 1865** **History:** < TKB **Locality:** Hashikui Beach/Wakayama/Japan (2005-07-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 25°C; 30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-339 **Reference:** 305

AUXENOCHLORELLA : Trebouxiophyceae

Auxenochlorella protothecoides (Krüger) Kalina et Puncocárová

Syn. *Chlorella protothecoides* Krüger

- 2163** **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-150; SAG 211-11a; UTEX 29; ATCC 30581; ATCC 13482; CCAP 211/11a; (BIU 29) **Isolator:** Pringsheim, E. G. **Identified by:** Kessler, E. (1991) **Formerly identified as:** *Chlorella vulgaris* Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15 µmol/m²/s; 3 M **References:** 173, 206, 351, 388, 389, 451, 452, 1094
- 2164** **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM C-624 (= C-202) **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488569)
- 2165** **History:** < IAM (10th lab. < 7th lab.) (2007) < Krauss **Other collection strain no.:** IAM C-206 **Identified by:** Confirmed at NIES by DNA sequencing **Formerly identified as:** *Chlorella protothecoides* Krüger var. *mannophila* Shihira et Krauss **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488570) **Reference:** 1093
- 2176** **History:** < IAM (2007) < BIU (UTEX; 1965) **Other collection strain no.:** IAM C-201; UTEX 838; CCAP 211/22 **Isolator:** Lewin, Ralph A. **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** *Chlorella* sp. **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488571) **Reference:** 351

BASICHLAMYS : Chlorophyceae**Basichlamys sacculifera** (Scherffel) SkujaSyn. *Gonium sacculiferum* Scherffel

- 566 History:** < Nozaki, Hisayoshi **Locality:** Fujisawa/Kanagawa/Japan (1983-08-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Gene data:** *atpB* (AB014015); *psaA* (AB044416); *psaB* (AB044467); *psaB* (AB044468); *psbC* (AB044526); *rbcL* (D63430) **Other strain no.:** 3907-1 **References:** 515, 628, 646, 649, 663, 666, 668

BATRACHOSPERMUM : Florideophyceae**Batrachospermum atrum** (Hudson) Harvey

- 1456 History:** < Higa, Atsushi **Locality:** Fukui/Japan (2003-05-25) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** BF1 **Reference:** 127

Batrachospermum helminthosum Bory

- 1457 History:** < Higa, Atsushi **Locality:** Fukui/Japan (2003-05-25) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; NT (Ref. 474) **Other strain no.:** BF3 **Reference:** 127

Batrachospermum sp.

- 1459 History:** < Kawachi, Masanobu **Locality:** Kuma River/Kumamoto/Japan (2001-11-26) **Isolator:** Iwaki, Hiroyuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic **Other strain no.:** KUM-2

- 1460 History:** < Higa, Atsushi **Locality:** Ohkubo-ga/Okinawa/Japan (2002-03-16) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic **Other strain no.:** BO2

Batrachospermum turfosum BorySyn. *Batrachospermum vagum* (Roth) Agardh

- 2136 History:** < IAM (2007) **Other collection strain no.:** IAM R-4 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; Bold 3N; 20°C; 3-12 µmol/m²/s; 3 M **Characteristics:** VU (Ref. 474)

Batrachospermum virgato-decaisneanum Sirodot

- 1458 History:** < Higa, Atsushi **Locality:** Fukui/Japan (2003-05-25) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** BF2

BICOSOECA : Bicoecea**Bicosoeca** sp.

- 1438 History:** < TKB **Locality:** Akashi/Hyogo/Japan (2004-12-10) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY1/10 + Wheat; 20°C; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic; Benthic **Other strain no.:** TKB-211 (NY0158)

BLIDINGIA : Ulvophyceae**Blidingia minima** (Nägeli) Kylin

- 1837 History:** < TKB **Locality:** Tokyo/Japan (2005-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 20-30 µmol/m²/s; 2 M **Habitat:** (Seawater) **Other strain no.:** TKB-271

BODO : Kinetoplastea*Bodo saltans* Ehrenberg

- 1439** **History:** < TKB **Locality:** Tsukuba/Ibaraki/Japan (2002-10-13) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO + Wheat; 15°C; 1 M **Habitat:** (Water) **Characteristics:** Heterotrophic **Other strain no.:** TKB-013 (NY0117)

BOTRYDIOPSIS : Xanthophyceae*Botrydiopsis arrhiza* Borzi

- 621** **History:** < CCAP **Other collection strain no.:** CCAP 222/1B **Locality:** England/U.K. **Isolator:** George **States:** Unialgal **Culture conditions:** AF-6; 20°C; 32-40 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Reference:** 122

BOTRYDIUM : Xanthophyceae*Botrydium granulatum* (L.) Greville

- 622** **History:** < CCAP **Other collection strain no.:** CCAP 805/3A **Isolator:** Vischer, W. **States:** Unialgal **Culture conditions:** AF-6; 20°C; 32-40 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Reference:** 122

BOTRYOCOCCUS : Trebouxiophyceae*Botryococcus braunii* Kützing

- 836** **History:** < Mori, Fumi **Locality:** Imuta-ike Pond/Kagoshima/Japan (1997-06-**) **Isolator:** Mori, Fumi **Identified by:** Mori, Fumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 4 M **Habitat:** Freshwater (Pond water) **Remarks:** Cryopreserved
- 2199** **History:** < IAM (2007) < Hara, Yoshiaki < UTEX (1986) **Other collection strain no.:** IAM C-529; CCAP 807/1; UTEX LB572; SAG B 807-1 **Isolator:** Droop, M. R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

BRACHIOMONAS : Chlorophyceae*Brachiomonas submarina* Bohlin

- 375** **History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe Harbor/Aomori/Japan (1986-08-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Brackish (Water) **Other strain no.:** 86-SuHH-2 **Reference:** 515

BRACTEACOCCUS : Chlorophyceae*Bracteacoccus giganteus* Bischoff et Bold

- 2200** **History:** < IAM (2007) **Other collection strain no.:** IAM C-388 **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

CAFETERIA : Bicoecae*Cafeteria roenbergensis* Fenchel et Patterson

- 1012** **History:** < Moriya, Mayumi **Locality:** Nirigahama/Wakayama/Japan (2002-01-04) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY 1/10; 15°C; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Heterotrophic **Other strain no.:** #106

CALCIDISCUS : Prymnesiophyceae**Calcidiscus leptoporus** (Murray et Blackman) Lebllich Jr et Tappan

- 1304** **History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-01-23) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 34
- 1305** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 68

CALOTHRIX : Cyanophyceae**Calothrix brevissima** G. S. West

- 22** **History:** < IAM (1983) **Other collection strain no.:** IAM M-7 (= M-249) **Locality:** Palau Isl./Palau (1941-09-**) **Isolator:** Watanabe, Atsushi **Identified by:** Negoro, Ken-ichiro **States:** Unialgal; Non-clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Soil) **Characteristics:** Nitrogen fixation; Chromatic adaptation **Gene data:** 16S rRNA (AB074504); *gyrB* (AB074768); *rpoC1* (AB074791); *rpoD1* (AB074818) **References:** 215, 515, 763, 848, 1011, 1013 **Remarks:** Cryopreserved
- 2097** **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-277 (= M-37) **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Maruyama, Ko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Chromatic adaptation **Other strain no.:** D59 · W

Calothrix crustacea Thuret ex Bornet et Flauhault

- 266** **History:** < IAM (1983) **Other collection strain no.:** IAM M-171 **Locality:** Oshoro Bay/Hokkaido/Japan (1972-09-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 4-10 µmol/m²/s; 6 M (20°C; 15-27 µmol/m²/s) **Habitat:** Marine (Seawater) **References:** 215, 515, 1035, 1051 **Remarks:** Cryopreserved

Calothrix elenkinii Kossinskaja

- 2098** **History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-61 **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Other strain no.:** Ishikawa 103X (1) W-N-F

Calothrix gracilis Fritsch

- 2099** **History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-55 **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Other strain no.:** Ishikawa 73. O161W
- 2100** **History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-56 **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Other strain no.:** Ishikawa 78. F243D

Calothrix parasitica Thuret ex Bornet et Flauhault

- 267** **History:** < IAM (1983) **Other collection strain no.:** IAM M-172 (= M-226) **Locality:** Oshoro Bay/Hokkaido/Japan (1972-07-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 4-10 µmol/m²/s; 6 M (20°C; 15-27 µmol/m²/s) **Habitat:** Marine (Seaweed) **Characteristics:** Endophyte in *Nemalion* (Florideophyceae) **References:** 124, 215, 515 **Remarks:** Cryopreserved
- 334** **History:** < IAM (1983) **Other collection strain no.:** IAM M-173 (= M-227) **Locality:** Oshoro Bay/Hokkaido/Japan (1973-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 4-10 µmol/m²/s; 6 M (20°C; 15-27 µmol/m²/s) **Habitat:** Marine (Seaweed) **Characteristics:** Endophyte in *Codium* (Ulvothamniaceae) **References:** 215, 515 **Remarks:** Cryopreserved

Calothrix scopulorum Agardh ex Bornet et Flauhault

- 268 **History:** < IAM (1983) **Other collection strain no.:** IAM M-174 **Locality:** Oshoro Bay/Hokkaido/Japan (1972-09-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; MKM (agar); 20°C; 4-10 µmol/m²/s; 6 M (20°C; 15-27 µmol/m²/s) **Habitat:** Marine **References:** 124, 215, 515, 1035, 1051 **Remarks:** Cryopreserved

Calothrix sp.

- 2101 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-290 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-05

CALYPTROSPHAERA : Prymnesiophyceae*Calyptrosphaera sphaeroidea* Schiller

- 997 **History:** < Kawachi, Masanobu **Locality:** Hikimoto Bay/Mie/Japan (2001-08-06) **Isolator:** Hata, Naotsugu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** 13K **Reference:** 617
- 1308 **History:** < Kawachi, Masanobu **Locality:** Miyake Isl., Chotaro-ike Pond/Tokyo/Japan (1999-11-23) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MK18
- 1309 **History:** < Kawachi, Masanobu **Locality:** Miyake Isl., Chotaro-ike Pond/Tokyo/Japan (1999-11-23) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MK21
- 1811 **History:** < TKB **Locality:** Nabeta Bay/Shizuoka/Japan (2005-05-11) **Isolator:** Chikuni, Tomoko **Identified by:** Yoshida, Masaki (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-252

CARTERIA : Chlorophyceae*Carteria cerasiformis* Nozaki, Aizawa et M. M. Watanabe

- 424 **History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **Formerly identified as:** *Carteria inversa* (Korshikov) Bourrelly **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *rbcL* (D89767) **Other strain no.:** Kas-10 **References:** 515, 641, 650
- 425 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **Formerly identified as:** *Carteria inversa* (Korshikov) Bourrelly **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain **Gene data:** *atpB* (AB084321); *psaB* (AB084359); *rbcL* (D89768) **Other strain no.:** w-8-15 **References:** 515, 641, 650, 668

Carteria crucifera Korshikov ex Pascher

- 421 **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CYT; 20°C; 22-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Sediment) **Gene data:** *atpB* (AB084320); *psaB* (AB084358); *rbcL* (D63431) **Other strain no.:** SIST3-1 **References:** 515, 641, 646, 650, 668
- 630 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 432 **Locality:** New Haven/U.S.A. **Isolator:** Lewin, Ralph A. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater **Gene data:** *rbcL* (D89758) **References:** 515, 641, 650

Carteria eugametos Mitra

- 631 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Isogamy **Gene data:** *rbcL* (D89762) **Other strain no.:** 91-409-1 **References:** 515, 638, 650

- 632 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Homothallic; Isogamy **Gene data:** *rbcL* (D89763) **Other strain no.:** 91-421-4 **References:** 515, 638, 641, 650
- 633 **History:** < Nozaki, Hisayoshi **Locality:** Shirako/Chiba/Japan (1991-03-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Isogamy **Gene data:** *rbcL* (D89764) **Other strain no.:** 91-504-1 **References:** 515, 638, 641, 650
- 634 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2161 **Isolator:** Vandover, B. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater **Gene data:** *rbcL* (D89761) **References:** 515, 641, 650
- 635 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 233 **Locality:** Allahabad/India **Isolator:** Pringsheim, O. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain **Gene data:** *rbcL* (D89759) **References:** 515, 641, 650
- 636 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1032 **Locality:** California/U.S.A. **Isolator:** Waters, A. **Identified by:** Nozaki, Hisayoshi **Formerly identified as:** *Carteria olivieri* G. S. West **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Soil) **Gene data:** *rbcL* (D89760) **References:** 515, 641, 650

Carteria inversa (Korshikov) Bourrelly

- 422 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1982-11-02) **Isolator:** Kasai, Fumie **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Pond water) **Gene data:** *rbcL* (D89765) **Other strain no.:** 134-4 **References:** 187, 515, 641, 650, 979
- 423 **History:** < Suda, Shoichiro **Locality:** Higashihiroshima/Hiroshima/Japan (1983-08-**) **Isolator:** Erata, Mayumi **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Pond water) **Gene data:** *rbcL* (D89766) **Other strain no.:** 106 **References:** 515, 641, 650

Carteria klebsii (Dangeard) Francé

- 426 **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond sediment) **Other strain no.:** SIST7-4 **Reference:** 515

Carteria multifilis (Fresenius) Dill

- 427 **History:** < Suda, Shoichiro **Locality:** Kashiwa/Chiba/Japan (1986-**-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Exudation from reclaimed land) **Other strain no.:** Ca1-2 **Reference:** 515

Carteria obtusa Dill

- 428 **History:** < Suda, Shoichiro **Locality:** Kashiwa/Chiba/Japan (1986-09-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Exudation from reclaimed land) **Gene data:** *atpB* (AB084323); *psaB* (AB084361); *psaB* (AB084362); *psaB* (AB084363); *rbcL* (D89769) **Other strain no.:** Ca-2-1 **References:** 515, 650, 668
- 429 **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Kasama, Mayumi **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond sediment) **Other strain no.:** SIS5-20 **Reference:** 515
- 430 **History:** < Suda, Shoichiro **Locality:** Kashiwa/Chiba/Japan (1986-09-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Exudation from reclaimed land) **Other strain no.:** Ca2-3 **Reference:** 515
- 431 **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond sediment) **Other strain no.:** SIST6-3 **Reference:** 515

Carteria palmata Suda, Nozaki et M. M. Watanabe

- 1336 **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain; mating type (-) **Gene data:** *atpB* (AB204870); *psaB* (AB204871); *rbcL* (AB204869) **Other strain no.:** KY-1 **Reference:** 887
- 1337 **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Mating type (-) **Other strain no.:** KY-8 **Reference:** 887
- 1338 **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Mating type (+) **Other strain no.:** KY-24 **Reference:** 887

Carteria radiosa Korshikov ex Pascher

- 432 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** *atpB* (AB084322); *psaB* (AB084360); *rbcL* (D89770) **Other strain no.:** w-5-2 **References:** 515, 650, 668

Carteria sp.

- 2311 **History:** < Suda, Shoichiro **Locality:** Shimokubo Dam/Gunma/Japan (1980-04-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** SM-6-3
- 2312 **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-04-12) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 412KY-9
- 2313 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** w-39-4
- 2347 **History:** < Nozaki, Hisayoshi **Other collection strain no.:** TISTR 9192 **Locality:** Thailand **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Other strain no.:** T18-1-C-1 **Remarks:** Distribution for academic purpose only

CHAETOCEROS : Bacillariophyceae*Chaetoceros didymus* Ehrenberg

- 586 **History:** < Ono, Sachiko **Locality:** Hitachi/Ibaraki/Japan (1990-09-26) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** St-4

Chaetoceros sociale Lauder

- 377 **History:** < Sawaguchi, Tomohiro **Locality:** Shitaru Harbor/Shizuoka/Japan (1985-05-22) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 6-12 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** STHB-4
- 553 **History:** < Ono, Sachiko **Locality:** Tokyo Bay/Tokyo/Japan (1991-10-**) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 5°C; 15-20 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** T-1

CHAMAESIPHON : Cyanophyceae*Chamaesiphon polymorphus* Geitler

- 433 **History:** < Kasai, Fumie **Locality:** Lake Mashu/Hokkaido/Japan (1987-09-02) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 10°C; 6-12 µmol/m²/s; 2 M (10°C; 10-15 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** M-29 **References:** 124, 515, 917, 918

Chamaesiphon subglobosus Lemmermann

- 434 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-03-25) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** 2st-2-1 **References:** 124, 515, 916, 917, 918 **Remarks:** Cryopreserved

CHARA : Charophyceae*Chara australis* R. Brown

- 1585 **History:** < Shimmen, Teruo **Identified by:** Sakayama, Hidetoshi (2005-04-19) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20 µmol/m²/s; 3 M **Habitat:** Freshwater **Characteristics:** Dioecious; Female; Male **Other strain no.:** CH-25
- 2084 **History:** < Shimmen, Teruo **Isolator:** Ishimoto, Miwa (Re-isolation) **Identified by:** Sakayama, Hidetoshi (2005-04-19) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20 µmol/m²/s; 3 M **Habitat:** Freshwater **Characteristics:** Dioecious; Male **Other strain no.:** CH-25♂
- 2085 **History:** < Shimmen, Teruo **Isolator:** Ishimoto, Miwa (Re-isolation) **Identified by:** Sakayama, Hidetoshi (2005-04-19) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20 µmol/m²/s; 3 M **Habitat:** Freshwater **Characteristics:** Dioecious; Female **Other strain no.:** CH-25♀

Chara braunii Gmelin

- 1586 **History:** < Nozaki, Hisayoshi **Locality:** Lake Chuzenji/Tochigi/Japan (1994-09-07) **Identified by:** Nozaki, Hisayoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474) **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363923) **Other strain no.:** CH-6 **Reference:** 340
- 1587 **History:** < Sakayama, Hidetoshi **Locality:** Kasai/Hyogo/Japan (2004-06-18) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2004-06-19) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474) **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363924) **Other strain no.:** CH-70 **Reference:** 340
- 1588 **History:** < Sakayama, Hidetoshi **Locality:** Hazama-ohike Pond/Kagawa/Japan (2004-06-17) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2004-06-18) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474) **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363925) **Other strain no.:** CH-72 **Reference:** 340
- 1589 **History:** < Sakayama, Hidetoshi **Locality:** Narasu-ike Pond/Kagawa/Japan (2004-06-16) **Identified by:** Sakayama, Hidetoshi (2004-06-17) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474) **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363926) **Other strain no.:** CH-75 **Reference:** 340
- 1590 **History:** < Sakayama, Hidetoshi **Locality:** Tsuchiura, Ohiwata/Ibaraki/Japan (2004-07-11) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2004-07-12) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474) **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363927) **Other strain no.:** CH-82 **Reference:** 340
- 1591 **History:** < Amano, Kunihiro **Locality:** Lake Kasumigaura/Ibaraki/Japan **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474); Germinated from a buried oospore **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363928) **Other strain no.:** CH-88 **Reference:** 340
- 1592 **History:** < Amano, Kunihiro **Locality:** Lake Kasumigaura/Ibaraki/Japan **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474); Germinated from a buried oospore **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363929) **Other strain no.:** CH-89 **Reference:** 340
- 1593 **History:** < Amano, Kunihiro **Locality:** Lake Kasumigaura/Ibaraki/Japan **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474); Germinated from a buried oospore **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363930) **Other strain no.:** CH-91 **Reference:** 340

- 1594** **History:** < Sakayama, Hidetoshi **Locality:** Tsuchiura, Ohiwata/Ibaraki/Japan (2004-07-11) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2005-04-18) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU (Ref. 474) **Other strain no.:** CH-98
- 1604** **History:** < Watanabe, Makoto M. **Locality:** Hawaii/U.S.A. (1998-04-**) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi; Kato, Sho (2005-08-26) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious **Gene data:** *atpB*, *atpB-rbcL* IGS, *rbcL* (AB363931) **Other strain no.:** CH-33 **Reference:** 340

Chara globularis Thuillier

- 1595** **History:** < Sakayama, Hidetoshi **Locality:** Lake Tanne-to/Hokkaido/Japan (1999-09-02) **Identified by:** Sakayama, Hidetoshi (2006-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; 17°C; 16-20 µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-106; S001
- 1597** **History:** < Nozaki, Hisayoshi **Locality:** Lake Tsuta-numa/Aomori/Japan (1998-08-05) **Identified by:** Nozaki, Hisayoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; 17°C; 16-20 µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-55

Chara leptospora Sakayama

- 1599** **History:** < Sakayama, Hidetoshi **Locality:** Lake Ogawara/Aomori/Japan (1999-09-06) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; 17°C; 16-20 µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Monoecious **Other strain no.:** CH-109; S024

Chara sp.

- 1602** **History:** < Arai, Shogo **Locality:** Ogimi/Okinawa/Japan (1997-01-13) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20 µmol/m²/s; 2 M **Habitat:** Freshwater **Other strain no.:** CH-19
- 1603** **History:** < Arai, Shogo **Locality:** Ogimi/Okinawa/Japan (1997-01-13) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20 µmol/m²/s; 2 M **Habitat:** Freshwater **Other strain no.:** CH-20
- 1605** **History:** < Inouye, Isao **Locality:** Imperial Palace/Tokyo/Japan (1998-12-08) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Other strain no.:** CH-39

Chara zeylanica Klein ex Willdenow

- 1601** **History:** < Ueno, Ryuhei **Locality:** Minamidaitoh Isl./Okinawa/Japan (2000-02-11) **Identified by:** Sakayama, Hidetoshi (2005-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 25°C; 16-20 µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-55

CHARACIOCHLORIS : Chlorophyceae*Characiochloris acuminata* Lee et Bold

- 637** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2095 **Locality:** El Tahin. Prov. Omo-Saber/Egypt **Isolator:** Hindak, F. **Identified by:** Lee, K. W.; Bold, H. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 2 M **Habitat:** (Soil) **Characteristics:** Authentic strain **Gene data:** *psaB* (AB451196) **References:** 515, 554, 637

Characiochloris sasae Nozaki

- 567** **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Aplanospore forming **Gene data:** *atpB* (AB084331); *psaB* (AB084376); *rbcL* (AB084338) **Other strain no.:** 91-0106-1 **References:** 515, 637, 668
- 638** **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Aplanospore forming; Resting spore not forming; Endemic in Japan **Other strain no.:** 91-0106-6 **References:** 515, 637

CHARACIUM : Chlorophyceae*Characium angustum* A. Braun

- 639** **History:** < Kasai, Fumie **Locality:** Kinu River/Tochigi/Japan (1987-08-16) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal **Culture conditions:** C; 15°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 4 M (15°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (River water) **Other strain no.:** AK-5-2 **References:** 515, 917

Characium polymorphum Printz

- 436** **History:** < IAM **Other collection strain no.:** IAM C-340 **Locality:** Between Ghorepani and Billethadi/Nepal (1965-12-02) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 3M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** N-76-0 **References:** 215, 515 **Remarks:** Cryopreserved

CHATTONELLA : Raphidophyceae*Chattonella antiqua* (Hada) Ono

- 1** **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1978-09-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** *coxI* (AF037990) **Other strain no.:** Ho-1 **References:** 65, 103, 181, 224, 226, 230, 231, 232, 233, 234, 235, 361, 393, 395, 439, 447, 539, 571, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 606, 920, 958, 1054, 1110, 1119 **Remarks:** Difficult to transport
- 2** **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1982-09-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** OCH-a **References:** 57, 181 **Remarks:** Difficult to transport
- 83** **History:** < KAGAWA **Locality:** off Hiketa/Kagawa/Japan (1977-08-**) **Isolator:** Ono, Chitaru **Identified by:** Ono, Chitaru **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-2 **References:** 181, 999 **Remarks:** Difficult to transport
- 84** **History:** < KAGAWA **Locality:** off Hiketa/Kagawa/Japan (1972-**-**) **Isolator:** Okaichi, Tomotoshi **Identified by:** Okaichi, Tomotoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-6 **Reference:** 181 **Remarks:** Difficult to transport
- 85** **History:** < KAGAWA **Locality:** Shodo Isl./Kagawa/Japan (1978-07-21) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-8-5 **References:** 181, 182 **Remarks:** Difficult to transport
- 86** **History:** < KAGAWA **Locality:** Uranouchi Bay/Kochi/Japan (1980-11-01) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-42-4 **References:** 122, 181, 182, 999 **Remarks:** Difficult to transport
- 113** **History:** < KAGAWA **Locality:** Naoshima/Kagawa/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-59-2 **References:** 21, 181 **Remarks:** Difficult to transport
- 114** **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1983-08-06) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-74-8 **References:** 181, 1095 **Remarks:** Difficult to transport
- 161** **History:** < Takayama, Haruyoshi **Locality:** Hiroshima Bay/Hiroshima/Japan **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** Hiroshima-70 **References:** 133, 134 **Remarks:** Difficult to transport
- 558** **History:** < Honjo, Tsuneo **Locality:** Mikawa Bay/Aichi/Japan **Isolator:** Toriumi, Saburo **Identified by:** Toriumi, Saburo **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport

Chattonella marina (Subrahmanyam) Hara et Chihara

- 3 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1982-08-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** OCH-m **References:** 10, 957, 958, 999 **Remarks:** Difficult to transport
- 14 **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Red tide **Other strain no.:** H-53-11 **References:** 181, 1095 **Remarks:** Difficult to transport
- 115 **History:** < KAGAWA **Locality:** Kinko Bay/Kagoshima/Japan (1978-06-14) **Isolator:** Aramaki, Takayuki; Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-9-1 **Reference:** 181 **Remarks:** Difficult to transport
- 116 **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1981-07-04) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-46-7 **Reference:** 181 **Remarks:** Difficult to transport
- 118 **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1983-07-29) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-75-2 **References:** 122, 134, 181, 182, 444, 445, 446, 447, 448, 793, 999 **Remarks:** Difficult to transport
- 121 **History:** < Aramaki, Takayuki **Locality:** Kagoshima Bay/Kagoshima/Japan (1982-**-**) **Isolator:** Aramaki, Takayuki **Identified by:** Aramaki, Takayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGO-57-1 **References:** 181, 182, 309, 591, 999 **Remarks:** Difficult to transport
- 557 **History:** < Honjo, Tsuneo **Locality:** Hiroshima Bay/Hiroshima/Japan (1970-09-**) **Isolator:** Takayama, Haruyoshi **Identified by:** Kawachi, Masanobu (Reidentify) **Formerly identified as:** *Chattonella antiqua* (Hada) Ono **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport
- 559 **History:** < Honjo, Tsuneo **Locality:** Maizuru Bay/Kyoto/Japan (1975-10-04) **Isolator:** Takayama, Haruyoshi **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport

Chattonella minima Hara et Chihara

- 848 **History:** < Yoshida, Masao **Locality:** Tokushima/Japan (1983-09-**) **Isolator:** Yoshida, Masao **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Reference:** 134 **Remarks:** Difficult to transport

Chattonella ovata Hara et Chihara

- 603 **History:** < Sawaguchi, Tomohiro **Locality:** Harima-nada/Japan (1984-04-23) **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **References:** 122, 132, 134, 309 **Remarks:** Difficult to transport
- 671 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport
- 849 **History:** < Hara, Yoshiaki **Locality:** Japan **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Reference:** 134 **Remarks:** Difficult to transport
- 1872 **History:** < Aramaki, Takayuki **Locality:** Kagoshima Bay/Kagoshima/Japan (1982-**-**) **Isolator:** Aramaki, Takayuki **Identified by:** Demura, Mikihide (2007-08-01) **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGO-57-2 **Remarks:** Difficult to transport
- 1873 **History:** < KAGAWA **Locality:** Naoshima Isls./Kagawa/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Demura, Mikihide (2007-08-01) **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-60-3 **Remarks:** Difficult to transport

CHLAMYDOMONAS : Chlorophyceae*Chlamydomonas actinochloris* Deason et Bold

- 2201** **History:** < IAM (2007) < BIU (UTEX; 1960) **Other collection strain no.:** IAM C-213; SAG 1.72; UTEX 965 **Locality:** Caldwell County/Texas/U.S.A. **Isolator:** Deason, T. R. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Hydrogen evolution **Other strain no.:** Deason C-2-14 **Reference:** 35

Chlamydomonas applanata Pringsheim

- 2202** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-214; SAG 2.72; UTEX 969 **Locality:** Williamson County/Texas/U.S.A. **Isolator:** Deason, T. R. **Formerly identified as:** *Chlamydomonas aggregata* Deason et Bold **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Deason T-1-12 **Reference:** 35
- 2203** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-216; SAG 3.72; UTEX 967 **Locality:** Caldwell County/Texas/U.S.A. **Isolator:** Deason, T. R. **Formerly identified as:** *Chlamydomonas akinetos* Deason et Bold **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** (Soil) **Other strain no.:** Deason C-1-11 **Reference:** 35
- 2204** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-218; CCAP 11/2; SAG 6.72; UTEX 230 **Locality:** Franzensbad/Czechoslovakia **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater (Lake mud) **Reference:** 35
- 2205** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-229; UTEX 2399 (?); (BIU 342) **Isolator:** Lewin, Ralph A. **Formerly identified as:** *Chlamydomonas dysosmos* Moewus **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M
- 2206** **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-237; ATCC 30455; CCAP 11/9; SAG 11-9; UTEX 225 **Locality:** Botanic Garden, Prague Univ./Czechoslovakia **Isolator:** Lucksch, I. **Formerly identified as:** *Chlamydomonas humicola* Lucksch **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Reference:** 438

Chlamydomonas asymmetrica Korshikov

- 2207** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-219; CCAP 11/41; SAG 11-41; UTEX 450 **Locality:** Yale/Connecticut/U.S.A. **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Terrestrial (Wet wall)
- 2208** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-234; ATCC 30586; CCAP 11/7; SAG 11-7; UTEX 227; Rodhe 1635 **Locality:** Siggeforasjon/Sweden **Isolator:** Rodhe, W. **Formerly identified as:** *Chlamydomonas gloeopara* Rodhe et Skuja **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Chlamydomonas augustae Skuja var. *ellipsoidea* S. Watanabe

- 158** **History:** < Watanabe, Shin **Locality:** Sumatra/Indonesia (1979-08-21) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain **Other strain no.:** ASE-242 **References:** 345, 515, 1073, 1074

Chlamydomonas coccoides Butcher

- 1021** **History:** < Moriya, Mayumi **Locality:** Osaka Bay/Hyogo/Japan (2000-11-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** #95

Chlamydomonas culleus Ettl

- 2209** **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-552 (= C-231); SAG 18.72; UTEX 1057; CGC CC-1743 **Locality:** near Maxville/Florida/U.S.A. **Isolator:** Smith, G. M. **Formerly identified as:** *Chlamydomonas frankii* Pascher **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-2210 (IAM C-553) **Other strain no.:** *Chlamydomonas culleus*
- 2210** **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-553 (= C-232); SAG 19.72; UTEX 1058; CGC CC-1744 **Locality:** near Maxville/Florida/U.S.A. **Isolator:** Smith, G. M. **Formerly identified as:** *Chlamydomonas frankii* Pascher **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-2209 (IAM C-552)

Chlamydomonas debaryana Goroschankin

- 2211 **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-215; CCAP 11/1; SAG 11-1; UTEX 231 **Locality:** near Grossteich, Hirschberg/Czechoslovakia **Isolator:** Mainx, F. **Formerly identified as:** *Chlamydomonas agloeiformis* Pascher **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater (Pool water) **Reference:** 35
- 2212 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-549 (= C-1); Tsubo I16; UTEX 618; CCAP 11/59; SAG 4.72 **Isolator:** Tsubo, Yoshihiro **Formerly identified as:** *Chlamydomonas angulosa* Dill **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **References:** 565, 778, 779

Chlamydomonas debaryana Goroschankin var. *crystata* Ettl

- 884 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** CCAP 11/4; UTEX 1344 **Locality:** Nordmähren/Czech **Isolator:** Ettl, H. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** (Soil) **Characteristics:** Authentic strain **Gene data:** *atpB* (AB014034); *psaA* (AB044417); *psaA* (AB044418); *psaB* (AB044469); *psbC* (AB044527); *rbcL* (D86838) **References:** 647, 663, 666

Chlamydomonas dorsoventralis Pascher

- 2213 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-228; CCAP 11/4; UTEX 228; SAG 25.86 (?); ATCC 20594; CGC C-1812 **Locality:** Dorfteich, Hirschberg/Czechoslovakia **Isolator:** Mainx, F. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **References:** 35, 438

Chlamydomonas fasciata Ettl

- 437 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1984-05-08) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Other strain no.:** H-3-4-2 **References:** 187, 515, 979

Chlamydomonas fimbriata Ettl

- 2214 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-230; CCAP 11/69; SAG 17.72; UTEX 1349 **Isolator:** Ettl, H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Chlamydomonas gerloffii Ettl

- 2215 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-554 (= C-233); CCAP 11/72; SAG 20.72; UTEX 1348 **Locality:** Schonhengst/Czechoslovakia **Isolator:** Ettl, H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater (Pond) **Other strain no.:** Ettl 136

Chlamydomonas inflexa Pringsheim

- 2216 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-253; SAG 24.72; UTEX 727 **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** R.A.Lewin DD1/72

Chlamydomonas kuwadae Gerloff

- 968 **History:** < Nozaki, Hisayoshi **Locality:** Lake Nojiri (depth 0-10m)/Nagano/Japan (1992-05-13) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 10°C; 15-20 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB451190); *atpB* (AB084318); *psaB* (AB084356); *rbcL* (AB084334) **Other strain no.:** 92-514-H-13 **References:** 554, 668

Chlamydomonas leiostraca Strehlow

- 2217 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-284; CCAP 11/49; SAG 11-49; UTEX 466 **Locality:** Cambridge/U.K. **Isolator:** Pringsheim, E. G. **Formerly identified as:** *Chlamydomonas stercoraria* Pringsheim **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** (Soil)

Chlamydomonas mexicana Lewin

- 2218 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-555 (= C-257); UTEX 730; SAG 11-60b **Isolator:** Lewin, Ralph A. **Identified by:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Chlamydomonas moewusii Gerloff

- 2219 **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-258; CCAP 11/16g; UTEX 96; SAG 11-16g; ATCC 30418; UTCC 83; CGC 56 **Isolator:** Provasoli, L. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **References:** 35, 115, 1047
- 2220 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-259; CCAP 11/16f; UTEX 97; SAG 11-16f; ATCC 3-588; CGC 57 **Isolator:** Provasoli, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M

Chlamydomonas moewusii Gerloff var. *rotunda* Tsubo

- 2221 **History:** < IAM (2007) < Tsubo, Yoshihiro **Other collection strain no.:** IAM C-15; CCAP 11/64B; UTEX 577; SAG 11-61b **Locality:** Sasayama/Hyogo/Japan **Isolator:** Tsubo, Yoshihiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-) **Other strain no.:** Tsubo 24 (-) **References:** 971, 1076
- 2222 **History:** < IAM (2007) < Tsubo, Yoshihiro **Other collection strain no.:** IAM C-19 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Other strain no.:** Tsubo 2475 **Reference:** 971
- 2223 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-556 (= C-16); CCAP 11/64A; UTEX 576; SAG 11-61a **Locality:** Sasayama/Hyogo/Japan **Isolator:** Tsubo, Yoshihiro **Identified by:** Tsubo, Yoshihiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mating type (+) **Other strain no.:** Tsubo 24 (+) **Reference:** 1076

Chlamydomonas monadina Stein var. *monadina*

- 438 **History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** Kas-7 **Reference:** 515

Chlamydomonas mutabilis Gerloff

- 2224 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-558 (= C-7); UTEX 578; SAG 34.72 **Isolator:** Tsubo, Yoshihiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Other strain no.:** Tsubo T-A

Chlamydomonas nasuta Korshikov

- 2225 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-550 (= C-225); UTEX 451 **Locality:** Edgewood Park/Connecticut/U.S.A. **Isolator:** Lewin, Ralph A. **Formerly identified as:** *Chlamydomonas conferta* Korshikov **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** (Soil)

Chlamydomonas nivalis Wille

- 2226 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-263 (BIU 464) **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** (Snow)

Chlamydomonas noctigama Korshikov

- 1048 **History:** < Nozaki, Hisayoshi **Locality:** Neuglobsow/Brandenburg/Germany (2001-08-14) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater **Gene data:** *atpB* (AB101502); *psaB* (AB101513); *rbcL* (AB101506); *rbcL* (AB101507) **Other strain no.:** 2001-814-C10
- 2227 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-236; UTEX 1338; SAG 22.72 **Locality:** High Tatra Mts/Czechoslovakia **Isolator:** Ettl, H. **Formerly identified as:** *Chlamydomonas hindakii* Ettl **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** (Soil) **Other strain no.:** Ettl 103 **Reference:** 35
- 2228 **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-270; SAG 40.72; UTEX 1339 **Locality:** Czechoslovakia **Isolator:** Ettl, H. **Formerly identified as:** *Chlamydomonas pinicola* Ettl **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Soil **Other strain no.:** Ettl 108
- 2229 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-557 (= C-262); ATCC 30629; CCAP 11/17; SAG 33.72; UTEX 220 **Locality:** Czechoslovakia **Isolator:** Pringsheim, E. G. **Formerly identified as:** *Chlamydomonas monoica* Strehlow **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **References:** 438, 1005

Chlamydomonas orbicularis Pringsheim

- 2230 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-559 (= C-266); SAG 11-19; UTEX 218; CGC CC-1739; CCAP 11/19 **Locality:** near Celakovice/Czechoslovakia **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (River sand)

Chlamydomonas parkeae Ettl

- 440 **History:** < Suda, Shoichiro **Locality:** Izumi Bay/Nagasaki/Japan (1986-03-12) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Marine (Seawater) **Gene data:** *rbcL* (AB127988) **Other strain no.:** I-29 **References:** 362, 515, 804, 827
- 1022 **History:** < Moriya, Mayumi **Locality:** Mitsu Bay/Hiroshima/Japan (2001-03-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** #97
- 1733 **History:** < Sato, Mayumi **Locality:** Miyako Isl./Okinawa/Japan (2002-07-**) **Isolator:** Sato, Mayumi **Identified by:** Sato, Mayumi (2005-08-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 18-23 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** M-77

Chlamydomonas perpusilla (Korshikov) Gerloff var. *perpusilla*

Syn. *Chlamydomonas minima* Korshikov

- 1848 **History:** < Nakada, Takashi **Locality:** Sakata-ga-ike Pond/Chiba/Japan (2003-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2006-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond sediment) **Other strain no.:** SkCl-3 **Reference:** 553
- 1849 **History:** < Nakada, Takashi **Locality:** Sakata-ga-ike Pond/Chiba/Japan (2003-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2006-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond sediment) **Gene data:** *psaB* (AB451199) **Other strain no.:** SkCr-10 **References:** 553, 554

Chlamydomonas proteus Pringsheim

- 2231 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-560 (= C-271); ATCC 30452; CCAP 11/21; SAG 41.72; UTEX 216 **Locality:** near Hirschberg/Czechoslovakia **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater

Chlamydomonas pseudococcum Lucksch

- 2232 **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-273; ATCC 30451; CCAP 11/23; SAG 11-23; UTEX 214 **Locality:** Reichsstadt/Czechoslovakia **Isolator:** Lucksch, J. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M

Chlamydomonas pulsatilla Wollenweber

- 122 **History:** < IAM (1983) **Other collection strain no.:** IAM C-385 (= C-561) **Locality:** Muroran/Hokkaido/Japan (1966-05-12) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** P35; 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Lake water) **Gene data:** *psaB* (AB451200) **Other strain no.:** MKF-50 **References:** 214, 215, 267, 515, 554, 1047, 1074

Chlamydomonas pulvinata Vischer

- 2233 **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-276; CCAP 11/25; SAG 45.72; UTEX 212 **Locality:** Basel/Switzerland **Isolator:** Vischer, W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater

Chlamydomonas pumilio Ettl var. *pumilio*

- 1850 **History:** < Nakada, Takashi **Locality:** Arisugawa-no-miya Memorial Park/Tokyo/Japan (2003-04-28) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2006-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater **Gene data:** *psaB* (AB451201) **Other strain no.:** ArCp-7 **References:** 553, 554

Chlamydomonas rapa Ettl

- 2234 **History:** < IAM (2007) **Other collection strain no.:** IAM C-279 **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M

Chlamydomonas reinhardtii Dangeard

- 2235** **History:** < IAM (2007) < Tsubo, Yoshihiro (1959) < Sager (1954) < Smith (1953) **Other collection strain no.:** IAM C-9 **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Characteristics:** Mating type (-); Crosses with NIES-2239 (IAM C-562) **Gene data:** Amt protein mRNA (putative) (AF509497); CAH1 (D90206); CAH1 (5'-upstream region) (AB026126); CAH2 (X54488); CrDES (AB239769); GCS1 mRNA (AB206813); MMP1 (AB058411); MMP1 mRNA (AB058413); MMP2 (AB058412); MMP2 mRNA (AB058414); MMP3 mRNA (AB108850); mRNA for plastid DNA recombination (AB048829); NSG1 mRNA (AB167472); NSG6 mRNA (AB167474); NSG7 mRNA (AB167475); NSG11 mRNA (AB167476); NSG13 mRNA (AB167477); NSG17 mRNA (AB167478); SIG1 mRNA (AB049220); Total genome information (<http://chlamy.pmb.lif.kyoto-u.ac.jp/chlamybase>); EST information (<http://est.kazusa.or.jp/en/plant/chlamy/EST/index.html>) **Other strain no.:** Tsubo R (-) **References:** 1, 5, 22, 23, 24, 28, 37, 59, 60, 61, 66, 102, 109, 110, 306, 314, 334, 412, 413, 415, 416, 467, 468, 469, 470, 472, 476, 508, 742, 743, 744, 748, 913, 964, 965, 985, 988, 991, 992, 1047, 1079, 1082, 1108, 1113, 1133
- 2236** **History:** < IAM (2007) < Kuchitsu, Kazuyuki (1991) < Mihara, S. < Matsuda, Y. < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-239; CCAP 11/32A; SAG 11-32b; UTEX 90; NIBB 4014; CGC CC-1010; CGC CC-409 **Locality:** near Amherst/Massachusetts/U.S.A. **Isolator:** Smith, G. M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Mating type (+) **Other strain no.:** 137c mt⁺ **References:** 455, 855, 973
- 2237** **History:** < IAM (2007) < Mihara, S. (1991) **Other collection strain no.:** IAM C-540 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** TAP (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Characteristics:** Cell wall less mutant of NIES-2238 (IAM C-541) **Other strain no.:** cw-15 strain **Reference:** 363
- 2238** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-541 (= C-238); CCAP 11/32B; SAG 11-32a; UTEX 89; NIBB 4013; UTCC 84; CGC CC-1009 **Locality:** near Amherst/Massachusetts/U.S.A. **Isolator:** Smith, G. M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** TAP (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Mating type (-) **Other strain no.:** 137c mt⁻ **References:** 363, 718, 778, 779, 808, 809, 878, 956
- 2239** **History:** < IAM (2007) < Tsubo, Yoshihiro (1996) < Sager (1954) < Smith (1953) **Other collection strain no.:** IAM C-562 (= C-8) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** (Soil) **Characteristics:** Mating type (+); Crosses with NIES-2235 (IAM C-9) **Other strain no.:** Tsubo R (+) **References:** 200, 1047

Chlamydomonas segnis Ettl

- 2240** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-254; ATCC 30631; CCAP 11/13; SAG 11-13; UTEX 222; CGC CC-1740 **Locality:** West Humble, Dorking/U.K. **Isolator:** Pringsheim, E. G. **Formerly identified as:** *Chlamydomonas intermedia* Chodat **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Pond water)

Chlamydomonas simplex Pascher

- 2241** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-281; CCAP 11/26; (BIU 211) **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater

Chlamydomonas sp.

- 2314** **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** SIS-ch
- 2315** **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1984-05-04) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Paddy soil) **Other strain no.:** H-3-1
- 2316** **History:** < Suda, Shoichiro **Locality:** Osaka Bay/Osaka/Japan (1982-08-03) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** OChla
- 2317** **History:** < Suda, Shoichiro **Locality:** Kazo/Saitama/Japan (1984-06-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mating type (-) **Other strain no.:** KZ-5-8
- 2318** **History:** < Suda, Shoichiro **Locality:** Kazo/Saitama/Japan (1984-06-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mating type (+) **Other strain no.:** KZ-5-17

- 2319 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1954-05-08) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Paddy soil) **Other strain no.:** H-3-6
- 2320 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** w-14-5
- 2321 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** w-30
- 2322 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** w-36
- 2323 **History:** < Suda, Shoichiro **Locality:** Shimoda/Shizuoka/Japan (1985-05-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** Sa-38
- 2324 **History:** < Sawaguchi, Tomohiro **Locality:** Iriomote Isl./Okinawa/Japan (1986-01-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** STP; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** IC-9

Chlamydomonas sphaeroides Gerloff

- 2242 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-255; CCAP 11/14; UTEX 221; SAG 25.72; CGC CC-1811 **Isolator:** Pringsheim, E. G. **Formerly identified as:** *Chlamydomonas iyengari* Mitra **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M

Chlamydomonas subangulosa Fritsch et John

- 2243 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-563 (= C-285); CCAP 11/28; SAG 57.72; UTEX 209 **Locality:** England/U.K. **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** (Soil)

Chlamydomonas subtilis Pringsheim

- 2244 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-564 (= C-287); CCAP 11/30; UTEX 207 **Locality:** Botanic Garden, Prague/Czechoslovakia **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater

Chlamydomonas tetragama (Bohlin) Ettl

- 446 **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1985-04-13) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro; Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium metamorphum* Skuja **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic (Neotype) strain **Gene data:** *atpB* (AB084319); *psaB* (AB084357); *rbcL* (AJ001880) **Other strain no.:** 413D4-4 **References:** 515, 642, 665, 668, 1000

Chlamydomonas transitia Ettl

- 2245 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-289; UTEX 1345; SAG 60.72 **Isolator:** Ettl, H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Other strain no.:** Ettl 130

Chlamydomonas typica Deason et Bold

- 2246 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-565 (= C-290); SAG 61.72; UTEX 971; CGC CC-1807 **Locality:** Williamson County/Texas/U.S.A. **Isolator:** Deason, T. R. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** (Soil) **Other strain no.:** Deason T-21-11

Chlamydomonas ulvaensis Lewin

- 2247 **History:** < IAM < UTEX (1996) **Other collection strain no.:** IAM C-566 (= C-291); CCAP 11/58; Lewin DD1/27; SAG 62.72; UTEX 724 **Locality:** Isle of Ulva /Scotland/U.K. **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Terrestrial (Pasture plant)

Chlamydomonas zebra Korshikov ex Pascher

- 2248** **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-221; SAG 8.72; UTEX 229; CCAP 11/3 **Isolator:** Brannon, M. A. **Formerly identified as:** *Chlamydomonas brannonii* Pringsheim **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Brannon5

CHLORARACHNION : Chlorarachniophyceae*Chlorarachnion reptans* Geitler

- 624** **History:** < CCAP **Other collection strain no.:** CCAP 815/1 **Locality:** Puerto Penasco/Mexico **Isolator:** Norris, Richard E. **States:** Unialgal **Culture conditions:** ESM2; 20°C; 32-40 µmol/m²/s; 2 M **Habitat:** Marine (Seawater)

Chlorarachnion sp.

- 1408** **History:** < TKB **Locality:** Amami Isl., Ayamaru/Kagoshima/Japan (2000-06-**) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 25-40 µmol/m²/s; 6 M **Habitat:** Marine (Sand) **Characteristics:** Mixotrophic; Benthic **Other strain no.:** TKB-002 (ym-02)

CHLORELLA : Trebouxiophyceae'*Chlorella ellipsoidea*' Gerneck

- 2150** **History:** < IAM (2007) < UTEX (1989) **Other collection strain no.:** IAM C-542 (= C-87); ATCC 30404; CCAP 211/1A; SAG 211-1a; UTEX 20 **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G.; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488583) **References:** 351, 401, 921

'*Chlorella*' *saccharophila* (Krüger) Migula

- 640** **History:** < Kasai, Fumie **Locality:** Otarunai River/Hokkaido/Japan (1987-07-02) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **Culture conditions:** C; 10°C; 6-12 µmol/m²/s; 6 M (10°C; 10-15 µmol/m²/s) **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488790) **Other strain no.:** Tst-8-2 **References:** 515, 917 **Remarks:** Cryopreserved
- 2352** **History:** < IAM (2007) < Safferman, R. S. **Other collection strain no.:** IAM C-183; SEC 95 **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488791) **Reference:** 1094

Chlorella sorokiniana Shihira et Krauss

- 2167** **History:** < IAM (2007) < Yakult < IAM < Watanabe, Atsushi **Other collection strain no.:** IAM C-43 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing **Formerly identified as:** *Chlorella vulgaris* Beijerinck (before 1994) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488789)
- 2168** **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM C-133 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi; Kessler, E. (1993); Confirmed at NIES by DNA sequencing **Formerly identified as:** *Chlorella vulgaris* Beijerinck (before 1993) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488572) **Other strain no.:** Murano (407)U-145 **References:** 62, 717, 1094
- 2169** **History:** < IAM (2007) < Meyers, Jack **Other collection strain no.:** IAM C-212; ATCC 22521; CAUP H1957; CCAP 211/8k; SAG 211-8K; UTEX 1230 **Locality:** Texas/U.S.A. **Isolator:** Sorokin, C. **Identified by:** Kessler, E. (1993); Confirmed at NIES by DNA sequencing **Formerly identified as:** *Chlorella pyrenoidosa* Chick (before 1993) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB080307); 18S rRNA (AB488573); Actin (AB080311) **References:** 35, 351, 449, 718, 1101

Chlorella sp.

- 2171** **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM C-135 **Locality:** Botanical garden, Sendai/Miyagi/Japan **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi; Kessler, E. (1993); Re-identified at NIES by DNA sequencing **Formerly identified as:** *Chlorella vulgaris* Beijerinck (before 1993) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488574) **Other strain no.:** Kiyohara U-140 **References:** 173, 1094
- 2330** **History:** < Watanabe, Yoshitomo **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-04-22) **Isolator:** Watanabe, Yoshitomo **Identified by:** Watanabe, Yoshitomo **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** HA-1 **Remarks:** Cryopreserved

Chlorella vulgaris Beijerinck

- 1269** **History:** < Moriya, Mayumi **Locality:** Banzu Tidal Flat/Chiba/Japan (2002-05-14) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi; Re-identified at NIES by DNA sequencing **Formerly identified as:** *Chlorella* sp. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** (Tidal flat water) **Gene data:** 18S rRNA (AB488579) **Other strain no.:** M-56 **Remarks:** Cryopreserved
- 2170** **History:** < IAM (2007) < Tokugawa Institute for Biological Research **Other collection strain no.:** IAM C-27 **Locality:** Sendai/Miyagi/Japan **Identified by:** Takeda, H.; Kessler, E. (1991); Confirmed at NIES by DNA sequencing **Formerly identified as:** *Chlorella ellipsoidea* Gerneck (before 1991) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 16S rRNA (AF350259); 16S rRNA (AF350260); 16S rRNA (AJ242748); 16S rRNA (AJ242753); 18S rRNA (AB178085); 18S rRNA (AJ242757); 18S rRNA (AB488580); CvFAD2 mRNA (AB075526); CvFAD3 mRNA (AB075527); G6PDH mRNA (AB085846); HiC6 mRNA (U38231); HiC12 mRNA (AB035642); Plastid DNA (AB001684) **Other strain no.:** Tamiya strain **References:** 7, 12, 14, 15, 81, 108, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 155, 156, 158, 159, 160, 161, 162, 163, 164, 176, 177, 178, 183, 184, 185, 191, 238, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 303, 304, 315, 316, 317, 318, 319, 344, 373, 451, 452, 456, 466, 475, 478, 479, 480, 481, 482, 483, 484, 486, 488, 492, 493, 494, 495, 496, 498, 500, 501, 502, 505, 506, 510, 518, 519, 602, 607, 608, 616, 678, 679, 680, 681, 685, 686, 687, 711, 732, 774, 775, 776, 777, 802, 803, 820, 850, 854, 872, 885, 898, 903, 912, 915, 921, 922, 923, 924, 925, 926, 927, 928, 929, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 985, 992, 1003, 1089, 1093
- 2172** **History:** < IAM < CCAP (Butcher, R. W.) **Other collection strain no.:** IAM C-176; CCAP 211/21A or B (?) **Isolator:** George, E. A. **Identified by:** Kessler, E. (1993); Confirmed at NIES by DNA sequencing **Formerly identified as:** *Chlorella ovalis* Butcher (before 1993) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488581)
- 2173** **History:** < IAM (2007) < Tszuzuki, Mikio (1988) < Avramova, S. T. (1982) < probably Semenenko **Other collection strain no.:** IAM C-536; IPPAS C-3 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB080308); Actin-1 (AB080312); Actin-2 (AB080313) **References:** 5, 37, 498, 509, 510, 511, 988, 992, 1101

Chlorella vulgaris Beijerinck var. *vulgaris*

- 227** **History:** < IAM (1983) **Other collection strain no.:** IAM C-30 **Locality:** Japan **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Gene data:** 16S rRNA (AJ242754); 16S rRNA (AJ242771); 18S rRNA (AJ242756); 18S rRNA (AB488575); 18S rRNA, ITS1, 5.8S rRNA, ITS2 (AB162910); 28S rRNA (AB237642); *coxI* (D63763); *coxI* (AB011523); *psaA* (AB260919); *rbcL* (AB260909) **References:** 171, 215, 223, 239, 328, 348, 436, 451, 452, 515, 517, 652, 688, 733, 817, 873, 998, 1013, 1023, 1074, 1094, 1136 **Remarks:** Cryopreserved
- 641** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 6 M **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488576) **Other strain no.:** 1st-3-26 **References:** 515, 916, 917 **Remarks:** Cryopreserved
- 642** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 6 M **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488577) **Other strain no.:** 1st-2-17 **References:** 515, 916, 917 **Remarks:** Cryopreserved
- 686** **History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/11b; IAM C-207; SAG 211-11b **Locality:** Delft/Netherlands **Isolator:** Beijerinck, M. W. **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB488578) **Other strain no.:** C-207 **References:** 39, 351, 515, 652, 885, 1094 **Remarks:** Cryopreserved

CHLOROCOCCUM : Chlorophyceae**Chlorococcum echinozygotum** Starr

- 2249 History:** < IAM (2007) < Inst. Algological Reseach, Fac. Sci., Hokkaido Univ. (1969) **Other collection strain no.:** IAM C-386 **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Chlorococcum elkhartiense Archibald et Bold

- 2250 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-567 (= C-283); SAG 56.72; UTEX 293; CCAP 11/57 **Locality:** Salen, Mull/Scotland/U.K. **Isolator:** Lewin, Ralph A. **Identified by:** Ettl, H.; Schlösser, U. G. **Formerly identified as:** *Chlamydomonas sphagnophila* Pascher **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Homothallic **Other strain no.:** Lewin DD1/174

Chlorococcum humicola (Nägeli) Rabenhorst

- 2251 History:** < IAM (2007) < Holm-Hansen, O. **Other collection strain no.:** IAM C-173 **Locality:** Marble Point/Antarctica **Isolator:** Holm-Hansen, O. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** Holm-Hansen M-19-a

CHLOROGONIUM : Chlorophyceae**Chlorogonium capillatum** Nozaki, M. M. Watanabe et Aizawa

- 692 History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-04-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 10°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Bog soil) **Characteristics:** Authentic strain; Monoecious; Isogamy; Paedogamy; Type specimen (NIES-50001, Epitype) **Gene data:** *rbcL* (AB010230) **Other strain no.:** 92-517-6-2 **References:** 515, 552, 555, 665
- 742 History:** < Nozaki, Hisayoshi < IAM **Other collection strain no.:** CCAP 12/4; IAM C-295; UTEX 201 **Locality:** Czechoslovakia **Isolator:** Meyer, H. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium tetragamum* Bohlin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Gene data:** *rbcL* (AB010234) **Reference:** 665
- 743 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1643 **Locality:** Leveret/Massachusetts/U.S.A. **Isolator:** Kugrens, P. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium tetragamum* Bohlin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** *rbcL* (AB010235) **Reference:** 665
- 744 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2160 **Locality:** Germany **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium* sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Gene data:** *rbcL* (AB010236) **Reference:** 665
- 745 History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/2A **Locality:** Berlin/Germany **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium elongatum* (Dangeard) Dangeard (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *rbcL* (AB010231) **Reference:** 665
- 746 History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/2B **Locality:** Cape Flats/South Africa **Isolator:** George **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium elongatum* (Dangeard) Dangeard (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** *rbcL* (AB010232) **Reference:** 665
- 747 History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/5 **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium* sp. (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** *rbcL* (AB010233) **Reference:** 665
- 748 History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 12-2e **Locality:** near Prague/Czechoslovakia **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium elongatum* (Dangeard) Dangeard (in SAG) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Gene data:** *psaB* (AB451203); *rbcL* (AB010237) **References:** 554, 665

749 **History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 47.84 **Isolator:** Provasoli, L. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium euchlorum* Ehrenberg (in SAG) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Gene data:** *rbcL* (AB010238) **Reference:** 665

750 **History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 4.93 **Locality:** Leveret/Massachusetts/U.S.A. **Isolator:** Kugrens, P. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium tetragamum* Bohlin (in SAG) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** *rbcL* (AB010239) **Reference:** 665

Chlorogonium elongatum (Dangeard) Francé

751 **History:** < Nozaki, Hisayoshi < IAM **Other collection strain no.:** CCAP 12/1; IAM C-293 (= C-568); UTEX 204 **Locality:** Caldbeck/England/U.K. **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium acus* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain; Type specimen (NIES-50002, Epitype) **Gene data:** *rbcL* (AJ001881) **References:** 555, 665

752 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2571 **Locality:** Austin/Texas/U.S.A. **Isolator:** Wood, M. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium* sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** *psaB* (AB451204); *rbcL* (AB010240) **References:** 554, 665

753 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2572 **Locality:** Austin/Texas/U.S.A. **Isolator:** Wood, M. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium* sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** *rbcL* (AB010241) **Reference:** 665

1357 **History:** < Nakada, Takashi **Locality:** Atsugi, Shimokawairi/Kanagawa/Japan (1998-03-07) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic **Gene data:** *rbcL* (AB206330) **Other strain no.:** Chlogo-1/1998-3-7 **References:** 551, 552, 555

1358 **History:** < Nakada, Takashi **Locality:** Narita, Ohtake/Chiba/Japan (2003-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic **Gene data:** *psaB* (AB451205); *rbcL* (AB206329) **Other strain no.:** SkCl-2 **References:** 551, 552, 554

Chlorogonium euchlorum (Ehrenberg) Ehrenberg

754 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1639 **Locality:** Schickley/Nebraska/U.S.A. **Isolator:** Kugrens, P. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium elongatum* (Dangeard) Dangeard (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** *rbcL* (AB010226) **Reference:** 665

755 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2010 **Locality:** Germany **Isolator:** Müller, Dieter G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium* sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Characteristics:** Authentic strain; Type specimen (NIES-50003, Epitype) **Gene data:** *rbcL* (AB010227) **References:** 555, 665

756 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2011 **Locality:** Germany **Isolator:** Müller, Dieter G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium* sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Gene data:** *rbcL* (AB010228) **Reference:** 665

757 **History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/2C **Locality:** Amiens/France **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium elongatum* (Dangeard) Dangeard (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** *rbcL* (AB010224) **Reference:** 665

758 **History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/3 **Locality:** Berlin/Germany **Isolator:** Mainx **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium euchlorum* Ehrenberg (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** *rbcL* (AJ001882) **Reference:** 665

- 759** **History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/6 **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium* sp. (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** *rbcL* (AB010225) **Reference:** 665
- 760** **History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 12-2d **Locality:** Cape Flats/South Africa **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** *Chlorogonium elongatum* (Dangeard) Dangeard (in SAG) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** *psaB* (AB451206); *rbcL* (AB010229) **References:** 554, 665

CHLOROKYBUS : Charophyceae*Chlorokybus* sp.

- 160** **History:** < Watanabe, Shin **Locality:** Tottori/Japan (1972-05-19) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **Formerly identified as:** *Chlorosarcinopsis caeca* S. Watanabe **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Soil) **Other strain no.:** TOT-24 **References:** 515, 1073

CHLOROMONAS : Chlorophyceae*Chloromonas insignis* (Anachin) Gerloff et Ettl

- 447** **History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *atpB* (AB084313); *psaB* (AB084348); *rbcL* (AB022226) **Other strain no.:** Kas-8 **References:** 515, 520, 668

CHLOROTETRAEDRON : Chlorophyceae*Chlorotetraedron incus* (Teiling) MacEntee *et al.*Syn. *Tetraedron incus* (Teiling) G. M. Smith

- 392** **History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1984-05-07) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** F115 **Remarks:** Cryopreserved

CHORICYSTIS : Trebouxiophyceae*Choricystis minor* (Skuja) Fott

- 1436** **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-052 (nak-07)

Choricystis sp.

- 1840** **History:** < TKB **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2004-06-24) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2004-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-198
- 2333** **History:** < Takamura, Noriko **Locality:** Lake Misuzu/Nagano/Japan (1991-05-17) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488792); 18S rRNA (AB488793) **Other strain no.:** MSZ 3
- 2335** **History:** < Takamura, Noriko **Locality:** Lake Kuttara/Hokkaido/Japan (1991-07-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488584) **Other strain no.:** KUTA 1
- 2337** **History:** < Takamura, Noriko **Locality:** Lake Shikotsu/Hokkaido/Japan (1991-05-27) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488585) **Other strain no.:** SKT 1

2338 **History:** < Takamura, Noriko **Locality:** Lake Toya/Hokkaido/Japan (1991-05-30) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488586) **Other strain no.:** TOYA 1

2342 **History:** < Takamura, Noriko **Locality:** Lake Otadomarinuma/Hokkaido/Japan (1991-05-29) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488587) **Other strain no.:** OTD 1 **Remarks:** Cryopreserved

CHROMULINA : Chrysophyceae

Chromulina sp.

2304 **History:** < Suda, Shoichiro **Locality:** Harima-nada/Japan (1984-08-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 µmol/m²/s; 3 M **Habitat:** Marine (Seawater) **Other strain no.:** 810YB-10

CHROODACTYLON : Stylonematophyceae

Chroodactylon ornatum (C. Agardh) Basson

Syn. *Asterocystis smargadina* Reinsch; *Asterocystis ramosa* (Thwaites) Gobi; *Chroodactylon ramosum* (Thwaites) Hansgirg

1969 **History:** < Sato, Mayumi **Locality:** Miyako Isl./Okinawa/Japan (2002-07-**) **Isolator:** Sato, Mayumi **Identified by:** Yokoyama, Akiko (2007-02-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Epiphytic **Other strain no.:** M-76

1970 **History:** < Sato, Mayumi **Locality:** Ishigaki Isl., Urasoko Bay/Okinawa/Japan (2004-02-19) **Isolator:** Sato, Mayumi **Identified by:** Yokoyama, Akiko (2007-02-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Epiphytic **Other strain no.:** M-183

1971 **History:** < Sato, Mayumi **Locality:** Seragaki Beach/Okinawa/Japan (2004-02-20) **Isolator:** Sato, Mayumi **Identified by:** Yokoyama, Akiko (2007-02-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Epiphytic **Other strain no.:** M-184

CHROOGLOEOCYSTIS : Cyanophyceae

Chroogloeocystis siderophila I. I. Brown et Cooksey

1031 **History:** < Brown, Igor I. **Locality:** La Duke Hot Spring/Montana/U.S.A. (2001-7-**) **Isolator:** Brown, Igor I. **Identified by:** Brown, Igor; Mummey, Daniel **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** DH + Fe (agar); MDM (agar); 24°C; 20-30 µmol/m²/s; 4 M (37°C; 15-25 µmol/m²/s) **Habitat:** Hot spring (Bottom mud) **Characteristics:** Biofilm process; Thermophilic **Gene data:** 16S rRNA (AY380791) **Other strain no.:** 5.2 s.c.1

CHROOMONAS : Cryptophyceae

Chroomonas caudata Geitler

712 **History:** < Erata, Mayumi **Locality:** Funada-ike Pond/Chiba/Japan (1985-09-**) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB240963); Nuclear actin (AB126024) **Other strain no.:** #00171 **Reference:** 75

Chroomonas coerulea (Geitler) Skuja

Syn. *Cryptomonas coerulea* Geitler

713 **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1985-11-10) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00191 **References:** 73, 75

714 **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1985-11-10) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00217 **References:** 73, 75, 76

1004 **History:** < Moriya, Mayumi **Locality:** Bibi River/Hokkaido/Japan (1999-11-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** #74

Chroomonas collegionis Butcher

703 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/11 **Locality:** River Thames/Essex/U.K. (1961-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Brackish **Characteristics:** Authentic strain **Other strain no.:** M08

Chroomonas dispersa Butcher

704 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/10 **Locality:** Bristol Channel/U.K. (1960-08-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240961) **Other strain no.:** M09

Chroomonas mesostigmatica Butcher

1370 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2004-02-09) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + NH₄Cl; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Sand and seawater) **Other strain no.:** TKB-112 (AK-13)

Chroomonas nordstedtii Hansgirg

706 **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1976-09-**) **Isolator:** Inouye, Isao **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00165 **References:** 73, 74, 75, 127

707 **History:** < Erata, Mayumi **Locality:** Funada-ike Pond/Chiba/Japan (1985-09-**) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00173 **References:** 75, 76

708 **History:** < Erata, Mayumi **Locality:** Hokkaido University/Hokkaido/Japan (1987-09-24) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB240962); Nuclear actin (AB126023) **Other strain no.:** #00324 **Reference:** 75

709 **History:** < Erata, Mayumi **Locality:** Hokkaido University/Hokkaido/Japan (1987-09-24) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00330 **Reference:** 75

710 **History:** < Erata, Mayumi **Locality:** Hokkaido University/Hokkaido/Japan (1987-09-24) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00331 **Reference:** 75

711 **History:** < Erata, Mayumi **Locality:** Mitsukaido/Ibaraki/Japan (1987-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Sediment) **Other strain no.:** #00354

Chroomonas placoidea Butcher

705 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/8 **Locality:** Yorkshire/U.K. (1959-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Other strain no.:** M11 **Reference:** 74

Chroomonas sp.

2331 **History:** < Hatakeyama, Noriko **Locality:** Naka River/Ibaraki/Japan (1992-04-14) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; WESM; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Brackish (Sediment) **Other strain no.:** NAK-1

CHRYSOCHROMULINA : Prymnesiophyceae*Chrysochromulina hirta* Manton

- 741 **History:** < Kawachi, Masanobu **Locality:** Chiba Harbor/Chiba/Japan (1986-06-23) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 35-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Mixotrophic; Phagotrophic **Other strain no.:** CH1 **Reference:** 127

Chrysochromulina parva Lackey

- 562 **History:** < Hatakeyama, Noriko **Locality:** inside NIES/Ibaraki/Japan (1992-02-13) **Isolator:** Hatakeyama, Noriko **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water)

Chrysochromulina quadrikonta Kawachi et Inouye

- 998 **History:** < Kawachi, Masanobu **Locality:** off Uramura/Mie/Japan (2001-01-12) **Isolator:** Hata, Naotsugu **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** CQ13T

Chrysochromulina simplex Estep, Davis, Hargraves et Sieburth

- 1392 **History:** < TKB **Locality:** Chiba Harbor/Chiba/Japan (2004-07-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-129 (nak23)

Chrysochromulina sp.

- 1333 **History:** < TKB **Locality:** Tokyo Bay/Japan (2003-10-16) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Prey for *Kathablepharis japonica* (NIES-1334) and *Leucocryptos marina* (NIES-1335) **Gene data:** 18S rRNA (DQ980478); β-tubulin (AB194979) **Other strain no.:** TKB-079 (nrc063) **References:** 358, 722
- 1391 **History:** < TKB **Locality:** Tokyo Bay/Tokyo/Japan (2003-08-**) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s **Habitat:** Marine (Seawater) **Other strain no.:** TKB-210 (ym-12)

CHRYSOCULTER : Prymnesiophyceae*Chrysoculter rhomboideus* Nakayama, Yoshida, Noël, Kawachi et Inouye

- 1874 **History:** < Nakayama, Takeshi **Locality:** Okumatsushima/Miyagi/Japan (1998-10-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** TKB-54 **Reference:** 596

CHRYSOPHAEUM : Pelagophyceae*Chrysophaeum taylorii* Lewis et Bryan

- 1699 **History:** < Honda, Daisuke **Locality:** Iriomote Isl., Funaura/Okinawa/Japan (2000-08-04) **Isolator:** Fukaya, Sachiko **Identified by:** Fukaya, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** SEK-105
- 1700 **History:** < Honda, Daisuke **Locality:** Guam Isl., Agat Bay, Haps Reef/U.S.A. (2001-05-13) **Isolator:** Fukaya, Sachiko **Identified by:** Fukaya, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** SEK-109

CLOSTERIUM : Charophyceae*Closterium acerosum* Ehrenberg ex Ralfs

- 124 **History:** < Watanabe, Masayuki **Locality:** Daramshara/Nepal (1965-10-25) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** N-20-1 **References:** 210, 515

- 125** **History:** < Watanabe, Masayuki **Locality:** Rukumkot/Nepal (1965-10-29) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Gene data:** 18S rRNA (AF352230) **Other strain no.:** N-25-22 **References:** 58, 210, 515
- 127** **History:** < IAM (1983) **Other collection strain no.:** IAM C-435 **Locality:** Sapporo/Hokkaido/Japan **Isolator:** Nishihama, Yuji **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Stream sediment) **Characteristics:** Homothallic **Other strain no.:** H-2-2 **References:** 210, 215, 515
- 448** **History:** < IAM (1983) **Other collection strain no.:** IAM C-314; UTEX 1075 **Locality:** Japan **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater **References:** 215, 515

Closterium aciculare T. West var. *subpronum* W. et G. S. West

- 258** **History:** < Watanabe, Makoto M. **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Mating type (+); Crosses with NIES-259 and 260 **Other strain no.:** Bca-25 **Reference:** 49
- 259** **History:** < Watanabe, Makoto M. **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Mating type (-); Crosses with NIES-258 **Other strain no.:** Bca-26 **Reference:** 515

Closterium calosporum Wittrock var. *calosporum*

- 271** **History:** < IAM (1983) **Other collection strain no.:** IAM C-318 **Locality:** Vermont/U.S.A. **Isolator:** Cook, P. W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pool soil) **Gene data:** 18S rRNA (AF352225) **References:** 58, 215, 221, 515, 1025, 1026

Closterium calosporum Wittrock var. *galiciense* Gutwinski

- 128** **History:** < Watanabe, Masayuki **Locality:** Ibaraki/Japan **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-162 **Other strain no.:** IB-21-20 **Reference:** 515
- 162** **History:** < Watanabe, Masayuki **Locality:** Ibaraki/Japan **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 60-70 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-128, 163 and 168 **Other strain no.:** IB-21-21 **Reference:** 515
- 163** **History:** < IAM (1983) **Other collection strain no.:** IAM C-455 **Locality:** Ginama/Okinawa/Japan (1973-06-15) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-162, 164 and 165 **Other strain no.:** R-5-3 **References:** 221, 515, 1025, 1026
- 164** **History:** < IAM (1983) **Other collection strain no.:** IAM C-454 **Locality:** Ginama/Okinawa/Japan (1973-06-15) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-163 and 166 **Other strain no.:** R-5-2 **References:** 221, 515, 1025, 1026
- 165** **History:** < IAM (1983) **Other collection strain no.:** IAM C-457 **Locality:** Iriomote Isl./Okinawa/Japan (1973-03-25) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 60-70 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-163, 166 and 168 **Gene data:** 18S rRNA (AF352239) **Other strain no.:** R-11-6 **References:** 58, 221, 515, 1025, 1026
- 166** **History:** < Watanabe, Masayuki **Locality:** Kagawa/Japan (1974-09-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-164, 165 and 167 **Other strain no.:** J5-56-11 **Reference:** 515
- 167** **History:** < Watanabe, Masayuki **Locality:** Kagawa/Japan (1974-09-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-166 **Other strain no.:** J5-56-12 **Reference:** 515

- 168** **History:** < Watanabe, Masayuki **Locality:** Iriomote Isl./Okinawa/Japan (1973-03-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type (-); Crosses with NIES-165 **Other strain no.:** R-11-5 **References:** 221, 515, 1025, 1026

Closterium calosporum Wittrock var. *himalayense* M. Watanabe

- 169** **History:** < Watanabe, Masayuki **Locality:** Shewaden/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Stream sediment) **Characteristics:** Homothallic **Other strain no.:** N-134-5 **References:** 515, 1025, 1026
- 170** **History:** < Watanabe, Masayuki **Locality:** Suke/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352229) **Other strain no.:** N-143-19 **References:** 58, 515
- 171** **History:** < Watanabe, Masayuki **Locality:** Suke/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-147-3 **References:** 330, 515, 1025
- 336** **History:** < Watanabe, Masayuki **Locality:** Suke/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 22°C; 60-70 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-147-12 **References:** 515, 1025

Closterium ehrenbergii Meneghini ex Ralfs

- 228** **History:** < Ichimura, Terunobu **Locality:** Ebina/Kanagawa/Japan (1975-12-04) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 60-70 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+); Mating group B; Crosses with NIES-229 **Gene data:** 18S rRNA (partial) (AY148818); 5.8S (partial)-ITS2-28S rRNA (partial) (AY148895); scdip-1mRNA (AB066448) **Other strain no.:** KK-33-1 **References:** 48, 104, 105, 106, 107, 174, 212, 213, 216, 217, 219, 237, 330, 331, 362, 515, 682, 806, 828
- 229** **History:** < Ichimura, Terunobu **Locality:** Ebina/Kanagawa/Japan (1975-12-04) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-); Mating group B; Crosses with NIES-228 **Gene data:** 18S rRNA (partial) (AY148821); 5.8S (partial)-ITS2-28S rRNA (partial) (AY148898); scdip-1 mRNA (AB066448) **Other strain no.:** KK-33-6 **References:** 48, 104, 105, 106, 107, 174, 212, 213, 216, 217, 219, 330, 331, 515, 682, 683, 828

Closterium gracile Brébisson ex Ralfs

- 179** **History:** < IAM (1983) **Other collection strain no.:** IAM C-444 (= C-570) **Locality:** Kathmandu/Nepal (1968-05-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Sediment) **Characteristics:** Heterothallic: Mating type (+); Crosses with NIES-180 **Other strain no.:** N-90-58 **References:** 209, 210, 215, 515
- 180** **History:** < IAM (1983) **Other collection strain no.:** IAM C-445 (= C-571) **Locality:** Kathmandu/Nepal (1968-05-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Sediment) **Characteristics:** Heterothallic: Mating type (-); Crosses with NIES-179 **Gene data:** 18S rRNA (AF352237) **Other strain no.:** N-90-59 **References:** 58, 209, 210, 215, 515

Closterium incurvum Brébisson

- 181** **History:** < IAM (1983) **Other collection strain no.:** IAM C-438 (= C-572) **Locality:** Dhorpatan/Nepal (1965-11-09) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (*Sphagnum*) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352231) **Other strain no.:** N-34-2 **References:** 58, 209, 210, 215, 515
- 337** **History:** < Watanabe, Masayuki **Locality:** Nawakot/Nepal (1965-10-12) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** N-12-92 **References:** 210, 515

Closterium moniliferum Ehrenberg ex Ralfs var. *moniliferum*

- 172** **History:** < Watanabe, Masayuki **Locality:** Nepal **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Characteristics:** Homothallic **Gene data:** 18S rRNA (partial) (AY148874); 18S rRNA (partial) (AY148875); 5.8S (partial)-ITS2-28S rRNA (partial) (AY148948) **Other strain no.:** N-100-1 **Reference:** 515
- 173** **History:** < IAM (1983) **Other collection strain no.:** IAM C-432 (= C-573) **Locality:** Kitamoto/Saitama/Japan (1969-01-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Gene data:** 5.8S (partial)-ITS2-28S rRNA (partial) (AY148950) **Other strain no.:** S-1-22 **References:** 209, 215, 515
- 174** **History:** < Watanabe, Masayuki **Locality:** Ghorepani/Nepal (1965-12-02) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352233); 5.8S (partial)-ITS2-28S rRNA (partial) (AY148949) **Other strain no.:** N-76-30 **References:** 58, 210, 515

Closterium moniliferum Ehrenberg ex Ralfs var. *submoniliferum* (Woronichin) Krieger

- 182** **History:** < IAM (1983) **Other collection strain no.:** IAM C-433 **Locality:** Kitamoto/Saitama/Japan (1969-01-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Heterothallic: Mating type (+); Crosses with NIES-183 **Gene data:** 18S rRNA (partial) (AY148869); 18S rRNA (partial) (AY148870); 5.8S (partial)-ITS2-28S rRNA (partial) (AY148940) **Other strain no.:** S-1-13 **References:** 210, 215, 515, 849
- 183** **History:** < IAM (1983) **Other collection strain no.:** IAM C-434 (= C-574) **Locality:** Kitamoto/Saitama/Japan (1969-01-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Heterothallic: Mating type (-); Crosses with NIES-182 **Gene data:** 18S rRNA (partial) (AY148871); 18S rRNA (partial) (AY148872); 5.8S (partial)-ITS2-28S rRNA (partial) (AY148942) **Other strain no.:** S-1-24 **References:** 209, 210, 215, 515

Closterium navicula (Brébisson) Lütkenmüller

- 175** **History:** < IAM (1983) **Other collection strain no.:** IAM C-443 (= C-575) **Locality:** Chingkhola/Nepal (1965-11-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352232) **Other strain no.:** N-49-7 **References:** 58, 209, 210, 215, 515
- 176** **History:** < Watanabe, Masayuki **Locality:** Ghorepani/Nepal (1965-12-02) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** N-75-10 **References:** 210, 515
- 177** **History:** < Watanabe, Masayuki **Locality:** Billethadi/Nepal (1965-12-03) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-79-26 **References:** 210, 515
- 178** **History:** < Watanabe, Masayuki **Locality:** Shewaden/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Stream sediment) **Other strain no.:** N-134-15 **Reference:** 515

Closterium peracerosum-strigosum-littorale complex

- 51** **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 15°C; 10-18 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (+); Mating group II A **Other strain no.:** IB-4-2 **References:** 515, 1035, 1040, 1041, 1042
- 52** **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (-); Mating group II A **Gene data:** 18S rRNA (AF352226) **Other strain no.:** IB-4-9 **References:** 58, 515, 849, 1035, 1040, 1041, 1042

- 53 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (+); Mating group II A **Other strain no.:** IB-6-8 **References:** 515, 1035, 1040, 1041, 1042
- 54 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (-); Mating group II A **Other strain no.:** IB-6-9 **References:** 515, 1035, 1040, 1041
- 55 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-05-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (-); Mating group II C **Other strain no.:** IB-8-15 **References:** 515, 1035, 1040, 1041
- 56 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-05-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (-); Mating group II A **Other strain no.:** IB-8-24 **References:** 515, 758, 1035, 1040, 1041
- 57 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-05-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (+); Mating group II A **Other strain no.:** IB-8-25 **References:** 515, 758, 1035, 1040, 1041
- 58 **History:** < Watanabe, Makoto M. **Locality:** Mito/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (-); Mating group II A **Other strain no.:** IB-10-1 **References:** 515, 1035, 1040, 1041
- 59 **History:** < Watanabe, Makoto M. **Locality:** Mito/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (+); Mating group II A **Other strain no.:** IB-10-2 **References:** 515, 1035, 1040, 1041
- 60 **History:** < Watanabe, Makoto M. **Locality:** Mito/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (+); Mating group II B **Other strain no.:** IB-12-1 **References:** 515, 1035, 1040, 1041
- 61 **History:** < Watanabe, Makoto M. **Locality:** Mito/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (-); Mating group II B **Other strain no.:** IB-12-2 **References:** 515, 1035, 1040, 1041
- 62 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (+); Mating group II A **Other strain no.:** IB-13-1 **References:** 515, 1035, 1040, 1041
- 63 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (-); Mating group II A **Other strain no.:** IB-13-2 **References:** 515, 1035, 1040, 1041
- 64 **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-11-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic: Mating type (-); Mating group II B **Other strain no.:** KAS-4-29 **References:** 335, 336, 337, 515, 594, 828, 833, 834, 842, 1035, 1040, 1041, 1042

- 65 **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-11-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic: Mating type (+); Mating group II B **Other strain no.:** KAS-4-30 **References:** 335, 336, 337, 515, 594, 828, 833, 834, 842, 1035, 1040, 1041, 1042
- 66 **History:** < Ichimura, Terunobu **Other collection strain no.:** IAM C-440 (= C-576) **Locality:** Piuthan/Nepal (1965-10-14) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic: Mating type (+); Mating group I A **Other strain no.:** N-13-1 **References:** 208, 209, 210, 515, 1035
- 67 **History:** < Ichimura, Terunobu **Locality:** Damchan/Nepal (1965-11-05) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pool soil) **Characteristics:** Heterothallic: Mating type (+); Mating group I B **Gene data:** CpMADS1 mRNA (AB091476); CpPI (AB012698); ESTs (cDNA) (AU294770-5959); PR-IP (two subunits) (AB000908-9) **Other strain no.:** N-31-19 **References:** 8, 72, 210, 515, 619, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 952, 975, 976, 1035
- 68 **History:** < Ichimura, Terunobu **Locality:** Damchan/Nepal (1965-11-05) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pool soil) **Characteristics:** Heterothallic: Mating type (-); Mating group I B **Gene data:** CpMADS1 mRNA (AB091476); CpPI (AB012698); ESTs (cDNA) (AU294770-5959); PR-IP (two subunits) (AB000908-9) **Other strain no.:** N-31-24 **References:** 8, 72, 210, 515, 619, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 841, 842, 843, 952, 975, 976, 1035
- 69 **History:** < Watanabe, Makoto M. **Locality:** Lake Teganuma/Chiba/Japan (1974-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater **Characteristics:** Heterothallic: Mating type (+); Mating group II B **Other strain no.:** TG-2-21 **References:** 515, 1035, 1040, 1041
- 70 **History:** < Watanabe, Makoto M. **Locality:** Lake Teganuma/Chiba/Japan (1974-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater **Characteristics:** Heterothallic: Mating type (-); Mating group II B **Other strain no.:** TG-2-22 **References:** 515, 1035, 1040, 1041
- 261 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type (+); Mating group II C **Other strain no.:** IB-8-14 **References:** 515, 1035, 1040, 1041
- 262 **History:** < Ichimura, Terunobu **Other collection strain no.:** IAM C-441(= C-577) **Locality:** Piuthan/Nepal (1965-10-14) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Reservoir sediment) **Characteristics:** Heterothallic; Mating type (-); Mating group IA **Other strain no.:** N-13-4 **References:** 208, 209, 210, 515, 1035

Closterium pleurodermatum W. et G. S. West

- 449 **History:** < IAM (1983) **Other collection strain no.:** IAM C-518 **Locality:** Iriomote Isl./Okinawa/Japan (1973-03-25) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 60-70 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Gene data:** 18S rRNA (AF352238) **Other strain no.:** R-11-20 **References:** 58, 515

Closterium praelongum Brébisson var. *brevius* (Nordstedt) Krieger

- 450 **History:** < IAM (1983) **Other collection strain no.:** IAM C-447 (= C-578) **Locality:** Nawakot/Nepal (1965-10-12) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-12-3 **References:** 209, 210, 215, 515
- 451 **History:** < Watanabe, Masayuki **Locality:** Billethadi/Nepal (1965-12-03) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-78-8 **References:** 210, 515

Closterium pusillum Hantzsch var. *maius* Raciborski

- 185** **History:** < IAM (1983) **Other collection strain no.:** IAM C-449 **Locality:** Billethadi/Nepal (1965-12-03) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic **Gene data:** 18S rRNA (AF352235) **Other strain no.:** N-79-19 **References:** 58, 210, 215, 515

Closterium rostratum Ehrenberg ex Ralfs var. *subrostratum* (Krieger) KriegerSyn. *Closterium subrostratum* Krieger

- 338** **History:** < IAM (1983) **Other collection strain no.:** IAM C-446 (= C-579) **Locality:** Kathmandu/Nepal (1968-05-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** N-90-55 **References:** 209, 210, 215, 515

Closterium selenastrum M. Watanabe

- 339** **History:** < Watanabe, Masayuki **Locality:** Mt. Yonhadake/Okinawa/Japan (1972-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Rush field soil) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352242) **Other strain no.:** R-9-40 **References:** 58, 221, 515, 1025, 1026
- 340** **History:** < Watanabe, Masayuki **Locality:** Mt. Yonhadake/Okinawa/Japan (1972-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Rush field soil) **Characteristics:** Homothallic **Other strain no.:** R-9-42 **References:** 221, 515, 1026

Closterium spinosporum Hodgetts var. *crassum* M. Watanabe

- 186** **History:** < Watanabe, Masayuki **Locality:** Lake Akan/Hokkaido/Japan (1973-09-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain; Homothallic **Other strain no.:** AK-46 **References:** 221, 515, 1025, 1026
- 187** **History:** < IAM (1983) **Other collection strain no.:** IAM C-461 **Locality:** Mt. Yonhadake/Okinawa/Japan (1973-06-16) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Rush field soil) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352241) **Other strain no.:** R-9-13 **References:** 58, 221, 515, 1025, 1026
- 341** **History:** < Watanabe, Masayuki **Locality:** Mt. Yonhadake/Okinawa/Japan (1972-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Rush field soil) **Characteristics:** Homothallic **Other strain no.:** R-9-12 **References:** 221, 515, 1025, 1026

Closterium spinosporum Hodgetts var. *malaysiense* M. Watanabe

- 188** **History:** < Watanabe, Masayuki **Locality:** Penang/Malaysia (1974-01-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type (+) **Gene data:** 18S rRNA (AF352227) **Other strain no.:** M-10-1 **References:** 58, 515, 1025, 1026
- 189** **History:** < Watanabe, Masayuki **Locality:** Penang/Malaysia (1974-01-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type (-) **Other strain no.:** M-10-4 **References:** 515, 1025, 1026

Closterium spinosporum Hodgetts var. *ryukyense* M. Watanabe

- 191** **History:** < Watanabe, Masayuki **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352240) **Other strain no.:** R-12-3 **References:** 58, 515, 1025, 1026
- 192** **History:** < Watanabe, Masayuki **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** R-12-6 **References:** 515, 1025, 1026

- 193** **History:** < Watanabe, Masayuki **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Giang cell **Other strain no.:** R-12-2G3 **References:** 515, 1025

Closterium spinosporum Hodgetts var. *spinosporum*

- 194** **History:** < Watanabe, Masayuki **Locality:** Tsukude/Aichi/Japan (1972-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CAM; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352224) **Other strain no.:** A-2-22 **References:** 58, 221, 515, 1025, 1026
- 195** **History:** < Watanabe, Masayuki **Locality:** Tsukude/Aichi/Japan (1972-10-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** A-7-3 **References:** 515, 1026
- 196** **History:** < Watanabe, Masayuki **Locality:** Tsukude/Aichi/Japan (1972-10-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** A-7-6 **References:** 515, 1025
- 197** **History:** < Watanabe, Masayuki **Locality:** Tsukude/Aichi/Japan (1972-10-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** A-13-4 **References:** 515, 1025, 1026

Closterium tumidum Johnson

- 198** **History:** < IAM (1983) **Other collection strain no.:** IAM C-450 (= C-580) **Locality:** Billethadi/Nepal (1965-12-03) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352234) **Other strain no.:** N-79-11 **References:** 58, 209, 210, 215, 515

Closterium venus Kützing ex Ralfs

- 199** **History:** < Watanabe, Masayuki **Locality:** Kathmandu/Nepal (1968-**-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Gene data:** 18S rRNA (AF352236) **Other strain no.:** N-90-48 **References:** 58, 515

Closterium wallichii Turner

- 200** **History:** < IAM (1983) **Other collection strain no.:** IAM C-451 **Locality:** Kitamoto/Saitama/Japan (1969-01-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352243) **Other strain no.:** S-1-0 **References:** 58, 215, 515
- 201** **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-09-26) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic **Other strain no.:** F60-21 **Reference:** 515
- 202** **History:** < Watanabe, Masayuki **Locality:** Ghasa/Nepal (1965-11-23) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** N-63-0 **References:** 210, 515

COCCOMYXA : Chlorophyceae

Coccomyxa dispar Schmidle

- 2252** **History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM C-137 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488787); 18S rRNA (AB488788) **Other strain no.:** Ishikawa U-109
- 2353** **History:** < IAM (2007) < Holm-Hansen, O. **Other collection strain no.:** IAM C-168 **Locality:** Cape Royds/Antarctica **Isolator:** Holm-Hansen, O. **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488794); 18S rRNA (AB488795) **Other strain no.:** Holm-Hansen R-1

COCHLODINIUM : Dinophyceae*Cochlodinium polykrikoides* Margalef

- 1995** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW9 **Remarks:** Difficult to transport
- 2409** **History:** < Iwataki, Mitsunori **Locality:** Tachibana Bay/Nagasaki/Japan **Isolator:** Iwataki, Mitsunori **Identified by:** Iwataki, Mitsunori **States:** Unialgal **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Gene data:** 28S rRNA (AB288384) **Remarks:** Difficult to transport

Cochlodinium sp.

- 2327** **History:** < Sawaguchi, Tomohiro **Locality:** Shimoda Harbor/Shizuoka/Japan (1985-05-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 15°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** SMHD-7 **Remarks:** Difficult to transport

COELASTRUM : Chlorophyceae*Coelastrum astroideum* De Notaris

- 129** **History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 56 (TAN-56-7) **Reference:** 515 **Remarks:** Cryopreserved
- 130** **History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-08-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 51-9A (TAN-51-9A) **Reference:** 515 **Remarks:** Cryopreserved
- 244** **History:** < Watanabe, Masayuki **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Reference:** 515 **Remarks:** Cryopreserved
- 342** **History:** < TAC **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater **Other strain no.:** TAC 54 (TAN-54-1) **Reference:** 515 **Remarks:** Cryopreserved

Coelastrum morus W. et G. S. West

- 231** **History:** < Kasai, Fumie **Locality:** Hachijo Isl./Tokyo/Japan (1984-04-18) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F78-4-2 **References:** 333, 515 **Remarks:** Cryopreserved

Coelastrum proboscideum Bohlin

- 131** **History:** < IAM (1983) **Other collection strain no.:** IAM C-344 **Locality:** Near Tukcha/Nepal (1965-11-23) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Dry river bed) **Other strain no.:** N-63-20 **References:** 215, 515, 1047 **Remarks:** Cryopreserved

Coelastrum reticulatum (Dangeard) Senn

- 132** **History:** < TAC **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 53-5A (TAN-53-5A) **Reference:** 515 **Remarks:** Cryopreserved

Coelastrum reticulatum (Dangeard) Senn var. *reticulatum*

- 245** **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-10-04) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F63-3 **Reference:** 515 **Remarks:** Cryopreserved

COMPSOPOGON : Compsopogonophyceae*Compsopogon coeruleus* (Balbis) Montagne

- 1461** **History:** < Higa, Atsushi **Locality:** Higashinire River/Ibaraki/Japan (2004-05-16) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; VU (Ref. 474) **Other strain no.:** HNC2
- 1462** **History:** < Higa, Atsushi **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; VU (Ref. 474) **Other strain no.:** KWC12 **Reference:** 127
- 1734** **History:** < Higa, Atsushi **Locality:** Kin River/Kagoshima/Japan (2005-05-03) **Isolator:** Higa, Atsushi **Identified by:** Arai, Shogo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; VU (Ref. 474) **Other strain no.:** AMN5

COMPSOPOGONOPSIS : Compsopogonophyceae*Compsopogonopsis japonica* Chihara

- 1463** **History:** < Kawachi, Masanobu **Locality:** Ishigaki Isl./Okinawa/Japan (2001-10-09) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 20 D **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** ISI-1 **Reference:** 127

COOLIA : Dinophyceae*Coolia monotis* Meunier

- 343** **History:** < Suda, Shoichiro **Locality:** Hachijo Isl./Tokyo/Japan (1984-04-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 15-22 µmol/m²/s; 3 M **Habitat:** Marine (Seawater) **Other strain no.:** 8-1 **Remarks:** Unstable; Difficult to transport
- 615** **History:** < Murata, Michio **Locality:** Motobu/Okinawa/Japan (1993-06-06) **Isolator:** Kobayashi, Hidetaka **Identified by:** Fukuyo, Yasuo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Plant) **Characteristics:** Toxic **Other strain no.:** CM-01 **Remarks:** Toxic; Difficult to transport
- 1833** **History:** < TKB **Locality:** Naha/Okinawa/Japan (2005-01-22) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-260 **Remarks:** Difficult to transport

COSMARIUM : Charophyceae*Cosmarium askenasyi* Schmidle

- 768** **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-769 **Other strain no.:** 88-8-37
- 769** **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-768 **Other strain no.:** 88-8-38
- 770** **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-771 **Other strain no.:** 88-8-39
- 771** **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-770 **Other strain no.:** 88-8-40

Cosmarium contractum Kirchner

- 133 **History:** < TAC **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 53-2 (TAN-53-2) **Reference:** 515

Cosmarium dilatatum Lütke Müller in Järnefeld et Grönblad

- 839 **History:** < Gontcharov, A. **Locality:** Ryoanji Temple/Kyoto/Japan (1998-06-30) **Isolator:** Gontcharov, A. **Identified by:** Gontcharov, A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** (Freshwater) **Reference:** 114

Cosmarium hians Borge

- 452 **History:** < Watanabe, Michiko H. **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** YAMA-Cos-4 **Reference:** 515

COSMOCLADIUM : Charophyceae*Cosmocladium constrictum* (Archer) Archer

- 248 **History:** < Kasai, Fumie **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F75-2 **Reference:** 515

CRYPTOGLENA : Euglenophyceae*Cryptoglena pigra* Ehrenberg

- 1407 **History:** < TKB **Locality:** Tsukuba, Kuribara/Ibaraki/Japan (2004-09-08) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO; DY-V; 20°C; 40-50 µmol/m²/s; 20 D **Habitat:** Freshwater **Other strain no.:** TKB-137 (NY0156)

Cryptoglena skujae Marin et Melkonian

Syn. *Phacus agilis* Skuja

- 387 **History:** < Watanabe, Makoto M. **Locality:** Kashiwa/Chiba/Japan (1986-09-16) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** MAF-6; AF-6; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** PhD-3 **Reference:** 128

CRYPTOMONAS : Cryptophyceae*Cryptomonas acuta* Butcher

- 697 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 979/10 **Locality:** N.Wales/U.K. **Isolator:** Butcher, R. W. **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240956); Nuclear actin-1 (AB126018); Nuclear actin-2 (AB126019) **Other strain no.:** M01 **Reference:** 74

Cryptomonas irregularis Butcher

- 698 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 979/7 **Locality:** Plymouth/Devon/U.K. (1960-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Other strain no.:** M04 **Reference:** 74

Cryptomonas ovata Ehrenberg

- 274 **History:** < Ishimitsu, Mayumi **Locality:** Tsuchiura/Ibaraki/Japan (1982-10-28) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB073109); 18S rRNA (AB240952); *coxI* (AB009419) **Other strain no.:** #00046 **References:** 127, 190, 224, 239, 259, 933

- 275** **History:** < Ishimitsu, Mayumi **Locality:** Tsuchiura/Ibaraki/Japan (1982-09-10) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00042 **References:** 259, 333

Cryptomonas paramaecium (Ehrenberg) Hoef-Emden et Melkonian
Syn. *Chilomonas paramecium* Ehrenberg

- 715** **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1985-11-10) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CYT; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Characteristics:** Heterotrophic **Gene data:** 18S rRNA (AB073108); 18S rRNA (AB240955) **Other strain no.:** #00210 **References:** 73, 127, 933
- 766** **History:** < Erata, Mayumi **Locality:** Lake Jusanko/Aomori/Japan (1987-07-**) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CYT; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Brackish (Water) **Characteristics:** Heterotrophic **Other strain no.:** #00318
- 767** **History:** < Erata, Mayumi **Locality:** Lake Jusanko/Aomori/Japan (1987-07-**) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CYT; 15°C; 8-15 µmol/m²/s; 2 M **Habitat:** Brackish (Water) **Characteristics:** Heterotrophic **Other strain no.:** #00319

Cryptomonas platyuris Skuja

- 276** **History:** < Ishimitsu, Mayumi **Locality:** Higashihiroshima/Hiroshima/Japan (1983-08-23) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00096 **References:** 127, 190, 259
- 344** **History:** < Ishimitsu, Mayumi **Locality:** Higashihiroshima/Hiroshima/Japan (1983-08-23) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00103 **Reference:** 259

Cryptomonas rostratiformis Skuja

- 277** **History:** < Ishimitsu, Mayumi **Locality:** Hongo/Hiroshima/Japan (1983-10-19) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB240953) **Other strain no.:** #00148 **References:** 127, 259
- 278** **History:** < Ishimitsu, Mayumi **Locality:** Hongo/Hiroshima/Japan (1983-10-19) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00154 **Reference:** 259
- 345** **History:** < Ishimitsu, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1982-07-31) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00006 **Reference:** 259
- 1327** **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1986-11-**) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 15°C; 35-50 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00266

Cryptomonas tetrapyrenoidosa Skuja

- 279** **History:** < Ishimitsu, Mayumi **Locality:** Higashihiroshima, Hachihonmatsu/Hiroshima/Japan (1983-08-23) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AM051199); ITS-5.8S rRNA (AJ715455); *rbcL* (AM051220) **Other strain no.:** #00099 **References:** 190, 259
- 280** **History:** < Ishimitsu, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1982-07-31) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Gene data:** 18S rRNA (AB240954) **Other strain no.:** #00014 **References:** 259, 333
- 281** **History:** < Ishimitsu, Mayumi **Locality:** Minamiizu/Shizuoka/Japan (1983-05-13) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00073 **Reference:** 259

- 282** **History:** < Ishimitsu, Mayumi **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (1982-09-10) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00056 **References:** 28, 29, 30, 127, 259, 424, 440, 441
- 346** **History:** < Ishimitsu, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1982-07-31) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00009 **Reference:** 259
- 347** **History:** < Ishimitsu, Mayumi **Locality:** Minamiizu/Shizuoka/Japan (1983-05-13) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00072 **Reference:** 259
- 348** **History:** < Ishimitsu, Mayumi **Locality:** Higashihiroshima/Hiroshima/Japan (1983-08-23) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00109 **Reference:** 259

CYANIDIOSCHYZON : Cyanidiophyceae

Cyanidioschyzon merolae De Luca, Taddei et Varano

- 1332** **History:** < Kuroiwa, Tsuneyoshi **Locality:** Sardinia Isl./Italy **Isolator:** Toda, Kyoko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** M-Allen; 37°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Hot spring (Water) **Characteristics:** Acidophilic; Thermophilic **Gene data:** Mitochondrial DNA (D89861); Nuclear DNA (chromosome 1-20) (AP006483-502); Plastid DNA (AB002583); *aladh* (AB159599); *atpC* (AB159600); *gnd* (AB159595); *gnd* (AB159596); Hsp70 (AB095185); actin (AB095179); Hsp90 (AB095186); *pgk* (AB159598); *psbO* (AB159597); α -tubulin (AB095180); RPB1 (AB095187); β -tubulin (AB095181); RpS8b (AB095188); EF-1 α (AB095182); TPI (AB095189); EF-2 (AB095183); VatA (AB095190); GAPDH (AB095184); VatB (AB095191) **Other strain no.:** 10D **References:** 127, 460, 660, 661, 662, 714, 716
- 1804** **History:** < Tanaka, Kan **Locality:** Sardinia Isl./Italy **Isolator:** Toda, Kyoko **States:** Unialgal; Clonal; Axenic **Culture conditions:** M-Allen; 37°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Hot spring **Characteristics:** Acidophilic; Pigmentation paler than wild type **Gene data:** Mitochondrial DNA (D89861); Nuclear DNA (chromosome 1-20) (AP006483-502); Plastid DNA (AB002583); Chromosome unassigned contigs (AP006600-614) **Other strain no.:** MO
- 1805** **History:** < Tanaka, Kan **Locality:** Sardinia Isl./Italy **Isolator:** Toda, Kyoko **States:** Unialgal; Clonal; Axenic **Culture conditions:** M-Allen (+ U); 37°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Hot spring **Characteristics:** Acidophilic; Mutant (Uracil-required; 5-FOA tolerant) **Gene data:** Mitochondrial DNA (D89861); Nuclear DNA (chromosome 1-20) (AP006483-502); Plastid DNA (AB002583); Chromosome unassigned contigs (AP006600-614) **Other strain no.:** M4
- 1806** **History:** < Tanaka, Kan **Locality:** Sardinia Isl./Italy **Isolator:** Toda, Kyoko **States:** Unialgal; Clonal; Axenic **Culture conditions:** M-Allen (+ U); 37°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Hot spring **Characteristics:** Acidophilic; Mutant (Uracil-required; 5-FOA tolerant) **Gene data:** Mitochondrial DNA (D89861); Nuclear DNA (chromosome 1-20) (AP006483-502); Plastid DNA (AB002583); Chromosome unassigned contigs (AP006600-614) **Other strain no.:** HUT1-1

CYANIDIUM : Cyanidiophyceae

Cyanidium caldarium (Tilden) Geitler

- 2137** **History:** < IAM (2007) < Nagashima, Hideyuki (1991) **Other collection strain no.:** IAM R-11 **Locality:** Nikko-Yumoto Hot spring/Tochigi/Japan **Isolator:** Fukuda, I. **Identified by:** Fukushima, Hiroshi; Nagashima, Hideyuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** M-Allen; 37°C; 13-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Hot spring **Other strain no.:** RK-1 **References:** 125, 549, 715

CYANOPHORA : Glaucophyceae

Cyanophora paradoxa Korshikov

- 547** **History:** < Kikuchi, Tadatoshi < UTEX **Other collection strain no.:** UTEX 555 **Locality:** U.K. **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Lake water) **Characteristics:** Alkaline water **Gene data:** FtsZ (AB183875); *psaD* (AJ132477) **References:** 225, 399, 644, 807, 851

- 763** **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1987-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CSi; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Other strain no.:** S117 **Reference:** 127

Cyanophora tetracyanea Korshikov

- 764** **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1987-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CSi; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Other strain no.:** S118 **Reference:** 127

CYCLOTELLA : Bacillariophyceae

Cyclotella meneghiniana Kützting

- 803** **History:** < Kasai, Fumie **Locality:** Mitsukaido/Ibaraki/Japan (1993-05-03) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Other strain no.:** 506-26 **Reference:** 329
- 804** **History:** < Kasai, Fumie **Locality:** Mitsukaido/Ibaraki/Japan (1993-05-18) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Other strain no.:** 518-39 **Reference:** 329
- 805** **History:** < Kasai, Fumie **Locality:** Mitsukaido/Ibaraki/Japan (1993-06-13) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Other strain no.:** 613-2 **Reference:** 329

CYLINDROCYSTIS : Charophyceae

Cylindrocystis brebissonii (Ralfs) De Bary var. *brebissonii*

- 349** **History:** < IAM **Other collection strain no.:** IAM C-354 **Locality:** Lake Ohnuma/Hokkaido/Japan (1967-06-15) **Isolator:** Haga, Masaru **Identified by:** Haga, Masaru **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** 6801-68 **Reference:** 515

Cylindrocystis crassa De Bary

- 2283** **History:** < IAM (2007) **Other collection strain no.:** IAM C-334 **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Cylindrocystis sp.

- 2284** **History:** < IAM (2007) **Other collection strain no.:** IAM C-630 (= C-382) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M
- 2301** **History:** < IAM (1983) **Other collection strain no.:** IAM C-353 **Locality:** Ebetsu/Hokkaido/Japan (1967-05-24) **Isolator:** Haga, Masaru **Identified by:** Haga, Masaru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (High moor pool soil) **Characteristics:** Homothallic **Other strain no.:** 6801-15
- 2302** **History:** < IAM (1983) **Other collection strain no.:** IAM C-351 **Locality:** Ebetsu/Hokkaido/Japan (1967-05-24) **Isolator:** Haga, Masaru **Identified by:** Haga, Masaru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (High moor pool soil) **Characteristics:** Homothallic **Other strain no.:** 6801-01
- 2303** **History:** < IAM (1983) **Other collection strain no.:** IAM C-350 **Locality:** Lake Akan/Hokkaido/Japan (1967-03-14) **Isolator:** Haga, Masaru **Identified by:** Haga, Masaru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** 6707-01

CYLINDROSPERMOPSIS : Cyanophyceae

Cylindrospermopsis raciborskii (Woloszynska) Seenayya et S. Raju

- 930** **History:** < Otsuka, Shigeto **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (2000-07-04) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** CYL1

- 991 **History:** < Yongmanitchai, W. **Locality:** Gonoike Pond/Ibaraki/Japan (2001-07-**) **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 23°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115487) **Other strain no.:** KJA1 **Reference:** 46
- 992 **History:** < Yongmanitchai, W. **Locality:** Gonoike Pond/Ibaraki/Japan (2001-07-**) **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 23°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115488) **Other strain no.:** KJA2 **Reference:** 46
- 993 **History:** < Yongmanitchai, W. **Locality:** Gonoike Pond/Ibaraki/Japan (2001-07-**) **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 23°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115489) **Other strain no.:** KJA3 **Reference:** 46
- 994 **History:** < CCMP **Other collection strain no.:** CCMP 1973 **Locality:** Florida/U.S.A. (1999-10-03) **Isolator:** Andersen, Robert A. **Identified by:** Andersen, Robert A. **Culture conditions:** CT; 23°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater
- 1040 **History:** < Yongmanitchai, W. **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 23°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115485) **Other strain no.:** CRJ1 **Reference:** 46
- 1041 **History:** < Yongmanitchai, W. **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 23°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115486) **Other strain no.:** CRJ2 **Reference:** 46
- 1259 **History:** < Sano, Tomoharu **Locality:** Gonoike Pond/Ibaraki/Japan (2002-08-30) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** GOU-CR-1
- 1260 **History:** < Sano, Tomoharu **Locality:** Gonoike Pond/Ibaraki/Japan (2002-08-30) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** GOU-CR-2
- 1261 **History:** < Sano, Tomoharu **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** SHI-CR-3
- 1262 **History:** < Sano, Tomoharu **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 45-55 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** SHI-CR-5

CYLINDROSPERMUM : Cyanophyceae*Cylindrospermum muscicola* Kützing

- 2102 **History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-32 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Maruyama, Ko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M **Other strain no.:** Ishikawa X2W-N-F

CYLINDROTHECA : Bacillariophyceae*Cylindrotheca closterium* (Ehrenberg) Reimann et Lewin

- 1045 **History:** < Mayama, Shigeki **Locality:** Tskuba University, Shimoda Marine Research Center/Shizuoka/Japan (2001-05-10) **Isolator:** Takahashi, Yuko **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Epilithic

Cylindrotheca fusiformis Reimann et Lewin

- 1046 **History:** < Mayama, Shigeki < CCMP **Other collection strain no.:** CCMP 343 **States:** Unialgal **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic

Cylindrotheca sp.

- 1047** **History:** < Mayama, Shigeki **Locality:** Futtsu/Chiba/Japan (2001-05-28) **Isolator:** Takahashi, Yuko **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 2 M **Habitat:** Marine (Plant) **Characteristics:** Epiphytic

DESMODESMUS : Chlorophyceae*Desmodesmus abundans* (Kirchner) Hegewald

Syn. *Scenedesmus abundans* (Kirchner) Chodat

- 685** **History:** < Katagiri, Masayuki < IAM **Other collection strain no.:** IAM C-101 **Locality:** Japan **Isolator:** Lewin, Ralph A. **Identified by:** Confirmed at NIES by DNA sequencing **Formerly identified as:** *Chlorella fusca* Shihira et Krauss var. *fusca* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Characteristics:** Authentic strain **References:** 388, 389, 400, 451, 452, 515, 1093

Desmodesmus serratus (Corda) Friedl et Hegewald

Syn. *Scenedesmus serratus* (Corda) Bohlin

- 97** **History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-08-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 51-3C (TAN-51-3C) **Reference:** 515 **Remarks:** Cryopreserved

Desmodesmus sp.

- 96** **History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-08-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki; Re-identified at NIES by DNA sequencing **Formerly identified as:** *Scenedesmus quadricauda* (Turpin) Brébisson sensu Chodat **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Gene data:** *atpB* (AB084305); *coxI* (D63658); *coxI* (AB011524); *psaB* (AB084339); *rbcL* (AB084332) **Other strain no.:** TAC 51-3B (TAN-51-3B) **References:** 171, 515, 564, 668, 1023, 1112 **Remarks:** Cryopreserved
- 2277** **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-70 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi; Re-identified at NIES by DNA sequencing **Formerly identified as:** *Scenedesmus nanus* Chodat **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M
- 2278** **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-71 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi; Re-identified at NIES by DNA sequencing **Formerly identified as:** *Scenedesmus nanus* Chodat **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Desmodesmus subspicatus (Chodat) Hegewald et Schmidt

Syn. *Scenedesmus gutwinskii* Chodat var. *heterospina* Bodrogközy

- 797** **History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) susceptible **Other strain no.:** B8-7 **Reference:** 327
- 798** **History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) susceptible **Other strain no.:** B8-16 **Reference:** 327
- 799** **History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) susceptible **Other strain no.:** B8-23 **Reference:** 327
- 800** **History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) tolerant **Other strain no.:** B3-12 **Reference:** 327

- 801** **History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) tolerant **Other strain no.:** B3-15 **Reference:** 327
- 802** **History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) tolerant **Other strain no.:** B12-2 **References:** 326, 327, 1115, 1116, 1117, 1118

DESMOTETRA : Chlorophyceae*Desmotetra delicata* (S. Watanabe) S. WatanabeSyn. *Chlorosarcinopsis delicata* S. Watanabe

- 153** **History:** < Watanabe, Shin **Locality:** Kyoto/Japan (1975-04-07) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Soil) **Characteristics:** Authentic strain **Other strain no.:** KUC3-6 **References:** 515, 1073

DEVELOPAYELLA : Bigyromonadea*Developayella elegans* Tong

- 1388** **History:** < TKB **Locality:** Chiba Harbor/Chiba/Japan (2002-11-29) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-017 (NY0124)

DICTYOCHLOROPSIS : Chlorophyceae*Dictyochloropsis irregularis* Nakano et Isagi

- 378** **History:** < Nakano, Taketo **Locality:** Akkeshi/Hokkaido/Japan (1982-07-25) **Isolator:** Isagi, Yuji **Identified by:** Nakano, Taketo **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Bark) **Characteristics:** Aerial on the surface of the bark of *Picea jezoensis* **Other strain no.:** CCHU-2227 **References:** 515, 592 **Remarks:** Cryopreserved

DICTYOSPHAERIUM : Trebouxiophyceae*Dictyosphaerium pulchellum* H. C. Wood

- 453** **History:** < Niiyama, Yuko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1988-12-11) **Isolator:** Yanai, Takanori **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Reference:** 515

DIMORPHOCOCCUS : Chlorophyceae*Dimorphococcus lunatus* A. Brown

- 134** **History:** < Kasai, Fumie **Locality:** Ozegahara/Gunma/Japan (1983-08-29) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 4-10 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Bog water) **Other strain no.:** 34-5 **Reference:** 515
- 135** **History:** < Kasai, Fumie **Locality:** Tsuchiura/Ibaraki/Japan (1983-10-03) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 4-10 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** F-61-4 **References:** 515, 1047

DINOBYRYON : Chrysophyceae**Dinobryon divergens** Imhof

- 284** **History:** < Kasai, Fumie **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6/2; 15°C; 20-30 µmol/m²/s; 4 M **Habitat:** Freshwater (Lake water) **Other strain no.:** F-75-26

DITYLUM : Bacillariophyceae**Ditylum brightwellii** (T. West) Grunow et Heurck

- 350** **History:** < Sawaguchi, Tomohiro **Locality:** Bentenjima/Shizuoka/Japan (1985-05-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 6-12 µmol/m²/s; 2M **Habitat:** Marine (Seawater) **Other strain no.:** KBB-10

DOCIDIUM : Charophyceae**Docidium undulatum** Bailey var. *undulatum*

- 285** **History:** < Kasai, Fumie **Locality:** Ozegahara/Fukushima/Japan (1983-08-29) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SW; 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 41-11

DUNALIELLA : Chlorophyceae**Dunaliella bioculata** Butcher

- 2253** **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX (1983-1986) **Other collection strain no.:** IAM C-523; CCAP 19/4; UTEX LB 199; Prague 281a; SAG 19-4 **Locality:** Russia **Isolator:** Mainx, F. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Salt water **Characteristics:** Authentic strain **References:** 32, 824, 825

Dunaliella parva Lerche

- 2254** **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX (1980?) **Other collection strain no.:** IAM C-527; UTEX 1983 **Isolator:** Ben-Amotz, A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 8-15 µmol/m²/s; 3 M **Reference:** 907

Dunaliella peircei Nicolai

- 2255** **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX (1980?) **Other collection strain no.:** IAM C-528; CCAP 19/2; SAG 19-2; UTEX LB 2192; IUCC 295 **Locality:** Lake Marina/California/U.S.A. **Isolator:** Nicolai, E. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 8-15 µmol/m²/s; 3 M

Dunaliella primolecta Butcher

- 2256** **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX (1980?) **Other collection strain no.:** IAM C-525; CCAP 11/34; UTEX LB 1000; SG 183.30; UTEX L 2355 **Locality:** Plymouth/Devon/U.K. **Isolator:** Gross **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 8-15 µmol/m²/s; 3 M **References:** 717, 1123

Dunaliella salina (Dunal) Teodoresco

- 2257** **History:** < IAM (2007) < Hara, Yoshiaki (1990) < UTEX (1980?) **Other collection strain no.:** IAM C-522; CCAP 19/3; SAG 19-3; UTEX LB 200 **Locality:** EUN (Soviet Union) **Isolator:** Mainx, F. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Salt water **References:** 432, 907

Dunaliella tertiolecta Butcher

- 2258** **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX **Other collection strain no.:** IAM C-524; UTEX LB 999; CCAP 19/6B **Locality:** Oslofjord/Norway **Isolator:** Foyn, B. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 8-15 µmol/m²/s; 3 M **References:** 27, 876, 907, 908, 1123

DYSNECTES : Metamonada *incertae sedis***Dysnectes brevis** Yubuki, Inagaki, Nakayama et Inouye

- 1843 History:** < TKB **Locality:** Yamakawa Harbor/Kagoshima/Japan (2005-03-15) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + mTYGM-9 + Rice; SUY1/10 + mTYGM-9 + Rice; 15°C; 1 M **Habitat:** (Seawater) **Characteristics:** Heterotrophic; Benthic; Authentic strain **Other strain no.:** TKB-272 **Reference:** 1138

ECHINOSPHAERIDIUM : Chlorophyceae**Echinospaeridium nordstedtii** Lemmermann

- 137 History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F-56-3 **References:** 333, 515, 1047

EMILIANIA : Prymnesiophyceae**Emiliana huxleyi** (Lohmann) Hay et Mohler

- 837 History:** < Kawachi, Masanobu **Locality:** Great Barrier Reef/Australia (1990-11-**) **Isolator:** Inouye, Isao **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** EhSEP2 (AB205027) **Other strain no.:** EH-2 **References:** 55, 270, 673, 674, 675, 821, 822, 844, 845, 846, 847, 863, 864, 867, 868 **Remarks:** Unstable
- 1310 History:** < Kawachi, Masanobu **Locality:** South Pacific Ocean (2002-08-11) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Now as naked cells **Other strain no.:** MH 9
- 1311 History:** < Kawachi, Masanobu **Locality:** Bearing Sea (2002-08-02) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 15°C; 10-18 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 27
- 1312 History:** < Kawachi, Masanobu **Locality:** Bearing Sea (2002-08-02) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 15°C; 10-18 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 28
- 1313 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 74
- 1314 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** YK3-87

EPIPYXIS : Chrysophyceae**Epipyxis glabra** (Matvienko) Hilliard

- 1826 History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2004-05-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Mixotrophic **Other strain no.:** TKB-124

EREMOSPHERA : Trebouxiophyceae**Eremosphaera gigas** (Archer) Fott et Kalina

- 379 History:** < IAM **Other collection strain no.:** IAM C-338 **Locality:** Osaka/Japan (1968-11-10) **Isolator:** Ichimura, Terunobu **Identified by:** Nakano, Taketo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Other strain no.:** O-2 **References:** 215, 515, 1047 **Remarks:** Cryopreserved

Eremosphaera viridis De Bary

- 380** **History:** < Kasai, Fumie **Locality:** Ozegahara/Fukushima/Japan (1983-08-30) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond water) **Other strain no.:** 43-23 **Reference:** 515
- 643** **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-04-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 92-604-E-5 **Reference:** 515
- 644** **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-04-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 92-604-E-3 **Reference:** 515

EUASTRUM : Charophyceae*Euastrum diverrucosum* Gontcharov et M. M. Watanabe

Syn. *Euastrum englerii* Schmidle var. *madagascariense* Bourrelly et Mangium

- 840** **History:** < Gontcharov, A. **Locality:** Hirosawa-ike Pond/Kyoto/Japan (1998-06-30) **Isolator:** Gontcharov, A. **Identified by:** Gontcharov, A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 22°C; 55-70 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond water) **Reference:** 114

Euastrum turgidum Wallich

- 772** **History:** < Kasai, Fumie **Locality:** Ishigaki Isl./Okinawa/Japan (1984-03-21) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-773 **Other strain no.:** 84-15-75
- 773** **History:** < Kasai, Fumie **Locality:** Ishigaki Isl./Okinawa/Japan (1984-03-21) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-772 **Other strain no.:** 84-15-76

EUDORINA : Chlorophyceae*Eudorina cylindrica* Korshikov

- 722** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1197 **Locality:** Iowa/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic **Gene data:** *atpB* (AB014033); *psaA* (AB044210); *psaB* (AB044441); *psbC* (AB044493); *rbcL* (D86833) **References:** 515, 647, 663, 666

Eudorina elegans Ehrenberg

- 351** **History:** < Suda, Shoichiro **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic **Other strain no.:** B-Eud-6 **References:** 345, 515, 877

Eudorina elegans Ehrenberg var. *carteri* (G. M. Smith) Goldstein

- 721** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1212 **Locality:** Kentucky/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic; Monoecious **Gene data:** *atpB* (AB014012); *psaA* (AB044202); *psaA* (AB044203); *psaB* (AB044438); *psbC* (AB044487); *psbC* (AB044488); *rbcL* (D88806) **References:** 515, 648, 663, 666

Eudorina elegans Ehrenberg var. *elegans*

- 456** **History:** < Nozaki, Hisayoshi **Locality:** Imperial Palace/Tokyo/Japan (1977-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Heterothallic; Mating type (male); Crosses with NIES-457 **Gene data:** *atpB* (AB014009); *psaA* (AB044199); *psaB* (AB044435); *psbC* (AB044485); *rbcL* (D63432) **Other strain no.:** A-5 (m) **References:** 515, 624, 645, 646, 663, 666, 668

- 457 **History:** < Nozaki, Hisayoshi **Locality:** Imperial Palace/Tokyo/Japan (1977-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Heterothallic; Mating type (female); Crosses with NIES-456 **Other strain no.:** I-14 (f) **References:** 515, 624
- 717 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1193 **Locality:** Indiana/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond soil) **Characteristics:** Heterothallic **Gene data:** *atpB* (AB047071); *rbcL* (D88803) **References:** 515, 648
- 718 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1195 **Locality:** Indiana/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond soil) **Characteristics:** Heterothallic **Gene data:** *atpB* (AB047072); *rbcL* (D88810) **References:** 515, 648
- 719 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1199 **Locality:** Indiana/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond soil) **Characteristics:** Heterothallic **Gene data:** *atpB* (AB047073); *rbcL* (D88804) **References:** 515, 648
- 720 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1205 **Locality:** Indiana/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic **Gene data:** *atpB* (AB014010); *psaA* (AB044200); *psaA* (AB044201); *psaB* (AB044436); *psaB* (AB044437); *psbC* (AB044486); *rbcL* (D88805) **References:** 515, 648, 663, 666

Eudorina elegans Ehrenberg var. *synoica* Goldstein

- 458 **History:** < Nozaki, Hisayoshi **Locality:** Yokohama, Midori-ku/Kanagawa/Japan (1980-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Monoecious **Gene data:** *rbcL* (D88807) **Other strain no.:** 04427-1 **References:** 515, 630, 648
- 568 **History:** < Nozaki, Hisayoshi **Locality:** Kathmandu/Nepal (1986-09-22) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Monoecious **Gene data:** *atpB* (AB014011); *rbcL* (D88808) **Other strain no.:** 7914-E-6 **References:** 515, 631, 648, 666

Eudorina illinoisensis (Kofoid) Pascher

Syn. *Pleodorina illinoisensis* Kofoid

- 459 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1984-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (female); Crosses with NIES-460 **Other strain no.:** 5607-E-14 (f) **References:** 515, 627, 659
- 460 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1984-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (male); Crosses with NIES-459 **Gene data:** *atpB* (AB014013); *psaA* (AB044198); *psaB* (AB044434); *psbC* (AB044484); *rbcL* (D63433) **Other strain no.:** 5630-E-3 (m) **References:** 515, 627, 645, 646, 663, 666
- 723 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 808 **Locality:** Missouri/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic **Gene data:** *atpB* (AB047069); *rbcL* (D88809) **References:** 515, 648
- 2259 **History:** < IAM (2007) < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-596 **Locality:** Kawasaki/Kanagawa/Japan (1994-04-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (1994-05-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (female) **Other strain no.:** 94-409-E-10
- 2260 **History:** < IAM (2007) < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-597 **Locality:** Kawasaki/Kanagawa/Japan (1994-04-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (1994-05-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (male) **Other strain no.:** 94-409-E-11

Eudorina minodii (Chodat) Nozaki et Krienitz

- 856 History:** < Nozaki, Hisayoshi **Locality:** Lake Altglobsow/Brandenburg/Germany (1997-07-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic; Dioecious; Anisogamy **Gene data:** *atpB* (AB047068); *rbcL* (AB047074); *rbcL* (AB047075); *rbcL* (AB047076) **Other strain no.:** 970728-E-8 **Reference:** 653

Eudorina peripheralis (Goldstein) T. K. Yamada

Syn. *Eudorina unicocca* G.M. Smith var. *peripheralis* Goldstein

- 726 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1218 **Locality:** British Columbia/Canada **Identified by:** Nozaki, Hisayoshi; Yamada, Toshihiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Road side ditch) **Characteristics:** Heterothallic **Gene data:** *atpB* (AB047070); *rbcL* (D86830) **References:** 515, 647

Eudorina unicocca G. M. Smith

- 724 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 737 **Locality:** Indiana/U.S.A. **Identified by:** Nozaki, Hisayoshi; Yamada, Toshihiro (Reidentify) **Formerly identified as:** *Eudorina unicocca* G. M. Smith var. *unicocca* **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Heterothallic **Gene data:** *atpB* (AB014008); *psaA* (AB044204); *psaA* (AB044205); *psaA* (AB044206); *psaB* (AB044439); *psbC* (AB044489); *psbC* (AB044490); *rbcL* (D86829) **References:** 515, 647, 663, 666
- 725 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1215 **Locality:** Ohio/U.S.A. **Identified by:** Nozaki, Hisayoshi; Yamada, Toshihiro (Reidentify) **Formerly identified as:** *Eudorina unicocca* G. M. Smith var. *unicocca* **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic **Gene data:** *atpB* (AB014007); *psaA* (AB044207); *psaA* (AB044208); *psaA* (AB044209); *psaB* (AB044440); *psbC* (AB044491); *psbC* (AB044492); *rbcL* (D63434) **References:** 515, 646, 663, 666
- 1855 History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (1999-06-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Yamada, Toshihiro (2007-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Resting spore forming **Other strain no.:** 990601-IE-5
- 1856 History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (1999-06-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Yamada, Toshihiro (2007-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Resting spore forming **Other strain no.:** 990601-IE-6
- 1857 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2005-07-20) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2007-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Resting spore forming **Other strain no.:** TKI-C-1
- 1858 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2005-07-20) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2007-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Resting spore forming **Other strain no.:** TKI-C-2

EUGLENA : Euglenophyceae*Euglena clara* Skuja

- 253 History:** < Suda, Shoichiro **Locality:** Higashiyata River/Ibaraki/Japan (1983-07-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 1 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** USI-21 **Reference:** 122

Euglena gracilis Klebs

- 47 History:** < IAM (1983) **Other collection strain no.:** IAM E-3 **Locality:** Japan **States:** Unialgal; Clonal; Axenic **Culture conditions:** HUT (semi-solid); 20°C; 4-10 µmol/m²/s; 1 M (25°C; 70-80 µmol/m²/s) **Characteristics:** Material for Vitamin B₁₂ bioassay **References:** 215, 293, 420, 1013

- 48 **History:** < IAM (1983) **Other collection strain no.:** IAM E-6; UTEX 753 **Locality:** Japan **States:** Unialgal; Clonal; Axenic **Culture conditions:** HUT (semi-solid); 20°C; 4-10 µmol/m²/s; 1 M (25°C; 70-80 µmol/m²/s) **Characteristics:** Material for Vitamin B₁₂ bioassay **Gene data:** OPRT-OMPDC (AB185845); PAC1 (AB126955); PAC2 (AB126956) **Other strain no.:** Z strain **References:** 67, 68, 69, 70, 71, 151, 152, 153, 215, 227, 242, 293, 411, 442, 449, 457, 458, 514, 536, 738, 739, 740, 741, 745, 746, 747, 749, 750, 751, 752, 853, 901, 902, 937, 963, 972, 974, 982, 991, 1120, 1121, 1122, 1132, 1140

Euglena gracilis Klebs var. *bacillaris* Pringsheim

- 49 **History:** < IAM (1983) **Other collection strain no.:** IAM E-2 (= E-10) **Locality:** Japan **States:** Unialgal; Clonal; Axenic **Culture conditions:** HUT; 20°C; 4-10 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **References:** 215, 267, 293, 615, 1013

Euglena mutabilis Schmitz

- 286 **History:** < Suda, Shoichiro **Locality:** Takatori River/Ibaraki/Japan (1984-12-11) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 1 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Bioindicator **Reference:** 128

Euglena sp.

- 2345 **History:** < Nozaki, Hisayoshi **Locality:** Lake Nojiri (depth 3.5 m)/Nagano/Japan (1992-05-14) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 10°C; 15-20 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** 92-517-E-1

Euglena viridis Ehrenberg

- 2149 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM E-11 (= E-9); UTEX 85; CCAP 1224/17A **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** HUT (semi-solid); 20°C; 40-50 µmol/m²/s; 20 D

EUNOTIA : Bacillariophyceae

Eunotia pectinalis (Kützing) Rabenhorst var. *minor* (Kützing) Rabenhorst

- 461 **History:** < Kasai, Fumie **Locality:** Mt.Tsukuba, Hatorisawa/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22 µmol/m²/s; 4 M **Habitat:** Freshwater (River water) **Other strain no.:** (1)-16 **Reference:** 917

EUTREPTIELLA : Euglenophyceae

Eutreptiella gymnastica Throndsen

- 381 **History:** < KAGAWA **Locality:** Yashima Bay/Kagawa/Japan (1982-10-14) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** *cox1* (AB000136); PAC1 (AB126953); PAC2 (AB126954) **Other strain no.:** KGW-63-1 **References:** 128, 240, 411

Eutreptiella sp.

- 2298 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1981-03-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 20 D **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** OEu
- 2305 **History:** < Suda, Shoichiro **Locality:** Onagawa Bay/Miyagi/Japan (1984-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM2; 20°C; 15-22 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** 8280G27-10
- 2325 **History:** < Suda, Shoichiro **Locality:** Harima-nada/Japan (1988-08-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** 813H-4

FIBROCAPSA : Raphidophyceae**Fibrocapsa japonica** Toriumi et Takano

- 136** **History:** < KAGAWA **Locality:** Tsuda Bay/Kagawa/Japan (1978-07-19) **Isolator:** Yuki, Katsuhisa **Identified by:** Yuki, Katsuhisa **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-20-2 **References:** 224, 448, 1004 **Remarks:** Difficult to transport
- 462** **History:** < Sawaguchi, Tomohiro **Locality:** Hasaki/Ibaraki/Japan (1987-05-09) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Red tide **Other strain no.:** HASS-8 **Reference:** 9 **Remarks:** Difficult to transport
- 560** **History:** < Honjo, Tsuneo **Locality:** Mikawa Bay/Aichi/Japan **Isolator:** Toriumi, Saburo **Identified by:** Honjo, Tsuneo **States:** Unialgal; Non-clonal; Axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport
- 605** **History:** < Iwasaki, Hideo **Locality:** Seto Inland Sea/Yamaguchi/Japan (1970-08-**) **Isolator:** Iwasaki, Hideo **Identified by:** Takano, Hideaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Reference:** 103 **Remarks:** Difficult to transport
- 1303** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-01) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** YK03-75 **Reference:** 122 **Remarks:** Difficult to transport
- 1829** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-07-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Red tide **Other strain no.:** TKB-301 **Remarks:** Difficult to transport

Fibrocapsa sp.

- 1378** **History:** < TKB **Locality:** Tokyo Bay/Kanagawa/Japan (2003-09-30) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-067 (AK-09) **Remarks:** Difficult to transport

FISCHERELLA : Cyanophyceae**Fischerella major** Gomont

- 592** **History:** < Hagiwara, Tomiji **Locality:** Yukawa Hot Spring/Iwate/Japan (1990-09-09) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-10 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **Habitat:** Hot spring (Water) **Characteristics:** Benthic **Other strain no.:** Yu-50 **References:** 175, 202, 515, 1097

Fischerella sp.

- 2354** **History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-263; TISTR 8218 **Locality:** Trat/Thailand **Isolator:** Mahakhant, Aparat **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); N-Free (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** (Soil) **Remarks:** Distribution for academic purpose only

FRAGILARIA : Bacillariophyceae**Fragilaria capucina** Desmazières

- 391** **History:** < Sawaguchi, Tomohiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1985-04-25) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Idei, Masahiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** KEB-24

GEPHYROCAPSA : Prymnesiophyceae**Gephyrocapsa oceanica** Kamptner

- 353** **History:** < Sawaguchi, Tomohiro **Locality:** Tsushima Isl./Nagasaki/Japan (1986-03-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 15-22 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Gene data:** *coxI* (AB000118) **Other strain no.:** TMCO-2 **References:** 127, 170, 398, 610

- 838** **History:** < Kawachi, Masanobu **Locality:** Mutsu Bay/Aomori/Japan (1990-11-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** GO-01 **References:** 55, 821, 864, 867 **Remarks:** Unstable
- 1000** **History:** < Kawachi, Masanobu **Other collection strain no.:** CCMP 2054 **Locality:** Miyake Isl., Chotaro-ike Pond/Tokyo/Japan (1999-11-23) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide
- 1315** **History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-01-22) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 38
- 1316** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 63
- 1317** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 64
- 1318** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 73
- 1319** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-07-29) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Now as naked cells **Other strain no.:** YK3-7
- 1328** **History:** < TKB **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-001 (ym-01)
- 1329** **History:** < TKB **Locality:** Seto Inland Sea/Okayama/Japan (2002-08-**) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-061 (ym-06)

GIRAUDYOPSIS : Chrysochromyces*Giraudyopsis* sp.

- 1862** **History:** < TKB **Locality:** Awaji Isl./Hyogo/Japan (2005-12-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-334

GLAUCOCYSTIS : Glaucophyceae*Glaucocystis nostochinearum* Itzigsohn

- 966** **History:** < Kasai, Fumie **Locality:** Renge-numa/Fukushima/Japan (1987-08-11) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** F(6)-5
- 1369** **History:** < TKB **Locality:** Kanazawa, Kakuma-cho/Ishikawa/Japan (2003-07-01) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TKB-066 (AK-08)
- 1961** **History:** < TKB **Locality:** Kanazawa/Ishikawa/Japan (2003-07-01) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 20 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TKB-333
- 2141** **History:** < IAM (2007) < UTEX (1989) **Other collection strain no.:** IAM M-124; UTEX 64; SAG B 229-1; CCAP 229/1; CAUP H2801; CAUP O101 **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 20°C; 13-18 µmol/m²/s; 3 M

GLENODINIOPSIS : Dinophyceae*Glenodiniopsis uliginosa* (Schilling) Woloszynska

- 463** **History:** < Sawaguchi, Tomohiro **Locality:** Shizukuishi/Iwate/Japan (1984-09-10) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6/2; 20°C; 40-50 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TM3D-6 **Reference:** 128 **Remarks:** Unstable; Difficult to transport

GLOEOCAPSA : Cyanophyceae*Gloeocapsa decorticans* (A. Brown) P. Richter

- 931** **History:** < Otsuka, Shigeto **Locality:** Kanagawa/Japan (2000-04-21) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Benthic **Other strain no.:** GLC2 **Reference:** 124

GLOEOMONAS : Chlorophyceae*Gloeomonas lateperforata* (Skuja) Ettl

- 464** **History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1982-11-15) **Isolator:** Kasai, Fumie **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 1/4 **Reference:** 515

GLOSSOMASTIX : Pinguiphyceae*Glossomastix chrysoplata* O'Kelly

- 1002** **History:** < Kawachi, Masanobu < CCMP **Other collection strain no.:** CCMP 1537 **Locality:** Phillip Bay/Victoria/Australia **Isolator:** O'Kelly, Charles J. **Identified by:** O'Kelly, Charles J. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 22°C; 20-30 µmol/m²/s; 14 D **Habitat:** Marine **Characteristics:** Attached **Reference:** 122
- 1302** **History:** < Kogame, Kazuhiro **Locality:** Kumano/Mie/Japan (2001-03-27) **Isolator:** Kogame, Kazuhiro **Identified by:** Kogame, Kazuhiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 14 D **Habitat:** Marine (Seaweed) **Characteristics:** Attached **Other strain no.:** GLOSSO

GOMPHONEMA : Bacillariophyceae*Gomphonema angustatum* (Kützing) Rabenhorst var. *obtusatum* (Kützing) Grunow

- 620** **History:** < Kasai, Fumie **Locality:** Mt.Tsukuba, Hatorisawa/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River sediment) **Other strain no.:** 1-36 **Reference:** 917

Gomphonema gracile Ehrenberg var. *gracile*

- 465** **History:** < Kasai, Fumie **Locality:** Watarase River System/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** Ast-1-1 **Reference:** 917

Gomphonema parvulum Kützing var. *parvulum*

- 466** **History:** < Kasai, Fumie **Locality:** Shirai River/Hokkaido/Japan (1987-07-02) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 10°C; 10-15 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** Tst-1-18 **Reference:** 917
- 467** **History:** < Kasai, Fumie **Locality:** Shirai River/Hokkaido/Japan (1987-07-02) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 10°C; 10-15 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** Tst-4-3 **Reference:** 917

GONATOZYGON : Charophyceae*Gonatozygon brebissonii* De Bary

- 138 **History:** < IAM (1983) **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-11-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 4 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater **Other strain no.:** KAS-4-43 **Reference:** 515
- 139 **History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 4 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater **Other strain no.:** TAC 56-1 (TAN-56-1) **Reference:** 515

Gonatozygon monotaenium De Bary

- 247 **History:** < Kasai, Fumie **Locality:** Tsukiyono/Gunma/Japan (1984-06-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Other strain no.:** 84-25-109
- 287 **History:** < TAC **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater **Other strain no.:** TAC 53-3 (TAN-53-3) **Reference:** 515

GONIOMONAS : Goniomonadea*Goniomonas amphinema* Larsen et Patterson

- 1371 **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-022 (NY0129)

Goniomonas pacifica Larsen et Patterson

- 1372 **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yubuki, Naoji (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-003 (ym-03)

Goniomonas sp.

- 1374 **History:** < TKB **Locality:** Tateyama, Sakata/Chiba/Japan (2003-01-22) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 1 M **Habitat:** Marine (Water) **Characteristics:** Heterotrophic **Other strain no.:** TKB-024 (NY0135)

Goniomonas truncata (Fresenius) Stein

- 1373 **History:** < TKB **Locality:** Mito/Ibaraki/Japan (2002-05-15) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO + Wheat; 15°C; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterotrophic **Other strain no.:** TKB-015 (NY0120)

GONIUM : Chlorophyceae*Gonium multicocum* Pocock

- 737 **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2580 **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Characteristics:** F1 clone of UTEX 2579 **Gene data:** *atpB* (AB014020); *psaA* (AB044239); *psaA* (AB044240); *psaB* (AB044461); *psbC* (AB044481); *rbcL* (D63435) **Other strain no.:** 90-530-F1-5 **References:** 646, 658, 663, 666
- 885 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 783 **Locality:** Lemoncove/California/U.S.A. **Isolator:** Stein, J. R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** (Soil or Mud) **References:** 635, 658
- 1038 **History:** < Nozaki, Hisayoshi **Locality:** Texas/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Gene data:** ITS2 (AB246191); *rbcL* (AB246187) **Other strain no.:** GQ-M-Tx-1 **Reference:** 1092

- 1039** **History:** < Nozaki, Hisayoshi **Locality:** Texas/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Other strain no.:** GQ-M-Tx-2
- 1707** **History:** < Nozaki, Hisayoshi **Locality:** Chikuzen/Fukuoka/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming; Homothallic; Isogamy **Other strain no.:** Asa.Goni.6 **Reference:** 1092
- 1708** **History:** < Nozaki, Hisayoshi **Locality:** Chikuzen/Fukuoka/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming; Homothallic; Isogamy **Gene data:** ITS2 (AB246192); *rbcL* (AB246188) **Other strain no.:** Asa.Goni.84 **Reference:** 1092
- 1709** **History:** < Nozaki, Hisayoshi **Locality:** Chikuzen/Fukuoka/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming; Homothallic; Isogamy **Other strain no.:** AsCl-1 **Reference:** 1092

Gonium octonarium Pocock

- 851** **History:** < Nozaki, Hisayoshi **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Gene data:** *atpB* (AB014018); *psaA* (AB044241); *psaB* (AB044462); *psbC* (AB044520) **Other strain no.:** GO-LC-1+ **References:** 663, 666, 668
- 852** **History:** < Nozaki, Hisayoshi **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Other strain no.:** GO-LC-3- **Reference:** 666

Gonium pectorale O. F. Müller

- 1710** **History:** < Nozaki, Hisayoshi **Locality:** Kin/Okinawa/Japan (2000-03-**) **Isolator:** Nozaki, Hisayoshi; Kaneko, Daisuke **Identified by:** Nozaki, Hisayoshi (2001-10-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type (-); Crosses with NIES-1711 **Other strain no.:** Kaneko3 **Reference:** 121
- 1711** **History:** < Nozaki, Hisayoshi **Locality:** Kin/Okinawa/Japan (2000-03-**) **Isolator:** Nozaki, Hisayoshi; Kaneko, Daisuke **Identified by:** Nozaki, Hisayoshi (2001-10-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type (+); Crosses with NIES-1710 **Gene data:** *rbcL* (AB246190) **Other strain no.:** Kaneko4 **References:** 121, 1092
- 1712** **History:** < Nozaki, Hisayoshi **Locality:** Kitahiroshima/Hokkaido/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-05-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type (+); Crosses with NIES-1713 **Other strain no.:** Kita.Goni.1
- 1713** **History:** < Nozaki, Hisayoshi **Locality:** Kitahiroshima/Hokkaido/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-05-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type (-); Crosses with NIES-1712 **Gene data:** *rbcL* (AB246189) **Other strain no.:** Kita.Goni.3 **Reference:** 1092
- 2261** **History:** < IAM (2007) < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-598 **Locality:** Kawasaki/Kanagawa/Japan (1994-04-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (1994-05-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+) **Other strain no.:** 94-409-G-4
- 2262** **History:** < IAM (2007) < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-599 **Locality:** Kawasaki/Kanagawa/Japan (1994-04-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (1994-05-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-) **Other strain no.:** 94-409-G-6

Gonium pectorale O. F. Müller var. *pectorale*

- 468** **History:** < Nozaki, Hisayoshi **Locality:** Yokohama, Kohoku-ku/Kanagawa/Japan (1979-04-06) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-469 **Other strain no.:** 9406-10 **References:** 362, 515, 626, 635, 654

- 469 **History:** < Nozaki, Hisayoshi **Locality:** Yokohama, Kohoku-ku/Kanagawa/Japan (1979-04-06) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-468 **Other strain no.:** 9406-12 **References:** 515, 626
- 569 **History:** < Nozaki, Hisayoshi **Locality:** Kourakuen/Okayama/Japan (1988-10-12) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (+); Crosses with NIES-570 **Gene data:** *atpB* (AB014016); *atpB* (AB014017); *psaA* (AB044242); *psaB* (AB044463); *psbC* (AB044521); *rbcL* (D63437) **Other strain no.:** 88-1113-G-1 **References:** 345, 515, 646, 663, 666, 668
- 570 **History:** < Nozaki, Hisayoshi **Locality:** Kourakuen/Okayama/Japan (1988-10-12) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (-); Crosses with NIES-569 **Other strain no.:** 88-1113-G-2 **Reference:** 515
- 645 **History:** < Nozaki, Hisayoshi **Locality:** Near Goshokake Hot Spring/Akita/Japan (1985-07-10) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Isogamy; Mating type (+) **Other strain no.:** 5912-6 (+) **Reference:** 515
- 646 **History:** < Nozaki, Hisayoshi **Locality:** Near Goshokake Hot Spring/Akita/Japan (1985-07-10) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Isogamy; Mating type (-) **Other strain no.:** 5912-6 (-) **Reference:** 515
- Gonium quadratum* Pringsheim ex Nozaki
- 647 **History:** < Nozaki, Hisayoshi **Locality:** Japan **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Characteristics:** Heterothallic; Isogamy; Mating type (-); F1 clone of NIES-652 x 653; Sister clone to NIES-648, 649 and 650 from one zygote **Other strain no.:** 90-809-F1-2-1 **Reference:** 515
- 648 **History:** < Nozaki, Hisayoshi **Locality:** Japan **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type (+); F1 clone of NIES-652 x 653; Sister clone to NIES-647, 649 and 650 from one zygote **Other strain no.:** 90-809-F1-2-2 **Reference:** 515
- 649 **History:** < Nozaki, Hisayoshi **Locality:** Japan **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type (+); F1 clone of NIES-652 x 653; Sister clone to NIES-647, 648 and 650 from one zygote **Other strain no.:** 90-809-F1-2-3 **Reference:** 515
- 650 **History:** < Nozaki, Hisayoshi **Locality:** Japan **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type (-); F1 clone of NIES-652 x 653; Sister clone to NIES-647, 648 and 649 from one zygote **Other strain no.:** 90-809-F1-2-4 **Reference:** 515
- 651 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 956 **Locality:** Klausen/Italy **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Authentic strain **References:** 515, 635, 636
- 652 **History:** < Nozaki, Hisayoshi **Locality:** Itahari/Nepal (1989-10-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type (-); Crosses with NIES-653 **Other strain no.:** 90-423-3 **References:** 515, 636
- 653 **History:** < Nozaki, Hisayoshi **Locality:** Itahari/Nepal (1989-10-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type (+); Crosses with NIES-652 **Gene data:** *atpB* (AB014019); *psaA* (AB044243); *psaB* (AB044464); *psbC* (AB044522); *psbC* (AB044523); *rbcL* (D63438) **Other strain no.:** 90-423-2 **References:** 515, 636, 646, 654, 663, 666, 668

Gonium viridistellatum M. Watanabe

- 288** **History:** < Watanabe, Masayuki **Locality:** Okinawa/Japan (1973-06-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-289 and 290 **Other strain no.:** G4 **References:** 515, 633, 1024
- 289** **History:** < Watanabe, Masayuki **Locality:** Okinawa/Japan (1973-06-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Mating type (+); Crosses with NIES-288 **Gene data:** *atpB* (AB076118); *atpB* (AB076119); *psaA* (AB076140); *psaA* (AB076141); *psaB* (AB076156); *psbC* (AB076173); *rbcL* (AB076091); *rbcL*-462 intron (AB076091) **Other strain no.:** G3 **References:** 515, 633, 671, 1024
- 290** **History:** < Watanabe, Masayuki **Locality:** Okinawa/Japan (1973-06-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Mating type (+); Crosses with NIES-288 **Other strain no.:** G1 **References:** 515, 633, 1024
- 654** **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2519 **Locality:** Yokohama, Midori-ku/Kanagawa/Japan (1980-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (+) **Gene data:** *atpB* (AB014021); *psaA* (AB044244); *psaB* (AB044465); *psbC* (AB044524); *rbcL* (D86831); *rbcL*-462 intron (AB076090) **Other strain no.:** KY-4 (+) **References:** 515, 633, 645, 647, 663, 666, 671
- 655** **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2520 **Locality:** Yokohama, Midori-ku/Kanagawa/Japan (1980-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (-) **Other strain no.:** KY-7 (-) **References:** 515, 633
- 857** **History:** < Nozaki, Hisayoshi **Locality:** Kathmandu, Gaunsli/Nepal (1986-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Gene data:** *atpB* (AB076117); *psaA* (AB076139); *psaB* (AB076155); *psbC* (AB076172); *rbcL* (AB076092); *rbcL* (AB076093); *rbcL*-462 intron (AB076092) **Other strain no.:** 88-511-9 **Reference:** 671

GONYOSTOMUM : Raphidophyceae*Gonyostomum latum* Iwanoff

- 1808** **History:** < TKB **Locality:** Matsumi-ike Pond/Ibaraki/Japan (2005-08-30) **Isolator:** Yamaguchi, Haruyo **Identified by:** Yamaguchi, Haruyo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-254 **Remarks:** Difficult to transport

Gonyostomum semen (Ehrenberg) Diesing

- 1009** **History:** < Moriya, Mayumi **Locality:** Lake Ozenuma/Fukushima/Japan (2002-08-28) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AAF-6; 15°C; 15-22 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** M-87 **Remarks:** Difficult to transport
- 1380** **History:** < TKB **Locality:** Mizunuma Dam/Ibaraki/Japan (2004-07-07) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 32-40 µmol/m²/s; 2 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Red tide **Other strain no.:** TKB-132 (nak26) **Reference:** 122 **Remarks:** Difficult to transport

GRAESIELLA : Chlorophyceae*Graesiella emersonii* (Shihira et Krauss) Nozaki, Katagiri, Nakagawa, Aizawa et M. M. Watanabe

Syn. *Chlorella emersonii* Shihira et Krauss; *Chlorella fusca* Shihira et Krauss var. *vacuolata* Shihira et Krauss; *Graesiella vacuolata* (Shihira et Krauss) Kalina et Puncová

- 226** **History:** < IAM (1983) **Other collection strain no.:** IAM C-28 **Locality:** Japan **Identified by:** Nozaki, Hisayoshi *et al.* (Reidentify) **Formerly identified as:** *Chlorella pyrenoidosa* Chick **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **References:** 185, 215, 449, 451, 452, 471, 515, 601, 652, 921, 1013, 1074, 1134, 1135, 1136, 1137

- 687 **History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/8B; IAM C-104 **Locality:** Pennsylvania/U.S.A. (2023-**-**) **Isolator:** Emerson, R. **Identified by:** Nozaki, Hisayoshi *et al.* (Reidentify) **Formerly identified as:** *Chlorella fusca* Shihira et Krauss var. *vacuolata* Shihira et Krauss (in IAM) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Characteristics:** Authentic strain of *Chlorella fusca* Shihira et Krauss var. *vacuolata* Shihira et Krauss **Other strain no.:** C-104 **References:** 112, 160, 351, 401, 449, 451, 462, 498, 509, 510, 515, 652, 992
- 688 **History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/8G **Locality:** Japan **Isolator:** Emerson, R. **Identified by:** Nozaki, Hisayoshi *et al.* (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** 211/8G **References:** 515, 652
- 689 **History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/8H **Locality:** Japan **Isolator:** Emerson, R. **Identified by:** Nozaki, Hisayoshi *et al.* (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** 211/8H **References:** 515, 652
- 690 **History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/11N **Locality:** Berlin/Germany **Isolator:** Emerson, R. pre **Identified by:** Nozaki, Hisayoshi *et al.* (Reidentify) **Formerly identified as:** *Chlorella emersonii* Shihira et Krauss (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **Characteristics:** Authentic strain of *Chlorella emersonii* Shihira et Krauss **Other strain no.:** 211/11N **References:** 515, 652
- 2151 **History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-105; CCAP 211/8C; SAG 211-8c; UTEX 252; UTCC 89; NIBB 4001; NIBB 4002; NIBB 4003; NIBB 4004; NIBB 4005. NIBB 4006 **Locality:** Berlin-Dahlem/Germany **Isolator:** Emerson, R. **Identified by:** Kessler, E. (1993); Confirmed at NIES by DNA sequencing **Formerly identified as:** *Chlorella pyrenoidosa* Chick (before 1993) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater (Tap water) **Gene data:** 18S rRNA (AB488562) **References:** 35, 351, 451, 452, 800

GUNGNIR : Chlorophyceae

Gungnir kasakii (Nozaki) Nakada

Syn. *Chlorogonium kasakii* Nozaki

- 761 **History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/8 **Locality:** Priest Pot/England, Cambria/U.K. **Isolator:** Jaworski **Identified by:** Nozaki, Hisayoshi; Nakada, Takashi (Reidentify) **Formerly identified as:** *Chlorogonium* sp. (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Water) **Characteristics:** Authentic strain; Type specimen (NIES-50005, Epitype) **Gene data:** *rbcL* (AB010244) **References:** 555, 665
- 1359 **History:** < Nakada, Takashi **Locality:** Sakatagaike Pond/Chiba/Japan (2003-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Mixotrophic **Gene data:** *psaB* (AB451209); *rbcL* (AB206331) **Other strain no.:** SkCl-5 **References:** 551, 554, 555
- 1360 **History:** < Nakada, Takashi **Locality:** Kitahiroshima, Nakanosawa/Hokkaido/Japan (2004-03-27) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Mixotrophic **Gene data:** *rbcL* (AB206332) **Other strain no.:** KhCl-3 **References:** 551, 555

Gungnir neglectum (Pascher) Nakada

Syn. *Chlamydomonas neglecta* Korshikov ex Pascher; *Chlorogonium neglectum* Pascher

- 439 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1984-05-08) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro; Nozaki, Hisayoshi; Nakada, Takashi (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Type specimen (NIES-50006, Epitype) **Gene data:** *atpB* (AB084326); *psaB* (AB084366); *rbcL* (AB010243) **Other strain no.:** T-4-19 **References:** 252, 515, 555, 665, 668
- 1869 **History:** < Nakada, Takashi **Locality:** Kyoto, Sakyo-ku/Kyoto/Japan (2005-03-29) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 130-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Gene data:** *psaB* (AB451210) **Other strain no.:** IkCl-701 **Reference:** 554

GYMNODINIUM : Dinophyceae*Gymnodinium catenatum* Graham

- 1834** **History:** < TKB **Locality:** Mie/Japan (2005-04-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-264 **Remarks:** Difficult to transport
- 2410** **History:** < Iwataki, Mitsunori **Locality:** Usuka Bay/Nagasaki/Japan (2008-06-11) **Isolator:** Mizuno, Akane **Identified by:** Iwataki, Mitsunori (2008-07-29) **States:** Unialgal **Culture conditions:** ESM; MNK; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Remarks:** Difficult to transport

Gymnodinium sp.

- 2002** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW19 **Remarks:** Difficult to transport
- 2003** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW20 **Remarks:** Difficult to transport
- 2004** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW22 **Remarks:** Difficult to transport
- 2005** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW25 **Remarks:** Difficult to transport
- 2006** **History:** < Noël, Mary-Hélène **Locality:** Soma Harbor/Fukushima/Japan (2005-06-17) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW33 **Remarks:** Difficult to transport
- 2007** **History:** < Noël, Mary-Hélène **Locality:** Soma Harbor/Fukushima/Japan (2005-06-17) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW34 **Remarks:** Difficult to transport
- 2326** **History:** < Sawaguchi, Tomohiro **Locality:** Tsushima Isl./Nagasaki/Japan (1986-03-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50 µmol/m²/s; 2 M **Habitat:** Freshwater (Reservoir water) **Other strain no.:** TKDD-11 **Remarks:** Difficult to transport

GYRODINIUM : Dinophyceae*Gyrodinium instriatum* Freudenthal et Lee

- 2000** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW11 **Remarks:** Difficult to transport
- 2001** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW13 **Remarks:** Difficult to transport

HAEMATOCOCCUS : Chlorophyceae**Haematococcus lacustris** (Girod-Chantrons) RostafinskiSyn. *Haematococcus pluvialis* Flotow

- 144** **History:** < IAM (1983) **Other collection strain no.:** IAM C-392 **Locality:** Sapporo/Hokkaido/Japan (1964-07-16) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic; Isogamy **Gene data:** *atpB* (AB084325); *psaB* (AB084365); *rbcL* (AB084336); *rbcL* (AB084337); 14-3-3 protein (AY973204); β-carotene ketolase (AY603347); lycopene β-cyclase (AY182008) **Other strain no.:** MKF-8 **References:** 215, 307, 308, 346, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 422, 423, 515, 668, 884, 960, 961, 962, 1047
- 2263** **History:** < IAM (2007) < Nakayama, Ooki **Other collection strain no.:** IAM C-339 **Locality:** Kofu/Yamanashi/Japan **Isolator:** Nakayama, Ooki **Identified by:** Nakayama, Ooki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Nakayama 5032
- 2264** **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-582 (= C-296/C-393); SAG 34-1b; UTEX 16; ATCC 30402; UTCC B 93; CCAP 34/1b **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Astaxantin production **Reference:** 431
- 2265** **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-583 (= C-394); UTEX 294; ATCC 30453; CCAP 34/1j **Isolator:** Lewin, Ralph A. **Identified by:** Lewin, Ralph A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Lewin DD1/73

HAFNIOMONAS : Chlorophyceae**Hafniomonas conica** (Ettl) Nakada et NozakiSyn. *Pyramimonas reticulata* Korshikov var. *conica* Ettl; *Hafniomonas reticulata* Korshikov var. *conica* (Ettl) Ettl et Moestrup

- 1714** **History:** < Nozaki, Hisayoshi **Locality:** Mure/Nagano/Japan (2003-07-12) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Gene data:** 18S rRNA (AB248251); *psaB* (AB248257) **Other strain no.:** NgCl-3 **Reference:** 556

Hafniomonas laevis Nakada, Suda et Nozaki

- 257** **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1983-10-30) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao; Nakada, *et al.* (Reidentify) **Formerly identified as:** *Hafniomonas montana* (Geitler) Ettl et Moestrup **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 1 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Pool water) **Gene data:** *atpB* (AB101504); *psaB* (AB101515); *rbcL* (AB101509); *rbcL* (AB101510) **Other strain no.:** OUT-5 **References:** 515, 556, 599, 664, 889, 1047

Hafniomonas montana (Geitler) Ettl et Moestrup

- 656** **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1986-04-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Gene data:** *atpB* (AB101505); *psaB* (AB101516); *rbcL* (AB101511); *rbcL* (AB101512) **Other strain no.:** 430M3-3 **References:** 515, 556, 599, 664

Hafniomonas reticulata (Korshikov) Ettl et MoestrupSyn. *Pyramimonas reticulata* Korshikov

- 1715** **History:** < Nozaki, Hisayoshi **Locality:** Mitsukaido/Ibaraki/Japan (2003-08-11) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming **Gene data:** 18S rRNA (AB248247); *psaB* (AB248253) **Other strain no.:** MkCl-10 **Reference:** 556
- 1716** **History:** < Nozaki, Hisayoshi **Locality:** Ebina/Kanagawa/Japan (2004-02-26) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming **Gene data:** 18S rRNA (AB248250); *psaB* (AB248256) **Other strain no.:** EbCl-11 **Reference:** 556

1717 **History:** < Nozaki, Hisayoshi **Locality:** Kitahiroshima/Hokkaido/Japan (2004-03-27) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming **Gene data:** 18S rRNA (AB248248); *psaB* (AB248254) **Other strain no.:** KhCl-1 **Reference:** 556

1718 **History:** < Nozaki, Hisayoshi **Locality:** Kawagoe/Saitama/Japan (2004-05-30) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming **Gene data:** 18S rRNA (AB248249); *psaB* (AB248255) **Other strain no.:** KgCl-4-5 **Reference:** 556

Hafniomonas sp.

1841 **History:** < TKB **Locality:** Ryugasaki/Ibaraki/Japan (2005-09-29) **Isolator:** Chikuni, Tomoko **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** AF-6; 25°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-275

Hafniomonas turbinea Nakada et Nozaki

1719 **History:** < Nozaki, Hisayoshi **Locality:** Naruto/Chiba/Japan (2003-08-15) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic **Other strain no.:** NrCl-4

1720 **History:** < Nozaki, Hisayoshi **Locality:** Naruto/Chiba/Japan (2003-08-15) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic; Authentic strain **Gene data:** 18S rRNA (AB248252); *psaB* (AB248258) **Other strain no.:** NrCl-5 **Reference:** 556

1721 **History:** < Nozaki, Hisayoshi **Locality:** Naruto/Chiba/Japan (2003-08-15) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic **Other strain no.:** NrCl-8

HALOCHLOROCOCCUM : Ulvophyceae

Halochlorococcum sp.

1838 **History:** < TKB **Locality:** Tokyo/Japan (2005-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 2 M **Habitat:** (Seawater) **Other strain no.:** TKB-269

1839 **History:** < TKB **Locality:** Tokyo/Japan (2005-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 2 M **Habitat:** (Seawater) **Other strain no.:** TKB-270

HAMAKKO : Chlorophyceae

Hamakko caudatus Nakada

2293 **History:** < Nakada, Takashi **Locality:** Yokohama, Kohoku-ku/Kanagawa/Japan (2003-05-12) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; MG; 20°C; 130-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB451188); *psaB* (AB451212); *rbcL* (AB451193) **Other strain no.:** KzCl-4-1 **Reference:** 554

HANTZSCHIA : Bacillariophyceae

Hantzschia amphioxys (Ehrenberg) Grunow var. *compacta* Hustedt

587 **History:** < Hagiwara, Tomiji **Locality:** Tsukuba/Ibaraki/Japan (1990-04-19) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSI; 15°C; 35-50 µmol/m²/s; 1 M **Habitat:** Terrestrial (Concrete wall) **Other strain no.:** Wn-24

HAPALOSIPHON : Cyanophyceae*Hapalosiphon delicatulus* W. et G. S. West

- 2355** **History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-266; TISTR 8224 **Locality:** Ratchaburi/Thailand **Isolator:** Mahakhant, Aparat **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** (Soil) **Remarks:** Distribution for academic purpose only

Hapalosiphon sp.

- 2356** **History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-264; TISTR 8229 **Locality:** Thailand **Isolator:** Mahakhant, Aparat **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Remarks:** Distribution for academic purpose only

- 2357** **History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-265; TISTR 8230 **Locality:** Bangkok /Thailand **Isolator:** Mahakhant, Aparat **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); N-Free (agar); 20°C; 8-15 µmol/m²/s; 3 M **Remarks:** Distribution for academic purpose only

HARAMONAS : Raphidophyceae*Haramonas dimorpha* Horiguchi

- 716** **History:** < Horiguchi, Takeo **Locality:** Daintree River/Australia (1991-09-21) **Isolator:** Horiguchi, Takeo **Identified by:** Horiguchi, Takeo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Brackish (Sediment) **Characteristics:** Benthic; Authentic strain **References:** 198, 224 **Remarks:** Difficult to transport

Haramonas pauciplastida Yamaguchi, Hoppenrath, Takishita et Horiguchi

- 1870** **History:** < Yamaguchi, Haruyo **Locality:** Vancouver Isl., Pacher Beach/Canada (2005-05-**) **Isolator:** Hoppenrath, Mona **Identified by:** Yamaguchi, Haruyo (2007-08-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 50 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Benthic; Authentic strain **Remarks:** Difficult to transport

Haramonas sp.

- 1701** **History:** < Honda, Daiske **Locality:** Yashima Isl./Kagawa/Japan (2001-04-17) **Isolator:** Fukaya, Sachiko **Identified by:** Fukaya, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 32-40 µmol/m²/s; 14 D **Habitat:** Marine (Sand) **Characteristics:** Red tide; Benthic **Other strain no.:** SEK-115 **Remarks:** Difficult to transport

HEMIDINIUM : Dinophyceae*Hemidinium nasutum* Stein

- 471** **History:** < Sawaguchi, Tomohiro **Locality:** Tsuchiura/Ibaraki/Japan (1987-08-27) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 87SPD-1 **Remarks:** Difficult to transport

HEMIFLAGELLOCHLORIS : Chlorophyceae*Hemiflagellochloris kazakhstanica* S. Watanabe, Tsujimura, Misono, Nakamura et Inoue

- 1722** **History:** < Watanabe, Shin **Locality:** Kazakhstan (1993-09-19) **Identified by:** Watanabe, Shin (2002-07-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Soil **Characteristics:** Authentic strain **Other strain no.:** BAKg15

HETEROCAPSA : Dinophyceae*Heterocapsa horiguchii* Iwataki, Takayama et Matsuoka

- 614** **History:** < Sawaguchi, Tomohiro **Locality:** Kashiwazaki/Niigata/Japan (1986-08-04) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **Formerly identified as:** *Cachonina niei* Loeblich III **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** KSTH-29 **Reference:** 295 **Remarks:** Difficult to transport

Heterocapsa niei (Loeblich III) Morrill et Loeblich IIISyn. *Cachonina niei* Loeblich III

- 420 **History:** < Sawaguchi, Tomohiro **Locality:** Iriomote Isl./Okinawa/Japan (1986-01-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** IID-1 **Reference:** 295 **Remarks:** Difficult to transport

Heterocapsa ovata Iwataki et Fukuyo

- 472 **History:** < Sawaguchi, Tomohiro **Locality:** Kashiwazaki/Niigata/Japan (1986-08-04) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **Formerly identified as:** *Heterocapsa pygmaea* Loeblich III, Schmidt et Sherley **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; IMK; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** KSTH-23 **References:** 180, 294, 295 **Remarks:** Difficult to transport

Heterocapsa pseudotriquetra Iwataki, Hansen et Fukuyo

- 473 **History:** < Sawaguchi, Tomohiro **Locality:** Tsushima Isl./Nagasaki/Japan (1986-03-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **Formerly identified as:** *Heterocapsa pygmaea* Loeblich III, Schmidt et Sherley **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TMUD-2 **References:** 180, 295 **Remarks:** Difficult to transport

Heterocapsa rotundata (Lohmann) HansenSyn. *Katodinium rotundatum* (Lohmann) Loeblich III

- 356 **History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe Harbor/Aomori/Japan (1985-01-06) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 10°C; 6-12 µmol/m²/s; 1 M (10°C; 10-15 µmol/m²/s) **Habitat:** Marine (Seawater) **Other strain no.:** HHD-1 **Remarks:** Unstable; Difficult to transport

***Heterocapsa* sp.**

- 1403 **History:** < TKB **Locality:** Tsukuba Univ. Marine Research Center/Shizuoka/Japan (2003-04-03) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Toxic **Other strain no.:** TKB-060 (AK-04) **Remarks:** Toxic; Difficult to transport
- 2343 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Ago Bay/Mie/Japan (1992-12-**) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Clonal **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Mie-92 **Remarks:** Difficult to transport
- 2344 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Uranouchi Bay/Kochi/Japan (1988-09-**) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Clonal **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Uranouchi **Remarks:** Difficult to transport

Heterocapsa triquetra Stein

- 7 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1981-04-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** OHet **References:** 180, 309, 398, 425, 426, 610, 611 **Remarks:** Difficult to transport
- 235 **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1982-03-10) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-57 **References:** 180, 1004 **Remarks:** Difficult to transport

HETEROCHLAMYDOMONAS : Chlorophyceae***Heterochlamydomonas* sp.**

- 157 **History:** < Watanabe, Shin **Locality:** Mt. Shiroumadake/Nagano/Japan (1980-08-**) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **Formerly identified as:** *Chlamydomonas monticola* S. Watanabe **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Soil) **Other strain no.:** KUC80-4 **References:** 515, 758, 1073

HETEROSIGMA : Raphidophyceae**Heterosigma akashiwo** (Hada) Hada

- 5 **History:** < Iwasaki, Hideo **Locality:** Gokasho Bay/Mie/Japan (1966-**-**) **Isolator:** Iwasaki, Hideo **Identified by:** Hara, Yoshiaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** GHE **References:** 292, 793 **Remarks:** Difficult to transport
- 6 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1979-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** OHE-1 **References:** 103, 136, 157, 355, 356, 357, 390, 391, 392, 394, 397, 398, 405, 512, 513, 516, 539, 566, 610, 676, 723, 819, 874, 875, 895, 1007, 1008, 1009, 1027, 1050, 1052, 1053, 1054, 1055, 1056, 1063, 1064, 1065, 1066, 1067, 1068, 1070, 1071, 1111, 1119 **Remarks:** Difficult to transport
- 9 **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide **Other strain no.:** H-28 **Reference:** 122 **Remarks:** Difficult to transport
- 10 **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide **Other strain no.:** H-40 **Remarks:** Difficult to transport
- 145 **History:** < KAGAWA **Locality:** Kagoshima/Japan (1978-05-21) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-11-5 **References:** 309, 1004 **Remarks:** Difficult to transport
- 146 **History:** < KAGAWA **Locality:** Shido Bay/Kagawa/Japan (1978-06-20) **Isolator:** Yuki, Katsuhisa **Identified by:** Yuki, Katsuhisa **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-21-2 **Remarks:** Difficult to transport
- 293 **History:** < Suda, Shoichiro **Locality:** Onagawa Bay/Miyagi/Japan (1984-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** 8280G21-1 **References:** 43, 52, 352, 920 **Remarks:** Difficult to transport
- 561 **History:** < Honjo, Tsuneo **Locality:** Mikawa Bay/Aichi/Japan **Isolator:** Toriumi, Saburo **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **References:** 782, 783, 966 **Remarks:** Difficult to transport
- 1830 **History:** < TKB **Locality:** Miyajima Isl./Hiroshima/Japan (2004-12-10) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-302 **Remarks:** Difficult to transport

HEXAMITA : Trepomonadea**Hexamita** sp.

- 1440 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-05-26) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** UYTS + Rice; 15°C; 20 D **Habitat:** Freshwater (Pond water) **Characteristics:** Offensive taste and odor; Heterotrophic **Other strain no.:** TKB-057 (NY0140) **Reference:** 122

HYALOLITHUS : Prymnesiophyceae**Hyalolithus neolepis** Yoshida, Noël, Nakayama, Naganuma et Inouye

- 1393 **History:** < TKB **Locality:** Shiribeshi Seamount/Hokkaido/Japan (2001-07-19) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2001-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 18°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** TKB-005 (ym-05) **Reference:** 1124

HYALOTHECA : Charophyceae*Hyalotheca dissiliens* Brébisson ex Ralfs

- 147 **History:** < IAM (1983) **Other collection strain no.:** IAM C-510 **Locality:** Nagatoro/Saitama/Japan (1969-11-13) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Crosses with NIES-148 **Other strain no.:** S-9-18 **Reference:** 515
- 148 **History:** < IAM (1983) **Other collection strain no.:** IAM C-511 **Locality:** Nagatoro/Saitama/Japan (1969-11-13) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Crosses with NIES-147 **Other strain no.:** S-9-22 **Reference:** 515
- 150 **History:** < IAM (1983) **Other collection strain no.:** IAM C-513 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1975-12-16) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic **Other strain no.:** KAS-7-8 **Reference:** 515

Hyalotheca dissiliens Brébisson ex Ralfs f. *tridentula* (Nordstedt) Boldt

- 294 **History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1982-**-**) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** H-1 **Reference:** 515

HYDROCOCCUS : Cyanophyceae*Hydrococcus rivularis* Kützing

- 593 **History:** < Hagiwara, Tomiji **Locality:** Yukawa Hot Spring/Iwate/Japan (1990-09-09) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 4 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Hot spring (Water) **Characteristics:** Benthic **Other strain no.:** Yu-52 **References:** 202, 515

HYDRODICTYON : Chlorophyceae*Hydrodictyon reticulatum* (Lagerheim) Lagerheim

- 295 **History:** < IAM (1983) **Other collection strain no.:** IAM C-335 **Locality:** Osaka/Japan (1968-11-10) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** O-2 **References:** 215, 515

HYMENOMONAS : Prymnesiophyceae*Hymenomonas coronata* Mills

- 1016 **History:** < Moriya, Mayumi **Locality:** Hirara, Shimajiri/Okinawa/Japan (2002-03-17) **Isolator:** Moriya, Mayumi **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Brackish (Water) **Other strain no.:** M-27 **Reference:** 127

IMANTONIA : Prymnesiophyceae*Imantonia rotunda* Reynolds emend. J. C. Green et Pienaar

- 1001 **History:** < Kawachi, Masanobu **Locality:** Chiba Harbor/Chiba/Japan (1990-10-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 $\mu\text{mol}/\text{m}^2/\text{s}$; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Iman2
- 1394 **History:** < TKB **Locality:** Onahama Harbor/Fukushima/Japan (2004-07-07) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-128 (nak22)

INTERFILUM : Charophyceae**Interfilum paradoxum** Chodat et Topali

- 2180** **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-161; CCAP 338/1; SAG 338-1; ATCC 30445; UTEX 177
Locality: U.K. **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** (Soil)

KARENIA : Dinophyceae**Karenia mikimotoi** (Miyake et Kominami ex Oda) Hansen et Moestrup

Syn. *Gymnodinium mikimotoi* Miyake et Kominami ex Oda; *Gymnodinium nagasakiense* Takayama et Adachi

- 680** **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Shodo Isl., Uchiumi Bay/Kagawa/Japan (1992-10-29) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; MNK; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** *GapC1*-fd (AB164183); *GapC2* (AB164184); *GapC3* (AB164185); *GapC4* (AB164186) **References:** 9, 309, 932 **Remarks:** Difficult to transport
- 2411** **History:** < Iwataki, Mitsunori **Locality:** Katagami Bay/Nagasaki/Japan (2004-06-04) **Isolator:** Iwataki, Mitsunori **Identified by:** Iwataki, Mitsunori (2004-06-04) **States:** Unialgal **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Remarks:** Difficult to transport

KARLODINIUM : Dinophyceae**Karlodinium veneficum** (Ballantine) Larsen

- 1966** **History:** < TKB **Locality:** Kobe, Suma-ku/Hyogo/Japan (2005-12-10) **Isolator:** Nakayama, Takeshi **Identified by:** Yamaguchi, Haruyo (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 20 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-327 **Remarks:** Difficult to transport

KATHABLEPHARIS : Kathablepharidea**Kathablepharis japonica** Okamoto et Inouye

- 1334** **History:** < TKB **Locality:** Tokyo Bay/Japan (2004-01-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Mixed; Clonal; Non-axenic **Culture conditions:** mIMR (NIES-1333 should be cultured in advance as a prey); 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Feeds on *Chrysochromulina* sp. (NIES-1333) **Gene data:** 18S rRNA (AB193602) **Other strain no.:** TKB-090 (nrc066) **Reference:** 722

Kathablepharis sp.

- 1731** **History:** < Inouye, Isao **Locality:** Neuse River/North Carolina/U.S.A. (1998-12-01) **Isolator:** Andersen, Robert A. **Identified by:** Andersen, Robert A. (1998-**-**) **States:** Mixed; Clonal; Non-axenic **Culture conditions:** f/2 (NIES-1730 should be cultured together as a prey); 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Brackish (Water) **Characteristics:** Phagotrophic; Feeds on *Rhodomonas* sp. (NIES-1730) **Other strain no.:** A9269

KATODINIUM : Dinophyceae**Katodinium** sp.

- 2008** **History:** < Noël, Mary-Hélène **Locality:** New Castle/South Pacific Ocean (2005-06-21) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW17 **Remarks:** Difficult to transport
- 2009** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW18 **Remarks:** Difficult to transport

KENTROSPHAERA : Ulvophyceae**Kentrosphaera** sp.

- 154** **History:** < Watanabe, Shin **Locality:** Sasebo/Nagasaki/Japan (1975-08-12) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **Formerly identified as:** *Characium maximum* S. Watanabe **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (Soil) **Other strain no.:** 6-EBO-2 **References:** 515, 1073 **Remarks:** Cryopreserved

KLEBSORMIDIUM : Charophyceae**Klebsormidium flaccidum** (Kützing) Silva, Mattox et Blackwell

- 2285** **History:** < IAM (2007) < BIU (UTEX; 1965) **Other collection strain no.:** IAM C-117; UTEX 321; SAG 335-1a; CCAP 335/1a **Isolator:** Pringsheim, E. G. **Formerly identified as:** *Hormidium barlowi* **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M **Reference:** 77
- 2286** **History:** < IAM (2007) **Other collection strain no.:** IAM C-164 **Locality:** U.S.A. **Isolator:** Pringsheim, E. G. **Formerly identified as:** *Hormidium flaccidum* (Kützing) A. Braun **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M
- 2408** **History:** < Nagao, Manabu **Locality:** Hokkaido University/Hokkaido/Japan (2000-10-08) **Isolator:** Nagao, Manabu **Identified by:** Nagao, Manabu (2001-02-01) **States:** Unialgal **Culture conditions:** C; 20°C; 30-60 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Terrestrial (Soil) **Characteristics:** Cryophilic; Resting spore forming **References:** 543, 544, 545

LAGERHEIMIA : Trebouxiophyceae**Lagerheimia ciliata** (Lagerheim) Chodat

- 382** **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Lake water) **Other strain no.:** F37-1 **Reference:** 515 **Remarks:** Cryopreserved

LAGYNION : Chrysophyceae**Lagynion subglobosum** Starmach

- 1827** **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2004-06-24) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2004-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 20-30 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-133

LAMPROTHAMNIUM : Charophyceae**Lamprothamnium succinctum** (A. Braun) R. D. Wood

- 1606** **History:** < Sakayama, Hidetoshi **Locality:** Jaga-ike Pond/Tokushima/Japan (2004-06-14) **Identified by:** Sakayama, Hidetoshi (2004-06-14) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 1/3HerbstASW; 20°C; 16-20 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M **Habitat:** Brackish **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-100

LEPIDODINIUM : Dinophyceae**Lepidodinium chlorophorum** (Elbrachter et Schnepf) Hansen, Botes et de Salas
Syn. *Gymnodinium chlorophorum* Elbrachter et Schnepf

- 1868** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2004-07-28) **Isolator:** Noël, Mary-Hélène **Identified by:** Kawachi, Masanobu (2007-08-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 40 $\mu\text{mol}/\text{m}^2/\text{s}$; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Green chloroplast **Other strain no.:** MH210 **Remarks:** Difficult to transport

LEPTOLYNGBYA : Cyanophyceae*Leptolyngbya* sp.

- 30** **History:** < IAM (1983) **Other collection strain no.:** IAM M-40 **Locality:** Akita/Japan **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify); Homma, Takamitsu (Re-reidentify) **Formerly identified as:** *Phormidium tenue* (C. Agardh ex Gomont) Anagnostidis et Komárek **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy field) **Gene data:** 16S rRNA (AB042857) **References:** 215, 515, 719, 862 **Remarks:** Cryopreserved
- 2103** **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-288 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-03
- 2104** **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-289 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-04

LEUCOCRYPTOS : Kathablepharidea*Leucocryptos marina* (Braarud) Butcher

- 1335** **History:** < TKB **Locality:** Tokyo Bay/Japan (2003-10-16) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Mixed; Non-clonal; Non-axenic **Culture conditions:** f/2 (NIES-1333 should be cultured in advance as a prey); 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Heterotrophic; Feeds on *Chrysochromulina* sp. (NIES-1333) **Gene data:** 18S rRNA (AB194980); β-tubulin (AB194977); β-tubulin (AB194978) **Other strain no.:** TKB-081 (nrc057) **References:** 358, 722

LIMNOTHRIX : Cyanophyceae*Limnothrix redekei* (Van Goor) MeffertSyn. *Oscillatoria redekei* Van Goor

- 847** **History:** < Suda, Shoichiro < NIVA **Other collection strain no.:** NIVA CYA 277/1 **Locality:** Lake Mälaren/Sweden (1990-**-**) **Isolator:** Skulberg, R. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 22°C; 70-90 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AB045929) **References:** 202, 893 **Remarks:** Cryopreserved

LITHODESMIUM : Bacillariophyceae*Lithodesmium variabile* Takano

- 588** **History:** < Ono, Sachiko **Locality:** Hitachi/Ibaraki/Japan (1990-09-26) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** St-12

LOBOMONAS : Chlorophyceae*Lobomonas monstrosa* Korshikov

- 474** **History:** < Suda, Shoichiro **Locality:** Iwaki/Fukushima/Japan (1984-08-26) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** *atpB* (AB044533); *psaA* (AB044421); *psaB* (AB044472); *psbC* (AB044530); *rbcL* (AB044171) **Other strain no.:** FL **References:** 515, 663, 668

Lobomonas piriformis Pringsheim

- 2266** **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-584 (= C-297); ATCC 30403; SAG 45-1; UTEX 17; CCAP 45/1 **Locality:** shore of River Elbe/Czechoslovakia **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

LUTEOCERASUS : Dictyochophyceae*Luteocerasus tetraplastida* nom. nud.

- 1871 History:** < TKB **Locality:** Sesoko/Okinawa/Japan **Identified by:** Nakayama, Takeshi (2007-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 20-50 µmol/m²/s; 1-2 M **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** TKB-258

MALLOMONAS : Chrysophyceae*Mallomonas* sp.

- 1376 History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2004-01-25) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 18°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Sand and seawater) **Other strain no.:** TKB-089 (nrc065)

MAMIELLA : Prasinophyceae*Mamiella* sp.

- 2310 History:** < Suda, Shoichiro **Locality:** Toi Bay/Shizuoka/Japan (1988-07-23) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 8-15 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** 814To-3
- 2329 History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe Harbor/Aomori/Japan (1986-08-**) **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal **Culture conditions:** ESM; 15°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** Hamam

MANTONIELLA : Prasinophyceae*Mantoniella squamata* (Manton et Parke) Desikachary

- 1409 History:** < TKB **Locality:** Tokyo/Japan (2004-10-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-190 (nak79)

MARSUPIOMONAS : Pedinophyceae*Marsupiomonas* sp.

- 1410 History:** < TKB **Locality:** Wakayama/Japan (2002-07-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Gene data:** 16S rRNA (AB234295) **Other strain no.:** TKB-040 (nrc001-014)
- 1824 History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-243

MERISMOPEDIA : Cyanophyceae*Merismopedia tenuissima* Lemmermann

- 230 History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1984-05-07) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** F98-2 **References:** 124, 175, 333, 515, 1097, 1139 **Remarks:** Cryopreserved

MEROTRICHA : Raphidophyceae*Merotricha bacillata* Mereschkowsky

- 1809 History:** < TKB **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2005-08-29) **Isolator:** Yamaguchi, Haruyo **Identified by:** Yamaguchi, Haruyo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO-H, AAF-6; 20°C; 25-40 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-253 **Remarks:** Difficult to transport

MESOSTIGMA : Mesostigmatophyceae*Mesostigma viride* Lauterborn

- 296 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** Mitochondrial DNA (AF353999); Plastid DNA (AF166114); Root cap protein 1-8 mRNAs (DQ287936-43) **Other strain no.:** KY-14 **References:** 123, 269, 433, 603, 994, 997, 1130
- 475 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type (+) **Other strain no.:** KY-Mes-2 **Reference:** 1130
- 476 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type (-) **Other strain no.:** KY-Mes-1 **References:** 116, 459, 1130
- 477 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type (-) **Other strain no.:** KY-Mes-3 **References:** 459, 1130
- 995 History:** < Miyamura, Shin-ichi **Locality:** Hojo-ohike Pond/Ibaraki/Japan (1995-11-01) **Isolator:** Watanabe, Satoru **Identified by:** Watanabe, Satoru **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Phototaxis; Cells larger than normal strains **Other strain no.:** Hojo1

MESOTAENIUM : Charophyceae*Mesotaenium caldariorum* (Lagerheim) Hansgirg

- 2287 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-585 (= C-309); ATCC 30595; CCAP 648/1; SAG 648-1; UTEX 41; CAUP K101 **Locality:** Brunn/Czechoslovakia **Isolator:** Czurda **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Antibacterial activity **Reference:** 39

Mesotaenium kramstae Lemmermann

- 657 History:** < IAM (1983) < BIU (UTEX) **Other collection strain no.:** IAM C-330; UTEX LB 1024 **Locality:** Austin/Texas/USA **Isolator:** Starr, R. C. **Identified by:** Grönblad, R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Air) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-658 **Reference:** 515
- 658 History:** < IAM (1983) < BIU (UTEX) **Other collection strain no.:** IAM C-331; UTEX LB 1025 **Locality:** Austin/Texas/USA **Isolator:** Starr, R. C. **Identified by:** Grönblad, R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Air) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-657 **Reference:** 515

MICRACTINIUM : Trebouxiophyceae*Micractinium bornhemiensis* (Conrad) KorshikovSyn. *Errerella bornhemiensis* Conrad

- 455 History:** < IAM (1983) **Other collection strain no.:** IAM C-341 (= C-581) **Locality:** Between Ghorepani and Billethadi/Nepal (1965-12-02) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** N-76-1 **References:** 215, 515 **Remarks:** Cryopreserved

Micractinium pusillum Fresenius

- 151** **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-07-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F-19-4 **References:** 333, 515, 1047 **Remarks:** Cryopreserved

MICRASTERIAS : Charophyceae*Micrasterias anomala* Turner

- 774** **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic **Other strain no.:** 88-95-12
- 776** **History:** < Kasai, Fumie **Locality:** near Melaka/Malaysia (1985-08-20) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic **Other strain no.:** 85-30-38

Micrasterias crux-melitensis Ralfs

- 152** **History:** < IAM (1983) **Other collection strain no.:** IAM C-427 **Locality:** Kathmandu/Nepal (1968-05-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** N-90-27 **References:** 215, 515

Micrasterias foliacea Bailey ex Ralfs

- 777** **History:** < Kasai, Fumie **Locality:** 2 km southwest of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-778 **Other strain no.:** M2-1
- 778** **History:** < Kasai, Fumie **Locality:** 2 km southwest of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-777 **Other strain no.:** M2-2

Micrasterias foliacea Bailey ex Ralfs var. *foliacea*

- 297** **History:** < Kasai, Fumie **Locality:** Higashiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** 83-24-24 **Reference:** 515

Micrasterias mahabuleshwariensis Hobson

- 779** **History:** < Kasai, Fumie **Locality:** 2 km southwest of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-780 **Other strain no.:** M2-6
- 780** **History:** < Kasai, Fumie **Locality:** 2 km southwest of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-779 **Other strain no.:** M2-7

Micrasterias thomasiana Archer var. *notata* (Nordstedt) Grönblad

- 781** **History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-782 **Other strain no.:** 85-28-14
- 782** **History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-781 **Other strain no.:** 85-28-57

Micrasterias truncata (Corda) Brébisson ex Ralfs var. *pusilla* G. S. West

- 783** **History:** < Kasai, Fumie **Locality:** Sydney, Centennial Park/Australia (1988-09-03) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Crosses with NIES-784 **Other strain no.:** 88-7-2
- 784** **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Crosses with NIES-783 **Other strain no.:** 88-8-5

MICROCYSTIS : Cyanophyceae*Microcystis aeruginosa* (Kützing) Lemmermann

Syn. *Microcystis ichthyoblabe* Kützing; *Microcystis novacekii* (Komárek) Compère; *Microcystis viridis* (A. Brown) Lemmermann; *Microcystis wesenbergii* Komárek

- 44** **History:** < IAM (1983) **Other collection strain no.:** IAM M-176 (= M-228) **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); ST 1 (Ref. 953) **Gene data:** 16S rRNA (AB015361); 16S-23S ITS region (AB015361); *ftsZ* (AB324850); *glnA* (AB324929); *gltX* (AB325008); *gyrB* (AB325087); *pgi* (AB325166); *recA* (AB325245); *tpi* (AB325324) **References:** 20, 45, 63, 130, 187, 215, 222, 296, 301, 323, 324, 333, 435, 515, 540, 541, 542, 548, 605, 756, 877, 911, 912, 951, 953, 959, 1010, 1047, 1059, 1107 **Remarks:** Cryopreserved
- 87** **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 2 (Ref. 953) **Gene data:** 16S rRNA (D89031); *ftsZ* (AB324851); *glnA* (AB324930); *gltX* (AB325009); *gyrB* (AB325088); *pgi* (AB325167); *recA* (AB325246); *tpi* (AB325325) **Other strain no.:** K-MA-11 **References:** 252, 301, 403, 404, 405, 406, 408, 435, 515, 560, 561, 562, 563, 564, 605, 733, 953, 968, 1047, 1128, 1139 **Remarks:** Cryopreserved
- 88** **History:** < Watanabe, Makoto M. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 3 (Ref. 953) **Gene data:** 16S rRNA (AB023255); *ftsZ* (AB324852); *glnA* (AB324931); *gltX* (AB325010); *gyrB* (AB325089); *pgi* (AB325168); *recA* (AB325247); *tpi* (AB325326); *mcyA* (AF110103); *mcyD* (AF110114); *mcyG* (AF110125); *mcyJ* (AF110136) **Other strain no.:** KW-MA1-3 **References:** 246, 247, 249, 296, 297, 299, 300, 301, 349, 403, 404, 405, 406, 877, 953, 954, 977, 978, 1047, 1098, 1128, 1139 **Remarks:** Toxic; Cryopreserved
- 89** **History:** < Watanabe, Makoto M. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 4 (Ref. 953) **Gene data:** 16S rRNA (U03403); *ftsZ* (AB324853); *glnA* (AB324932); *gltX* (AB325011); *gyrB* (AB325090); *pgi* (AB325169); *recA* (AB325248); *tpi* (AB325327); *mcyA* (AF110104); *mcyD* (AF110115); *mcyG* (AF110126); *mcyJ* (AF110137) **Other strain no.:** KW-MA2-5 **References:** 255, 403, 404, 405, 406, 408, 435, 515, 604, 605, 953, 954, 1047, 1060, 1128, 1139 **Remarks:** Toxic; Cryopreserved
- 90** **History:** < Watanabe, Makoto M. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 5 (Ref. 953) **Gene data:** 16S rRNA (AB023256); *ftsZ* (AB324854); *glnA* (AB324933); *gltX* (AB325012); *gyrB* (AB325091); *pgi* (AB325170); *recA* (AB325249); *tpi* (AB325328); *mcyA* (AF110105); *mcyD* (AF110116); *mcyG* (AF110127); *mcyJ* (AF110138) **Other strain no.:** KW-MB-2 **References:** 248, 253, 403, 404, 405, 406, 515, 953, 954, 1047, 1059, 1128, 1139 **Remarks:** Toxic; Cryopreserved

- 91** **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 77 (Ref. 953) **Gene data:** 16S rRNA (AB023257); *ftsZ* (AB324926); *glnA* (AB325005); *gltX* (AB325084); *gyrB* (AB325163); *pgi* (AB325242); *recA* (AB325321); *tpi* (AB325400) **Other strain no.:** K-MB-13 **References:** 403, 404, 405, 406, 515, 953, 1047, 1139 **Remarks:** Cryopreserved
- 98** **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *flos-aquae* (Wittrock) Elenkin **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 6 (Ref. 953) **Gene data:** 16S rRNA (D89032); *ftsZ* (AB324855); *glnA* (AB324934); *gltX* (AB325013); *gyrB* (AB325092); *pgi* (AB325171); *recA* (AB325250); *tpi* (AB325329) **Other strain no.:** K-MF-K-3 **References:** 16, 228, 229, 255, 299, 300, 367, 403, 404, 405, 406, 408, 435, 515, 525, 605, 781, 953, 1032, 1047, 1078, 1139 **Remarks:** Cryopreserved
- 99** **History:** < Watanabe, Makoto M. **Locality:** Lake Suwa/Nagano/Japan (1982-08-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 7 (Ref. 953) **Gene data:** 16S rRNA (AB023258); *ftsZ* (AB324856); *glnA* (AB324935); *gltX* (AB325014); *gyrB* (AB325093); *pgi* (AB325172); *recA* (AB325251); *tpi* (AB325330) **Other strain no.:** S-MA-S5 **References:** 245, 296, 301, 403, 404, 405, 406, 515, 953, 1047, 1107, 1139 **Remarks:** Cryopreserved
- 100** **History:** < Watanabe, Makoto M. **Locality:** Lake Suwa/Nagano/Japan (1982-08-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 8 (Ref. 953) **Gene data:** 16S rRNA (AB023259); *ftsZ* (AB324857); *glnA* (AB324936); *gltX* (AB325015); *gyrB* (AB325094); *pgi* (AB325173); *recA* (AB325252); *tpi* (AB325331) **Other strain no.:** S-MB-S7 **References:** 403, 404, 405, 406, 515, 727, 730, 785, 953, 1032, 1047, 1095, 1139 **Remarks:** Cryopreserved
- 101** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1982-10-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 9 (Ref. 953) **Gene data:** 16S rRNA (AB023260); *ftsZ* (AB324858); *glnA* (AB324937); *gltX* (AB325016); *gyrB* (AB325095); *pgi* (AB325174); *recA* (AB325253); *tpi* (AB325332) **Other strain no.:** TAC 48 (S-TAN-48) **References:** 80, 403, 404, 405, 406, 515, 567, 953, 1032, 1047, 1139 **Remarks:** Cryopreserved
- 102** **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 10 (Ref. 953) **Gene data:** 16S rRNA (D89033); *ftsZ* (AB324859); *glnA* (AB324938); *gltX* (AB325017); *gyrB* (AB325096); *pgi* (AB325175); *recA* (AB325254); *tpi* (AB325333); *mcyA* (AF110106); *mcyD* (AF110117); *mcyG* (AF110128); *mcyJ* (AF110139) **Other strain no.:** K-MV-20 **References:** 175, 236, 237, 241, 260, 268, 333, 350, 370, 403, 404, 405, 406, 408, 421, 435, 453, 515, 593, 604, 605, 737, 785, 896, 897, 953, 954, 1037, 1060, 1078, 1095, 1096, 1097, 1107, 1128, 1139 **Remarks:** Toxic
- 103** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 55-70 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 10 (Ref. 953) **Gene data:** *mcyA* (AF110107); *mcyD* (AF110118); *mcyG* (AF110129); *mcyJ* (AF110140) **Other strain no.:** TAC 44 (K-TAN-44) **References:** 298, 300, 385, 515, 527, 953, 954, 1032 **Remarks:** Toxic; Cryopreserved
- 104** **History:** < Watanabe, Makoto M. **Locality:** Imperial Palace/Tokyo/Japan (1982-11-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; MA; 25°C; 55-70 µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 11 (Ref. 953) **Gene data:** 16S rRNA (AB015387); 16S rRNA (AB023266); 16S rRNA (AJ133174); 16S-23S ITS region (AB015387); *ftsZ* (AB324860); *glnA* (AB324939); *gltX* (AB325018); *gyrB* (AB074771); *gyrB* (AB325097); *pgi* (AB325176); *recA* (AB325255); *tpi* (AB325334); *rpoC1* (AB074794); *rpoD1* (AB074821) **Other strain no.:** MW-H1 **References:** 403, 404, 405, 406, 408, 435, 515, 756, 848, 877, 953, 1095, 1128, 1139 **Remarks:** Cryopreserved

- 105** **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 55-70 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 12 (Ref. 953) **Gene data:** 16S rRNA (AB023267); *ftsZ* (AB324861); *glnA* (AB324940); *gltX* (AB325019); *gyrB* (AB325098); *pgi* (AB325177); *recA* (AB325256); *tpi* (AB325335) **Other strain no.:** K-MW-K4 **References:** 403, 404, 405, 406, 515, 953, 1128, 1139 **Remarks:** Cryopreserved
- 106** **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 55-70 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Large cell size; ST 1 (Ref. 953) **Gene data:** 16S rRNA (AB023268) **Other strain no.:** K-MW-19 **References:** 403, 404, 405, 406, 515, 785, 953, 1128, 1139 **Remarks:** Cryopreserved
- 107** **History:** < Watanabe, Makoto M. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; MA; 25°C; 55-70 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 13 (Ref. 953) **Gene data:** 16S rRNA (U40333); *ftsZ* (AB324862); *glnA* (AB324941); *gltX* (AB325020); *gyrB* (AB325099); *pgi* (AB325178); *recA* (AB325257); *tpi* (AB325336); *mcyA* (AF110108); *mcyD* (AF110119); *mcyG* (AF110130); *mcyJ* (AF110141) **Other strain no.:** KW-MW-7 **References:** 298, 299, 300, 325, 406, 407, 464, 465, 515, 604, 605, 879, 953, 954, 1060 **Remarks:** Toxic; Cryopreserved
- 108** **History:** < Watanabe, Makoto M. **Locality:** Lake Suwa/Nagano/Japan (1982-08-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 55-70 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 14 (Ref. 953) **Gene data:** 16S rRNA (AB023269); *ftsZ* (AB324863); *glnA* (AB324942); *gltX* (AB325021); *gyrB* (AB325100); *pgi* (AB325179); *recA* (AB325258); *tpi* (AB325337) **Other strain no.:** S-MW-52 **References:** 403, 404, 405, 406, 515, 953, 1128, 1139 **Remarks:** Cryopreserved
- 109** **History:** < Watanabe, Makoto M. **Locality:** Lake Yogo/Shiga/Japan (1982-07-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 15 (Ref. 953) **Gene data:** 16S rRNA (AB023270); *ftsZ* (AB324864); *glnA* (AB324943); *gltX* (AB325022); *gyrB* (AB325101); *pgi* (AB325180); *recA* (AB325259); *tpi* (AB325338) **Other strain no.:** Y-MW-24 **References:** 13, 403, 404, 405, 406, 515, 953, 1128, 1139 **Remarks:** Cryopreserved
- 110** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 1 (Ref. 953) **Gene data:** 16S rRNA (AB023271) **Other strain no.:** TAC 36 (K-TAN-36) **References:** 403, 404, 405, 406, 515, 953, 1128, 1139 **Remarks:** Cryopreserved
- 111** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 14 (Ref. 953) **Gene data:** 16S rRNA (D89034); 16S rRNA (AB015388); 16S-23S ITS region (AB015388) **Other strain no.:** TAC 37 (K-TAN-37) **References:** 403, 404, 405, 406, 408, 435, 515, 604, 605, 756, 877, 953, 1060, 1128, 1139 **Remarks:** Cryopreserved
- 112** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1982-10-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 16 (Ref. 953) **Gene data:** 16S rRNA (U40334); 16S rRNA (AB023272); *ftsZ* (AB324865); *glnA* (AB324944); *gltX* (AB325023); *gyrB* (AB325102); *pgi* (AB325181); *recA* (AB325260); *tpi* (AB325339) **Other strain no.:** TAC 52 (S-TAN-52) **References:** 403, 404, 405, 406, 407, 408, 435, 515, 605, 953, 1032, 1107, 1128, 1139 **Remarks:** Cryopreserved

- 298** **History:** < TAC **Other collection strain no.:** TAC 47 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-16) **Isolator:** Watanabe, Masayuki **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 60 (Ref. 953) **Gene data:** 16S rRNA (AB023261); *ftsZ* (AB324909); *glnA* (AB324988); *gltX* (AB325067); *gyrB* (AB325146); *pgi* (AB325225); *recA* (AB325304); *tpi* (AB325383) **Other strain no.:** TAC 47 (K-TAN-47) **References:** 11, 80, 130, 175, 197, 236, 254, 255, 333, 403, 404, 405, 406, 408, 428, 429, 435, 515, 529, 605, 612, 728, 785, 919, 953, 1032, 1060, 1097, 1125, 1127, 1128, 1139 **Remarks:** Toxic; Unstable; Cryopreserved
- 299** **History:** < Takamura, Noriko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1979-08-**) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 61 (Ref. 953) **Gene data:** 16S rRNA (AB023262); *ftsZ* (AB324910); *glnA* (AB324989); *gltX* (AB325068); *gyrB* (AB325147); *pgi* (AB325226); *recA* (AB325305); *tpi* (AB325384) **Other strain no.:** KN1133 **References:** 130, 245, 250, 403, 404, 405, 406, 515, 953, 1128, 1139 **Remarks:** Cryopreserved
- 478** **History:** < Yagi, Osami **Locality:** Lake Kasumigaura/Ibaraki/Japan (1977-09-**) **Isolator:** Yagi, Osami **Identified by:** Yagi, Osami **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *flos-aquae* (Wittrock) Elenkin **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MA; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Toxic; ST 62 (Ref. 953) **Gene data:** *ftsZ* (AB324911); *glnA* (AB324990); *gltX* (AB325069); *gyrB* (AB325148); *pgi* (AB325227); *recA* (AB325306); *tpi* (AB325385) **Other strain no.:** K-5 **References:** 251, 515, 953, 1084, 1085, 1086 **Remarks:** Toxic; Cryopreserved
- 604** **History:** < Yagi, Osami **Locality:** Lake Kasumigaura/Ibaraki/Japan (1977-09-**) **Isolator:** Yagi, Osami **Identified by:** Yagi, Osami **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 17 (Ref. 953) **Gene data:** 16S rRNA (AB023273); *ftsZ* (AB324866); *glnA* (AB324945); *gltX* (AB325024); *gyrB* (AB325103); *pgi* (AB325182); *recA* (AB325261); *tpi* (AB325340) **Other strain no.:** K-3A **References:** 120, 403, 404, 405, 406, 408, 417, 435, 515, 557, 852, 953, 1084, 1128, 1139 **Remarks:** Cryopreserved
- 843** **History:** < Otsuka, Shigeto **Other collection strain no.:** IAM M-247 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1997-08-28) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Type strain; ST 18 (Ref. 953) **Gene data:** Total genome sequence (AP009552); 16S rRNA (AB035549); *ftsZ* (AB324867); *glnA* (AB324946); *gltX* (AB325025); *gyrB* (AB325104); *pgi* (AB325183); *recA* (AB325262); *tpi* (AB325341) **Other strain no.:** NC7 **References:** 322, 753, 757, 885, 953 **Remarks:** Toxic; Cryopreserved
- 901** **History:** < Otsuka, Shigeto **Locality:** Dundee/Scotland/U.K. (1997-08-**) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **Formerly identified as:** *Microcystis novacekii* (Komárek) Compère **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor; ST 59 (Ref. 953) **Gene data:** *ftsZ* (AB324908); *glnA* (AB324987); *gltX* (AB325066); *gyrB* (AB325145); *pgi* (AB325224); *recA* (AB325303); *tpi* (AB325382) **Other strain no.:** BC18 **References:** 753, 953 **Remarks:** Cryopreserved
- 902** **History:** < Otsuka, Shigeto **Other collection strain no.:** TISTR 9196 **Locality:** Chon Buri/Thailand (1997-01-**) **Isolator:** Li, Renhui **Identified by:** Otsuka, Shigeto **Formerly identified as:** *Microcystis novacekii* (Komárek) Compère **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor; Toxic; ST 22 (Ref. 953) **Gene data:** *ftsZ* (AB324871); *glnA* (AB324950); *gltX* (AB325029); *gyrB* (AB325108); *pgi* (AB325187); *recA* (AB325266); *tpi* (AB325345) **Other strain no.:** TL2 **References:** 753, 953 **Remarks:** Toxic; Cryopreserved; Distribution for academic purpose only
- 933** **History:** < PCC **Other collection strain no.:** PCC 7941 **Locality:** Little Rideau Lake/Ontario/Canada **Isolator:** Gorham, P. R.; Carmichael, W. W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; MA; 25°C; 20-30 µmol/m²/s; 1 M **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 21 (Ref. 953) **Other strain no.:** NRC-1 (SS-17) **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1025** **History:** < Sano, Tomoharu **Locality:** Sapporo, Chuo-ku/Hokkaido/Japan (2000-06-22) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** Doutyou-1-3 **Remarks:** Toxic; Cryopreserved

- 1026** **History:** < Sano, Tomoharu **Locality:** Sapporo, Chuo-ku/Hokkaido/Japan (2000-06-22) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** Douyou-1-4 **Remarks:** Toxic; Cryopreserved
- 1027** **History:** < Sano, Tomoharu **Locality:** Lake Kasumigaura, Takahama-iri/Ibaraki/Japan (2000-08-19) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** Takahama-Ma-2 **Remarks:** Toxic; Cryopreserved
- 1028** **History:** < Sano, Tomoharu **Locality:** Lake Teganuma/Chiba/Japan (2000-09-10) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** TEGA-Mv-1 **Remarks:** Toxic; Cryopreserved
- 1029** **History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-15) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-MA-6-1 **Remarks:** Toxic; Cryopreserved
- 1043** **History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-19) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-MA-4-1 **Remarks:** Toxic; Cryopreserved
- 1050** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-01-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 34 (Ref. 953) **Gene data:** *ftsZ* (AB324883); *glnA* (AB324962); *gltX* (AB325041); *gyrB* (AB325120); *pgi* (AB325199); *recA* (AB325278); *tpi* (AB325357) **Other strain no.:** TAC 4 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1051** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-01-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 34 (Ref. 953) **Other strain no.:** TAC 6 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1052** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-02-21) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 24 (Ref. 953) **Gene data:** *ftsZ* (AB324873); *glnA* (AB324952); *gltX* (AB325031); *gyrB* (AB325110); *pgi* (AB325189); *recA* (AB325268); *tpi* (AB325347) **Other strain no.:** TAC 15 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1053** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-02-21) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis novacekii* (Komárek) Compère **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; ST 25 (Ref. 953) **Gene data:** *ftsZ* (AB324874); *glnA* (AB324953); *gltX* (AB325032); *gyrB* (AB325111); *pgi* (AB325190); *recA* (AB325269); *tpi* (AB325348) **Other strain no.:** TAC 19 **References:** 760, 953, 1028, 1031, 1032, 1034 **Remarks:** Cryopreserved
- 1054** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-02-21) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; ST 24 (Ref. 953) **Gene data:** 16S rRNA (AB012336); 16S rRNA (AB015374) **Other strain no.:** TAC 20 **References:** 755, 756, 760, 953, 1028, 1031, 1032, 1034 **Remarks:** Cryopreserved
- 1055** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 38; ST 26 (Ref. 953) **Gene data:** 16S rRNA (AB012334); 16S rRNA (AB015389); 16S rRNA (AB023274); *ftsZ* (AB324875); *glnA* (AB324954); *gltX* (AB325033); *gyrB* (AB325112); *pgi* (AB325191); *recA* (AB325270); *tpi* (AB325349) **Other strain no.:** TAC 38-1 **References:** 341, 403, 404, 405, 755, 756, 760, 953, 1032 **Remarks:** Toxic; Cryopreserved

- 1056** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 1 (Ref. 953) **Other strain no.:** TAC 39 **Reference:** 953 **Remarks:** Cryopreserved
- 1057** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 1 (Ref. 953) **Other strain no.:** TAC 40 **References:** 785, 953 **Remarks:** Cryopreserved
- 1058** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 45; ST 26 (Ref. 953) **Gene data:** 16S rRNA (AB015400) **Other strain no.:** TAC 45-1 **References:** 341, 756, 953, 1032 **Remarks:** Toxic; Cryopreserved
- 1059** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 26 (Ref. 953) **Other strain no.:** TAC 46 **References:** 760, 953, 1030, 1031, 1032 **Remarks:** Toxic; Cryopreserved
- 1060** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1982-10-04) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 9 (Ref. 953) **Other strain no.:** TAC 50 **References:** 953, 1034 **Remarks:** Cryopreserved
- 1061** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1982-10-04) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; ST 9 (Ref. 953) **Gene data:** 16S rRNA (AB023281) **Other strain no.:** TAC 51 **References:** 341, 403, 404, 405, 614, 760, 785, 953, 977, 1028, 1031, 1034 **Remarks:** Cryopreserved
- 1062** **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1982-10-04) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 57; ST 14 (Ref. 953) **Gene data:** 16S rRNA (AB015391); 16S rRNA (AB023276) **Other strain no.:** TAC 57-1 **Reference:** 953 **Remarks:** Cryopreserved
- 1063** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1982-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Ref. 953) **Other strain no.:** TAC 60 **References:** 341, 736, 760, 761, 762, 953, 1028, 1031, 1034 **Remarks:** Toxic; Cryopreserved
- 1064** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1982-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Ref. 953) **Other strain no.:** TAC 61 **References:** 341, 760, 953, 1028, 1031, 1033, 1034 **Remarks:** Toxic; Cryopreserved
- 1065** **History:** < TAC **Locality:** Lake Kutsuzawa/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 4 (Ref. 953) **Other strain no.:** TAC 62 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1066** **History:** < TAC **Locality:** Lake Kutsuzawa/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 4 (Ref. 953) **Other strain no.:** TAC 63 **References:** 760, 785, 953, 1028, 1031, 1033, 1034 **Remarks:** Toxic; Cryopreserved

- 1067** **History:** < TAC **Locality:** Chikatou-ike Pond/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 65; ST 27 (Ref. 953) **Gene data:** 16S rRNA (AB012337); 16S rRNA (AB015375); 16S rRNA (AB023285); *ftsZ* (AB324876); *glnA* (AB324955); *gltX* (AB325034); *gyrB* (AB325113); *pgi* (AB325192); *recA* (AB325271); *tpi* (AB325350) **Other strain no.:** TAC 65-2 **References:** 341, 614, 755, 756, 760, 953, 1028, 1031, 1032, 1034 **Remarks:** Cryopreserved
- 1068** **History:** < TAC **Locality:** Rokusuke-ike Pond/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis novacekii* (Komárek) Compère **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 66; ST 27 (Ref. 953) **Gene data:** 16S rRNA (AB015376); 16S rRNA (AB023286) **Other strain no.:** TAC 66-1 **References:** 341, 403, 404, 405, 614, 736, 756, 760, 953, 1028, 1031, 1034
- 1069** **History:** < TAC **Locality:** Rokusuke-ike Pond/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 35 (Ref. 953) **Gene data:** *ftsZ* (AB324884); *glnA* (AB324963); *gltX* (AB325042); *gyrB* (AB325121); *pgi* (AB325200); *recA* (AB325279); *tpi* (AB325358) **Other strain no.:** TAC 67 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1070** **History:** < TAC **Locality:** Rokusuke-ike Pond/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 69; ST 36 (Ref. 953) **Gene data:** *ftsZ* (AB324885); *glnA* (AB324964); *gltX* (AB325043); *gyrB* (AB325122); *pgi* (AB325201); *recA* (AB325280); *tpi* (AB325359) **Other strain no.:** TAC 69-1 **References:** 341, 760, 953, 1028, 1031, 1033, 1034, 1114 **Remarks:** Toxic; Cryopreserved
- 1071** **History:** < TAC **Locality:** Hakui, Ichinomiya-machi/Ishikawa/Japan (1982-09-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 70 **Other strain no.:** TAC 70-1 **References:** 341, 760, 1028, 1031, 1033, 1034 **Remarks:** Toxic; Cryopreserved
- 1072** **History:** < TAC **Locality:** Hakui, Ichinomiya-machi/Ishikawa/Japan (1982-09-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 71; ST 4 (Ref. 953) **Gene data:** 16S rRNA (AB012332); 16S rRNA (AB015362) **Other strain no.:** TAC 71-1 **References:** 755, 756, 760, 953, 1028, 1031, 1034 **Remarks:** Toxic; Cryopreserved
- 1073** **History:** < TAC **Locality:** Hakui, Ichinomiya-machi/Ishikawa/Japan (1982-09-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 72 **Remarks:** Cryopreserved
- 1074** **History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 73 **Other strain no.:** TAC 73-1 **References:** 341, 760, 761, 762, 1028, 1031, 1034 **Remarks:** Cryopreserved
- 1075** **History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 63 (Ref. 953) **Gene data:** *ftsZ* (AB324912); *glnA* (AB324991); *gltX* (AB325070); *gyrB* (AB325149); *pgi* (AB325228); *recA* (AB325307); *tpi* (AB325386) **Other strain no.:** TAC 74-1 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1076** **History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 75; ST 64 (Ref. 953) **Gene data:** 16S rRNA (AB023287); *ftsZ* (AB324913); *glnA* (AB324992); *gltX* (AB325071); *gyrB* (AB325150); *pgi* (AB325229); *recA* (AB325308); *tpi* (AB325387) **Other strain no.:** TAC 75-1 **References:** 403, 404, 405, 614, 760, 953, 1028, 1031, 1034 **Remarks:** Cryopreserved

- 1077** **History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 37 (Ref. 953) **Gene data:** *ftsZ* (AB324886); *glnA* (AB324965); *gltX* (AB325044); *gyrB* (AB325123); *pgi* (AB325202); *recA* (AB325281); *tpi* (AB325360) **Other strain no.:** TAC 76 **References:** 341, 614, 760, 953, 1028, 1031, 1033, 1034 **Remarks:** Cryopreserved
- 1078** **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 79 **Remarks:** Cryopreserved
- 1079** **History:** < TAC **Locality:** Lake Suigetsu/Fukui/Japan (1984-09-08) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 80 **Other strain no.:** TAC 80-1 **References:** 341, 736, 760, 761, 762, 1028, 1031, 1034 **Remarks:** Cryopreserved
- 1080** **History:** < TAC **Locality:** Lake Suigetsu/Fukui/Japan (1984-09-08) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 81 **Other strain no.:** TAC 81-1 **References:** 760, 785, 977, 1028, 1034 **Remarks:** Cryopreserved
- 1081** **History:** < TAC **Locality:** Koyama-ike Pond/Tottori/Japan (1984-09-07) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 82 **Other strain no.:** TAC 82-1 **References:** 341, 760, 977, 1028, 1031, 1034 **Remarks:** Cryopreserved
- 1082** **History:** < TAC **Locality:** Koyama-ike Pond/Tottori/Japan (1984-09-07) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 83 **Other strain no.:** TAC 83-1 **Reference:** 1028
- 1083** **History:** < TAC **Locality:** Ukiginu-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected **Other strain no.:** TAC 84 **References:** 760, 977, 1028, 1031, 1034 **Remarks:** Cryopreserved
- 1084** **History:** < TAC **Locality:** Ukiginu-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected **Other strain no.:** TAC 85 **References:** 341, 736, 760 **Remarks:** Cryopreserved
- 1085** **History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 86; ST 28 (Ref. 953) **Gene data:** 16S rRNA (AB012333); 16S rRNA (AB015363); *ftsZ* (AB324877); *glnA* (AB324956); *gltX* (AB325035); *gyrB* (AB325114); *pgi* (AB325193); *recA* (AB325272); *tpi* (AB325351) **Other strain no.:** TAC 86-1 **References:** 755, 756, 760, 761, 762, 953, 1028, 1031, 1034 **Remarks:** Toxic; Cryopreserved
- 1086** **History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 87 **Gene data:** 16S rRNA (AB015364) **Other strain no.:** TAC 87-1 **References:** 341, 756, 760, 761, 762, 1028, 1031, 1033, 1034 **Remarks:** Toxic; Cryopreserved
- 1087** **History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 88 **Reference:** 1028 **Remarks:** Cryopreserved
- 1088** **History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 89 **Reference:** 1028 **Remarks:** Cryopreserved

- 1089** **History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 90 **Reference:** 1028 **Remarks:** Cryopreserved
- 1090** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1984-08-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 91; ST 2 (Ref. 953) **Gene data:** 16S rRNA (AB012339); 16S rRNA (AB015367); 16S rRNA (AB023282) **Other strain no.:** TAC 91-1 **References:** 341, 403, 404, 405, 614, 736, 755, 756, 760, 761, 762, 953, 1028, 1031, 1034 **Remarks:** Cryopreserved
- 1091** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1984-08-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 92; ST 26 (Ref. 953) **Gene data:** 16S rRNA (AB015402); 16S rRNA (AB023278) **Other strain no.:** TAC 92-1 **References:** 341, 403, 404, 405, 614, 756, 760, 953, 1030, 1031, 1032, 1114 **Remarks:** Toxic; Cryopreserved
- 1092** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1984-08-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 93; ST 26 (Ref. 953) **Gene data:** 16S rRNA (AB015403) **Other strain no.:** TAC 93-1 **References:** 756, 953 **Remarks:** Toxic; Cryopreserved
- 1093** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1984-08-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 95; ST 65 (Ref. 953) **Gene data:** *ftsZ* (AB324914); *glnA* (AB324993); *gltX* (AB325072); *gyrB* (AB325151); *pgi* (AB325230); *recA* (AB325309); *tpi* (AB325388) **Other strain no.:** TAC 95-1 **References:** 341, 736, 760, 953, 1028, 1031, 1033, 1034 **Remarks:** Toxic; Cryopreserved
- 1094** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1984-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 39 (Ref. 953) **Gene data:** *ftsZ* (AB324888); *glnA* (AB324967); *gltX* (AB325046); *gyrB* (AB325125); *pgi* (AB325204); *recA* (AB325283); *tpi* (AB325362) **Other strain no.:** TAC 96 **Reference:** 953 **Remarks:** Cryopreserved
- 1095** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1984-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Ref. 953) **Gene data:** *ftsZ* (AB324878); *glnA* (AB324957); *gltX* (AB325036); *gyrB* (AB325115); *pgi* (AB325194); *recA* (AB325273); *tpi* (AB325352) **Other strain no.:** TAC 97 **References:** 341, 760, 953, 1028, 1031, 1033, 1034 **Remarks:** Toxic; Cryopreserved
- 1096** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1984-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 39 (Ref. 953) **Other strain no.:** TAC 98 **Reference:** 953 **Remarks:** Cryopreserved
- 1097** **History:** < TAC **Locality:** Shigure Dam/Tokyo/Japan (1984-11-**) **Isolator:** Watanabe, Yasunori **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 28 (Ref. 953) **Other strain no.:** TAC 109 **References:** 341, 760, 953, 1028, 1031, 1034 **Remarks:** Toxic; Cryopreserved
- 1098** **History:** < TAC **Locality:** Shigure Dam/Tokyo/Japan (1984-11-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 110; ST 38 (Ref. 953) **Gene data:** *ftsZ* (AB324887); *glnA* (AB324966); *gltX* (AB325045); *gyrB* (AB325124); *pgi* (AB325203); *recA* (AB325282); *tpi* (AB325361) **Other strain no.:** TAC 110-1 **References:** 341, 760, 953, 977, 1028, 1031, 1034 **Remarks:** Cryopreserved
- 1099** **History:** < TAC **Locality:** Noborio-ike Pond/Ehime/Japan (1988-10-21) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 113 **Other strain no.:** TAC 113-1 **References:** 736, 760, 1028, 1031, 1033, 1034 **Remarks:** Toxic; Cryopreserved

- 1100** **History:** < TAC **Locality:** Kathmandu/Nepal (1988-11-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 114; ST 30 (Ref. 953) **Gene data:** *ftsZ* (AB324879); *glnA* (AB324958); *gltX* (AB325037); *gyrB* (AB325116); *pgi* (AB325195); *recA* (AB325274); *tpi* (AB325353) **Other strain no.:** TAC 114-1 **Reference:** 953 **Remarks:** Cryopreserved
- 1101** **History:** < TAC **Locality:** Kathmandu/Nepal (1988-11-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 115; ST 40 (Ref. 953) **Gene data:** *ftsZ* (AB324889); *glnA* (AB324968); *gltX* (AB325047); *gyrB* (AB325126); *pgi* (AB325205); *recA* (AB325284); *tpi* (AB325363) **Other strain no.:** TAC 115-1 **Reference:** 953 **Remarks:** Cryopreserved
- 1102** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 66 (Ref. 953) **Gene data:** *ftsZ* (AB324915); *glnA* (AB324994); *gltX* (AB325073); *gyrB* (AB325152); *pgi* (AB325231); *recA* (AB325310); *tpi* (AB325389) **Other strain no.:** TAC 122 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1103** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 66 (Ref. 953) **Other strain no.:** TAC 123 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1104** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 67 (Ref. 953) **Gene data:** *ftsZ* (AB324916); *glnA* (AB324995); *gltX* (AB325074); *gyrB* (AB325153); *pgi* (AB325232); *recA* (AB325311); *tpi* (AB325390) **Other strain no.:** TAC 124 **References:** 953, 977 **Remarks:** Cryopreserved
- 1105** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 125; ST 31 (Ref. 953) **Gene data:** 16S rRNA (AB015368); 16S rRNA (AB023283); *ftsZ* (AB324880); *glnA* (AB324959); *gltX* (AB325038); *gyrB* (AB325117); *pgi* (AB325196); *recA* (AB325275); *tpi* (AB325354) **Other strain no.:** TAC 125-1 **References:** 403, 404, 405, 614, 756, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1106** **History:** < TAC **Locality:** Shin-ike Pond/Nagano/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 41 (Ref. 953) **Gene data:** *ftsZ* (AB324890); *glnA* (AB324969); *gltX* (AB325048); *gyrB* (AB325127); *pgi* (AB325206); *recA* (AB325285); *tpi* (AB325364) **Other strain no.:** TAC 126 **Reference:** 953 **Remarks:** Cryopreserved
- 1107** **History:** < TAC **Locality:** Kamisawa-ike Pond/Nagano/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; ST 42 (Ref. 953) **Gene data:** *ftsZ* (AB324891); *glnA* (AB324970); *gltX* (AB325049); *gyrB* (AB325128); *pgi* (AB325207); *recA* (AB325286); *tpi* (AB325365) **Other strain no.:** TAC 128 **References:** 953, 1028, 1114 **Remarks:** Cryopreserved
- 1108** **History:** < TAC **Locality:** Kamisawa-ike Pond/Nagano/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 43 (Ref. 953) **Gene data:** *ftsZ* (AB324892); *glnA* (AB324971); *gltX* (AB325050); *gyrB* (AB325129); *pgi* (AB325208); *recA* (AB325287); *tpi* (AB325366) **Other strain no.:** TAC 129 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1109** **History:** < TAC **Locality:** Dazaifu C.C./Fukuoka/Japan (1989-07-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 130 **Reference:** 1028 **Remarks:** Cryopreserved
- 1110** **History:** < TAC **Locality:** Dazaifu C.C./Fukuoka/Japan (1989-07-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 131 **Reference:** 1028 **Remarks:** Cryopreserved

- 1111 History:** < TAC **Locality:** Dazaifu C.C./Fukuoka/Japan (1989-07-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 132 **Remarks:** Cryopreserved
- 1112 History:** < TAC **Locality:** Dazaifu C.C./Fukuoka/Japan (1989-07-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 133 **Remarks:** Cryopreserved
- 1113 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1989-07-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 51 (Ref. 953) **Gene data:** *ftsZ* (AB324900); *glnA* (AB324979); *gltX* (AB325058); *gyrB* (AB325137); *pgi* (AB325216); *recA* (AB325295); *tpi* (AB325374) **Other strain no.:** TAC 134 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1114 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1989-07-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 52 (Ref. 953) **Gene data:** *ftsZ* (AB324901); *glnA* (AB324980); *gltX* (AB325059); *gyrB* (AB325138); *pgi* (AB325217); *recA* (AB325296); *tpi* (AB325375) **Other strain no.:** TAC 135 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1115 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 136; ST 44 (Ref. 953) **Gene data:** 16S rRNA (AB015369); *ftsZ* (AB324893); *glnA* (AB324972); *gltX* (AB325051); *gyrB* (AB325130); *pgi* (AB325209); *recA* (AB325288); *tpi* (AB325367) **Other strain no.:** TAC 136-1 **References:** 756, 953, 1028 **Remarks:** Cryopreserved
- 1116 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 137 **Reference:** 1028
- 1117 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 138 **Gene data:** 16S rRNA (AB015370) **Other strain no.:** TAC 138-1 **References:** 756, 1028 **Remarks:** Cryopreserved
- 1118 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 141 **Remarks:** Cryopreserved
- 1119 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 143 **Remarks:** Cryopreserved
- 1120 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 144 **Remarks:** Cryopreserved
- 1121 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 145 **Remarks:** Cryopreserved

- 1122** **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 146; ST 45 (Ref. 953) **Gene data:** 16S rRNA (AB023284); *ftsZ* (AB324894); *glnA* (AB324973); *gltX* (AB325052); *gyrB* (AB325131); *pgi* (AB325210); *recA* (AB325289); *tpi* (AB325368) **Other strain no.:** TAC 146-1 **References:** 403, 404, 405, 614, 953, 1028 **Remarks:** Cryopreserved
- 1123** **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 27 (Ref. 953) **Other strain no.:** TAC 147 **Reference:** 953
- 1124** **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 27 (Ref. 953) **Other strain no.:** TAC 148 **References:** 953, 1028
- 1125** **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 27 (Ref. 953) **Other strain no.:** TAC 149 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1126** **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 73 (Ref. 953) **Other strain no.:** TAC 150 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1127** **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 73 (Ref. 953) **Gene data:** *ftsZ* (AB324922); *glnA* (AB325001); *gltX* (AB325080); *gyrB* (AB325159); *pgi* (AB325238); *recA* (AB325317); *tpi* (AB325396) **Other strain no.:** TAC 151 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1128** **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 46 (Ref. 953) **Other strain no.:** TAC 152 **Reference:** 953 **Remarks:** Cryopreserved
- 1129** **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 46 (Ref. 953) **Gene data:** *ftsZ* (AB324895); *glnA* (AB324974); *gltX* (AB325053); *gyrB* (AB325132); *pgi* (AB325211); *recA* (AB325290); *tpi* (AB325369) **Other strain no.:** TAC 153 **Reference:** 953 **Remarks:** Cryopreserved
- 1130** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 154; ST 75 (Ref. 953) **Gene data:** *ftsZ* (AB324924); *glnA* (AB325003); *gltX* (AB325082); *gyrB* (AB325161); *pgi* (AB325240); *recA* (AB325319); *tpi* (AB325398) **Other strain no.:** TAC 154-1 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1131** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 76 (Ref. 953) **Other strain no.:** TAC 155 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1132** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 156; ST 74 (Ref. 953) **Gene data:** *ftsZ* (AB324923); *glnA* (AB325002); *gltX* (AB325081); *gyrB* (AB325160); *pgi* (AB325239); *recA* (AB325318); *tpi* (AB325397) **Other strain no.:** TAC 156-1 **References:** 953, 1028 **Remarks:** Cryopreserved

- 1133** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 157; ST 76 (Ref. 953) **Gene data:** 16S rRNA (AB023263); *ftsZ* (AB324925); *glnA* (AB325004); *glxX* (AB325083); *gyrB* (AB325162); *pgi* (AB325241); *recA* (AB325320); *tpi* (AB325399) **Other strain no.:** TAC 157-2 **References:** 614, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1134** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 159; ST 48 (Ref. 953) **Gene data:** *ftsZ* (AB324897); *glnA* (AB324976); *glxX* (AB325055); *gyrB* (AB325134); *pgi* (AB325213); *recA* (AB325292); *tpi* (AB325371) **Other strain no.:** TAC 159-1 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1135** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 160; ST 48 (Ref. 953) **Other strain no.:** TAC 160-1 **Reference:** 953 **Remarks:** Cryopreserved
- 1136** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 26 (Ref. 953) **Other strain no.:** TAC 162 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1137** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 1 (Ref. 953) **Other strain no.:** TAC 163 **References:** 953, 977 **Remarks:** Cryopreserved
- 1138** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 164; ST 1 (Ref. 953) **Other strain no.:** TAC 164-1 **Reference:** 953 **Remarks:** Cryopreserved
- 1139** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 55 (Ref. 953) **Gene data:** *ftsZ* (AB324904); *glnA* (AB324983); *glxX* (AB325062); *gyrB* (AB325141); *pgi* (AB325220); *recA* (AB325299); *tpi* (AB325378) **Other strain no.:** TAC 165 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1140** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 4 (Ref. 953) **Other strain no.:** TAC 166 **References:** 342, 760, 953, 1028, 1031, 1034 **Remarks:** Toxic; Cryopreserved
- 1141** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Other strain no.:** TAC 167 **References:** 342, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1142** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 56 (Ref. 953) **Gene data:** 16S rRNA (AB023264); *ftsZ* (AB324905); *glnA* (AB324984); *glxX* (AB325063); *gyrB* (AB325142); *pgi* (AB325221); *recA* (AB325300); *tpi* (AB325379) **Other strain no.:** TAC 169 **References:** 403, 404, 405, 614, 953, 1028, 1034 **Remarks:** Cryopreserved
- 1143** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis novacekii* (Komárek) Compère **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 170; ST 57 (Ref. 953) **Gene data:** 16S rRNA (AB012340); 16S rRNA (AB015365); *ftsZ* (AB324906); *glnA* (AB324985); *glxX* (AB325064); *gyrB* (AB325143); *pgi* (AB325222); *recA* (AB325301); *tpi* (AB325380) **Other strain no.:** TAC 170-1 **References:** 755, 756, 953 **Remarks:** Toxic; Cryopreserved

- 1144** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 58 (Ref. 953) **Gene data:** *ftsZ* (AB324907); *glnA* (AB324986); *gltX* (AB325065); *gyrB* (AB325144); *pgi* (AB325223); *recA* (AB325302); *tpi* (AB325381) **Other strain no.:** TAC 171 **Reference:** 953 **Remarks:** Cryopreserved
- 1145** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 58 (Ref. 953) **Other strain no.:** TAC 172 **References:** 342, 953 **Remarks:** Cryopreserved
- 1146** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 39 (Ref. 953) **Other strain no.:** TAC 173 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1147** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 39 (Ref. 953) **Other strain no.:** TAC 174 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1148** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Ref. 953) **Other strain no.:** TAC 175 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1149** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Ref. 953) **Other strain no.:** TAC 176 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1150** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 49 (Ref. 953) **Other strain no.:** TAC 177 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1151** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 49 (Ref. 953) **Gene data:** *ftsZ* (AB324898); *glnA* (AB324977); *gltX* (AB325056); *gyrB* (AB325135); *pgi* (AB325214); *recA* (AB325293); *tpi* (AB325372) **Other strain no.:** TAC 178 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1152** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Other strain no.:** TAC 179 **References:** 342, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1153** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Other strain no.:** TAC 180 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1154** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 181 **References:** 760, 761, 1028 **Remarks:** Cryopreserved
- 1155** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Ref. 953) **Other strain no.:** TAC 182 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved

- 1156** **History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Ref. 953) **Other strain no.:** TAC 183 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1157** **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 48 (Ref. 953) **Other strain no.:** TAC 185 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1158** **History:** < TAC **Locality:** Yame/Fukuoka/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 186 **Remarks:** Cryopreserved
- 1159** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Other strain no.:** TAC 187 **References:** 342, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1160** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Other strain no.:** TAC 188 **References:** 342, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1161** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Other strain no.:** TAC 189 **References:** 342, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1162** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Other strain no.:** TAC 190 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1163** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Other strain no.:** TAC 191 **References:** 342, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1164** **History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Ref. 953) **Gene data:** 16S rRNA (AB023265) **Other strain no.:** TAC 192 **References:** 403, 404, 405, 614, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1165** **History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 193 **Remarks:** Cryopreserved
- 1166** **History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 194 **Remarks:** Cryopreserved
- 1167** **History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 195 **Remarks:** Cryopreserved
- 1168** **History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 196 **Remarks:** Cryopreserved

- 1169** **History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 197 **Remarks:** Cryopreserved
- 1170** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 50 (Ref. 953) **Gene data:** *ftsZ* (AB324899); *glnA* (AB324978); *gltX* (AB325057); *gyrB* (AB325136); *pgi* (AB325215); *recA* (AB325294); *tpi* (AB325373) **Other strain no.:** TAC 198 **Reference:** 953 **Remarks:** Cryopreserved
- 1171** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 50 (Ref. 953) **Other strain no.:** TAC 199 **Reference:** 953 **Remarks:** Cryopreserved
- 1172** **History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 50 (Ref. 953) **Other strain no.:** TAC 200 **Reference:** 953 **Remarks:** Cryopreserved
- 1173** **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 311 **Reference:** 1028 **Remarks:** Cryopreserved
- 1174** **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 312 **Remarks:** Cryopreserved
- 1175** **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 313 **Remarks:** Cryopreserved
- 1176** **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 314 **Remarks:** Cryopreserved
- 1177** **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 315 **Remarks:** Cryopreserved
- 1178** **History:** < TAC **Locality:** Shin-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 316 **Reference:** 1028 **Remarks:** Cryopreserved
- 1179** **History:** < TAC **Locality:** Shin-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 317 **Remarks:** Cryopreserved
- 1180** **History:** < TAC **Locality:** Shin-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 319 **Remarks:** Cryopreserved
- 1181** **History:** < TAC **Locality:** Shin-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 320 **Remarks:** Cryopreserved
- 1182** **History:** < TAC **Locality:** Sakase-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 321 **Reference:** 1028 **Remarks:** Cryopreserved

- 1198** **History:** < TAC **Locality:** Futago-ike Pond/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 339 **Reference:** 1028 **Remarks:** Cryopreserved
- 1199** **History:** < TAC **Locality:** Futago-ike Pond/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 340 **Remarks:** Cryopreserved
- 1200** **History:** < TAC **Locality:** Shinjaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 341 **Reference:** 1028 **Remarks:** Cryopreserved
- 1201** **History:** < TAC **Locality:** Shinjaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 342 **Remarks:** Cryopreserved
- 1202** **History:** < TAC **Locality:** Shinjaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 343 **Remarks:** Cryopreserved
- 1203** **History:** < TAC **Locality:** Shinjaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 344 **Reference:** 1028 **Remarks:** Cryopreserved
- 1204** **History:** < TAC **Locality:** Shinjaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 345 **Remarks:** Cryopreserved
- 1205** **History:** < TAC **Locality:** Johoku-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 346 **Reference:** 1028 **Remarks:** Cryopreserved
- 1206** **History:** < TAC **Locality:** Johoku-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 347 **Reference:** 1028
- 1207** **History:** < TAC **Locality:** Johoku-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 348 **Remarks:** Cryopreserved
- 1208** **History:** < TAC **Locality:** Johoku-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 349 **Remarks:** Cryopreserved
- 1209** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-09-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 32 (Ref. 953) **Gene data:** *ftsZ* (AB324881); *glnA* (AB324960); *gltX* (AB325039); *gyrB* (AB325118); *pgi* (AB325197); *recA* (AB325276); *tpi* (AB325355) **Other strain no.:** TAC 350 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1210** **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-09-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 351 **Remarks:** Cryopreserved
- 1211** **History:** < TAC **Locality:** Lake Tofutsu/Hokkaido/Japan (1990-09-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 47 (Ref. 953) **Gene data:** *ftsZ* (AB324896); *glnA* (AB324975); *gltX* (AB325054); *gyrB* (AB325133); *pgi* (AB325212); *recA* (AB325291); *tpi* (AB325370) **Other strain no.:** TAC 352 **Reference:** 953

- 1212** **History:** < TAC **Locality:** Lake Tofutsu/Hokkaido/Japan (1990-09-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 353 **Reference:** 617 **Remarks:** Cryopreserved
- 1213** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 68 (Ref. 953) **Gene data:** *ftsZ* (AB324917); *glnA* (AB324996); *gltX* (AB325075); *gyrB* (AB325154); *pgi* (AB325233); *recA* (AB325312); *tpi* (AB325391) **Other strain no.:** TAC 355 **References:** 402, 617, 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1214** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 69 (Ref. 953) **Gene data:** *ftsZ* (AB324918); *glnA* (AB324997); *gltX* (AB325076); *gyrB* (AB325155); *pgi* (AB325234); *recA* (AB325313); *tpi* (AB325392) **Other strain no.:** TAC 356 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1215** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 70 (Ref. 953) **Gene data:** *ftsZ* (AB324919); *glnA* (AB324998); *gltX* (AB325077); *gyrB* (AB325156); *pgi* (AB325235); *recA* (AB325314); *tpi* (AB325393) **Other strain no.:** TAC 357 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1216** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Ref. 953) **Gene data:** *ftsZ* (AB324920); *glnA* (AB324999); *gltX* (AB325078); *gyrB* (AB325157); *pgi* (AB325236); *recA* (AB325315); *tpi* (AB325394) **Other strain no.:** TAC 358 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1217** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Ref. 953) **Other strain no.:** TAC 359 **Reference:** 953 **Remarks:** Cryopreserved
- 1218** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Ref. 953) **Other strain no.:** TAC 360 **Reference:** 953 **Remarks:** Cryopreserved
- 1219** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Gene data:** *ftsZ* (AB324921); *glnA* (AB325000); *gltX* (AB325079); *gyrB* (AB325158); *pgi* (AB325237); *recA* (AB325316); *tpi* (AB325395) **Other strain no.:** TAC 361 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1220** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 362 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1221** **History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 363 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1222** **History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 33 (Ref. 953) **Gene data:** *ftsZ* (AB324882); *glnA* (AB324961); *gltX* (AB325040); *gyrB* (AB325119); *pgi* (AB325198); *recA* (AB325277); *tpi* (AB325356) **Other strain no.:** TAC 364 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved

- 1223** **History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 33 (Ref. 953) **Other strain no.:** TAC 365 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1224** **History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Ref. 953) **Other strain no.:** TAC 368 **Reference:** 953 **Remarks:** Cryopreserved
- 1225** **History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 369 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1226** **History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 370 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1227** **History:** < TAC **Locality:** Fukuchi Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 371 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1228** **History:** < TAC **Locality:** Fukuchi Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 372 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1229** **History:** < TAC **Locality:** Fukuchi Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 373 **Reference:** 953 **Remarks:** Toxic
- 1230** **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 78 (Ref. 953) **Gene data:** *ftsZ* (AB324927); *glnA* (AB325006); *gltX* (AB325085); *gyrB* (AB325164); *pgi* (AB325243); *recA* (AB325322); *tpi* (AB325401) **Other strain no.:** TAC 374 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1231** **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 78 (Ref. 953) **Other strain no.:** TAC 375 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1232** **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Ref. 953) **Other strain no.:** TAC 376 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1233** **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Ref. 953) **Other strain no.:** TAC 377 **Reference:** 953 **Remarks:** Cryopreserved
- 1234** **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 378 **References:** 953, 1028 **Remarks:** Toxic

- 1235** **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 379 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1236** **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 380 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1237** **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 68 (Ref. 953) **Other strain no.:** TAC 381 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1238** **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 33 (Ref. 953) **Other strain no.:** TAC 382 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1239** **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Ref. 953) **Gene data:** *ftsZ* (AB324928); *glnA* (AB325007); *glxX* (AB325086); *gyrB* (AB325165); *pgi* (AB325244); *recA* (AB325323); *tpi* (AB325402) **Other strain no.:** TAC 383 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1240** **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Ref. 953) **Other strain no.:** TAC 384 **Reference:** 953 **Remarks:** Cryopreserved
- 1241** **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 385 **References:** 953, 1028 **Remarks:** Toxic; Cryopreserved
- 1242** **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Ref. 953) **Other strain no.:** TAC 386 **Reference:** 953 **Remarks:** Toxic; Cryopreserved
- 1243** **History:** < TAC **Locality:** Maesato Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Ref. 953) **Other strain no.:** TAC 387 **References:** 953, 1028 **Remarks:** Cryopreserved
- 1244** **History:** < TAC **Locality:** Maesato Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Ref. 953) **Other strain no.:** TAC 388 **Reference:** 953 **Remarks:** Cryopreserved
- 1245** **History:** < TAC **Locality:** Maesato Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Ref. 953) **Other strain no.:** TAC 389 **Reference:** 953 **Remarks:** Cryopreserved
- 1246** **History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 390 **Reference:** 1028 **Remarks:** Cryopreserved

- 1247 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 391
- 1248 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 392 **Remarks:** Cryopreserved
- 1249 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 393 **Remarks:** Cryopreserved
- 1250 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 394 **Remarks:** Cryopreserved
- 1251 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1990-03-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 17 (Ref. 953) **Other strain no.:** TAC 395 **Reference:** 953 **Remarks:** Cryopreserved
- 1252 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1990-03-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 53 (Ref. 953) **Gene data:** *ftsZ* (AB324902); *glnA* (AB324981); *gltX* (AB325060); *gyrB* (AB325139); *pgi* (AB325218); *recA* (AB325297); *tpi* (AB325376) **Other strain no.:** TAC 396 **Reference:** 953 **Remarks:** Cryopreserved
- 1253 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1990-03-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 8 (Ref. 953) **Other strain no.:** TAC 401 **Reference:** 953 **Remarks:** Cryopreserved
- 1254 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1990-03-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 8 (Ref. 953) **Other strain no.:** TAC 402 **Reference:** 953 **Remarks:** Cryopreserved
- 1255 History:** < TAC **Locality:** Lake Tsukui/Kanagawa/Japan (1990-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 405 **Remarks:** Cryopreserved
- 1256 History:** < TAC **Locality:** Lake Tsukui/Kanagawa/Japan (1990-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 406 **Remarks:** Cryopreserved
- 1257 History:** < TAC **Locality:** Nakagusuku/Okinawa/Japan (1990-12-11) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 407
- 1354 History:** < TAC **Locality:** Chikatou-ike Pond/Nagano/Japan (1982-09-13) **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 64-1 **Remarks:** Cryopreserved
- 1355 History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (1984-09-09) **Formerly identified as:** *Microcystis viridis* (A. Brown) Lemmermann **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 78-1 **Remarks:** Cryopreserved
- 1356 History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 18°C; 15-25 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 158-1 **Remarks:** Cryopreserved

MICROMONAS : Prasinophyceae**Micromonas pusilla** (Butcher) Manton et Parke

- 1411 History:** < TKB **Locality:** Tokyo/Japan (2004-10-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-189 (nak78)
- 1412 History:** < TKB **Locality:** Motobu, Sesoko/Okinawa/Japan (2004-11-08) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-214 (nak100)
- 1413 History:** < TKB **Locality:** Tennozu Canal/Tokyo/Japan (2004-12-03) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-215 (nak101)

MICROTHAMNION : Trebouxiophyceae**Microthamnion kützingerianum** Nägeli

- 479 History:** < Kasai, Fumie **Locality:** Toyohira River/Hokkaido/Japan (1987-07-02) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 10°C; 6-12 µmol/m²/s; 6 M (10°C; 10-15 µmol/m²/s) **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488588) **Other strain no.:** Tst11-6 **References:** 515, 917, 918 **Remarks:** Cryopreserved

MISCHOCOCCUS : Xanthophyceae**Mischococcus** sp.

- 1963 History:** < TKB **Locality:** Ryugasaki/Ibaraki/Japan (2006-01-13) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 20 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-325

MONOMASTIX : Prasinophyceae**Monomastix minuta** Skuja

- 255 History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** SIS-Mono **References:** 123, 333, 620
- 256 History:** < Suda, Shoichiro **Locality:** Ozegahara/Gunma/Japan (1983-08-29) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Bog water) **Other strain no.:** Oz-35-m

MONORAPHIDIUM : Chlorophyceae**Monoraphidium circinale** (Nygaard) Nygaard

- 480 History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Gene data:** *rbcL* (AB175933); *rbcL* (AB175934) **Other strain no.:** SIS-1-M **Reference:** 515

Monoraphidium contortum (Thuret) Komárková-Legnerová

- 384 History:** < Sawaguchi, Tomohiro **Locality:** Lake Unagiike/Kagoshima/Japan (1985-02-20) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** Ep-i **Reference:** 515

Monoraphidium griffithii (Berkeley) Komárková-Legnerová

385 History: < Sawaguchi, Tomohiro **Locality:** Urizura/Ibaraki/Japan (1984-10-28) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** AWA **Reference:** 515

Monoraphidium minutum (Nägeli) Komárková-Legnerová

Syn. *Selenastrum minutum* (Nägeli) Collins

2282 History: < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM C-139 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Monoraphidium sp.

2267 History: < IAM (2007) < Fujii, Katsuhiko **Other collection strain no.:** IAM C-632 **Locality:** Yamaguchi/Japan **Isolator:** Fujii, Katsuhiko **Identified by:** Fujii, Katsuhiko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** (Activated sludge) **Characteristics:** Astaxantin production **Other strain no.:** GK 12

MURIELLA : Chlorophyceae*Muriella zofingiensis* (Dönz) Hindák

Syn. *Chlorella zofingiensis* Dönz

2175 History: < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-111; ATCC 30412; CCAP 211-14; SAG B211-14; UTEX 32; CAUP H6503 **Locality:** Ramooswald near Zofingen/Switzerland **Isolator:** Dönz, O. C. **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing (1991) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** (Soil) **Gene data:** 18S rRNA (AB488563) **References:** 351, 449, 451, 452

MYCHONASTES : Chlorophyceae*Mychonastes* sp.

2334 History: < Takamura, Noriko **Locality:** Lake Kizaki/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488564) **Other strain no.:** KIZ 11

2336 History: < Takamura, Noriko **Locality:** Lake Yamanaka/Yamanashi/Japan (1991-04-11) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488565) **Other strain no.:** YA 4

2339 History: < Takamura, Noriko **Locality:** Lake Sagami/Kanagawa/Japan (1991-04-11) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488566) **Other strain no.:** SA 2

2340 History: < Takamura, Noriko **Locality:** Lake Nakatsuna/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488567) **Other strain no.:** NT 2

2341 History: < Takamura, Noriko **Locality:** Lake Tateshina/Nagano/Japan (1991-05-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488568) **Other strain no.:** TATE 1

MYRMECIA : Trebouxiophyceae*Myrmecia biatorellae* (Tschermk-Woess et Plessl) Peterson

2181 History: < IAM (2007) **Other collection strain no.:** IAM C-356 **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

MYXOSARCINA : Cyanophyceae**Myxosarcina burmensis** Skuja

- 481 History:** < Kasai, Fumie **Other collection strain no.:** IAM M-481 **Locality:** Mt. Tsukuba/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 5 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Stream water) **Other strain no.:** (1)-45 **References:** 124, 515, 917 **Remarks:** Cryopreserved

NANNOCHLOROPSIS : Eustigmatophyceae**Nannochloropsis oculata** (Droop) Hibberd

- 2145 History:** < IAM (2007) < Hara, Yoshiaki (1988) < Suisan Center of Fukushima Prefecture **Other collection strain no.:** IAM ST-4 **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM (agar); 20°C; 10-20 µmol/m²/s; 3 M **Habitat:** Marine
- 2146 History:** < IAM (2007) < Maruyama, Ko (around 1986) **Other collection strain no.:** IAM ST-6 **Locality:** Institute of Fisheries/Nagasaki/Japan **Isolator:** Maruyama, Ko **Identified by:** Maruyama, Ko, *et al.* **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM (agar); 20°C; 10-20 µmol/m²/s; 3 M **Reference:** 450

NEMALIONOPSIS : Florideophyceae**Nemalionopsis tortuosa** Yoneda et Yagi

Syn. *Nemalionopsis shawii* Skuja f. *caroliniana* Howard et Parker

- 1464 History:** < Iima, Masafumi **Locality:** Kase River/Kumamoto/Japan (2000-05-31) **Isolator:** Iima, Masafumi **Identified by:** Iima, Masafumi (2000-05-31) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** ①
- 1465 History:** < Iima, Masafumi **Locality:** Koujiro River/Nagasaki/Japan (2001-06-10) **Isolator:** Tateno, Madoka **Identified by:** Iima, Masafumi (2001-06-10) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** ②
- 1466 History:** < Kawachi, Masanobu **Locality:** Ohkubo-ga/Okinawa/Japan (2002-03-16) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** OOK-1 **Remarks:** Cryopreserved
- 1467 History:** < Higa, Atsushi **Locality:** Izumi/Kumamoto/Japan (2002-11-01) **Isolator:** Higa, Atsushi **Identified by:** Yoshida, Tadao (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KS2 **Reference:** 127
- 1468 History:** < Higa, Atsushi **Locality:** Izumi/Kumamoto/Japan (2002-11-01) **Isolator:** Higa, Atsushi **Identified by:** Yoshida, Tadao (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KS5 **Remarks:** Cryopreserved
- 1469 History:** < Higa, Atsushi **Locality:** Izumi/Kumamoto/Japan (2002-11-**) **Isolator:** Higa, Atsushi **Identified by:** Yoshida, Tadao (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KS6 **Remarks:** Cryopreserved
- 1470 History:** < Iima, Masafumi **Locality:** Kashima/Kumamoto/Japan (2002-03-02) **Isolator:** Iima, Masafumi **Identified by:** Iima, Masafumi (2002-03-02) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** ③
- 1471 History:** < Iima, Masafumi **Locality:** Oh River/Nagasaki/Japan (2002-04-08) **Isolator:** Teruya, Akiko **Identified by:** Iima, Masafumi (2002-04-08) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** ④
- 1472 History:** < Iima, Masafumi **Locality:** Yamanota River (tributary stream of Yue River)/Nagasaki/Japan (2002-09-24) **Isolator:** Teruya, Akiko **Identified by:** Iima, Masafumi (2002-09-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** ⑤

- 2023** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN1
- 2024** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN2
- 2025** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN3
- 2026** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN4
- 2027** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN5
- 2028** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN6
- 2029** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN7
- 2030** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN8
- 2031** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** KMN9
- 2075** **History:** < Iima, Masafumi **Locality:** Kamabuta River/Nagasaki/Japan (2003-04-08) **Isolator:** Ishikawa, Yukari **Identified by:** Iima, Masafumi (2003-04-08) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 030408
- 2076** **History:** < Iima, Masafumi **Locality:** Kuma River, Branch/Kumamoto/Japan (2003-05-10) **Isolator:** Ishikawa, Yukari **Identified by:** Iima, Masafumi (2003-05-10) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 030510
- 2077** **History:** < Iima, Masafumi **Locality:** Kikuchi, Kikoji/Kumamoto/Japan (2003-05-12) **Isolator:** Iima, Masafumi **Identified by:** Iima, Masafumi (2003-05-12) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 030512
- 2078** **History:** < Iima, Masafumi **Locality:** Shizu River/Kumamoto/Japan (2003-06-01) **Isolator:** Ishikawa, Yukari **Identified by:** Iima, Masafumi (2003-06-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 030601
- 2079** **History:** < Iima, Masafumi **Locality:** Sueoyoshi/Kagoshima/Japan (2003-06-14) **Isolator:** Ishikawa, Yukari **Identified by:** Iima, Masafumi (2003-06-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 030314
- 2080** **History:** < Iima, Masafumi **Locality:** Asakura, Shimoura/Fukuoka/Japan (2005-06-12) **Isolator:** Kubota, Yuki **Identified by:** Iima, Masafumi (2005-06-14) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 050612
- 2081** **History:** < Iima, Masafumi **Locality:** Asakura, Kuwahara/Fukuoka/Japan (2005-06-30) **Isolator:** Kubota, Yuki **Identified by:** Iima, Masafumi (2005-06-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 050630

- 2082** **History:** < Iima, Masafumi **Locality:** Kawabe/Kagoshima/Japan (2006-03-29) **Isolator:** Iima, Masafumi **Identified by:** Iima, Masafumi (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 060329
- 2083** **History:** < Iima, Masafumi **Locality:** Jin-ya River/Fukuoka/Japan (2006-06-19) **Isolator:** Yamashita, Hirokatsu **Identified by:** Iima, Masafumi (2006-06-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN (Ref. 474) **Other strain no.:** 060619

NEPHROSELMIS : Prasinophyceae

Nephroselmis astigmatica Inouye et Pienaar

- 252** **History:** < Inouye, Isao **Locality:** Tateyama Harbor/Chiba/Japan (1983-08-10) **Isolator:** Inouye, Isao **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** 810-13 **Reference:** 1131
- 1415** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-06-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 14 D **Habitat:** Marine (Sand and seawater) **Characteristics:** Benthic **Other strain no.:** TKB-075 (nrc054)

Nephroselmis olivacea Stein

- 483** **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type (+) **Other strain no.:** S-N-2-1 **References:** 123, 443, 620, 890, 892, 1131
- 484** **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type (-) **Gene data:** Mitochondrial DNA (AF110138); Plastid DNA (AF137379) **Other strain no.:** S-N-5-8 **References:** 994, 995, 996
- 485** **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type (-) **Other strain no.:** S-N-3-4 **References:** 443, 620, 890, 892

Nephroselmis pyriformis (Carter) Ettl

- 1416** **History:** < TKB **Locality:** East China Sea/Japan (2004-07-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-187 (nak76)
- 1817** **History:** < TKB **Locality:** Onahama Harbor/Fukushima/Japan (2004-07-07) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-247

Nephroselmis sp.

- 1414** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-06-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Benthic **Other strain no.:** TKB-076 (nrc055)
- 1417** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2002-08-09) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-041 (nrc015-028)
- 1418** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2004-03-09) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-096 (nrc)
- 1818** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-244

2309 **History:** < Suda, Shoichiro **Locality:** Harima-nada/Japan (1988-08-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** 813H-7

Nephroselmis spinosa Suda et M. M. Watanabe

934 **History:** < Suda, Shoichiro **Locality:** Port Hedland/Australia (1991-10-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Marine (Sediment) **Characteristics:** Euryhaline **Other strain no.:** S222 **References:** 886, 1131

935 **History:** < Suda, Shoichiro **Locality:** Hamerin Pool/Australia (1991-10-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Marine (Sediment) **Characteristics:** Euryhaline **Other strain no.:** SD959-3 **References:** 886, 1131

Nephroselmis viridis Inouye nom. nud.

486 **History:** < Suda, Shoichiro **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide; Authentic strain **Gene data:** 18S rRNA (AB214976) **Other strain no.:** H-70-2 **References:** 123, 1131

NETRIUM : Charophyceae

Netrium digitus (Ehrenberg ex Ralfs) Itzigsohn et Rothe var. *digitus*

2288 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-587 (= C-311); UTEX 1257 **Isolator:** Biebel **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Homothallic

Netrium digitus (Ehrenberg ex Ralfs) Itzigsohn et Rothe var. *lamellosum* (Brébisson) Grönblad

2289 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-588 (= C-312); UTEX 1255 **Isolator:** Biebel **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Heterothallic; Crosses with UTEX 1256

NITELLA : Charophyceae

Nitella acuminata A. Braun ex Wallman var. *capitulifera* (Allen) Imahori

1607 **History:** < Sakayama, Hidetoshi **Locality:** Kasumigaura General Park, aquatic plant area/Ibaraki/Japan (2004-07-28) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** SWCN-1; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-96

Nitella axilliformis Imahori

Syn. *Nitella translucens* (Persoon) C. Agardh f. *axilliformis* (Imahori) R. D. Wood

1608 **History:** < Shimmen, Teruo **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 22°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-27

1609 **History:** < Sakayama, Hidetoshi **Locality:** Tamatsukuri/Ibaraki/Japan (2004-06-29) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 22°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-81

Nitella comptonii J. Groves

1704 **History:** < Sakayama, Hidetoshi **Locality:** Kunigami/Okinawa/Japan (2005-03-03) **Identified by:** Sakayama, Hidetoshi (2005-03-03) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; SWCN-3; 20°C; 16 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Gene data:** ITS-5.8S rRNA (AB236678); *atpB* (AB236672); *psaB* (AB236675); *rbcL* (AB236669) **Other strain no.:** S091 **References:** 786, 787

1705 **History:** < Sakayama, Hidetoshi **Locality:** Kume Isl./Okinawa/Japan (2005-01-25) **Identified by:** Sakayama, Hidetoshi (2005-01-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; SWCN-3; 20°C; 16 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Gene data:** ITS-5.8S rRNA (AB236679); *atpB* (AB236673); *psaB* (AB236676); *rbcL* (AB236670) **Other strain no.:** S137 **References:** 786, 787

1706 **History:** < Sakayama, Hidetoshi **Locality:** Onna/Okinawa/Japan (2005-03-03) **Identified by:** Sakayama, Hidetoshi (2005-03-03) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; SWCN-3; 20°C; 16 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Gene data:** ITS-5.8S rRNA (AB236680); *atpB* (AB236674); *psaB* (AB236677); *rbcL* (AB236671) **Other strain no.:** S138 **References:** 786, 787

Nitella flexilis (L.) C. Agardh

1610 **History:** < Shimmen, Teruo **Locality:** Sanda/Hyogo/Japan **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-28

1611 **History:** < Sakayama, Hidetoshi **Locality:** Oh-ike Pond/Hyogo/Japan (2001-06-02) **Isolator:** Sakayama, Hidetoshi **Identified by:** Sakayama, Hidetoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-62; S069 **Reference:** 786

1612 **History:** < Sakayama, Hidetoshi **Locality:** Naradani-ike Pond/Kagawa/Japan (2004-06-15) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-78

1613 **History:** < Sakayama, Hidetoshi **Locality:** Lake Yunoko/Tochigi/Japan (2004-07-27) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-93

Nitella furcata (Roxburgh ex Bruzelius) C. Agardh var. *furcata*

1614 **History:** < Shimmen, Teruo **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-23

1615 **History:** < Sakayama, Hidetoshi **Locality:** Urabandai-kogen/Fukushima/Japan (1999-10-08) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Gene data:** ITS-5.8S rRNA (AB169927); *atpB* (AB110843); *psaB* (AB191749); *rbcL* (AB076059) **Other strain no.:** CH-111; S037 **References:** 786, 788, 789, 790, 791

1616 **History:** < Sakayama, Hidetoshi **Locality:** Naradani-ike Pond/Kagawa/Japan (2004-06-15) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-68

1617 **History:** < Sakayama, Hidetoshi **Locality:** Kasumigaura General Park, aquatic plant area/Ibaraki/Japan (2004-07-28) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-95

Nitella gracilens Morioka

Syn. *Nitella furcata* (Roxburgh ex Bruzelius) C. Agardh f. *gracilens* (Morioka) R. D. Wood

1619 **History:** < Shimmen, Teruo **Identified by:** Sakayama, Hidetoshi (2004-04-13) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-26

1620 **History:** < Nozaki, Hisayoshi **Locality:** Lake Ashinoko/Kanagawa/Japan (1995-11-18) **Isolator:** Ishimoto, Miwa (Re-isolation) **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-34

1621 **History:** < Sakayama, Hidetoshi **Locality:** Ouji-ga-ike Pond/Hyogo/Japan (2004-06-18) **Isolator:** Ishimoto, Miwa (Re-isolation) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-76

1622 **History:** < Sakayama, Hidetoshi **Locality:** Ouji-ga-ike Pond/Hyogo/Japan (2004-06-18) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-77

Nitella hyalina (DC.) C. Agardh

1623 History: < Shimmen, Teruo **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-29

Nitella japonica Allen

Syn. *Nitella furcata* (Roxburgh ex Bruzelius) C. Agardh f. *japonica* (Allen) R. D. Wood

1624 History: < Sakayama, Hidetoshi **Locality:** Mannou/Kagawa/Japan (2004-06-16) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** SWCN-1; SWCN-3; 22°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-63

1625 History: < Sakayama, Hidetoshi **Locality:** Mannou/Kagawa/Japan (2004-06-16) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** SWCN-1; SWCN-3; 22°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Other strain no.:** CH-64

Nitella megaspora (J. Groves) Sakayama

Syn. *Nitella pseudoflabellata* A. Braun f. *megaspora* (J. Groves) R. D. Wood

1628 History: < Sakayama, Hidetoshi **Locality:** Junsai-numa Pond/Hyogo/Japan (2002-09-12) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Gene data:** ITS-5.8S rRNA (AB169944); *atpB* (AB169962); *psaB* (AB191768); *rbcL* (AB169970) **Other strain no.:** CH-114; S073 **References:** 786, 789, 790

Nitella mirabilis Nordstedt ex J. Groves

1629 History: < Higuchi, Sumio **Locality:** Ohgemi-ike Pond/Nagano/Japan **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Other strain no.:** CH-107; S134

Nitella moriokae R. D. Wood

Syn. *Nitella moniliformis* Morioka non Zaneveld; *Nitella rigida* Allen f. *moriokae* (R. D. Wood) R. D. Wood

1632 History: < Nohara, Seiichi **Locality:** Lake Kasumigaura, Takahamairi/Ibaraki/Japan (2001-08-23) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2004-12-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-3; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; Germinated from a buried oospore **Other strain no.:** CH-48; S133

1633 History: < Sakayama, Hidetoshi **Locality:** Sanda, Kamizukise/Hyogo/Japan (2002-09-20) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Other strain no.:** CH-61; S105

Nitella pulchella Allen

Syn. *Nitella dualis* Nordstedt f. *pulchella* (Allen) R. D. Wood

1634 History: < Sakayama, Hidetoshi **Locality:** Lake Onifukuro-ike/Hyogo/Japan (2001-06-03) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** SWC-1; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN (Ref. 474) **Gene data:** *atpB* (AB110841); *rbcL* (AB110867) **Other strain no.:** CH-112; S051 **References:** 786, 788

Nitella sp.

1618 History: < Sakayama, Hidetoshi **Locality:** Onnato River/Okinawa/Japan **Identified by:** Sakayama, Hidetoshi (2006-07-10) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Other strain no.:** CH-105

1635 History: < Satake, Kiyoshi **Locality:** Jinden-ike Pond/Ibaraki/Japan (2001-07-04) **Identified by:** Kawachi, Masanobu (2001-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Other strain no.:** CH-46

1636 History: < Sakayama, Hidetoshi **Locality:** Kasumigaura General Park, aquatic plant area/Ibaraki/Japan (2004-07-28) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 1 M **Habitat:** Freshwater **Other strain no.:** CH-97

NITELLOPSIS : Charophyceae*Nitellopsis obtusa* (Desvaux) J. Groves

- 1637 History:** < Iwasaki, Naohiko **Locality:** Lake Nojiri/Nagano/Japan (1974-08-08) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Dioecious; CR+EN (Ref. 474) **Other strain no.:** CH-1
- 1638 History:** < Higuchi, Sumio < Iwasaki, Naohiko **Locality:** Lake Nojiri/Nagano/Japan (1974-08-08) **Identified by:** Iwasaki, Naohiko (1974-08-08) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20 µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Dioecious; Male; CR+EN (Ref. 474) **Gene data:** *rbcL* (AB195320) **Other strain no.:** CH-56 **Reference:** 339

NITZSCHIA : Bacillariophyceae*Nitzschia closterium* (Ehrenberg) Smith

- 2351 History:** < IAM (2007) **Other collection strain no.:** IAM B-16 **Locality:** Misaki/Kanagawa/Japan **Isolator:** Tokuda **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 8-15 µmol/m²/s; 3 M

Nitzschia palea (Kützing) W. Smith

- 487 History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-04-21) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSI; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 3st-0-57 **Reference:** 917

Nitzschia sp.

- 1339 History:** < Nakano, Shinichi **Locality:** Uchiumi/Ehime/Japan **Isolator:** Shime, Mari **Identified by:** Nakano, Shinichi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** A6
- 1340 History:** < Nakano, Shinichi **Locality:** Uchiumi/Ehime/Japan **Isolator:** Shime, Mari **Identified by:** Nakano, Shinichi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** B4

NOSTOC : Cyanophyceae*Nostoc carneum* Agardh

- 2107 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-35 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Characteristics:** Chromatic adaptation

Nostoc commune Vaucher ex Bornet et Flahault

- 24 History:** < IAM (1983) **Other collection strain no.:** IAM M-13 **Locality:** Kurobe Gorge/Toyama/Japan **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Moss) **Characteristics:** Isolated from *Cavicularia densa* **References:** 215, 515, 605, 910, 1013, 1047 **Remarks:** Cryopreserved
- 38 History:** < IAM (1983) **Other collection strain no.:** IAM M-115 **Locality:** Marble Point/Antarctica **Isolator:** Holm-Hansen, O. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Dry sand) **Other strain no.:** M-48-a **References:** 215, 515 **Remarks:** Cryopreserved

Nostoc entophytum Bornet et Flahault

- 2358 History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-267; TISTR 8161 **Locality:** Trat/Thailand **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-6 µmol/m²/s; 3 M **Habitat:** (Soil) **Remarks:** Distribution for academic purpose only

Nostoc linckia Bornet ex Bornet et Flauhault

- 25 **History:** < IAM (1983) **Other collection strain no.:** IAM M-16 (= M-251) **Locality:** Kagoshima/Japan **Isolator:** Ishikawa, Masako **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Gene data:** 16S rRNA (AB074503); *gyrB* (AB074769); *rpoC1* (AB074792); *rpoD1* (AB074819) **References:** 515, 848, 1013

Nostoc linckia Bornet ex Bornet et Flauhault var. *arvense* C. B. Rao

- 28 **History:** < IAM (1983) **Other collection strain no.:** IAM M-30 **Locality:** Kagoshima/Japan **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Maruyama, Ko; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **References:** 215, 515, 1013 **Remarks:** Cryopreserved

Nostoc minutum Desmazières ex Bornet et Flauhault

- 26 **History:** < IAM (1983) **Other collection strain no.:** IAM M-17 **Locality:** Ishigaki Isl./Okinawa/Japan **Isolator:** Ishikawa, Masako **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Characteristics:** Chromatic adaptation **References:** 124, 515, 531, 729, 1013, 1047
- 29 **History:** < IAM (1983) **Other collection strain no.:** IAM M-31 **Locality:** Ishigaki Isl./Okinawa/Japan **Isolator:** Ishikawa, Masako **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **References:** 515, 1013, 1047

Nostoc punctiforme (Kützing) Hariot

- 2108 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM M-15 **Isolator:** Watanabe, Atsushi **Identified by:** Watanabe, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen *Peltigera erumpens*) **Characteristics:** Nitrogen fixation; Chromatic adaptation

Nostoc sp.

- 2109 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-270 **Locality:** Hyogo/Japan **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-01
- 2110 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-271 **Locality:** Japan **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** YK-01
- 2111 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-272 **Locality:** Japan **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** KK-01
- 2112 **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-280 (= M-47) **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M
- 2113 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-292 **Locality:** Iwate/Japan (2003-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 4 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** IK-01
- 2114 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-294 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 4 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-02

OCHROMONAS : Chrysophyceae*Ochromonas danica* Pringsheim

- 2142 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM CS-4 (= CS-2); ATCC 30004; CCAP 933/2; SAG 933-7; UTEX L 1298; CCAP 933/2B; CCMP 585 **Locality:** near Everdrup/Denmark **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** O (semi-solid); 20°C; 40-50 µmol/m²/s; 14 D **Habitat:** Freshwater **References:** 51, 462, 1077

Ochromonas minuta Pringsheim

- 2143** **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM CS-5 (= CS-3); CCAP 933/10; SAG 933-10; UTEX L 1300
Locality: Solling/Germany **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** O (semi-solid); 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water)

Ochromonas sp.

- 1828** **History:** < TKB **Locality:** East China Sea (2004-07-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2004-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30 µmol/m²/s; 3 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-152
- 2300** **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 2 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** KY-1S

OCHROSPHAERA : Prymnesiophyceae*Ochrosphaera neapolitana* Schussnig

- 1395** **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; 15°C; 35-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-103 (ym-11)
- 1964** **History:** < TKB **Locality:** Tatsukushi Beach/Kochi/Japan (2006-07-14) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 20 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-324

ODONTELLA : Bacillariophyceae*Odontella aurita* Agardh

- 589** **History:** < Ono, Sachiko **Locality:** Penzance/U.K. (1991-03-15) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** St-22 **Reference:** 969

Odontella longicuris (Greville) Hoban

- 590** **History:** < Ono, Sachiko **Locality:** Hitachi/Ibaraki/Japan (1990-09-26) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** St-11

OEDOGONIUM : Chlorophyceae*Oedogonium obesum* Wittrock ex Hirn

- 203** **History:** < IAM (1983) **Other collection strain no.:** IAM C-348 **Locality:** Japan **Isolator:** Saito, E. **Identified by:** Saito, E. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Other strain no.:** 807 **References:** 215, 515

OLISTHODISCUS : Raphidophyceae*Olisthodiscus luteus* Carter

- 15** **History:** < Inouye, Isao **Locality:** Seto Inland Sea/Okayama/Japan **Isolator:** Inouye, Isao **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Coastal soil) **Characteristics:** Red tide **Other strain no.:** Olisth **References:** 9, 122, 135, 224, 354, 356, 448, 539, 677, 1004, 1119 **Remarks:** Difficult to transport
- 1379** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2004-03-09) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-097 (nrc) **Remarks:** Difficult to transport

1831 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-07-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-262 **Remarks:** Difficult to transport

OLTMANSIELLOPSIS : Ulvophyceae

Oltmannsiellopsis geminata Inouye et Chihara

672 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1986-06-04) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Reference:** 515

Oltmannsiellopsis unicellularis Inouye et Chihara

359 **History:** < Suda, Shoichiro **Locality:** Ieshima Isls./Hyogo/Japan (1984-08-10) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Authentic strain **Other strain no.:** 810YB-6 **References:** 44, 515

Oltmannsiellopsis viridis (Hargraves et Steele) Chihara et Inouye

360 **History:** < Suda, Shoichiro **Locality:** Onagawa Bay/Miyagi/Japan (1984-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** 18S rRNA (D86495); Plastid DNA (DQ291132) **Other strain no.:** 8280G41-2 **References:** 44, 515, 595, 767

1825 **History:** < TKB **Locality:** Shizugawa Bay/Miyagi/Japan (2005-08-31) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-249

OOCYSTIS : Trebouxiophyceae

Oocystis borgei Snow

659 **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **Culture conditions:** C; 15°C; 8-15 µmol/m²/s; 6 M (15°C; 15-22 µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** AT2-26 **References:** 515, 917 **Remarks:** Cryopreserved

Oocystis lacustris Chodat

660 **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 8-15 µmol/m²/s; 6 M (15°C; 15-22 µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** Ast-3-1 **References:** 515, 917 **Remarks:** Cryopreserved

661 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 6 M **Habitat:** Freshwater (River water) **Other strain no.:** 4st-3-9 **References:** 515, 917 **Remarks:** Cryopreserved

662 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 6 M **Habitat:** Freshwater (River water) **Other strain no.:** 1st-2-9 **References:** 515, 916, 917 **Remarks:** Cryopreserved

OOLITHOTUS : Prymnesiophyceae

Oolithotus fragilis (Lohmann) Reinhardt

1320 **History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-01-23) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 35

1321 **History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2003-01-15) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 58

1322 **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Now as naked cells **Other strain no.:** MH 80

OPHIOCYTIUM : Xanthophyceae

Ophiocytium capitatum Wolle

1011 **History:** < Moriya, Mayumi **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2000-05-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #86 **Reference:** 122

1384 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2004-06-24) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 40-50 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-125 (nak19)

Ophiocytium parvulum Wolle

1385 **History:** < TKB **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2004-06-24) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 40-50 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-126 (nak20)

OSCILLATORIA : Cyanophyceae

Oscillatoria amphibia Agardh ex Gomont

361 **History:** < Watanabe, Makoto M. **Locality:** Asaji Bay/Nagasaki/Japan (1985-07-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** Oa **References:** 124, 515 **Remarks:** Cryopreserved

Oscillatoria animalis Agardh ex Gomont

206 **History:** < IAM (1983) **Other collection strain no.:** IAM M-75 **Locality:** Japan **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **References:** 124, 215, 515 **Remarks:** Cryopreserved

Oscillatoria laetevirens Gomont

31 **History:** < IAM (1983) **Other collection strain no.:** IAM M-42 (= M-242) **Locality:** Kawaji Hot Spring/Tochigi/Japan **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Hot spring **References:** 215, 515, 1047

Oscillatoria limnetica Lemmermann

36 **History:** < IAM (1983) **Other collection strain no.:** IAM M-92 **Locality:** Nakano-ku/Tokyo/Japan **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial **References:** 19, 124, 215, 515, 720 **Remarks:** Cryopreserved

Oscillatoria mougeotii Kützing

2115 **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-281 (= M-72) **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M

Oscillatoria neglecta Lemmermann

2116 **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-82 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Characteristics:** Toxic **Gene data:** 16S rRNA (AB003168) **Other strain no.:** Murano 400 (PC-G) **References:** 196, 256, 257, 909

Oscillatoria rosea Utermöhl

- 208** **History:** < Ichimura, Yoji **Other collection strain no.:** IAM M-220 **Locality:** Asaji Bay/Nagasaki/Japan (1983-08-19) **Isolator:** Ichimura, Yoji **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** 16S rRNA (AB033164) **Other strain no.:** NGS-1 **References:** 124, 196, 256, 257, 515, 827 **Remarks:** Cryopreserved

Oscillatoria sp.

- 2118** **History:** < IAM (2007) < Safferman, R. S. **Other collection strain no.:** IAM M-117 **Identified by:** Ishida, Tatuya **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Gene data:** 16S rRNA (AB003163) **Other strain no.:** CU 1407/1 **References:** 196, 256, 257
- 2308** **History:** < Yanagimoto, Masakatsu **Locality:** Lake Chad/Chad **Isolator:** Yanagimoto, Masakatsu **Identified by:** Yanagimoto, Masakatsu **States:** Unialgal **Culture conditions:** SOT; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 60-70 µmol/m²/s) **Habitat:** Salt water (Water)

Oscillatoria tenuis Agardh ex Gomont

- 33** **History:** < IAM (1983) **Other collection strain no.:** IAM M-50 **Locality:** Setagaya-ku, Ohara-cho/Tokyo/Japan **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Gene data:** 16S rRNA (AB042844) **References:** 124, 215, 515, 719 **Remarks:** Cryopreserved

OSTREOPSIS : Dinophyceae*Ostreopsis siamensis* Schmidt

- 1404** **History:** < TKB **Locality:** Yaene Harbor/Tokyo/Japan (2003-06-27) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-064 (AK-06) **Remarks:** Difficult to transport

OVULINATA : Imbricatea*Ovulinata parva* Anderson, Rogerson et Hannah

- 2377** **History:** < TKB **Locality:** Ashiya-hama/Hyogo/Japan (2005-06-27) **Isolator:** Yabuki, Akinori **Identified by:** Yabuki, Akinori (2008-**-**) **Culture conditions:** ESM; 20°C; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Benthic **Other strain no.:** TKB-342

OXYRRHIS : Oxyrrhea*Oxyrrhis marina* Dujardin

- 494** **History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe/Aomori/Japan (1988-08-22) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Mixed; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Predator; Feeds on *Pyramimonas parkeae* (NIES-254) **Other strain no.:** 3700X **Remarks:** Difficult to transport

PANDORINA : Chlorophyceae*Pandorina colemaniae* Nozaki

- 572** **History:** < Nozaki, Hisayoshi **Locality:** Kourakuen/Okayama/Japan (1988-10-12) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Isogamy; Mating type (+); Crosses with NIES-573 **Gene data:** *atpB* (AB014027); *psaA* (AB044232); *psaB* (AB044457); *psbC* (AB044512); *rbcL* (D63441) **Other strain no.:** 88-1025-1 **References:** 515, 646, 657, 663, 666
- 573** **History:** < Nozaki, Hisayoshi **Locality:** Kourakuen/Okayama/Japan (1988-10-12) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Isogamy; Mating type (-); Crosses with NIES-572 **Other strain no.:** 89-0131-P-3 **References:** 515, 657

Pandorina morum (O. F. Müller) Bory

- 242** **History:** < Suda, Shoichiro **Locality:** Lake Ozenuma/Fukushima/Japan (1983-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-243 and 362 **Other strain no.:** Oz-Pa-2 **Reference:** 515
- 243** **History:** < Suda, Shoichiro **Locality:** Lake Ozenuma/Fukushima/Japan (1983-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-242 **Other strain no.:** Oz-Pa-3 **Reference:** 515
- 362** **History:** < Suda, Shoichiro **Locality:** Lake Ozenuma/Fukushima/Japan (1983-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-242 **Other strain no.:** Oz-Pa-1 **Reference:** 515
- 886** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 854 **Locality:** Bloomington/Indiana/U.S.A. (1955-09-**) **Isolator:** Coleman, A. W. **Identified by:** Coleman, A. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Heterothallic; Isogamy **Gene data:** *atpB* (AB044180); *psaA* (AB044231); *psaB* (AB044456); *psbC* (AB044510); *psbC* (AB044511); *rbcL* (AB044167) **References:** 50, 663
- 887** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 880 **Locality:** Tulare County/California/U.S.A. (1951-02-**) **Isolator:** Coleman, A. W. **Identified by:** Coleman, A. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** (Soil) **Characteristics:** Heterothallic; Isogamy **Gene data:** *atpB* (AB044179); *psaA* (AB044229); *psaA* (AB044230); *psaB* (AB044455); *psbC* (AB044509); *rbcL* (AB044166) **References:** 50, 663
- 888** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1726 **Locality:** Kimberley/South Africa (1967-07-22) **Isolator:** Palmer, E. **Identified by:** Palmer, E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** (Soil) **Characteristics:** Heterothallic; Isogamy; Mating type (+); Crosses with NIES-889 **Reference:** 663
- 889** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1727 **Locality:** Kimberley/South Africa (1967-07-22) **Isolator:** Palmer, E. **Identified by:** Palmer, E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** (Soil) **Characteristics:** Heterothallic; Isogamy; Mating type (-); Crosses with NIES-888 **Gene data:** *atpB* (AB044178); *psaA* (AB044228); *psaB* (AB044454); *psbC* (AB044508); *rbcL* (AB044165) **Reference:** 663
- 890** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2326 **Locality:** Kawai Dam/Ishikawa/Japan (1977-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Other water bloom; Heterothallic; Isogamy **Gene data:** *atpB* (AB044177); *psaA* (AB044227); *psaB* (AB044453); *psbC* (AB044506); *psbC* (AB044507); *rbcL* (AB044164) **Other strain no.:** Ishi-1 **References:** 651, 663

Pandorina morum (O. F. Müller) Bory var. *morum*

- 574** **History:** < Nozaki, Hisayoshi **Locality:** Nepal (1986-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (+); Crosses with NIES-575 **Gene data:** *atpB* (AB014025); *atpB* (AB014026); *psaA* (AB044226); *psaB* (AB044452); *psbC* (AB044505); *rbcL* (D63442) **Other strain no.:** 7916-P-7 **References:** 515, 631, 646, 663, 666, 668
- 575** **History:** < Nozaki, Hisayoshi **Locality:** Nepal (1986-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (-); Crosses with NIES-574 **Other strain no.:** 7916-P-8 **References:** 515, 631

PARACHLORELLA : Trebouxiophyceae*Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et WolfSyn. *Chlorella kessleri* Fott et Nováková

- 2152** **History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-33 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488589)
- 2153** **History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-37 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488590)

- 2154 History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-38 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488591)
- 2155 History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-39 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488592)
- 2156 History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-47 **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488593)
- 2157 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM C-143 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Kessler E. (1993); Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488594) **References:** 449, 498, 509, 510
- 2158 History:** < IAM (2007) **Other collection strain no.:** IAM C-155 **Identified by:** Kessler, E. (1994); Re-identified at NIES by DNA sequencing **Formerly identified as:** *Scenedesmus acutus* Meyen **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488595)
- 2159 History:** < IAM (2007) < Soeder, C. J. (1966) < CCAP **Other collection strain no.:** IAM C-208; CAUP H1901; CCAP 211/11G; SAG 211-11g; UTEX 262 **Isolator:** Winokur **Identified by:** Kessler, E. (1993); Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 16S rRNA (AJ242769); 16S rRNA (AJ387750); 18S rRNA (AJ242765); 18S rRNA (AB488596) **Reference:** 1094
- 2160 History:** < IAM (2007) < Tsuzuki, Mikio (1988) < Miyachi, Shigetoh (1977) < Schmid, G. H. **Other collection strain no.:** IAM C-531; ATCC 11468; CCAP 211/11H; SAG 211-11h; UTEX 263 **Locality:** U.S.A. **Isolator:** Pratt, R. **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488597) **References:** 5, 111, 118, 178, 192, 193, 351, 414, 461, 487, 489, 491, 497, 498, 499, 504, 507, 508, 509, 510, 511, 570, 572, 573, 574, 575, 576, 577, 578, 579, 580, 705, 865, 866, 869, 870, 921, 922, 923, 985, 986, 987, 988, 989, 990, 991, 992, 993, 1093, 1100, 1101
- 2161 History:** < IAM (2007) < Kamiya, A.; Miyachi, Shigetoh < Schmid, G. H. **Other collection strain no.:** IAM C-425; SAG 211-11h/20 **Isolator:** Schwarze, P.; Frandsen, N. O. **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** *Chlorella vulgaris* Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** Tre (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Yellow mutant of NIES-2160 (IAM C-531) **Gene data:** 18S rRNA (AB488598) **References:** 461, 826, 992
- 2162 History:** < IAM (2007) < Kamiya, A. (1990-10-23) < Miyachi, Shigetoh < Schmid, G. H. **Other collection strain no.:** IAM C-539; SAG 9.80 **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** *Chlorella vulgaris* Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** White mutant of NIES-2160 (IAM C-531) **Gene data:** 18S rRNA (AB488599) **Other strain no.:** Schwarze 125 **References:** 310, 311, 312, 313, 490, 491, 826, 992
- 2177 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM C-625 (= C-151) **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** *Chlorella* sp. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488600)
- 2178 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM C-627 (= C-157) **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** *Chlorella* sp. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488601)
- 2179 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM C-628 (= C-160) **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** *Chlorella* sp. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488602)

PARAPHYSOMONAS : Chrysophyceae

Paraphysomonas vestita De Saedeleer

- 1377 History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2004-10-15) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO + Wheat; 20°C; 20 D **Habitat:** Freshwater (Pond water) **Characteristics:** Heterotrophic **Other strain no.:** TKB-136 (NY0155)

PAULSCHULZIA : Chlorophyceae**Paulschulzia pseudovolvox** Skuja

727 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 167 **Locality:** Tvarminne/Finland **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater **Gene data:** *atpB* (AB014040); *psaA* (AB044422); *psaA* (AB044423); *psaB* (AB044473); *psbC* (AB044531); *psbC* (AB044532); *rbcL* (D86837) **References:** 75, 515, 663, 666

PAVLOVA : Pavlovophyceae**Pavlova gyrans** Butcher

623 **History:** < Sawaguchi, Tomohiro **Locality:** Matoya Bay/Mie/Japan (1984-09-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Marine (Water) **Other strain no.:** MB-D-24

Pavlova pinguis J. C. Green

1398 **History:** < TKB **Locality:** Wakayama/Japan (2003-05-19) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Water) **Other strain no.:** TKB-068 (AK-10)

Pavlova sp.

1399 **History:** < TKB **Locality:** Wakayama/Japan (2003-07-29) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Water) **Other strain no.:** TKB-069 (AK-11)

1400 **History:** < TKB **Locality:** Ishikawa/Japan **Isolator:** Yoshii, Yukie **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine **Other strain no.:** TKB-070 (AK-12)

1401 **History:** < TKB **Locality:** Amachi Beach/Okinawa/Japan (2003-12-**) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** TKB-093 (nrc)

1815 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-241

1816 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-242

1965 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-10-18) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 20 µmol/m²/s; 14 D **Habitat:** Marine (Sand) **Other strain no.:** TKB-326

PEDIASTRUM : Chlorophyceae**Pediastrum angulosum** Meneghini var. *angulosum*

300 **History:** < Kasai, Fumie **Locality:** Higashiroshima/Hiroshima/Japan (1983-10-**) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** 83-24-1-7 **Reference:** 515

Pediastrum boryanum (Turpin) Meneghini

209 **History:** < Watanabe, Michiko H. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-12-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *coxI* (D63659) **Other strain no.:** K-P-40 **References:** 171, 515 **Remarks:** Cryopreserved

- 301** **History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** Pcy (AB218889) **Other strain no.:** TAC 56-3A (TAN-56-3A) **References:** 515, 568, 569 **Remarks:** Cryopreserved

Pediastrum duplex Meyen

- 212** **History:** < Watanabe, Michiko H. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** KW-P-1 **References:** 515, 1001 **Remarks:** Cryopreserved

Pediastrum duplex Meyen var. *duplex*

- 210** **History:** < Yuri, Akira **Locality:** Tsukuba/Ibaraki/Japan (1983-05-25) **Isolator:** Yuri, Akira **Identified by:** Yuri, Akira; Watanabe, Masayuki (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** Pe-16 **Reference:** 515 **Remarks:** Cryopreserved
- 213** **History:** < Hiwatari, Takehiko **Locality:** Tsukuba/Ibaraki/Japan (1983-05-25) **Isolator:** Hiwatari, Takehiko **Identified by:** Hiwatari, Takehiko; Watanabe, Masayuki (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** *atpB* (AB084306); *Pcy* (AB218890); *psaB* (AB084340); *rbcL* (AB084333) **Other strain no.:** AQ-P-1 **References:** 189, 515, 668, 1047 **Remarks:** Cryopreserved

Pediastrum duplex Meyen var. *gracillimum* W. et G. S. West

- 211** **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F50-1 **Reference:** 515 **Remarks:** Cryopreserved
- 214** **History:** < Hiwatari, Takehiko **Locality:** Tsukuba/Ibaraki/Japan (1983-08-02) **Isolator:** Hiwatari, Takehiko **Identified by:** Hiwatari, Takehiko; Watanabe, Masayuki (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** KR-P-2 **Reference:** 515

Pediastrum simplex Meyen

- 215** **History:** < Watanabe, Michiko H. **Locality:** Lake Biwa/Shiga/Japan (1982-07-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** B-P-18 **Reference:** 515 **Remarks:** Cryopreserved
- 302** **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F-26-4 **Reference:** 515 **Remarks:** Cryopreserved

Pediastrum tetras (Ehrenberg) Ralfs

- 216** **History:** < Watanabe, Michiko H. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-12-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** K-P-30 **Reference:** 515 **Remarks:** Cryopreserved

PEDINELLA : Dictyochophyceae

Pedinella sp.

- 2346** **History:** < Nozaki, Hisayoshi **Locality:** Lake Nojiri (depth 15m)/Nagano/Japan (1992-06-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Moestrup, Øjvind; Kawachi, Masanobu (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C/6G; 10°C; 15-20 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Mixotrophic; Authentic strain **Other strain no.:** 92-912-1

Pedinella squamata Sekiguchi, Kawachi, Nakayama et Inouye

- 1008** **History:** < Moriya, Mayumi **Locality:** Nakagusuku Bay/Okinawa/Japan (2002-03-16) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Mixotrophic **Other strain no.:** M-11

PEDINOMONAS : Pedinophyceae*Pedinomonas minor* Korshikov

- 363 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1984-05-08) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Other strain no.:** H31P4

PELAGOMONAS : Pelagophyceae*Pelagomonas calceolata* Andersen et Saunders

- 1003 **History:** < Kawachi, Masanobu < CCMP **Other collection strain no.:** CCMP 1214 **Locality:** North Pacific, Central Gyre (1973-02-17) **Isolator:** Lewin, Ralph A. **Identified by:** Andersen, Robert A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 22°C; 20-30 $\mu\text{mol}/\text{m}^2/\text{s}$; 14 D **Habitat:** Marine **Reference:** 122

PENIUM : Charophyceae*Penium margaritaceum* Brébisson

- 217 **History:** < IAM (1983) **Other collection strain no.:** IAM C-397 (= C-589) **Locality:** Rumbhara/Nepal (1965-11-01) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic **Other strain no.:** N-76-20 **References:** 215, 515
- 303 **History:** < Kasai, Fumie **Locality:** Tsukiyono/Gunma/Japan (1984-06-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Ditch water) **Other strain no.:** 84-25-1 **Reference:** 515

PERCOLOMONAS : Percolomonadea*Percolomonas* sp.

- 1441 **History:** < TKB **Locality:** Chiba Harbor/Chiba/Japan (2002-11-29) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-016 (NY0123) **Reference:** 127

PERIDINIUM : Dinophyceae*Peridinium bipes* Stein f. *globosum* Lindemann

- 495 **History:** < Sawaguchi, Tomohiro **Locality:** Lake Onogawa/Fukushima/Japan (1985-07-30) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** LOND-9 **Reference:** 353 **Remarks:** Difficult to transport

Peridinium bipes Stein f. *occultatum* (Lindemann) Lefèvre

- 497 **History:** < Sawaguchi, Tomohiro **Locality:** Lake Kizaki/Nagano/Japan (1988-04-20) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Carefoot; 15°C; 35-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Red tide **Other strain no.:** LK420 **Remarks:** Difficult to transport

Peridinium pseudolaeve Lefèvre

- 1405 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Other water bloom **Other strain no.:** TKB-048 (nak-03) **Remarks:** Difficult to transport

Peridinium volzii Lemmermann

- 365 **History:** < Sawaguchi, Tomohiro **Locality:** Ajiro/Iwate/Japan (1984-09-08) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** Carefoot; 15°C; 35-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** HND-1 **Remarks:** Difficult to transport

- 501** **History:** < Sawaguchi, Tomohiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-04-**) **Isolator:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Carefoot; 15°C; 35-50 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** SPSP-2 **Remarks:** Difficult to transport

Peridinium willei Huitfeldt-Kaas

- 304** **History:** < Sawaguchi, Tomohiro **Locality:** Tsukiyono/Gunma/Japan (1984-06-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** Carefoot; 15°C; 35-50 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** 8423-P **Reference:** 128 **Remarks:** Difficult to transport
- 366** **History:** < Sawaguchi, Tomohiro **Locality:** Tsuchiura/Ibaraki/Japan (1985-04-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** Carefoot; 15°C; 35-50 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** SPD-1 **Remarks:** Difficult to transport

PHACOTUS : Chlorophyceae

Phacotus lenticularis (Ehrenberg) Stein

- 858** **History:** < Nozaki, Hisayoshi **Locality:** Germany **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 2 M **Gene data:** 18S rRNA (X91628); *atpB* (AB014039); *psaB* (AB084373); *psaB* (AB084374); *rbcL* (AJ001883) **Other strain no.:** KR 91/1 **References:** 172, 666, 668
- 859** **History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 61-1 **Locality:** Germany **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 2 M **Gene data:** *rbcL* (AJ001884) **Reference:** 172

PHAEOCYSTIS : Prymnesiophyceae

Phaeocystis globosa Scherffel

- 388** **History:** < Sawaguchi, Tomohiro **Locality:** Hachijo Isl./Tokyo/Japan (1984-04-19) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **Formerly identified as:** *Phaeocystis pouchetii* (Hariot) Lagerheim **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 10 D (20°C; 40-50 µmol/m²/s) **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** *coxI* (AB000120) **Other strain no.:** 8-P **References:** 127, 170 **Remarks:** Unstable

Phaeocystis sp.

- 1396** **History:** < TKB **Locality:** Tsukuba Univ. Marine Research Center/Shizuoka/Japan (2003-04-02) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; mIMR; 20°C; 40-50 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-032 (AK-03)

PHORMIDIUM : Cyanophyceae

Phormidium ambiguum Gomont

- 2119** **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-71 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Characteristics:** Hydrogen evolution **Gene data:** 16S rRNA (AB003167) **Other strain no.:** Murano 394 (W1-27(1)) **References:** 19, 196, 256, 257
- 2120** **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-283 (= M-89) **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M
- 2121** **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** NIG, Japan **Locality:** Africa **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial (Soil)
- 2122** **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-285 (= M-108) **Locality:** Kyoto/Kyoto/Japan **Isolator:** Murano, Fumio; Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M

Phormidium angustissimum W. et G. S. West

- 2123** **History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-21 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M

Phormidium foveolarum Gomont

- 32** **History:** < IAM (1983) **Other collection strain no.:** IAM M-43 **Locality:** Lake Shirakaba/Nagano/Japan **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **References:** 215, 515, 967, 998 **Remarks:** Cryopreserved
- 34** **History:** < IAM (1983) **Other collection strain no.:** IAM M-59 **Locality:** Sakunami Hot Spring/Miyagi/Japan **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **References:** 215, 515 **Remarks:** Cryopreserved
- 503** **History:** < Watanabe, Makoto M. **Locality:** Mt. Tsukuba/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Stream sediment) **Other strain no.:** (1)-48 **References:** 515, 917
- 504** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-03-25) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** 2st-2-4 **References:** 515, 916, 917, 918
- 505** **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 2 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** AT4-17 **References:** 515, 917, 918

Phormidium henningsii Lemmermann

- 2124** **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-88 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Other strain no.:** Murano 387 (W1-21(2))

Phormidium jenkelianum G. Schmid

- 506** **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 2 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** AT5-37 **References:** 515, 917
- 507** **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 2 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** Ast-1-4 **References:** 124, 515, 917, 918

Phormidium luridum (Kützing) Gomont

- 2125** **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-84 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Other strain no.:** Murano 397 (W1-32(2))

Phormidium molle (Kützing) Gomont

- 509** **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 2 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** AT2-17 **References:** 515, 917, 918
- 2126** **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-77 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Other strain no.:** Murano 386 (W1-21U)

Phormidium mucicola Huber-Pestalozzi et Naum

- 510** **History:** < Watanabe, Makoto M. **Other collection strain no.:** IAM M-221 **Locality:** Mt. Tsukuba/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 4 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Stream sediment) **Gene data:** 16S rRNA (AB003165) **Other strain no.:** (1)-23 **References:** 196, 256, 257, 515, 917

Phormidium ramosum Boye-Petersen

- 305 History:** < Suda, Shoichiro **Locality:** Takatori River/Ibaraki/Japan (1984-12-11) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10 µmol/m²/s; 4 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Sediment) **Other strain no.:** 841211St5-1 **References:** 124, 515, 916, 917

Phormidium sp.

- 2128 History:** < IAM (2007) < BIU (UTEX; 1961-08-11) **Other collection strain no.:** IAM M-99; (BIU 426) **Isolator:** Boresch **Identified by:** Ishida, Tatuya **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Gene data:** 16S rRNA (AB003169); *gyrB* (AB074775); *rpoC1* (AB074798); *rpoD1* (AB074825) **References:** 256, 257, 848

PICOCHLORUM : Trebouxiophyceae*Picochlorum* sp.

- 1270 History:** < Moriya, Mayumi **Locality:** Banzu Tidal Flat/Chiba/Japan (2002-05-14) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi; Confirmed at NIES by DNA sequencing **Formerly identified as:** *Nanochlorum* sp. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat water) **Gene data:** 18S rRNA (AB488603) **Other strain no.:** M-66 **Remarks:** Cryopreserved

PLACIDIA : Placididea*Placidia cafeteriopsis* Moriya, Nakayama et Inouye

- 1013 History:** < Moriya, Mayumi **Locality:** Tokyo Bay/Kanagawa/Japan (1998-01-11) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY 1/10; 15°C; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Heterotrophic **Gene data:** 18S rRNA (AB061218) **Other strain no.:** #51
- 1014 History:** < Moriya, Mayumi **Locality:** Kamaishi Harbor/Iwate/Japan (1999-01-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY 1/10; 15°C; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Heterotrophic **Other strain no.:** #69 **Reference:** 522

PLANCTONEMA : Chlorophyceae*Planctonema lauterbornii* Schmidle

- 514 History:** < Niiyama, Yuko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1988-08-18) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** K880818 **Reference:** 515 **Remarks:** Cryopreserved

PLANKTOSPHAERIA : Chlorophyceae*Planktosphaeria gelatinosa* G. M. Smith

- 2268 History:** < IAM (2007) **Other collection strain no.:** IAM C-405 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15 µmol/m²/s; 3 M

PLANKTOTHRICOIDES : Cyanophyceae*Planktothricoides raciborskii* Suda et M. M. Watanabe

Syn. *Oscillatoria raciborskii* Woloszynska

- 207 History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-06-16) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; MG; 20°C; 15-25 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Type strain **Gene data:** 16S rRNA (AB045960) **Other strain no.:** K-O-R **References:** 435, 515, 605, 893, 1047
- 917 History:** < Suda, Shoichiro **Locality:** Lake Inbanuma/Chiba/Japan **Identified by:** Li, Renhui **Culture conditions:** CT; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom **Gene data:** 16S rRNA (AB045953) **Other strain no.:** INBaOR **Reference:** 893

PLANKTOTHRIX : Cyanophyceae**Planktothrix agardhii** (Gomont) Anagnostidis et KomárekSyn. *Oscillatoria agardhii* Gomont

- 204** **History:** < Suda, Shoichiro **Other collection strain no.:** IAM M-244; CCAP 1460/5; PCC 10704 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-24) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Type strain **Gene data:** 16S rRNA (AB045954) **Other strain no.:** K-O-A **References:** 45, 175, 264, 297, 435, 515, 530, 540, 541, 542, 605, 818, 856, 858, 860, 861, 893, 1047, 1074, 1139 **Remarks:** Cryopreserved
- 205** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 53 (K-TAN-53) **References:** 264, 435, 515, 526, 857, 893 **Remarks:** Cryopreserved
- 594** **History:** < Takamura, Noriko **Locality:** Northern Ireland/U.K. **Identified by:** Suda, Shoichiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 4-10 µmol/m²/s; 2 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater **Gene data:** 16S rRNA (AB045956) **Other strain no.:** K-8 **References:** 515, 893 **Remarks:** Cryopreserved
- 595** **History:** < Takamura, Noriko **Locality:** Northern Ireland/U.K. **Identified by:** Suda, Shoichiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 4-10 µmol/m²/s; 2 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater **Gene data:** 16S rRNA (AB045957) **Other strain no.:** 3A(2) **References:** 266, 515, 893 **Remarks:** Cryopreserved
- 596** **History:** < Takamura, Noriko **Locality:** Veluwemeer/Netherland **Identified by:** Suda, Shoichiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 4-10 µmol/m²/s; 2 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater **Gene data:** 16S rRNA (AB045958) **Other strain no.:** VLOA 7 **References:** 79, 264, 515, 526, 893 **Remarks:** Cryopreserved
- 905** **History:** < Suda, Shoichiro < CCAP **Other collection strain no.:** CCAP 1459/11A **Locality:** Windermere/England, Cambria/U.K. (1975-**-**) **Isolator:** Jaworski, G. H. M. **Identified by:** Suda, Shoichiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Gene data:** 16S rRNA (AB045896) **References:** 799, 893 **Remarks:** Toxic; Cryopreserved
- 989** **History:** < Sano, Tomoharu **Locality:** Lake Mikata/Fukui/Japan (2000-12-05) **Isolator:** Sano, Tomoharu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Mikata1-3 **Remarks:** Cryopreserved
- 990** **History:** < Sano, Tomoharu **Locality:** Lake Mikata/Fukui/Japan (2000-12-05) **Isolator:** Sano, Tomoharu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Mikata1-6 **Remarks:** Cryopreserved
- 1263** **History:** < Sano, Tomoharu **Locality:** Germany (2000-08-18) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-Oa-2-3 **Remarks:** Toxic; Cryopreserved
- 1264** **History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-18) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-Oa-3-3 **Remarks:** Toxic; Cryopreserved
- 1265** **History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-15) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** DU-Oa-5-5 **Remarks:** Cryopreserved

Planktothrix mougeotii (Kützing ex Lemmermann) Suda, M. M. Watanabe, Otsuka, Mahakahant, Yongmanitchai, Nopartneraporn, Liu et Day

Syn. *Oscillatoria mougeotii* Kützing ex Lemmermann

- 844** **History:** < Suda, Shoichiro **Other collection strain no.:** TISTR 9197 **Locality:** Nakhon Pathon/Thailand (1996-03-18) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AB045971) **Other strain no.:** TR1-5; ANMR 20011 **Reference:** 893 **Remarks:** Cryopreserved; Distribution for academic purpose only

911 **History:** < Suda, Shoichiro **Other collection strain no.:** TISTR 9198 **Locality:** Thailand **Identified by:** Suda, Shoichiro **Culture conditions:** CT; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Characteristics:** Water bloom **Gene data:** 16S rRNA (AB045972) **Other strain no.:** TR2-4; ANMR 20012 **Reference:** 893 **Remarks:** Cryopreserved; Distribution for academic purpose only

913 **History:** < Suda, Shoichiro **Other collection strain no.:** TISTR 9199 **Locality:** Thailand **Identified by:** Suda, Shoichiro **Culture conditions:** CT; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater (Ditch water) **Characteristics:** Water bloom **Gene data:** 16S rRNA (AB045970) **Other strain no.:** TK5-4 or 1; ANMR 20014 **Reference:** 893 **Remarks:** Cryopreserved; Distribution for academic purpose only

Planktothrix rubescens (DC. ex Gomont) Anagnostidis et Komárek
Syn. *Oscillatoria rubescens* DC. ex Gomont

610 **History:** < CCAP **Other collection strain no.:** CCAP 1459/22; NIVA CYA 18 **Locality:** Lake Gjersjøen/Norway **Isolator:** Romstad **Identified by:** Suda, Shoichiro (Reidentify) **Formerly identified as:** *Oscillatoria agardhii* Gomont **Culture conditions:** CB; MA; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Type strain **Gene data:** 16S rRNA (AB045959) **References:** 202, 515, 795, 796, 797, 893 **Remarks:** Cryopreserved

928 **History:** < Suda, Shoichiro < CCAP **Other collection strain no.:** CCAP 1459/14 **Locality:** England, Cambria/U.K. (1975-**-**) **Isolator:** Jaworski, G. H. M. **Identified by:** Suda, Shoichiro (Reidentified) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-30 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **References:** 798, 799 **Remarks:** Toxic; Cryopreserved

1266 **History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-19) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-Oa-4-1 **Remarks:** Toxic; Cryopreserved

1267 **History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-19) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-Oa-4-2 **Remarks:** Toxic; Cryopreserved

PLATYDORINA : Chlorophyceae

Platydorina caudata Kofoid

728 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1658 **Locality:** Kansas/U.S.A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 32-40 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** *atpB* (AB014032); *psaA* (AB044211); *psaA* (AB044212); *psaB* (AB044442); *psbC* (AB044494); *rbcL* (D86828) **References:** 515, 647, 663, 666

729 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1661 **Locality:** Kansas/U.S.A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater marsh **Gene data:** *rbcL* (D86827) **References:** 515, 647

PLECTONEMA : Cyanophyceae

Plectonema calothricoides Gomont

2129 **History:** < IAM (2007) < Safferman, R. S. **Other collection strain no.:** IAM M-120; (BIU 598) **Isolator:** Allen, M. B. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M **Other strain no.:** Allen M931 **Reference:** 126

Plectonema radiosum Gomont

515 **History:** < Watanabe, Makoto M. **Locality:** Toyamasawa/Tochigi/Japan (1987-04-30) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CSi; 20°C; 4-10 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** NK-12 **References:** 202, 454, 515, 917, 918

PLEODORINA : Chlorophyceae**Pleodorina californica** Shaw

- 576** **History:** < Ogasawara, Yoshikazu **Locality:** Oumi-Hachiman/Gifu/Japan (1990-08-12) **Isolator:** Ogasawara, Yoshikazu **Identified by:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 25°C; 100-120 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy water) **Reference:** 515
- 735** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 809; SAG 162/1; IAM C-336 (= C-590) **Locality:** Bloomington/Indiana/U.S.A. **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** (Freshwater) **Gene data:** *atpB* (AB014004); *psaA* (AB044190); *psaA* (AB044191); *psaA* (AB044192); *psaB* (AB044430); *psbC* (AB044480); *rbcL* (D63439) **References:** 113, 646, 663, 666

Pleodorina indica (Iyengar) Nozaki

- 736** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1990 **Locality:** Mexico **Isolator:** Morro, S. **Identified by:** Nozaki, Hisayoshi (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** (Soil) **Gene data:** *atpB* (AB014006); *psaA* (AB044195); *psaA* (AB044196); *psaA* (AB044197); *psaB* (AB044432); *psaB* (AB044433); *psbC* (AB044483); *rbcL* (D86834) **References:** 647, 663, 666

Pleodorina japonica Nozaki

- 577** **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2523 **Locality:** Fuji/Shizuoka/Japan (1986-07-13) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy water) **Characteristics:** Authentic strain; Homothallic; Dioecious; Anisogamy **Gene data:** *rbcL* (D63440) **Other strain no.:** 6715-7 **References:** 515, 646, 655, 663, 666

Pleodorina starrii Nozaki, Ott et Coleman

- 1361** **History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (2000-06-02) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male **Other strain no.:** 2000-602-P11
- 1362** **History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (2000-06-02) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Female **Other strain no.:** 2000-602-P14 **Reference:** 669
- 1363** **History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (2000-06-02) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Authentic strain; Heterothallic; Anisogamy; Male **Other strain no.:** 2000-602-P15
- 1364** **History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male **Other strain no.:** 2001-608-P17
- 1365** **History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male **Other strain no.:** 2001-608-P21
- 1366** **History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Female **Other strain no.:** 2001-608-P26
- 1852** **History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (2005-07-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male; F1 clone of NIES-1364, 1365 and 1366 **Other strain no.:** 2005-701-F1-1
- 1853** **History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005-07-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male; F1 clone of NIES-1364, 1365 and 1366 **Gene data:** EF-1 like (AB272614); MID (AB272614) **Other strain no.:** 2005-701-F1-3

1854 **History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005-07-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Female; F1 clone of NIES-1364, 1365 and 1366 **Other strain no.:** 2005-701-F1-5

PLEUROCHRYSIS : Prymnesiophyceae

Pleurochrysis haptanemofera (Inouye et Chihara) Gayral et Fresnel

1813 **History:** < TKB **Locality:** Yufu Isl./Okinawa/Japan (2004-12-24) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Salt water **Other strain no.:** TKB-230

Pleurochrysis roscoffensis (Dangeard) Fresnel et Billard

Syn. *Cricosphaera roscoffensis* (Dangeard) Gayral et Fresnel

8 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1978-09-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** *coxI* (AB000117) **Other strain no.:** OCri **References:** 127, 170, 731

Pleurochrysis sp.

1814 **History:** < TKB **Locality:** Amami Isl./Kagoshima/Japan (2005-02-26) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-231

PLEUROTAENIUM : Charophyceae

Pleurotaenium cylindricum (Turner) Schmidle var. *stuhlmannii* (Hieronymus) Krieger

306 **History:** < Kasai, Fumie **Locality:** Niimi/Okayama/Japan (1983-09-11) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 60-70 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Other strain no.:** F57-18-4 **Reference:** 515

Pleurotaenium ehrenbergii (Ralfs) De Bary var. *curtum* Krieger

308 **History:** < IAM (1983) **Other collection strain no.:** IAM C-379 **Locality:** Wakayama/Japan (1969-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-) **Other strain no.:** W-1-3 **Reference:** 515

311 **History:** < IAM (1983) **Other collection strain no.:** IAM C-430 **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-10) **Isolator:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+) **Other strain no.:** R-13-19 **Reference:** 515

Pleurotaenium ehrenbergii (Ralfs) De Bary var. *ehrenbergii*

309 **History:** < IAM (1983) **Other collection strain no.:** IAM C-467 (= C-591) **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-10) **Isolator:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-310 **Other strain no.:** R-13-27 **References:** 215, 515

310 **History:** < IAM (1983) **Other collection strain no.:** IAM C-468 **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-10) **Isolator:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-309 **Other strain no.:** R-13-30 **References:** 215, 515

Pleurotaenium nodosum (Bailey ex Ralfs) Lundell var. *borgei* Grönblad

663 **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1993-09-13) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 93-913-Gon-1 **Reference:** 515

664 **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1993-09-13) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 93-913-Gon-3 **Reference:** 515

Pleurotaenium nodosum (Bailey ex Ralfs) Lundell var. *gutwinskii* Krieger

787 **History:** < Kasai, Fumie **Locality:** 4 km northwest of Melaka/Malaysia (1985-08-20) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-788 **Other strain no.:** 85-30-9

788 **History:** < Kasai, Fumie **Locality:** 4 km northwest of Melaka/Malaysia (1985-08-20) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-787 **Other strain no.:** 85-30-56

Pleurotaenium nodosum (Bailey ex Ralfs) Lundell var. *nodosum*

312 **History:** < Kasai, Fumie **Locality:** Higashiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** 83-24-3 **Reference:** 515

785 **History:** < Kasai, Fumie **Locality:** Imuta-ike Pond/Kagoshima/Japan (1986-10-09) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Crosses with NIES-786 **Other strain no.:** 86-7-15

786 **History:** < Kasai, Fumie **Locality:** Imuta-ike Pond/Kagoshima/Japan (1986-10-09) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Crosses with NIES-785 **Other strain no.:** 86-7-16

Pleurotaenium ovatum Nordstedt

313 **History:** < Kasai, Fumie **Locality:** Niimi/Okayama/Japan (1983-09-11) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Other strain no.:** F57-17-8 **Reference:** 515

POLYEDRIOPSIS : Chlorophyceae

Polyedriopsis spinulosa (Schmidle) Schmidle

232 **History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1984-05-07) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** F128 **Reference:** 515

PORPHYRIDIDIUM : Porphyridiophyceae

Porphyridium aerugineum Geitler

1957 **History:** < TAC **Locality:** Nepal (1986-09-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Soil **Other strain no.:** TAC 578

1958 **History:** < TAC **Locality:** Nepal (1986-09-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Soil **Other strain no.:** TAC 579

1959 **History:** < TAC **Locality:** Nepal (1986-09-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Soil **Other strain no.:** TAC 580

1960 **History:** < TAC **Locality:** Nepal (1986-09-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Soil **Other strain no.:** TAC 581

Porphyridium purpureum (Bory) Drew et RossSyn. *Porphyridium cruentum* (Agardh) Nägeli

- 2138** **History:** < IAM (2007) < Fujita, Yoshihiko; Nozawa, Koji **Other collection strain no.:** IAM R-1 **Locality:** Takesako Hot Spring/Kagoshima/Japan **Isolator:** Nozawa, Koji **Identified by:** Nozawa, Koji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Hot spring **References:** 6, 334, 430, 778, 855, 988, 991, 1080, 1081
- 2139** **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM R-2 **Locality:** Botanical Garden at University of Tokyo/Tokyo/Japan **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Reference:** 778
- 2140** **History:** < IAM (2007) < Imai **Other collection strain no.:** IAM R-3 **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 13-18 µmol/m²/s; 3 M **Reference:** 717

Porphyridium sp.

- 1032** **History:** < Hatakeyama, Noriko **Locality:** Iriomote Isl./Okinawa/Japan (1990-10-16) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **Culture conditions:** ESM; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Brackish (Water) **Reference:** 127 **Remarks:** Cryopreserved
- 1033** **History:** < Hatakeyama, Noriko **Locality:** Iriomote Isl./Okinawa/Japan (1990-10-16) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **Culture conditions:** ESM; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Brackish (Water) **Remarks:** Cryopreserved
- 1034** **History:** < Hatakeyama, Noriko **Locality:** Florida/U.S.A. (1991-08-11) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **Culture conditions:** ESM; 20°C; 15-27 µmol/m²/s; 3 M **Habitat:** Brackish (Sediment) **Remarks:** Cryopreserved
- 1035** **History:** < Hatakeyama, Noriko **Locality:** Florida/U.S.A. (1991-08-11) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **Culture conditions:** ESM; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Brackish (Sediment) **Remarks:** Cryopreserved
- 1807** **History:** < TKB **Locality:** Motobu/Okinawa/Japan (2005-01-22) **Isolator:** Yamaguchi, Haruyo **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-255

POTERIOCHROMONAS : Chrysophyceae**Poterioochromonas malhamensis** (Pringsheim) PeterfiSyn. *Ochromonas malhamensis* Pringsheim

- 2144** **History:** < IAM (2007) < SAG (2000) **Other collection strain no.:** IAM CS-7; UTEX L 1297; SAG 933-1a; ATCC 11532 **Locality:** Malham Tarn/England, Yorkshire/U.K. **Isolator:** Chen, T. Y. **States:** Unialgal; Clonal; Axenic **Culture conditions:** O (semi-solid); 20°C; 40-50 µmol/m²/s; 14 D **Characteristics:** Predator **Reference:** 51

PROCHLOROCOCCUS : Cyanophyceae**Prochlorococcus marinus** Chisholm, Frankel, Goericke, Olson, Palenik, Waterbury, West-Johnsrud et Zettler

- 2086** **History:** < Kawachi, Masanobu < CCMP **Other collection strain no.:** CCMP 1377 **Locality:** North Atlantic (Sargasso Sea) (1988-05-**) **Isolator:** Frankel, S.; West-Johnsrud, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** PRO-99; 20°C; 5 µmol/m²/s; 3 M **Habitat:** Marine (Seawater)
- 2087** **History:** < Kawachi, Masanobu < CCMP **Other collection strain no.:** CCMP 1986 **Locality:** East Mediterranean Sea **Isolator:** Vaultot, D. **Identified by:** Vaultot, D. (1991-03-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** PRO-99; 20°C; 18-23 µmol/m²/s; 3 M **Habitat:** Marine (Seawater)

PROROCENTRUM : Dinophyceae**Prorocentrum dentatum** Stein

- 682** **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Hiuchi-nada/Japan (1979-12-13) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport

- 900** **History:** < Yumoto, Kosei **Locality:** off Irago Cape/Aichi/Japan (2000-07-01) **Isolator:** Yumoto, Kosei **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KC37-PD **Remarks:** Difficult to transport
- 2010** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2006-06-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu (2006-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** SY06-6 **Remarks:** Difficult to transport
- 2011** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2006-06-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu (2006-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** SY06-8 **Remarks:** Difficult to transport
- 2013** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2006-06-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu (2006-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** SY06-10 **Remarks:** Difficult to transport
- 2014** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2006-06-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu (2006-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** SY06-11 **Remarks:** Difficult to transport

Prorocentrum gracile Schütt

- 315** **History:** < KAGAWA **Locality:** Harima-nada/Japan **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** 80 **Remarks:** Difficult to transport

Prorocentrum lima (Ehrenberg) Dodge

- 617** **History:** < Murata, Michio **Locality:** Motobu/Okinawa/Japan (1993-06-06) **Isolator:** Kobayashi, Hidetaka **Identified by:** Fukuyo, Yasuo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Plant) **Characteristics:** Toxic **Other strain no.:** PL-03 **Remarks:** Toxic; Difficult to transport

Prorocentrum mexicanum Osorio-Tafall

- 618** **History:** < Murata, Michio **Locality:** Motobu/Okinawa/Japan (1993-06-06) **Isolator:** Kobayashi, Hidetaka **Identified by:** Fukuyo, Yasuo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Plant) **Other strain no.:** PX-01 **Remarks:** Difficult to transport
- 1967** **History:** < TKB **Locality:** Motobu/Okinawa/Japan (2005-01-22) **Isolator:** Yamaguchi, Haruyo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 20 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-328 **Remarks:** Difficult to transport

Prorocentrum micans Ehrenberg

- 12** **History:** < Yamochi, Susumu **Locality:** Osaka Bay/Osaka/Japan (1981-07-**) **Isolator:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** *coxI* (AB000133); *coxI* (AB000134); *psbA* (AB025585) **Other strain no.:** OPm **References:** 128, 239, 240, 539, 934, 1004, 1119 **Remarks:** Difficult to transport
- 218** **History:** < KAGAWA **Locality:** Yashima Bay/Kagawa/Japan (1978-08-05) **Isolator:** Yuki, Katsuhisa **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-13-7 **Remarks:** Difficult to transport
- 316** **History:** < Sawaguchi, Tomohiro **Locality:** Matoya Bay/Mie/Japan (1984-09-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MB-D-4 **Remarks:** Difficult to transport
- 601** **History:** < Honjo, Tsuneo **Locality:** Mikawa Bay/Aichi/Japan **Isolator:** Toriumi, Saburo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Remarks:** Difficult to transport
- 608** **History:** < Iwasaki, Hideo **Locality:** Ise Bay/Mie/Japan (1978-06-**) **Isolator:** Iwasaki, Hideo **Identified by:** Steidnger, K. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport

- 1406** **History:** < TKB **Locality:** Saroma/Hokkaido/Japan (2003-10-**) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-138 (TC01) **Remarks:** Difficult to transport

Prorocentrum minimum (Pavillard) Schiller

- 237** **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1982-08-03) **Isolator:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** OPmin **Reference:** 103 **Remarks:** Difficult to transport
- 238** **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1983-04-22) **Isolator:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-14-2-5 **Remarks:** Unstable; Difficult to transport

PROTOCERATIUM : Dinophyceae

Protoceratium reticulatum (Claparède et Lachmann) Butschli

- 319** **History:** < KAGAWA **Locality:** Naoshima Isl./Kagawa/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-62 **Reference:** 1004 **Remarks:** Difficult to transport

PROTODESMUS : Chlorophyceae

Protodesmus globulifer Nakahara, Tsubota et Handa

- 1703** **History:** < Nakanara, Miho **Locality:** Higashihiroshima/Hiroshima/Japan (1997-03-**) **Identified by:** Nakahara, Miho (2004-11-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Brackish (*Paramecium* in a reservoir) **Characteristics:** Symbiotic; Authentic strain **Gene data:** 18S rRNA (AB212094) **Other strain no.:** HP1-13-26

PROTOTHECA : Trebouxiophyceae

Prototheca portoricensis Cifferi, Ashford et Dalmau var. *ciferrii* (Negrone et Blaistin) Cifferi, Ashford et Dalmau

- 2182** **History:** < IAM (2007) < IFO < JCM **Other collection strain no.:** IAM C-177; IFO 6994; JCM 9346 **Formerly identified as:** *Prototheca ciferrii* Negrone et Blaisten **States:** Unialgal; Clonal; Axenic **Culture conditions:** Tre (agar); 20°C; 8-15 µmol/m²/s; 3 M

PRYMNESIUM : Prymnesiophyceae

Prymnesium calathiferum Chang et Ryan

- 1330** **History:** < TKB **Locality:** Awase/Okinawa/Japan (2003-05-**) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; MNK; 20°C; 22-32 µmol/m²/s; 14 D **Habitat:** Marine (Sand) **Characteristics:** Benthic **Other strain no.:** TKB-062 (ym-07)

Prymnesium parvum Carter

- 1017** **History:** < Moriya, Mayumi **Locality:** Jogashima/Kanagawa/Japan (1997-04-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** #22 **Reference:** 127
- 1018** **History:** < Moriya, Mayumi **Locality:** Hirara, Shimajiri/Okinawa/Japan (2002-03-17) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 15-22 µmol/m²/s; 1 M **Habitat:** Brackish (Water) **Other strain no.:** M-25
- 1812** **History:** < TKB **Locality:** Yufu Isl./Okinawa/Japan (2004-12-24) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Salt water **Other strain no.:** TKB-251

2350 **History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2003-01-15) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 22°C; 10-18 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Toxic; Epiphytic **Other strain no.:** MH 54 **Remarks:** Toxic

Prymnesium sp.

1397 **History:** < TKB **Locality:** Ishigaki Harbor/Okinawa/Japan (2003-12-25) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-084 (nrc060)

PSEUDANABAENA : Cyanophyceae

Pseudanabaena galeata Böcher

512 **History:** < Yamada, Naoki **Locality:** Nagoya Castle/Aichi/Japan (1981-11-01) **Isolator:** Yamada, Naoki **Identified by:** Yamada, Naoki; Homma, Takamitsu (Reidentify) **Formerly identified as:** *Phormidium tenue* (C. Agardh ex Gomont) Anagnostidis et Komárek **States:** Unialgal; Non-clonal; Axenic **Culture conditions:** CT; 20°C; 4-10 µmol/m²/s; 20 D (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Offensive taste and odor **Gene data:** 16S rRNA (AB042838) **Other strain no.:** PM-81A **References:** 202, 244, 428, 429, 515, 560, 564, 719, 720, 1090, 1091, 1141 **Remarks:** Cryopreserved

Pseudanabaena sp.

611 **Locality:** Lake Biwa/Shiga/Japan **Identified by:** Watanabe, Makoto M.; Homma, Takamitsu (Reidentify) **Formerly identified as:** *Phormidium tenue* (C. Agardh ex Gomont) Anagnostidis et Komárek **Culture conditions:** CT; 25°C; 100-120 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AB042842) **Other strain no.:** Bpt **Remarks:** Cryopreserved

PSEUDOCARTERIA : Chlorophyceae

Pseudocarteria mucosa (Korshikov) Ettl

522 **History:** < Suda, Shoichiro **Locality:** Izumi/Miyagi/Japan (1985-08-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Gene data:** *atpB* (AB084324); *psaB* (AB084364); *rbcL* (AB084335) **Other strain no.:** M-2 **References:** 515, 668, 891

523 **History:** < Suda, Shoichiro **Locality:** Higashiyata River/Ibaraki/Japan (1983-07-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic **Other strain no.:** USI-8 **References:** 515, 888, 891

524 **History:** < Suda, Shoichiro **Locality:** Izumi/Miyagi/Japan (1985-08-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** M-4 **References:** 515, 891

PSEUDOCHATTONELLA : Dictyochophyceae

Pseudochattonella verruculosa (Hara et Chihara) Tanabe-Hosoi, Honda, Fukaya, Inagaki et Sako

Syn. *Chattonella verruculosa* Hara et Chihara; *Verrucophora verruculosa* (Hara et Chihara) Eikrem

670 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1987-07-16) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** 18S rRNA (AB217629) **References:** 34, 134, 199, 224 **Remarks:** Difficult to transport

850 **History:** < Sawaguchi, Tomohiro **Locality:** Shodo Isl./Kagawa/Japan (1989-01-**) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Hara, Yoshiaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 15°C; 15-22 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Difficult to transport

PSEUDOKIRCHNERIELLA : Chlorophyceae*Pseudokirchneriella subcapitata* (Korshikov) Hindák

Syn. *Ankistrodesmus subcapitata* Korshikov; *Kirchneriella subcapitata* Korshikov; *Raphidocelis subcapitata* (Korshikov) Nygaard

- 35** **History:** < Yagi, Osami **Locality:** Nitelva River/Norway **Isolator:** Skulberg, O. M. **Formerly identified as:** *Selenastrum capricornutum* (Printz) Nygaard **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **Characteristics:** AGP **Other strain no.:** P-26 **References:** 154, 201, 320, 321, 328, 333, 348, 409, 515, 559, 564, 567, 613, 618, 724, 735, 894, 930, 983, 1085, 1086, 1088, 1099, 1109 **Remarks:** Cryopreserved

PSEUDONITZSCHIA : Bacillariophyceae*Pseudonitzschia* sp.

- 1383** **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; mIMR; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-101 (ym-09)

PSEUDOPEDINELLA : Dictyochophyceae*Pseudopedinella pyriformis* Carter

- 1381** **History:** < TKB **Locality:** Edogawa-ku/Tokyo/Japan (2004-10-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-191 (nak80)
- 1810** **History:** < TKB **Locality:** East China Sea/Japan (2004-07-28) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-221

PSEUDOPLEUROCOCCUS : Chlorophyceae*Pseudopleurococcus printzii* Vischer var. *longissimus* S. Watanabe

- 159** **History:** < Watanabe, Shin **Locality:** Kyoto/Japan (1975-03-07) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Bark) **Characteristics:** Isolated from the bark of *Ulmus parviflora*; Authentic strain **Other strain no.:** KUC6-2 **References:** 515, 1073 **Remarks:** Cryopreserved

PSEUDOSCOURFIELDIA : Prasinophyceae*Pseudoscourfieldia marina* (Thronsen) Manton

- 1419** **History:** < TKB **Locality:** East China Sea/Japan (2004-07-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-144 (nak33)
- 1420** **History:** < TKB **Locality:** Motobu, Sesoko/Okinawa/Japan (2004-11-08) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-212 (nak99)

PSEUDOTREBOUXIA : Trebouxiophyceae*Pseudotrebouxia corticola* Archibald

- 2183** **History:** < IAM (2007) < BIU (UTEX; 1965) **Other collection strain no.:** IAM C-194; ASIB IB326; UTEX 909 **Isolator:** Ahmadjian, V. **Identified by:** Ahmadjian, V. **Formerly identified as:** *Trebouxia arboricola* Puymaly **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Reference:** 17

PTEROMONAS : Chlorophyceae**Pteromonas aculeata** Lemmermann

- 738** **History:** < Nozaki, Hisayoshi **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (1996-10-17) **Isolator:** Tanaka, Shin-ichiro **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 970603-PtAcl **Reference:** 955
- 860** **History:** < Nozaki, Hisayoshi **Locality:** Darstein/Germany (1997-07-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Ditch water) **Other strain no.:** 970801-2

Pteromonas angulosa (Carter) Lemmermann

- 739** **History:** < Nozaki, Hisayoshi **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (1996-11-13) **Isolator:** Tanaka, Shin-ichiro **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 970603-PtAng **Reference:** 955
- 861** **History:** < Nozaki, Hisayoshi **Locality:** Germany **Identified by:** Knieritz, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Gene data:** *atpB* (AB014038); *psaB* (B084371); *psaB* (B084372); *rbcL* (AJ001887) **Other strain no.:** KR 91/2 **References:** 172, 666, 668
- 862** **History:** < Nozaki, Hisayoshi **Locality:** Germany **Identified by:** Krienitz, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Gene data:** *rbcL* (AJ001888) **Other strain no.:** KR 91/3 **Reference:** 172

Pteromonas multipyrenoidea Iyenger

- 740** **History:** < Nozaki, Hisayoshi **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (1996-11-13) **Isolator:** Tanaka, Shin-ichiro **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 970603-PtMul **Reference:** 955

PTEROSPERMA : Prasinophyceae**Pterosperma cristatum** Schiller

- 221** **History:** < Suda, Shoichiro **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide **Other strain no.:** H-88-1 **References:** 443, 1004 **Remarks:** Difficult to transport
- 626** **History:** < Sawaguchi, Tomohiro **Locality:** Seto Inland Sea/Kagawa/Japan (1989-02-14) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 $\mu\text{mol}/\text{m}^2/\text{s}$; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** 89KGW-1 **Remarks:** Difficult to transport
- 936** **History:** < Yoshii, Yukie **Locality:** Oku-Matsushima/Miyagi/Japan (1998-03-**) **Isolator:** Yoshii, Yukie **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Pt **Reference:** 358 **Remarks:** Difficult to transport

PYRAMIMONAS : Prasinophyceae**Pyramimonas** aff. *amylifera* Conrad

- 251** **History:** < KAGAWA **Locality:** Yashima Bay/Kagawa/Japan (1982-10-14) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-64-3 **References:** 123, 1004
- 320** **History:** < Suda, Shoichiro **Locality:** Onagawa Bay/Miyagi/Japan (1984-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** 8280G47-5

Pyramimonas cordata McFadden

- 1421** **History:** < TKB **Locality:** Chiba Harbor/Chiba/Japan (2004-07-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-130 (nak24)

1422 **History:** < TKB **Locality:** Amami Isl./Kagoshima/Japan (2004-10-14) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-203 (nak92)

1423 **History:** < TKB **Locality:** Takahama Canal/Tokyo/Japan (2004-12-03) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-218 (nak104)

Pyramimonas dissomata Butcher ex McFadden, Hill et Wetherbee

1819 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-226

Pyramimonas grossii Parke

1424 **History:** < TKB **Locality:** East China Sea/Japan (2004-07-31) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-141 (nak30)

1425 **History:** < TKB **Locality:** Amami Isl./Kagoshima/Japan (2004-10-14) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-202 (nak91)

1820 **History:** < TKB **Locality:** Onahama Harbor/Fukushima/Japan (2004-07-07) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-248

Pyramimonas parkeae Norris et Pearson

254 **History:** < Suda, Shoichiro **Locality:** Hachijo Isl./Tokyo/Japan (1984-04-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Water) **Characteristics:** Red tide **Other strain no.:** 8-25-2 **References:** 123, 362, 396, 398, 805

Pyramimonas propulsa Moestrup et Hill

1821 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-223

1822 **History:** < TKB **Locality:** Kanegahama/Miyazaki/Japan (2005-02-12) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-246

1823 **History:** < TKB **Locality:** Kesenuma Harbor/Miyagi/Japan (2005-08-30) **Isolator:** Chikuni, Tomoko **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-250

Pyramimonas sp.

1426 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-11-**) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-086 (nrc062)

1427 **History:** < TKB **Locality:** East China Sea/Japan (2004-07-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-143 (nak32)

1428 **History:** < TKB **Locality:** Tokyo Bay/Japan **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Other strain no.:** TKB-104 (CH03A)

PYROCYSTIS : Dinophyceae**Pyrocystis lunura** (Schütt) Schütt

609 **History:** < Nakamura, Hideshi **Locality:** Japan **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine **Remarks:** Difficult to transport

RAPHIDIOPSIS : Cyanophyceae**Raphidiopsis curvata** F. E. Fritsch et F. Rich

932 **History:** < Otsuka, Shigeto **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (2000-07-04) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** RAP1 **Reference:** 124

Raphidiopsis sp.

1729 **History:** < Li, Renhui **Locality:** Shinobazu-no-ike Pond, Ueno Park/Tokyo/Japan (1998-10-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1998-10-**) **States:** Unialgal **Culture conditions:** MG; 20°C; 12-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Resting spore forming **Other strain no.:** Rap J1

RAPHIDONEMA : Trebouxiophyceae**Raphidonema nivale** Lagerheim

2290 **History:** < IAM (2007) < Holm-Hansen, O. **Other collection strain no.:** IAM C-166 **Locality:** Wright Dry Valley/Antarctica **Isolator:** Holm-Hansen, O. **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** (Sand) **Gene data:** 18S rRNA (AB488604) **Other strain no.:** Holm-Hansen W-35

RHIZOCHROMULINA : Dictyochophyceae**Rhizochromulina** sp.

1382 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2002-09-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM (agar); 20°C; 40-50 µmol/m²/s; 6 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** TKB-042 (nrc029)

RHODELLA : Rhodellophyceae**Rhodella** sp.

1036 **History:** < Hatakeyama, Noriko **Locality:** Iriomote Isl./Okinawa/Japan (1990-10-16) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **Culture conditions:** ESM; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Brackish (Water) **Reference:** 127 **Remarks:** Cryopreserved

1037 **History:** < Hatakeyama, Noriko **Locality:** Iriomote Isl./Okinawa/Japan (1990-10-16) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **Culture conditions:** ESM; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Brackish (Water) **Remarks:** Cryopreserved

1972 **History:** < Sato, Mayumi **Locality:** Ishigaki Isl., Urasoko Bay/Okinawa/Japan (2004-02-19) **Isolator:** Sato, Mayumi **Identified by:** Yokoyama, Akiko (2007-02-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** M-182

RHODOMONAS : Cryptophyceae**Rhodomonas atrorosea** Butcher ex Hill et Wetherbee

Syn. *Chroomonas atrorosea* Butcher

699 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/6a **Locality:** Isle of Wight/U.K. **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240957) **Other strain no.:** M07 **References:** 74, 127

Rhodomonas baltica KarstenSyn. *Cryptomonas pseudobaltica* Butcher

- 700** **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 979/9 **Locality:** Channel Isls./U.K. (1961-**-**) **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB241128) **Other strain no.:** M06 **Reference:** 74

Rhodomonas chrysoidea Butcher ex Hill et WetherbeeSyn. *Cryptomonas chrysoidea* Butcher

- 701** **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 979/8 **Locality:** River Colne/Essex/U.K. (1953-**-**) **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Brackish **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240958); Nuclear actin-1 (AB126020); Nuclear actin-2 (AB126021); Nucleomorph actin (AB126026) **Other strain no.:** M03 **Reference:** 74

Rhodomonas duplex Hill et Wetherbee

- 765** **History:** < Erata, Mayumi **Locality:** Yaga/Okinawa/Japan (1986-**-**) **Isolator:** Inouye, Isao **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Gene data:** 18S rRNA (AB240960); Nuclear actin (AB126022); Nucleomorph actin (AB126027) **Other strain no.:** M14

Rhodomonas falcata Butcher ex Hill et WetherbeeSyn. *Chroomonas falcata* Butcher

- 702** **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/5a **Locality:** Aberystwyth/Wales/U.K. (1956-**-**) **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240959) **Other strain no.:** M10 **Reference:** 74

Rhodomonas salina (Wislouch) Hill et Wetherbee

- 1006** **History:** < Moriya, Mayumi **Locality:** Hirara, Shimajiri/Okinawa/Japan (2002-03-17) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** M-40
- 1375** **History:** < TKB **Locality:** Tokyo Bay/Kanagawa/Japan (2003-09-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + NH₄Cl; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-122 (AK-15)

Rhodomonas sp.

- 1005** **History:** < Moriya, Mayumi **Locality:** Shinjo Beach/Okinawa/Japan (2002-03-17) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **Formerly identified as:** *Rhodomonas chrysoidea* Butcher ex Hill et Wetherbee **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** M-23
- 1730** **History:** < Inouye, Isao < CCMP 768 **Other collection strain no.:** CCMP 768 **Locality:** North Island/New Zealand (1983-01-**) **Isolator:** Chang, F. **Identified by:** Hill, D. R. A. (1984-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Prey for *Kathablepharis* sp. (NIES-1731) **Gene data:** fbaC1 mRNA (partial) (AY699824) **Reference:** 78
- 2332** **History:** < Hatakeyama, Noriko **Locality:** Shizugawa Bay/Miyagi/Japan (1991-11-**) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; WESM; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Other strain no.:** Shiz-5

RIVULARIA : Cyanophyceae**Rivularia** sp.

- 2359** **History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-261; TISTR 8248 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-6 µmol/m²/s; 3 M **Remarks:** Distribution for academic purpose only

ROYA : Charophyceae**Roya anglica** G. S. West

2291 History: < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-592 (= C-332); UTEX 934 **Locality:** North Carolina/U.S.A. **Isolator:** Fox, E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15 µmol/m²/s; 3 M **Characteristics:** Hydrogen evolution **Reference:** 35

RUBRATELLA : Foraminifera**Rubratella** sp.

1445 History: < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Tsuchiya, Masashi (2006-**-**) **States:** Mixed; Clonal; Non-axenic **Culture conditions:** mIMR (*Pseudonitzschia* sp. NIES-1383 should be cultured in advance as a prey); 15°C; 10-18 µmol/m²/s; 2 M **Habitat:** Marine (Sand) **Characteristics:** Heterotrophic; Benthic **Other strain no.:** TKB-100 (ym-08)

RUSALKA : Chlorophyceae**Rusalka fusiformis** (Matvienko) Nakada

Syn. *Chlorogonium fusiforme* Matvienko

123 History: < IAM (1983) **Other collection strain no.:** IAM C-349 (= C-569) **Locality:** Lake Shinsen-numa/Hokkaido/Japan (1964-07-30) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu; Nozaki, Hisayoshi; Nakada, Takashi (Reidentify) **Formerly identified as:** *Chlorogonium metamorphum* Skuja (in IAM) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 4-10 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater **Characteristics:** Homothallic; Authentic strain; Type specimen (NIES-50007, Epitype) **Gene data:** *atpB* (AB084329); *psaB* (AB084370); *rbcL* (AB010242) **Other strain no.:** MKF-14 **References:** 215, 515, 555, 642, 665, 668

SALPINGOECA : Choanoflagellata**Salpingoeca infusioformis** Kent

1442 History: < TKB **Locality:** Tokyo Bay/Kanagawa/Japan (2003-05-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** SUY 1/10 + Wheat; 15°C; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic **Other strain no.:** TKB-117 (nak13)

SCENEDESMUS : Chlorophyceae**Scenedesmus acuminatus** (Lageraeim) Chodot var. *tetradesmoides* G. M. Smith

92 History: < Hiwatari, Takehiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-26) **Isolator:** Hiwatari, Takehiko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** K-S-1 **References:** 515, 1074 **Remarks:** Cryopreserved

Scenedesmus acutus Meyen

94 History: < Yuri, Akira **Locality:** Kosaka River/Akita/Japan (1983-04-19) **Isolator:** Yuri, Akira **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** 2-2-3-1 **References:** 515, 1074 **Remarks:** Cryopreserved

95 History: < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1983-05-20) **Isolator:** Suda, Shoichiro **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** Aq-S-1 **References:** 189, 515, 1047 **Remarks:** Cryopreserved

120 History: < Suda, Shoichiro **Locality:** inside NIES/Ibaraki/Japan (1983-05-20) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** Aq-S-2 **References:** 515, 1047 **Remarks:** Cryopreserved

2269 History: < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-64 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

2270 **History:** < IAM (2007) < Tsuzuki, Mikio (1988) < Avramova, S. T. (1982) < Semenenko, V. (?) **Other collection strain no.:** IAM C-537 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Scenedesmus basiliensis Chodat

2271 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-65 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

2272 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-66 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Scenedesmus bijuga (Turpin) Lagerheim

2273 **History:** < IAM (2007) **Other collection strain no.:** IAM C-347 **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **References:** 565, 779

Scenedesmus chlorelloides Chodat

2274 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-67 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **References:** 565, 779

Scenedesmus coelastroides (Bohlin) Schmidle

2275 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-68 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Scenedesmus costulatus Chodat

2276 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-69 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M

Scenedesmus dimorphus (Turpin) Kützing

93 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-07-22) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F-18-1 **References:** 515, 1047

119 **History:** < Hiwatari, Takehiko **Locality:** Ozegahara/Gunma/Japan (1983-08-29) **Isolator:** Suda, Shoichiro **Identified by:** Hiwatari, Takehiko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** OZ-29 **Reference:** 515 **Remarks:** Cryopreserved

Scenedesmus obliquus (Turpin) Kützing

2279 **History:** < IAM (2007) < UTEX (1989-07-04) **Other collection strain no.:** IAM C-521 (= C-72); CCAP 276/6A; SAG 276-6; UTEX 393 **Isolator:** Gaffron, H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Gaffron D-3 **References:** 35, 565, 778, 779

2280 **History:** < IAM (2007) < Tsuzuki, Mikio (1988) < Oh-Hama, Takeshi < Senger, H. (1965) < Bishop, N. < Gaffron, H. **Other collection strain no.:** IAM C-538 **Isolator:** Gaffron, H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Gaffron D-3 **References:** 410, 510, 689, 690, 691, 692, 992

SCHIZOCLADIA : Schizocladiphyceae

Schizocladia ischiensis Henry, Okuda et Kawai

1044 **History:** < Kawai, Hiroshi **Locality:** Ischia Isl./Italy (1987-10-21) **Isolator:** Henry, Eric C. **Identified by:** Kawai, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 4-10 µmol/m²/s; 3 M **Habitat:** Marine (Plant) **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB085614); *rbcL* (AB085615) **Other strain no.:** KU-333 **References:** 122, 347

SCHROEDERIA : Chlorophyceae

Schroederia setigera (Schröder) Lemmermann

246 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 25°C; 100-120 µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Other strain no.:** F47-3 **Reference:** 515

SCRIPPSIELLA : Dinophyceae*Scrippsiella* sp.

- 2016** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW26 **Remarks:** Difficult to transport
- 2017** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW27 **Remarks:** Difficult to transport
- 2018** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW29 **Remarks:** Difficult to transport
- 2019** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW30 **Remarks:** Difficult to transport
- 2020** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW31 **Remarks:** Difficult to transport
- 2021** **History:** < Noël, Mary-Hélène **Locality:** Kobe/Hyogo/Japan (2005-09-13) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW35 **Remarks:** Difficult to transport
- 2022** **History:** < Noël, Mary-Hélène **Locality:** Kobe/Hyogo/Japan (2005-09-13) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2006-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW36 **Remarks:** Difficult to transport

Scrippsiella sweeteneyae Balech

- 684** **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Bisan-Seto/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** 5.8S rRNA (AY499520) **Remarks:** Difficult to transport

Scrippsiella trochoidea (Stein) Loeblich III

- 369** **History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe Harbor/Aomori/Japan (1985-08-26) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Homothallic **Gene data:** 5.8S rRNA (AY499530); *coxI* (AB000135); *GapDH* (AB106702); *GapDH* (AB106703) **Other strain no.:** HHSS-1 **References:** 240, 539, 610, 931, 1119 **Remarks:** Unstable; Difficult to transport
- 2015** **History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW28 **Remarks:** Difficult to transport

SCYTONEMA : Cyanophyceae*Scytonema javanicum* Bornet et Flahault

- 1956** **History:** < TAC **Locality:** Tsukuba Botanical Garden/Ibaraki/Japan **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Culture conditions:** C (agar); 20°C; 4-6 µmol/m²/s; 1 M **Habitat:** Terrestrial (Greenhouse) **Other strain no.:** TAC 582

Scytonema sp.

- 2130** **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-291 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-06
- 2360** **History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-262; TISTR 8209 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-6 µmol/m²/s; 3 M **Remarks:** Distribution for academic purpose only

SELLAPHORA : Bacillariophyceae*Sellaphora seminulum* (Grunow) D. G. MannSyn. *Navicula seminulum* Grunow

- 1353** **History:** < Mayama, Shigeki **Locality:** Taizoin Temple/Kyoto/Japan (2002-09-22) **Isolator:** Mayama, Shigeki **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi/5; 20°C; 15-27 µmol/m²/s; 2 M **Habitat:** Freshwater (Pool sediment) **Characteristics:** Epilithic

SKELETONEMA : Bacillariophyceae*Skeletonema marinoi-dohrnii* complex

- 16** **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1982-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **Formerly identified as:** *Skeletonema costatum* (Greville) Cleve **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 6-12 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide; DNA sequencing indicates this strain is included in *Skeletonema marinoi-dohrnii* clade **Gene data:** 18S rRNA (AB488607) **Other strain no.:** H-53-3 **References:** 372, 758, 827, 920
- 17** **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **Formerly identified as:** *Skeletonema costatum* (Greville) Cleve **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 6-12 µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide; DNA sequencing indicates this strain is included in *Skeletonema marinoi-dohrnii* clade **Gene data:** 18S rRNA (AB488608) **Other strain no.:** H-90-2 **Reference:** 524
- 223** **History:** < KAGAWA **Locality:** Shodo Isl./Kagawa/Japan (1979-07-12) **Isolator:** Yuki, Katsuhisa **Formerly identified as:** *Skeletonema costatum* (Greville) Cleve **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 6-12 µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide; DNA sequencing indicates this strain is included in *Skeletonema marinoi-dohrnii* clade **Gene data:** 18S rRNA (AB488609) **Other strain no.:** KGW-26
- 323** **History:** < Osaka Pref. Fish. Exp. St. **Locality:** Osaka Bay/Osaka/Japan (1985-01-21) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **Formerly identified as:** *Skeletonema costatum* (Greville) Cleve **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 10°C; 6-12 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; DNA sequencing indicates this strain is included in *Skeletonema marinoi-dohrnii* clade **Gene data:** 18S rRNA (AB488610); *psbC*, D, *petB*, D, etc. (AJ132263); *psaC*, *psbA*, etc. (AJ132264); *trnD*, I, T, etc. (AJ132265); *petG*, *psbK*, D, *psaI*, etc. (AJ132266); *ycf24* (partial) (AJ132267) **Other strain no.:** Sk-85w **References:** 103, 122, 263, 398, 914
- 324** **History:** < Osaka Pref. Fish. Exp. St. **Locality:** Osaka Bay/Hyogo/Japan (1985-07-02) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **Formerly identified as:** *Skeletonema costatum* (Greville) Cleve **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 10°C; 6-12 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; DNA sequencing indicates this strain is included in *Skeletonema marinoi-dohrnii* clade **Gene data:** 18S rRNA (AB488611) **Other strain no.:** Sk-85su **References:** 103, 550, 725

SPHAEROSOMA : Charophyceae*Sphaerosoma* sp.

- 2306** **History:** < Suda, Shoichiro **Locality:** Lake Ozenuma/Fukushima/Japan (1983-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** OZ-N-1-12

SPINOCLOSTERIUM : Charophyceae*Spinoclosterium cuspidatum* (Bailey ex Ralfs) Hirano

- 325** **History:** < Ichimura, Terunobu **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SW; 20°C; 8-15 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** 83-24-19 **Reference:** 218

SPIRULINA : Cyanophyceae**Spirulina platensis** (Gomont) GeitlerSyn. *Arthrospira platensis* Gomont

- 39** **History:** < IAM (1983) **Other collection strain no.:** IAM M-135 (= M-222) **Locality:** Lake Chad/Chad **States:** Unialgal; Clonal; Axenic **Culture conditions:** SOT; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 60-70 µmol/m²/s) **Habitat:** Salt water **Characteristics:** Hydrogen evolution; Contains good quality of proteins **Gene data:** 16S rRNA (AB074508); *gyrB* (AB074765); *rpoC1* (AB074788); *rpoD1* (AB074815) **References:** 19, 126, 179, 215, 427, 437, 477, 515, 693, 694, 848, 905, 970, 1022, 1035, 1039, 1047
- 45** **History:** < IAM (1983) **Other collection strain no.:** IAM M-184 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1975-11-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** KAS-6-50 **References:** 175, 215, 515, 905, 1035, 1039, 1047, 1074, 1097
- 46** **History:** < IAM (1983) **Other collection strain no.:** IAM M-185 **Locality:** Lake Texcoco/Mexico **States:** Unialgal; Clonal; Axenic **Culture conditions:** SOT; 20°C; 4-10 µmol/m²/s; 4 M (25°C; 60-70 µmol/m²/s) **Habitat:** Salt water **Characteristics:** Cyanobacterial water bloom (aoko); Hydrogen evolution **References:** 16, 19, 25, 26, 124, 215, 427, 515, 905, 1035, 1039, 1047
- 597** **History:** < Hagiwara, Tomiji **Locality:** Lake Teganuma/Chiba/Japan (1990-07-24) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MA; 20°C; 60-70 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** T-43 **References:** 124, 515

Spirulina subsalsa Oersted ex Gomont

- 27** **History:** < IAM (1983) **Other collection strain no.:** IAM M-183 (= M-223) **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 µmol/m²/s; 1 M **Gene data:** 16S rRNA (AB003166) **References:** 196, 215, 256, 257, 258, 435, 515, 1074
- 527** **History:** < IAM (1983) **Other collection strain no.:** IAM M-182 **Locality:** Hokkaido/Japan (1976-04-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 25°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine **References:** 215, 515
- 598** **History:** < Hagiwara, Tomiji **Locality:** Chiyoda-ku/Tokyo/Japan (1989-10-02) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CB; CT; CSI; 20°C; 8-15 µmol/m²/s; 2 M (25°C; 60-70 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** KO-39 **References:** 124, 515

SPUMELLA : Chrysophyceae**Spumella** sp.

- 1846** **History:** < TKB **Locality:** Tsukuba, Namiki/Ibaraki/Japan (2002-09-11) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO + Wheat; 15°C; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Phagotrophic **Other strain no.:** TKB-010 (NY0108)

STAUSTRUM : Charophyceae**Staurastrum dorcidentiferum** W. et G. S. West

- 665** **History:** < Ishida, Yuzaburo **Locality:** Lake Biwa/Shiga/Japan (1986-09-**) **Isolator:** Ohara, S. **Identified by:** Nakanishi, Masami **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 25°C; 100-120 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** NB **Reference:** 515

Staurastrum inconspicuum Nordstedt

- 390** **History:** < Kasai, Fumie **Locality:** Ozegahara/Gunma/Japan (1983-08-29) **Isolator:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** CAM; 20°C; 8-15 µmol/m²/s; 3 M (20°C; 15-27 µmol/m²/s) **Habitat:** Freshwater (Bog water) **Other strain no.:** 34-10' **Reference:** 515

Staurastrum levanderi Grönblad

- 841** **History:** < Gontcharov, A. **Locality:** Namiki-ike Pond/Ibaraki/Japan (1998-07-24) **Isolator:** Gontcharov, A. **Identified by:** Gontcharov, A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Reference:** 114

Staurastrum paradoxum Meyen

- 528 **History:** < Watanabe, Michiko H. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-12-**) **Isolator:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 2 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** Kas-K-3 **Reference:** 515

Staurastrum tsukubicum Gontcharov et M. M. Watanabe

- 842 **History:** < Gontcharov, A. **Locality:** Tsukuba/Ibaraki/Japan (1997-12-07) **Isolator:** Gontcharov, A. **Identified by:** Gontcharov, A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** (Freshwater) **Characteristics:** Authentic strain **Reference:** 114

STAURODESMUS : Charophyceae*Staurodesmus dejectum* (Brébisson ex Ralfs) Teiling

Syn. *Staurastrum dejectum* Brébisson ex Ralfs

- 224 **History:** < TAC **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15 µmol/m²/s; 2 M (20°C; 22-32 µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 53-1 (TAN-53-1) **Reference:** 515

STICHOCOCCUS : Trebouxiophyceae*Stichococcus ampulliformis* S. Handa

- 996 **History:** < Handa, Shinji **Locality:** Taishakukyo Valley/Hiroshima/Japan (1987-12-13) **Isolator:** Handa, Shinji **Identified by:** Handa, Shinji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Bark) **Characteristics:** Epiphytic; Authentic strain **Gene data:** 18S rRNA (AB087559) **Other strain no.:** Handa-299(f) **Reference:** 131 **Remarks:** Cryopreserved

Stichococcus bacillaris Nägeli

- 529 **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 15°C; 15-22 µmol/m²/s; 3 M **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488606) **Other strain no.:** AT2-16 **References:** 515, 917 **Remarks:** Cryopreserved
- 530 **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 15°C; 15-22 µmol/m²/s; 3 M **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488605) **Other strain no.:** AT5-17 **References:** 515, 917, 918 **Remarks:** Cryopreserved
- 2184 **History:** < IAM (2007) < Holm-Hansen, O. **Other collection strain no.:** IAM C-170 **Locality:** Marble Point/Antarctica **Isolator:** Holm-Hansen, O. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** Holm-Hansen M-13-d

STIGEOCLONIUM : Chlorophyceae*Stigeoclonium aestivale* (Hazen) Collins

- 531 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-03-25) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater (River water) **Other strain no.:** 2st-3-12 **References:** 515, 916, 917

Stigeoclonium fasciculare Kützing var. *fasciculare*

- 532 **History:** < Kasai, Fumie **Locality:** Lake Mashu/Hokkaido/Japan (1987-08-**) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 10°C; 6-12 µmol/m²/s; 3 M (10°C; 10-15 µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** M-2 **References:** 515, 917

Stigeoclonium sp.

- 454** **History:** < Kasai, Fumie **Locality:** Shirai River/Hokkaido/Japan (1987-10-**) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **Formerly identified as:** *Draparnaldia plumosa* (Vaucher) Agardh **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 10°C; 6-12 µmol/m²/s; 3 M (10°C; 10-15 µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** 2Tst-2-1 **References:** 515, 917

STIGONEMA : Cyanophyceae*Stigonema hormoides* (Kützing) Bornet et FlahaultSyn. *Scytonema hormoides* Kützing

- 2361** **History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-268; TISTR 8251 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); N-Free (agar); 20°C; 4-6 µmol/m²/s; 3 M **Remarks:** Distribution for academic purpose only

Stigonema ocellatum (Dillwyn) Thuret ex Bornet et Flahault

- 2131** **History:** < IAM (2007) < SAG **Other collection strain no.:** IAM M-252; SAG D48.90 **Locality:** Allgäu/Germany (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 13-18 µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** A. Zehnder 232

SYMPLOCA : Cyanophyceae*Symploca muscorum* (Agardh) Gomont

- 2132** **History:** < IAM (2007) **Other collection strain no.:** IAM M-133 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 µmol/m²/s; 3 M

SYNECHOCOCCUS : Cyanophyceae*Synechococcus* sp.

- 937** **History:** < Takamura, Noriko **Locality:** Lake Junsainuma/Hokkaido/Japan (1991-06-20) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223433) **Other strain no.:** JUS 1 **Reference:** 773 **Remarks:** Cryopreserved
- 938** **History:** < Takamura, Noriko **Locality:** Lake Harutori/Hokkaido/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Euryhaline **Gene data:** *cpcBA*-IGS (AF223434) **Other strain no.:** HAR 3 **Reference:** 773 **Remarks:** Cryopreserved
- 939** **History:** < Takamura, Noriko **Locality:** Lake Harutori/Hokkaido/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Euryhaline **Gene data:** *cpcBA*-IGS (AF223438) **Other strain no.:** HAR 10 **Reference:** 773 **Remarks:** Cryopreserved
- 940** **History:** < Takamura, Noriko **Locality:** Lake Harutori/Hokkaido/Japan (1991-05-29) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223452) **Other strain no.:** HIM 1 **Reference:** 773 **Remarks:** Cryopreserved
- 941** **History:** < Takamura, Noriko **Locality:** Lake Teganuma/Chiba/Japan (1991-06-04) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223439) **Other strain no.:** TEG 1 **Reference:** 773 **Remarks:** Cryopreserved
- 942** **History:** < Takamura, Noriko **Locality:** Lake Ushikunuma/Ibaraki/Japan (1991-06-04) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223440) **Other strain no.:** USK 1 **Reference:** 773 **Remarks:** Cryopreserved
- 943** **History:** < Takamura, Noriko **Locality:** Lake Kojima/Okayama/Japan (1991-07-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223441) **Other strain no.:** KOJ 1 **Reference:** 773 **Remarks:** Cryopreserved

- 944 **History:** < Takamura, Noriko **Locality:** Lake Abashiri/Hokkaido/Japan (1991-05-10) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Brackish (Water) **Gene data:** *cpcBA*-IGS (AF223453) **Other strain no.:** ABS 10 **Reference:** 773 **Remarks:** Cryopreserved
- 945 **History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AF216951); *cpcBA*-IGS (AF223428) **Other strain no.:** B 1 **Reference:** 773 **Remarks:** Cryopreserved
- 946 **History:** < Takamura, Noriko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-02-06) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223443) **Other strain no.:** 2K 11 **Reference:** 773 **Remarks:** Cryopreserved
- 947 **History:** < Takamura, Noriko **Locality:** Lake Sagami/Kanagawa/Japan (1991-04-11) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223444) **Other strain no.:** SA 1 **Reference:** 773 **Remarks:** Cryopreserved
- 948 **History:** < Takamura, Noriko **Locality:** Lake Abashiri/Hokkaido/Japan (1991-05-10) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Brackish (Water) **Gene data:** *cpcBA*-IGS (AF223454) **Other strain no.:** ABS 11 **Reference:** 773 **Remarks:** Cryopreserved
- 949 **History:** < Takamura, Noriko **Locality:** Lake Ushikunuma/Ibaraki/Japan (1991-06-04) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223455) **Other strain no.:** USK 2 **Reference:** 773 **Remarks:** Cryopreserved
- 950 **History:** < Takamura, Noriko **Locality:** Lough Neagh/North Ireland/U.K. (1991-03-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223448) **Other strain no.:** LN 3 **Reference:** 773 **Remarks:** Cryopreserved
- 951 **History:** < Takamura, Noriko **Locality:** Lake Akan/Hokkaido/Japan (1991-05-14) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** AKN 3 **Reference:** 773 **Remarks:** Cryopreserved
- 952 **History:** < Takamura, Noriko **Locality:** Lake Kizaki/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** CB; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223449) **Other strain no.:** KIZ 5/3 **Reference:** 773 **Remarks:** Cryopreserved
- 953 **History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AF216953); *cpcBA*-IGS (AF223430) **Other strain no.:** B 10 **Reference:** 773 **Remarks:** Cryopreserved
- 954 **History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** *cpcBA*-IGS (AF223456) **Other strain no.:** B 8 **Reference:** 773 **Remarks:** Cryopreserved
- 955 **History:** < Takamura, Noriko **Locality:** Lake Kizaki/Nagano/Japan (1991-04-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223445) **Other strain no.:** KIZ 5/1 **References:** 358, 359, 773 **Remarks:** Cryopreserved
- 956 **History:** < Takamura, Noriko **Locality:** Lake Nojiri/Nagano/Japan (1991-05-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** CT; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** *cpcBA*-IGS (AF223450) **Other strain no.:** NOJ 1 **Reference:** 773 **Remarks:** Cryopreserved
- 957 **History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1991-06-14) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AF216954); *cpcBA*-IGS (AF223431) **Other strain no.:** B 11 **Reference:** 773 **Remarks:** Cryopreserved
- 958 **History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** *cpcBA*-IGS (AF223435) **Other strain no.:** B 4 **Reference:** 773 **Remarks:** Cryopreserved

- 959** **History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AF216955); *cpcBA*-IGS (AF223432) **Other strain no.:** B 3 **Reference:** 773 **Remarks:** Cryopreserved
- 960** **History:** < Takamura, Noriko **Locality:** Lake Tsukui/Kanagawa/Japan (1991-04-11) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223436) **Other strain no.:** TSU 3 **Reference:** 773 **Remarks:** Cryopreserved
- 961** **History:** < Takamura, Noriko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-02-06) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223446) **Other strain no.:** 2K 12 **Reference:** 773 **Remarks:** Cryopreserved
- 962** **History:** < Takamura, Noriko **Locality:** Lake Ohnuma/Hokkaido/Japan (1991-06-20) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** CB; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223442) **Other strain no.:** ONM 3 **Reference:** 773 **Remarks:** Cryopreserved
- 963** **History:** < Takamura, Noriko **Locality:** Lake Nakatsuna/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223447) **Other strain no.:** NT 5 **Reference:** 773 **Remarks:** Cryopreserved
- 964** **History:** < Takamura, Noriko **Locality:** Lake Megami/Nagano/Japan (1991-05-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223437) **Other strain no.:** Me 5 **Reference:** 773 **Remarks:** Cryopreserved
- 965** **History:** < Takamura, Noriko **Locality:** Lake Misuzu/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Culture conditions:** C; 15°C; 10-18 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *cpcBA*-IGS (AF223451) **Other strain no.:** MSZ 2 **Reference:** 773 **Remarks:** Cryopreserved
- 969** **History:** < Tezuka, Naoaki **Locality:** East China Sea (1998-06-01) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Gene data:** 16S rRNA (AF448060); *rpoC1* (AF448082) **Other strain no.:** 1002 **Remarks:** Cryopreserved
- 970** **History:** < Tezuka, Naoaki **Locality:** Tokunoshima Isl./Kagoshima (1998-08-28) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Tidal flat sand water) **Gene data:** 16S rRNA (AF448073) **Other strain no.:** T71 **Remarks:** Cryopreserved
- 971** **History:** < Tezuka, Naoaki **Locality:** Tokunoshima Isl./Kagoshima (1998-08-28) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Tidal flat sand water) **Characteristics:** Euryhaline **Gene data:** 16S rRNA (AF448061); *rpoC1* (AF448083) **Other strain no.:** T7cc1 **Remarks:** Cryopreserved
- 972** **History:** < Tezuka, Naoaki **Locality:** Iriomote Isl./Okinawa/Japan (1998-11-05) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Tidal flat seawater) **Characteristics:** Euryhaline **Gene data:** 16S rRNA (AF448079); *rpoC1* (AF448117) **Other strain no.:** IR11 **Remarks:** Cryopreserved
- 973** **History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Urauchi River/Okinawa/Japan (1998-11-05) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C + 10% Seawater; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** 16S rRNA (AF448062) **Other strain no.:** 48 **Remarks:** Cryopreserved
- 974** **History:** < Tezuka, Naoaki **Locality:** Irimomote Isl., Funaura/Okinawa/Japan (1998-11-06) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Gene data:** *rpoC1* (AF448101) **Other strain no.:** 58E8 **Remarks:** Cryopreserved
- 975** **History:** < Tezuka, Naoaki **Locality:** Irimomote Isl., Funaura/Okinawa/Japan (1998-11-06) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Gene data:** *rpoC1* (AF448099) **Other strain no.:** 58g6 **Remarks:** Cryopreserved
- 976** **History:** < Tezuka, Naoaki **Locality:** Irimomote Isl., Funaura/Okinawa/Japan (1998-11-06) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 $\mu\text{mol}/\text{m}^2/\text{s}$; 1 M **Habitat:** Marine (Seawater) **Gene data:** *rpoC1* (AF448100) **Other strain no.:** 59 **Remarks:** Cryopreserved

- 977 **History:** < Tezuka, Naoaki **Locality:** Taiyo/Ibaraki/Japan (1999-01-08) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** *rpoC1* (AF448105) **Other strain no.:** taiyo **Remarks:** Cryopreserved
- 978 **History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Urauchi/Okinawa/Japan (1999-02-04) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C + 10% Seawater; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Characteristics:** Euryhaline **Gene data:** 16S rRNA (AF448063); *rpoC1* (AF448084) **Other strain no.:** UBR **Remarks:** Cryopreserved
- 979 **History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Urauchi/Okinawa/Japan (1999-02-04) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** 16S rRNA (AF448074); *rpoC1* (AF448109) **Other strain no.:** UH7 **Remarks:** Cryopreserved
- 980 **History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Komi/Okinawa/Japan (1999-06-30) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** *rpoC1* (AF448097) **Other strain no.:** kom **Remarks:** Cryopreserved
- 981 **History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Hoshidate/Okinawa/Japan (1999-07-01) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** 16S rRNA (AF448064); *rpoC1* (AF448085) **Other strain no.:** Hos **Remarks:** Cryopreserved
- 982 **History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Hoshidate/Okinawa/Japan (1999-07-01) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** *rpoC1* (AF448113) **Other strain no.:** Hosso **Remarks:** Cryopreserved
- 983 **History:** < Tezuka, Naoaki **Locality:** Sagami Bay/Shizuoka/Japan (1999-07-11) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** *rpoC1* (AF448104) **Other strain no.:** St235 **Remarks:** Cryopreserved
- 984 **History:** < Tezuka, Naoaki **Locality:** Takori River/Nagasaki/Japan (1999-08-02) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C + 10% Seawater; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** 16S rRNA (AF448066); *rpoC1* (AF448087) **Other strain no.:** TAG **Remarks:** Cryopreserved
- 985 **History:** < Tezuka, Naoaki **Locality:** Miyake Isl./Tokyo/Japan (1999-11-29) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** *rpoC1* (AF448102) **Other strain no.:** miyaR **Remarks:** Cryopreserved
- 986 **History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Ohara/Okinawa/Japan (1998-11-06) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** 74 **Remarks:** Cryopreserved
- 987 **History:** < Tezuka, Naoaki **Locality:** Futtsu/Chiba/Japan (1999-06-15) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Other strain no.:** FUT **Remarks:** Cryopreserved
- 988 **History:** < Tezuka, Naoaki **Locality:** Miyake Isl./Tokyo/Japan (1999-11-25) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** miyaY **Remarks:** Cryopreserved
- 1341 **History:** < Crosbie, Nicholas D. **Locality:** Lake Mondsee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151248); *cpcBA*-IGS (AY151212) **Other strain no.:** MW10#1 **References:** 53, 54 **Remarks:** Cryopreserved
- 1342 **History:** < Crosbie, Nicholas D. **Locality:** Lake Mondsee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151232); *cpcBA*-IGS (AY151215) **Other strain no.:** MW15#2 **References:** 53, 54 **Remarks:** Cryopreserved
- 1343 **History:** < Crosbie, Nicholas D. **Locality:** Lake Hallstättersee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151240) **Other strain no.:** MW72C6 **References:** 53, 54 **Remarks:** Cryopreserved

- 1344** **History:** < Crosbie, Nicholas D. **Locality:** Lake Hallstättersee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151250) **Other strain no.:** MW73B4 **References:** 53, 54 **Remarks:** Cryopreserved
- 1345** **History:** < Crosbie, Nicholas D. **Locality:** Lake Hallstättersee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151245) **Other strain no.:** MW76B2 **References:** 53, 54 **Remarks:** Cryopreserved
- 1346** **History:** < Crosbie, Nicholas D. **Locality:** Lake Hallstättersee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151246); *cpcBA*-IGS (AY151217) **Other strain no.:** MW77D1 **References:** 53, 54 **Remarks:** Cryopreserved
- 1347** **History:** < Crosbie, Nicholas D. **Locality:** Lake Mondsee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY224199); *cpcBA*-IGS (AY224205) **Other strain no.:** MH301 **References:** 53, 54 **Remarks:** Cryopreserved
- 1348** **History:** < Crosbie, Nicholas D. **Locality:** Lake Mondsee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 15°C; 10-18 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY224198); *cpcBA*-IGS (AY224206) **Other strain no.:** MH305 **References:** 53, 54 **Remarks:** Cryopreserved

SYNURA : Chrysophyceae*Synura petersenii* Korshikov

- 233** **History:** < Suda, Shoichiro **Locality:** Higashiyata River/Ibaraki/Japan (1983-07-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** USI-10 **Reference:** 877
- 1007** **History:** < Moriya, Mayumi **Locality:** Bibi River/Hokkaido/Japan (1999-11-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** #73

Synura sphagnicola (Korshikov) Korshikov

- 695** **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-04-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Freshwater (Stream water) **Other strain no.:** 92-520-S-6
- 696** **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-10-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22 µmol/m²/s; 1 M **Habitat:** Freshwater (Stream water) **Other strain no.:** 92-1001-S-2

Synura spinosa Korshikov

- 234** **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** SIS-1 **Reference:** 877

TABELLARIA : Bacillariophyceae*Tabellaria flocculosa* (Roth) Kützing

- 225** **History:** < Watanabe, Makoto M. **Locality:** Ozegahara/Fukushima/Japan (1983-08-30) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** OZ-43-4 **Reference:** 758

TABRIS : Chlorophyceae**Tabris heimii** (Bourrelly) NakadaSyn. *Chlorogonium heimii* Bourrelly

2294 **History:** < Nakada, Takashi **Locality:** Lake Okegaya-numa/Shizuoka/Japan (2004-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mAC; 20°C; 130-200 µmol/m²/s; 14 D **Habitat:** Freshwater (Sediment) **Characteristics:** Mixotrophic; Authentic strain **Gene data:** 18S rRNA (AB451189); *psaB* (AB451216); *rbcL* (B451194) **Other strain no.:** IwCl-10 **Reference:** 554

2295 **History:** < Nakada, Takashi **Locality:** Lake Okegaya-numa/Shizuoka/Japan (2004-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mAC; 20°C; 130-200 µmol/m²/s; 14 D **Habitat:** Freshwater (Sediment) **Characteristics:** Mixotrophic **Other strain no.:** IwCl-12 **Reference:** 554

TETRABAENA : Chlorophyceae**Tetrabaena socialis** (Dujardin) Nozaki et ItoSyn. *Gonium sociale* (Dujardin) Warming

691 **History:** < Nozaki, Hisayoshi **Locality:** King George Isl./Antarctica (1990-12-**) **Isolator:** Ohtani, Shuji **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 10°C; 15-20 µmol/m²/s; 1 M **Habitat:** Snow **Characteristics:** Cryophilic **Other strain no.:** KG-4-8th **References:** 515, 667

1437 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **Formerly identified as:** *Basichlamys sacculifera* (Scherffel) Skuja **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Benthic **Other strain no.:** TKB-051 (nak-06)

Tetrabaena socialis (Dujardin) Nozaki et Ito var. *socialis*Syn. *Gonium sociale* (Dujardin) Warming var. *sociale*

571 **History:** < Nozaki, Hisayoshi **Locality:** Yokohama, Kohoku-ku/Kanagawa/Japan (1982-08-24) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic; Isogamy **Gene data:** *atpB* (AB014014); *psaA* (AB044415); *psaB* (AB044466); *psbC* (AB044525); *rbcL* (D63443) **Other strain no.:** 21028-4 **References:** 515, 629, 645, 646, 663, 666, 667, 668

TETRACYSTIS : Chlorophyceae**Tetracystis chlorococcoides** (Korshikov) S. Watanabe

155 **History:** < Watanabe, Shin **Locality:** Mt. Eboshidake/Nagasaki/Japan (1975-08-15) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Soil) **Other strain no.:** 3-EBO-1 **References:** 515, 1073

TETRAHYMENA : Oligohymenophorea**Tetrahymena pyriformis** Ehrenberg

403 **History:** < Sudo, Ryuichi **Locality:** Lake Kasumigaura/Ibaraki/Japan (1976-08-**) **Isolator:** Sudo, Ryuichi **Identified by:** Sudo, Ryuichi **Culture conditions:** LE; 10°C; 20 D (20°C) **Habitat:** Freshwater **Characteristics:** Other water bloom **Other strain no.:** Tetra-1 **Reference:** 267 **Remarks:** Difficult to transport

TETRASELMIS : Prasinophyceae**Tetraselmis cordiformis** (Carter) Stein

18 **History:** < Watanabe, Makoto M. **Locality:** Shimokubo Dam/Gunma/Japan (1980-04-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom **Other strain no.:** SM-6-9 **References:** 123, 1047

- 533** **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond water) **Other strain no.:** KY-20-1

Tetraselmis levis Butcher

- 1430** **History:** < TKB **Locality:** Ishigaki Isl./Okinawa/Japan (2003-12-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + NH₄Cl; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-121 (AK-14)

Tetraselmis sp.

- 1429** **History:** < TKB **Locality:** Ishigaki Harbor/Okinawa/Japan (2003-12-25) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-083 (nrc059)
- 1431** **History:** < TKB **Locality:** Amachi Beach/Okinawa/Japan (2003-12-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** TKB-091 (nrc067)
- 1432** **History:** < TKB **Locality:** Wakayama/Japan (2002-07-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-043 (nrc030-035)
- 1433** **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-06-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 20 D **Habitat:** Marine (Sand and seawater) **Other strain no.:** TKB-073 (nrc052*)
- 1434** **History:** < TKB **Locality:** Ishigaki Harbor/Okinawa/Japan (2003-12-**) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-095 (nrc)

Tetraselmis striata Butcher

- 1019** **History:** < Moriya, Mayumi **Locality:** Nagahama/Hiroshima/Japan (2001-03-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** #96

Tetraselmis verrucosa (Butcher) Parke

- 1836** **History:** < TKB **Locality:** Naha/Okinawa/Japan (2005-01-22) **Isolator:** Yamaguchi, Haruyo **Identified by:** Yamaguchi, Haruyo (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-276

THALASSIONEMA : Bacillariophyceae

Thalassionema nitzschioides (Grunow) Hustedt

- 534** **History:** < Sawaguchi, Tomohiro **Locality:** Matoya Bay/Mie/Japan (1984-09-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** MBB-6 **Reference:** 758

THAUMATOMASTIX : Imbricatea

Thaumatomastix sp.

- 1443** **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** BESM2; 15°C; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-023 (NY0134) **Reference:** 122
- 2378** **History:** < TKB **Locality:** Tokyo Bay/Chiba/Japan (2007-02-25) **Isolator:** Yabuki, Akinori **Identified by:** Yabuki, Akinori (2007-**-**) **Culture conditions:** ESM; 20°C; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Benthic **Other strain no.:** TKB-345

THORACOSPHAERA : Dinophyceae*Thoracosphaera heimii* (Lohmann) Kamptner

- 1325 History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-01-23) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 36 **Remarks:** Difficult to transport
- 1326 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 78 **Remarks:** Difficult to transport

THOREA : Florideophyceae*Thorea gaudichaudii* C. Agardh

- 1473 History:** < Higa, Atsushi **Locality:** Okinawa/Japan (2002-03-16) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku; Kumano, Shigeru (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** IK1 **Reference:** 127
- 1474 History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2002-03-17) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku; Kumano, Shigeru (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** NUG-1
- 1475 History:** < Ishimoto, Miwa **Locality:** Nugusuku-ga/Okinawa/Japan (2002-07-10) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Monoecious; CR+EN (Ref. 474) **Other strain no.:** NUG-4
- 1476 History:** < Ishimoto, Miwa **Locality:** Nugusuku-ga/Okinawa/Japan (2002-07-10) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Monoecious; CR+EN (Ref. 474) **Other strain no.:** NUG-5
- 1477 History:** < Ishimoto, Miwa **Locality:** Nugusuku-ga/Okinawa/Japan (2002-07-10) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Monoecious; CR+EN (Ref. 474) **Other strain no.:** NUG-2
- 1478 History:** < Ishimoto, Miwa **Locality:** Nugusuku-ga/Okinawa/Japan (2002-07-10) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Monoecious; CR+EN (Ref. 474) **Other strain no.:** NUG-3
- 1479 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2004-02-19) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** UJU-1
- 1480 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2004-02-19) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** UJU-2
- 1481 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2004-02-19) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** UJU-3
- 1482 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2004-02-19) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** UJU-4

- 1751** **History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03nj2-1
- 1752** **History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03nj221
- 1753** **History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03nj6
- 1754** **History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03nj811
- 1755** **History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03nj91
- 1756** **History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03nj10
- 1757** **History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03KC2
- 1758** **History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03KC3
- 1759** **History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03KC4
- 1760** **History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03KC5
- 1761** **History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03si3
- 1762** **History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03si51

- 1763** **History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03si11
- 1764** **History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03si12
- 1765** **History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03si13
- 1766** **History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 03sii
- 1767** **History:** < Higa, Atsushi **Locality:** Ohkubo-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** OB1
- 1768** **History:** < Higa, Atsushi **Locality:** Ohkubo-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** OB2
- 1769** **History:** < Higa, Atsushi **Locality:** Ohkubo-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** OB3
- 1770** **History:** < Higa, Atsushi **Locality:** Yafu-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** YF1
- 1771** **History:** < Higa, Atsushi **Locality:** Yafu-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** YF2
- 1772** **History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06KC1
- 2032** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu1
- 2033** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu2

- 2034** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu3
- 2035** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu4
- 2036** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu5
- 2037** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu6
- 2038** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu7
- 2039** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu8
- 2040** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu9
- 2041** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu10
- 2042** **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN (Ref. 474) **Other strain no.:** 06nu11

Thorea hispida (Thore) Desvaux

- 1572** **History:** < Kawachi, Masanobu **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2001-10-22) **Isolator:** Iwaki, Hiroyuki **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** KAW-1 **Remarks:** Cryopreserved
- 1573** **History:** < Higa, Atsushi **Locality:** Sugao-numa/Ibaraki/Japan (2004-01-**) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; CR+EN (Ref. 474) **Other strain no.:** sg1 **Remarks:** Cryopreserved
- 1574** **History:** < Ishimoto, Miwa **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2002-09-25) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** KAW-3 **Remarks:** Cryopreserved

- 1575** **History:** < Ishimoto, Miwa **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2002-09-25) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** KAW-4 **Remarks:** Cryopreserved
- 1576** **History:** < Higa, Atsushi **Locality:** Higashinire River/Ibaraki/Japan (2004-05-16) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; CR+EN (Ref. 474) **Other strain no.:** HN51
- 1577** **History:** < Higa, Atsushi **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** kwu2 **Remarks:** Cryopreserved
- 1578** **History:** < Higa, Atsushi **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** kwu3 **Remarks:** Cryopreserved
- 1579** **History:** < Higa, Atsushi **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** kwd3 **Remarks:** Cryopreserved
- 1580** **History:** < Higa, Atsushi **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** kwu4 **Remarks:** Cryopreserved
- 1582** **History:** < Higa, Atsushi **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** kwd4 **Remarks:** Cryopreserved
- 1583** **History:** < Higa, Atsushi **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN (Ref. 474) **Other strain no.:** kwd7 **Remarks:** Cryopreserved
- 1584** **History:** < Higa, Atsushi **Locality:** Sugao-numa/Ibaraki/Japan (2004-05-16) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; CR+EN (Ref. 474) **Other strain no.:** sg3
- 2043** **History:** < Higa, Atsushi **Locality:** Sugao-numa/Ibaraki/Japan (2006-05-17) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-05-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; CR+EN (Ref. 474) **Other strain no.:** 06sg3
- 2044** **History:** < Higa, Atsushi **Locality:** Sugao-numa/Ibaraki/Japan (2006-05-17) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-05-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; CR+EN (Ref. 474) **Other strain no.:** 06sg5

Thorea okadae Yamada

- 1483** **History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2000-**-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** NAK-8
- 1484** **History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2000-**-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** NAK-13 **Remarks:** Cryopreserved
- 1485** **History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2001-04-28) **Isolator:** Iwaki, Hiroyuki **Identified by:** Miyashita, Mamoru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** NAK-21
- 1486** **History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2001-04-28) **Isolator:** Iwaki, Hiroyuki **Identified by:** Miyashita, Mamoru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** NAK-23 **Remarks:** Cryopreserved

- 1487 **History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2000-**-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** NAK-6 **Remarks:** Cryopreserved
- 1488 **History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2000-**-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** NAK-7
- 1489 **History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2001-05-11) **Isolator:** Iwaki, Hiroyuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** NAK-31 **Remarks:** Cryopreserved
- 1490 **History:** < Kawachi, Masanobu **Locality:** Kikuchi River/Kumamoto/Japan (2001-11-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Suzawa, Yuzuru; Iwaki, Hiroyuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-1 **Remarks:** Cryopreserved
- 1491 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Nakagawa Bridge/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-33
- 1492 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-41 **Remarks:** Cryopreserved
- 1493 **History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2002-05-19) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** YAH-5
- 1494 **History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2002-05-19) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** YAH-6 **Remarks:** Cryopreserved
- 1495 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Nakagawa Bridge/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-25
- 1496 **History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2001-**-**) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** YAH-1 **Remarks:** Cryopreserved
- 1497 **History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2001-**-**) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** YAH-2 **Remarks:** Cryopreserved
- 1498 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-35 **Remarks:** Cryopreserved
- 1499 **History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2001-**-**) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** YAH-3
- 1500 **History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2002-05-19) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** YAH-4

- 1501 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-21
- 1502 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-23) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** KIK-48
- 1503 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-53 **Remarks:** Cryopreserved
- 1504 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-54 **Remarks:** Cryopreserved
- 1505 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-57 **Remarks:** Cryopreserved
- 1506 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-58
- 1507 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-67
- 1508 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-68 **Remarks:** Cryopreserved
- 1509 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-69 **Remarks:** Cryopreserved
- 1510 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-70
- 1511 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-71 **Remarks:** Cryopreserved
- 1512 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-72 **Remarks:** Cryopreserved
- 1513 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-73 **Remarks:** Cryopreserved

- 1527 **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Takashima Bridge/Kumamoto/Japan (2003-04-23) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-51
- 1528 **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** k2
- 1529 **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** k9 **Remarks:** Cryopreserved
- 1530 **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** k10 **Remarks:** Cryopreserved
- 1531 **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** k14 **Remarks:** Cryopreserved
- 1532 **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** k22 **Remarks:** Cryopreserved
- 1533 **History:** < Ishimoto, Miwa **Locality:** Naka River/Ibaraki/Japan (2003-05-29) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** NAK-32 **Remarks:** Cryopreserved
- 1534 **History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** oh8 **Remarks:** Cryopreserved
- 1535 **History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** oh13
- 1536 **History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** s2
- 1537 **History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** s6 **Remarks:** Cryopreserved
- 1538 **History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** s7 **Remarks:** Cryopreserved
- 1539 **History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** s11 **Remarks:** Cryopreserved

- 1540** **History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** s12
- 1541** **History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** s13 **Remarks:** Cryopreserved
- 1542** **History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** s14 **Remarks:** Cryopreserved
- 1543** **History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** chh2
- 1544** **History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** ch2 **Remarks:** Cryopreserved
- 1545** **History:** < Higa, Atsushi **Locality:** Yakata River, Ukishima Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** yg1
- 1546** **History:** < Higa, Atsushi **Locality:** Yakata River, Ukishima Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** yg9
- 1547** **History:** < Ishimoto, Miwa **Locality:** Yabe River/Fukuoka/Japan (2002-11-15) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Kawachi, Masanobu; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** YBE-3
- 1548** **History:** < Higa, Atsushi **Locality:** Yabe River, Funagoyaonsen Bridge/Fukuoka/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** YB2
- 1549** **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Takashima Bridge/Kumamoto/Japan (2003-04-22) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-52
- 1550** **History:** < Ishimoto, Miwa **Locality:** Kikuchi River/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-59
- 1551** **History:** < Ishimoto, Miwa **Locality:** Kikuchi River/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-60
- 1552** **History:** < Ishimoto, Miwa **Locality:** Kikuchi River/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; Female; VU (Ref. 474) **Other strain no.:** KIK-61
- 1553** **History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Yamaga Weir/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; VU (Ref. 474) **Other strain no.:** KIK-65

- 1554** **History:** < Higa, Atsushi **Locality:** Amori River, Wakaayu Bridge/Kagoshima/Japan (2004-01-23) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** AM2
- 1555** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** k5
- 1556** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** k8 **Remarks:** Cryopreserved
- 1558** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** k12
- 1559** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** k18
- 1560** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** k20 **Remarks:** Cryopreserved
- 1561** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** k23
- 1562** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** k25
- 1563** **History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** oh6 **Remarks:** Cryopreserved
- 1564** **History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** oh7 **Remarks:** Cryopreserved
- 1565** **History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** oh23
- 1566** **History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** s5 **Remarks:** Cryopreserved
- 1568** **History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** ch13 **Remarks:** Cryopreserved
- 1569** **History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** ch15

- 1570** **History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** ch21 **Remarks:** Cryopreserved
- 1571** **History:** < Higa, Atsushi **Locality:** Yakata River, Ukishima Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** yg4 **Remarks:** Cryopreserved
- 1773** **History:** < Higa, Atsushi **Locality:** Amori River, Wakaayu Bridge/Kagoshima/Japan (2004-01-23) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** AM1 **Remarks:** Cryopreserved
- 1774** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB1
- 1775** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB2 **Remarks:** Cryopreserved
- 1776** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB3 **Remarks:** Cryopreserved
- 1777** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB4 **Remarks:** Cryopreserved
- 1778** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB5 **Remarks:** Cryopreserved
- 1779** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB6 **Remarks:** Cryopreserved
- 1780** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB7 **Remarks:** Cryopreserved
- 1781** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB8
- 1782** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB9 **Remarks:** Cryopreserved
- 1783** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB10 **Remarks:** Cryopreserved
- 1784** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB11 **Remarks:** Cryopreserved
- 1785** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB12 **Remarks:** Cryopreserved

- 1802** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB29 **Remarks:** Cryopreserved
- 1803** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** IB30 **Remarks:** Cryopreserved
- 2045** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** ym1
- 2046** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** ym2
- 2047** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** ym3
- 2048** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** ym6
- 2049** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** ym8
- 2050** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU (Ref. 474) **Other strain no.:** ym9
- 2051** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** 06k1
- 2052** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** 06k3
- 2053** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** 06k4
- 2054** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** 06k6
- 2055** **History:** < Higa, Atsushi **Locality:** Sendai River, Aratatenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** AT1
- 2056** **History:** < Higa, Atsushi **Locality:** Sendai River, Aratatenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU (Ref. 474) **Other strain no.:** AT2
- 2057** **History:** < Higa, Atsushi **Locality:** Sendai River, Aratatenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 $\mu\text{mol}/\text{m}^2/\text{s}$; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** ATC2-1

- 2073** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-03-31) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU (Ref. 474) **Other strain no.:** 06ym12 **Remarks:** Cryopreserved
- 2074** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU (Ref. 474) **Other strain no.:** 06ym13

TOGULA : Dinophyceae

Togula britannica (Herdman) Jørgensen, Murray et Daugbjerg
Syn. *Amphidinium britannicum* (Herdmann) Lebour

- 405** **History:** < Sawaguchi, Tomohiro **Locality:** Hasaki/Ibaraki/Japan (1987-05-09) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** HASS-1 **Remarks:** Difficult to transport

TOLYPOTHRIX : Cyanophyceae

Tolypothrix sp.

- 2362** **History:** < IAM (2007) < TISTR (2001) **Other collection strain no.:** IAM M-259; TISTR 8247 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-6 µmol/m²/s; 3 M **Remarks:** Distribution for academic purpose only

Tolypothrix tenuis Kützing ex Bornet et Flahault

- 37** **History:** < IAM **Other collection strain no.:** IAM M-29; PCC 7101 **Locality:** Borneo/Indonesia **Isolator:** Watanabe, Atsushi **Identified by:** Negoro, Ken-ichiro; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 µmol/m²/s; 4 M (25°C; 70-80 µmol/m²/s) **Characteristics:** Heterotrophic; Nitrogen fixation; Chromatic adaptation; Material for studying on phycobilin production **References:** 56, 85, 86, 87, 88, 89, 91, 92, 126, 165, 166, 167, 168, 188, 215, 371, 515, 536, 823, 984, 1002, 1011, 1012, 1013, 1014, 1016, 1017, 1018, 1019, 1021, 1126 **Remarks:** Cryopreserved
- 2135** **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) < Ishikawa, Masako **Other collection strain no.:** IAM M-287 (= M-110) **Locality:** (1960-06-**) **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18 µmol/m²/s; 3 M

TRACHELOMONAS : Euglenophyceae

Trachelomonas sp.

- 2299** **History:** < Suda, Shoichiro **Locality:** Ozegahara/Gunma/Japan (1983-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal **Culture conditions:** AF-6/2; 20°C; 15-22 µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** OZ-4 Eug8

TREBOUXIA : Trebouxiophyceae

Trebouxia anticipata Archibald

- 1271** **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Punctelia rudecta* on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4776 **Remarks:** Cryopreserved
- 1272** **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Punctelia rudecta* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4780 **Remarks:** Cryopreserved

1273 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Flavoparmelia caperata* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4870 **Remarks:** Cryopreserved

Trebouxia arboricola Puymaly

1274 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Ramalina yasudae* on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4775 **Remarks:** Cryopreserved

1275 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Ramalina yasudae* on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4779 **Remarks:** Cryopreserved

1276 **History:** < Ohmura, Yoshihito **Locality:** Mt.Fuji, Okuniwa/Yamanashi/Japan (2003-05-05) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea longissima* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO5316 **Remarks:** Cryopreserved

1277 **History:** < Ohmura, Yoshihito **Locality:** Mt.Fuji, Ochudo/Yamanashi/Japan (2003-05-05) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea trichodeoides* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO5321 **Remarks:** Cryopreserved

Trebouxia corticola (Archibald) Gärtner

1278 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea bismolliuschula* on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4774 **Remarks:** Cryopreserved

1279 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Rimelia clavurifera* on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4777 **Remarks:** Cryopreserved

1280 **History:** < Ohmura, Yoshihito **Locality:** Suki, Sakanoshita/Miyazaki/Japan (2002-02-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Ramalina peruviana* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4860 **Remarks:** Cryopreserved

1281 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea baileyi* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4863 **Remarks:** Cryopreserved

1282 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea rubicunda* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4864 **Remarks:** Cryopreserved

1283 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea ceratina* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4865 **Remarks:** Cryopreserved

1284 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea ceratina* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4867 **Remarks:** Cryopreserved

- 1286** **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Dirinaria applanata* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4882 **Remarks:** Cryopreserved
- 1287** **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Rimelia clavurifera* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4884 **Remarks:** Cryopreserved
- 1288** **History:** < Ohmura, Yoshihito **Locality:** Mt.Fuji, Aokigahara/Yamanashi/Japan (2003-05-04) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Usnea rubrotincta* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO5330 **Remarks:** Cryopreserved
- 1446** **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177821) **Other strain no.:** AYO5357A **Reference:** 713
- 1447** **History:** < Ohmura, Yoshihito **Locality:** Zui-un-in Temple/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177822) **Other strain no.:** AYO5357B **Reference:** 713
- 1448** **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177823) **Other strain no.:** AYO5357C **Reference:** 713
- 1449** **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177825) **Other strain no.:** AYO5361A **Reference:** 713
- 1450** **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177826) **Other strain no.:** AYO5361B **Reference:** 713
- 1451** **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177828) **Other strain no.:** AYO5372 **Reference:** 713
- 1452** **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-21) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177829) **Other strain no.:** AYO5375A **Reference:** 713
- 1453** **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-21) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177830) **Other strain no.:** AYO5375B **Reference:** 713
- 1454** **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-21) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 6 M (25°C; 70-80 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177831) **Other strain no.:** AYO5376 **Reference:** 713 **Remarks:** Cryopreserved

1455 **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-21) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177832) **Other strain no.:** AYO5380 **Reference:** 713

Trebouxia erici Ahmadjian

2185 **History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-116; UTEX 912 **Locality:** Massachusetts/U.S.A. **Isolator:** Ahmadjian, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen *Cladonia cristatella*) **Characteristics:** Symbiotic **Reference:** 17

2186 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-593 (= C-188); UTEX 910 **Locality:** Massachusetts/U.S.A. **Isolator:** Ahmadjian, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen *Cladonia cristatella*) **Characteristics:** Symbiotic **Gene data:** Actin (AB080314) **References:** 17, 1101

Trebouxia glomerata (Waren) Ahmadjian

2187 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-594 (= C-115); UTEX 896 **Locality:** Massachusetts/U.S.A. **Isolator:** Ahmadjian, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen *Stereocaulon pileatum*) **Characteristics:** Symbiotic **Reference:** 17

2188 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-595 (= C-187); UTEX 897 **Locality:** Massachusetts/U.S.A. **Isolator:** Ahmadjian, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen *Stereocaulon pileatum*) **Characteristics:** Symbiotic **Reference:** 17

Trebouxia higginsiae (Hildreth et Ahmadjian) Gärtner

1289 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4781 **Remarks:** Cryopreserved

1290 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Dirinaria applanata* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4782 **Remarks:** Cryopreserved

1291 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4866 **Remarks:** Cryopreserved

1292 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Myelochroa aurulenta* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4877 **Remarks:** Cryopreserved

1293 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4879 **Remarks:** Cryopreserved

1294 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Dirinaria applanata* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4880 **Remarks:** Cryopreserved

1295 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4885 **Remarks:** Cryopreserved

1296 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema austrosinense* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4887 **Remarks:** Cryopreserved

Trebouxia showmanii (Hildreth et Ahmadjian) Gärtner

1297 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Xanthoparmelia coreana* on a stone wall) **Characteristics:** Symbiotic **Other strain no.:** AYO4778 **Remarks:** Cryopreserved

Trebouxia sp.

2349 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 6 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (The lichen *Punctelia rudecta* on a bark roof) **Characteristics:** Symbiotic **Other strain no.:** AYO4869

TRENTEPOHLIA : Ulvophyceae

Trentepohlia sp.

967 **History:** < Hagiwara, Tomiji **Locality:** Nozawa Hot Spring/Nagano/Japan (1989-12-28) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-27 µmol/m²/s; 6 M **Habitat:** Terrestrial (Concrete bank) **Other strain no.:** TP-5

TREPOMONAS : Trepomonadea

Trepomonas sp.

1444 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-05-26) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** UYTS + Rice; 15°C; 20 D **Habitat:** Freshwater (Pond water) **Characteristics:** Offensive taste and odor; Heterotrophic **Other strain no.:** TKB-058 (NY0141) **Reference:** 122

TREUBARIA : Chlorophyceae

Treubaria triappendiculata Bernard

394 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-10-04) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 µmol/m²/s; 2 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F67-5 **Reference:** 515

TRICERATIUM : Bacillariophyceae

Triceratium dubium Brightwell

556 **History:** < Ono, Sachiko **Locality:** Okinawa/Japan (1990-**-**) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** No.20 **Reference:** 792

TRIPLOCERAS : Charophyceae

Triploceras gracile Bailey

789 **History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** 85-28-1 **Reference:** 220

- 790** **History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** 85-28-2 **Reference:** 220
- 791** **History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** 85-28-3 **Reference:** 220
- 792** **History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** 85-28-4 **Reference:** 220
- 793** **History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type (+) **Other strain no.:** 83-24-2 **Reference:** 220
- 794** **History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type (+) **Other strain no.:** 83-24-7 **Reference:** 220
- 795** **History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type (-) **Other strain no.:** 83-24-3 **Reference:** 220
- 796** **History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type (-) **Other strain no.:** 83-24-6 **Reference:** 220

TYCHONEMA : Cyanophyceae*Tychonema bourrellyi* Anagnostidis et Komárek

- 846** **History:** < Suda, Shoichiro < CCAP **Other collection strain no.:** CCAP 1459/11B **Locality:** Loughgall/North Ireland/U.K. **Isolator:** Fitzsimons **Identified by:** Suda, Shoichiro (Reidentify) **Formerly identified as:** *Oscillatoria bourrellyi* J. W. G. Lund f. *tenuis* Skuja **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 15-25 µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Type strain **Gene data:** 16S rRNA (AB045897) **References:** 202, 893 **Remarks:** Cryopreserved

ULOTHRIX : Ulvophyceae*Ulothrix variabilis* Kützing

- 329** **History:** < Suda, Shoichiro **Locality:** Takatori River/Ibaraki/Japan (1984-12-11) **Isolator:** Suda, Shoichiro **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22 µmol/m²/s; 3 M **Habitat:** Freshwater (Lake water) **References:** 123, 515, 916, 917

Ulothrix zonata (Weber et Mohr) Kützing

- 536** **History:** < Kasai, Fumie **Locality:** Hitachi/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 10°C; 6-12 µmol/m²/s; 3 M (10°C; 10-15 µmol/m²/s) **Habitat:** Freshwater (Water) **Other strain no.:** 4st-1'-24 **References:** 123, 515, 917
- 537** **History:** < Kasai, Fumie **Locality:** Shirai River/Hokkaido/Japan (1987-10-**) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 10°C; 10-15 µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 2Tst-1-1 **References:** 515, 917

UMBILICOSPHAERA : Prymnesiophyceae**Umbilicosphaera sibogae** (Weber-van Bosse) Gaarder var. *sibogae*

1324 History: < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40 µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 67

UNIDENTIFIED COCCOID PRASINOPHYTE : Prasinophyceae**Unidentified coccoid prasinophyte**

1435 History: < TKB **Locality:** Amami Isl., Sani/Kagoshima/Japan (2000-06-**) **Isolator:** Yoshii, Yukie **Identified by:** Yoshii, Yukie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-025 (YY-01)

UNIDENTIFIED FLAGELLATE METAMONAD : Metamonada *incertae sedis***Unidentified flagellate metamonad**

1844 History: < TKB **Locality:** Yamakawa Harbor/Kagoshima/Japan (2005-03-15) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + mTYGM-9 + Rice; SUY 1/10 + mTYGM-9 + Rice; 15°C; 1 M **Habitat:** (Seawater) **Characteristics:** Heterotrophic; Benthic **Other strain no.:** TKB-273

UNIDENTIFIED METAMONAD : Metamonada *incertae sedis***Unidentified metamonad**

1968 History: < TKB **Locality:** Sagami Bay/Shizuoka/Japan (2006-03-12) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM + mTYGM-9 + Rice; SUY 1/10 + mTYGM-9 + Rice; 15°C; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic; Benthic **Other strain no.:** TKB-336

UNIDENTIFIED PELAGOPHYTE : Pelagophyceae**Unidentified pelagophyte**

1386 History: < TKB **Locality:** Ishigaki Harbor/Okinawa/Japan (2003-12-25) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-085 (nrc061)

1387 History: < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 40-50 µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-102 (ym-10)

UNIDENTIFIED YELLOW HETEROKONTOPHYTE : Heterokontophyta *incertae sedis***Unidentified yellow heterokontophyte**

1389 History: < TKB **Locality:** Yonehara/Okinawa/Japan (2003-12-**) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-092 (nrc068)

URNELLA : Chlorophyceae**Urnella terrestris** Playfair

156 History: < Watanabe, Shin **Locality:** Pokhara/Nepal (1975-10-**) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 µmol/m²/s; 3 M (25°C; 70-80 µmol/m²/s) **Habitat:** Terrestrial (Soil) **Other strain no.:** NPL-111 **References:** 515, 1072 **Remarks:** Cryopreserved

UROGLENA : Chrysophyceae*Uroglena americana* Calkins

- 395** **History:** < Ishida, Yuzaburo **Locality:** Lake Biwa/Shiga/Japan (1978-05-11) **Isolator:** Ishida, Yuzaburo **Identified by:** Ishida, Yuzaburo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** DY-V; 15°C; 20-30 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Phagotrophic **Other strain no.:** Strain 78 **References:** 243, 365, 366 **Remarks:** Difficult to transport

URONEMA : Chlorophyceae*Uronema confervicolum* Lagerheim

- 538** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** 4st-2-10 **References:** 515, 916, 917

Uronema gigas Vischer

- 539** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** 4st-3-5 **References:** 515, 917 **Remarks:** Cryopreserved

- 540** **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** 4st-0-16 **References:** 515, 917 **Remarks:** Cryopreserved

VISCHERIA : Eustigmatophyceae*Vischeria punctata* Vischer

- 2147** **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM X-36 (= X-4); ATCC 30441; CCAP 887/1; SAG 887-1; UTEX 153 **Locality:** Unterengadin/Switzerland **Isolator:** Vischer, W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 40-50 µmol/m²/s; 3 M **Habitat:** Terrestrial (Soil)

Vischeria stellata Pascher

- 2148** **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM X-5; CCAP 887/2B; SAG 887-2; UTEX 312 **Locality:** Switzerland **Isolator:** Chodat, R. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 40-50 µmol/m²/s; 3 M **Habitat:** Terrestrial (Soil)

VITREOCHLAMYS : Chlorophyceae*Vitreochlamys aulata* (Pascher) Batko

- 875** **History:** < Nakazawa, Atsushi **Locality:** Atsugi/Kanagawa/Japan (1998-02-19) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Gene data:** *atpB* (AB076121); *psaA* (AB076143); *psaB* (AB076158); *psbC* (AB076175); *psbC* (AB076176); *psbC* (AB076177); *rbcL* (AB050486); *rbcL* (AB050487); *rbcL*-462 intron (AB076097) **Other strain no.:** Spha-5/1998-3-9 **References:** 597, 598, 668, 671

- 876** **History:** < Nakazawa, Atsushi **Locality:** Habikino/Osaka/Japan (1998-03-14) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Gene data:** *rbcL* (AB050488); *rbcL* (AB050489) **Other strain no.:** Spha-8/1998-7-14 **Reference:** 597

- 877** **History:** < Nakazawa, Atsushi < SAG **Other collection strain no.:** SAG 69.72 **Locality:** South Bohemia/Czech **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Ditch water) **Gene data:** *rbcL* (AB050492) **Reference:** 597

- 878** **History:** < Nakazawa, Atsushi < SAG **Other collection strain no.:** SAG 80.81 **Locality:** Zool/Slovakia **Formerly identified as:** *Sphaerellopsis aulata* Pascher **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** *rbcL* (AB050493) **Reference:** 597

Vitreochlamys fluviatilis (Stein) Batko

- 879 History:** < Nakazawa, Atsushi **Locality:** Nerima-ku/Tokyo/Japan (1997-11-13) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** *rbcL* (AB050484) **Other strain no.:** Spha-1/1997-12-5 **Reference:** 597

Vitreochlamys gloeocystiformis (Dill) Nakazawa

Syn. *Sphaerellopsis gloeocystiformis* (Dill) Gerloff

- 880 History:** < Nozaki, Hisayoshi **Locality:** Lake Altglobsow/Brandenburg/Germany (1997-08-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *rbcL* (AB050485) **Other strain no.:** 970805-U-4 **Reference:** 597

Vitreochlamys nekrassovii (Korshikov) Nakazawa

Syn. *Sphaerellopsis nekrassovii* (Korshikov) Ettl

- 881 History:** < Nakazawa, Atsushi < SAG **Other collection strain no.:** SAG 11-10 **Locality:** Shore of River Elbe, near Celakovice/Czech **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *rbcL* (AB050494) **Reference:** 597

Vitreochlamys ordinata (Skuja) Nakazawa

Syn. *Sphaerellopsis ordinata* Skuja

- 882 History:** < Nozaki, Hisayoshi **Locality:** Lake Altglobsow/Brandenburg/Germany (1997-08-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** *atpB* (AB014036); *psaA* (AB044420); *psaB* (AB044471); *psbC* (AB044529); *rbcL* (AB014041) **Other strain no.:** 970804-S-4 (= Nozaki S-4) **References:** 597, 663, 666, 668

Vitreochlamys pinguis Nakazawa

- 883 History:** < Nakazawa, Atsushi **Locality:** Shakujii Park/Tokyo/Japan (1998-06-02) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Authentic strain **Gene data:** *atpB* (AB076120); *psaA* (AB076142); *psaB* (AB076157); *psbC* (AB076174); *rbcL* (AB050490); *rbcL* (AB050491) **Other strain no.:** Spha-12/1998-7-16 **References:** 597, 668, 671

VOLVOX : Chlorophyceae*Volvox africanus* G. S. West

- 863 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1891 **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6/2; 23°C; 180-200 µmol/m²/s; 20 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Female **Remarks:** Difficult to transport

Volvox aureus Ehrenberg

- 241 History:** < IAM (1983) **Other collection strain no.:** IAM C-419 **Locality:** Nagatoro/Saitama/Japan (1969-11-13) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 25°C; 100-120 µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Fertility lost **Other strain no.:** S-9-8 **References:** 215, 515 **Remarks:** Difficult to transport
- 396 History:** < Ogasawara, Yoshikazu **Locality:** Nagano/Japan (1983-08-27) **Isolator:** Ogasawara, Yoshikazu **Identified by:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200 µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Reference:** 515 **Remarks:** Difficult to transport
- 693 History:** < Nozaki, Hisayoshi **Locality:** Tokyo/Japan (1977-06-22) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Stream water) **Characteristics:** Other water bloom; Homothallic; Dioecious; Oogamy **Other strain no.:** k-5 **Reference:** 515 **Remarks:** Difficult to transport
- 694 History:** < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-600 **Locality:** Kyoto University/Kyoto/Japan (1983-10-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Stream water) **Characteristics:** Other water bloom; Homothallic; Dioecious; Oogamy **Other strain no.:** 31202-2-9 **Reference:** 515 **Remarks:** Difficult to transport

- 864** **History:** < Nozaki, Hisayoshi **Locality:** Neuglobsow/Brandenburg/Germany (1997-07-17) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Other strain no.:** 970717-1 **Remarks:** Difficult to transport
- 891** **History:** < Nozaki, Hisayoshi **Locality:** Neuglobsow/Brandenburg/Germany (1997-07-17) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** *atpB* (AB076104); *psaA* (AB076123); *psaB* (AB076145); *psbC* (AB076160); *rbcL* (AB076096) **Other strain no.:** 970717-2 **Reference:** 671 **Remarks:** Difficult to transport
- 892** **History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (1999-06-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 15°C; 35-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Homothallic; Dioecious; Oogamy **Gene data:** *atpB* (AB076105); *psaA* (AB076124); *psaB* (AB076146); *psbC* (AB076161); *rbcL* (AB076086) **Other strain no.:** 990601-IV-9 **Reference:** 671 **Remarks:** Difficult to transport

Volvox aureus Ehrenberg var. *aureus*

- 541** **History:** < Nozaki, Hisayoshi **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-**-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Sediment) **Gene data:** *atpB* (AB013998); *psaA* (AB044182); *psaB* (AB044424); *psbC* (AB044474) **Other strain no.:** 1706-2 **References:** 515, 625, 639, 645, 646, 663, 666 **Remarks:** Difficult to transport
- 542** **History:** < Nozaki, Hisayoshi **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-**-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Sediment) **Other strain no.:** 1706-4 **References:** 515, 625 **Remarks:** Difficult to transport

Volvox barberi Shaw

- 730** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 804; IAM C-601 **Locality:** Lemoncove/California/U.S.A. **Isolator:** Stein, J. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 23°C; 180-200 µmol/m²/s; 20 D **Habitat:** Freshwater (Soil) **Gene data:** *atpB* (AB014001); *psaA* (AB044186); *psaB* (AB044427); *psbC* (AB044477); *rbcL* (D86835) **References:** 647, 663, 666 **Remarks:** Difficult to transport

Volvox carteri Stein

- 397** **History:** < Ogasawara, Yoshikazu **Locality:** Ichinomiya, Asai/Aichi/Japan (1983-06-12) **Isolator:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 25°C; 100-120 µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic; Female; Crosses with NIES-398 **Other strain no.:** V-4 **Reference:** 515 **Remarks:** Difficult to transport
- 398** **History:** < Ogasawara, Yoshikazu **Locality:** Ichinomiya, Asai/Aichi/Japan (1983-06-12) **Isolator:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 25°C; 100-120 µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic; Male; Crosses with NIES-397 **Other strain no.:** V-11 **Reference:** 515 **Remarks:** Difficult to transport

Volvox carteri Stein f. *kawasakiensis* Nozaki

- 580** **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1984-01-30) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Oogamy; Female; Crosses with NIES-581 **Other strain no.:** 6823-+-2 **References:** 515, 632 **Remarks:** Difficult to transport
- 581** **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Oogamy; Male; Crosses with NIES-580 **Other strain no.:** 90-1111-5 **References:** 515, 632 **Remarks:** Difficult to transport
- 732** **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1984-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Dioecious; Oogamy; Female; Crosses with NIES-733 **Gene data:** *atpB* (AB013999); *psaA* (AB044184); *psaA* (AB044185); *psaB* (AB044425); *psbC* (AB044475); *rbcL* (D63446) **Other strain no.:** KK-3 **References:** 632, 639, 646, 663, 666, 668 **Remarks:** Difficult to transport

- 733** **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1984-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Dioecious; Oogamy; Male; Crosses with NIES-732 **Other strain no.:** KK-5 **Reference:** 632 **Remarks:** Difficult to transport

Volvox carteri Stein f. *nagariensis* Iyengar

- 865** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1885 **Locality:** Kobe/Hyogo/Japan **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 23°C; 180-200 µmol/m²/s; 20 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Female **Remarks:** Difficult to transport

Volvox carteri Stein f. *weismannia* (Powers) Iyengar

- 866** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1875 **Locality:** Waterford/Australia **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 23°C; 180-200 µmol/m²/s; 20 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Male **Remarks:** Difficult to transport

Volvox dissipatrix (Shaw) Printz

- 731** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2184 **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 23°C; 180-200 µmol/m²/s; 14 D **Habitat:** Freshwater **Gene data:** *atpB* (AB014000); *psaA* (AB044183); *psaB* (AB044426); *psbC* (AB044476); *rbcL* (D63447) **References:** 646, 663, 666 **Remarks:** Difficult to transport

Volvox gigas Pocock

- 867** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1895 **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 23°C; 180-200 µmol/m²/s; 14 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Female **Remarks:** Difficult to transport

Volvox obversus (Shaw) Printz

- 868** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1865 **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 µmol/m²/s; 14 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Male **Remarks:** Difficult to transport

Volvox prolificus Iyengar

- 543** **History:** < Ogasawara, Yoshikazu **Locality:** Japan **Isolator:** Ogasawara, Yoshikazu **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater **Other strain no.:** V-sp **Reference:** 515 **Remarks:** Difficult to transport

Volvox rousseletii G. S. West

- 734** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1862 **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 µmol/m²/s; 1 M **Habitat:** Freshwater **Gene data:** *atpB* (AB014003); *psaA* (AB044188); *psaB* (AB044429); *psbC* (AB044479); *rbcL* (D63448) **References:** 646, 663, 666 **Remarks:** Difficult to transport

Volvox sp.

- 2307** **History:** < Ogasawara, Yoshikazu **Locality:** Ichinomiya/Aichi/Japan (1986-06-04) **Isolator:** Ogasawara, Yoshikazu **Identified by:** Ogasawara, Yoshikazu **States:** Unialgal **Culture conditions:** AF-6; 23°C; 180-200 µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Remarks:** Difficult to transport

Volvox tertius Meyer

- 544** **History:** < Ogasawara, Yoshikazu **Locality:** Kisofukushima/Nagano/Japan (1986-08-27) **Isolator:** Ogasawara, Yoshikazu **Identified by:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic **Culture conditions:** MG; 23°C; 180-200 µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Gene data:** *atpB* (AB086173); *psaA* (AB086175); *psaA* (AB086176); *psaB* (AB086177); *psbC* (AB086178); *rbcL* (AB086174) **References:** 515, 640 **Remarks:** Difficult to transport

- 869** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 132 **Locality:** Cambridge, Queen's Ditch/England/U.K. (1947-**-**) **Isolator:** George, E. A. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 23°C; 180-200 µmol/m²/s; 14 D **Habitat:** Freshwater (Ditch water) **Remarks:** Difficult to transport

VOLVULINA : Chlorophyceae*Volvulina boldii* O'Neil et Starr nom. nud.

- 893** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2185 **Locality:** Peurith/North Carolina/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 µmol/m²/s; 1 M **Characteristics:** Heterothallic; Isogamy; Mating type (+) **Gene data:** *atpB* (AB044176); *psaA* (AB044225); *psaB* (AB044451); *psbC* (AB044504); *rbcL* (AB044162); *rbcL* (AB044163) **Reference:** 663
- 894** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2186 **Locality:** Peurith/North Carolina/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 µmol/m²/s; 1 M **Characteristics:** Heterothallic; Isogamy; Mating type (-)

Volvulina compacta Nozaki

- 582** **History:** < Nozaki, Hisayoshi **Locality:** Birtamod/Nepal (1988-10-07) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-583 **Gene data:** *atpB* (AB014029); *psaA* (AB044217); *psaA* (AB044218); *psaA* (AB044219); *psaB* (AB044446); *psbC* (AB044498); *rbcL*-462 intron (AB076089) **Other strain no.:** 89-804-4 **References:** 515, 647, 656, 663, 666, 668, 671
- 583** **History:** < Nozaki, Hisayoshi **Locality:** Birtamod/Nepal (1988-10-07) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-582 **Other strain no.:** 89-804-7 **References:** 515, 656

Volvulina pringsheimii Starr

- 895** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1020 **Locality:** Fredricksburg/Texas/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Terrestrial (Rock) **Characteristics:** Heterothallic; Isogamy **Gene data:** *atpB* (AB014028); *psaA* (AB044220); *psaB* (AB044447); *psbC* (AB044499); *rbcL* (D63444) **References:** 646, 663, 666

Volvulina steinii Playfair

- 545** **History:** < Nozaki, Hisayoshi **Locality:** Hayama/Kanagawa/Japan (1980-12-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VTAC; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (-); Crosses with NIES-546 **Gene data:** *atpB* (AB044713); *psaA* (AB044221); *psaA* (AB044222); *psaB* (AB044448); *psbC* (AB044500); *rbcL* (AB044159) **Other strain no.:** 1107-5 (-) **References:** 515, 622, 643, 663
- 546** **History:** < Nozaki, Hisayoshi **Locality:** Hayama/Kanagawa/Japan (1980-12-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VTAC; 20°C; 15-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (+); Crosses with NIES-545 **Other strain no.:** 1107-8 (+) **References:** 345, 515, 622
- 584** **History:** < Nozaki, Hisayoshi **Locality:** Bahrabise/Nepal (1988-09-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (+); Crosses with NIES-585 **Other strain no.:** 89-306-1 **References:** 515, 634
- 585** **History:** < Nozaki, Hisayoshi **Locality:** Bahrabise/Nepal (1988-09-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type (-); Crosses with NIES-584 **Other strain no.:** 89-423-1 **References:** 515, 634
- 896** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1525 **Locality:** Farmington/California/U.S.A. **Isolator:** Carefoot, J. R. **Identified by:** Carefoot, J. R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Ditch mud) **Characteristics:** Mixotrophic; Heterothallic; Isogamy **Gene data:** *atpB* (AB044174); *psaA* (AB044223); *psaB* (AB044449); *psbC* (AB044501); *rbcL* (AB044160) **References:** 40, 622, 643, 663
- 897** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1527 **Locality:** Bloomington/Indiana/U.S.A. **Isolator:** Carefoot, J. R. **Identified by:** Carefoot, J. R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Salt water (Salt creek mud) **Characteristics:** Mixotrophic; Heterothallic; Isogamy **References:** 40, 622, 643

- 898** **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1531 **Locality:** Wilson County/Texas/U.S.A. **Isolator:** Carefoot, J. R. **Identified by:** Carefoot, J. R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Mud) **Characteristics:** Mixotrophic; Heterothallic; Isogamy **Gene data:** *atpB* (AB044175); *psaA* (AB044224); *psaB* (AB044450); *psbC* (AB044502); *psbC* (AB044503); *rbcL* (AB044161) **References:** 40, 622, 643, 663

WATANABEA : Trebouxiophyceae

Watanabea reniformis Hanagata, Karube, Chihara et Silva

- 2189** **History:** < IAM (2007) < Soeder, C. J. (1966) < CCAP **Other collection strain no.:** IAM C-211; CCAP 211/9b **Isolator:** Pringsheim, E. G. **Formerly identified as:** *Chlorella saccharophila* (Krüger) Migula **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 µmol/m²/s; 3 M **Other strain no.:** Cambridge Univ. 211-9b **References:** 129, 173, 388, 389, 1093, 1094

WOBLIA : Placididea

Wobblia lunata Moriya, Nakayama et Inouye

- 1015** **History:** < Moriya, Mayumi **Locality:** Osabe Harbor/Iwate/Japan (1996-08-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY; 15°C; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Heterotrophic; Authentic strain **Gene data:** 18S rRNA (AB032606) **Other strain no.:** #1 **Reference:** 521

WOLOSZYNSKIA : Dinophyceae

Woloszynskia leopoliense (Woloszynska) Thompson

- 619** **History:** < Sawaguchi, Tomohiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-04-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MW/5; 20°C; 40-50 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** KRYZ-3 **Remarks:** Difficult to transport

YAMAGISHIELLA : Chlorophyceae

Yamagishiella unicocca (Rayburn et Starr) Nozaki

Syn. *Pandorina unicocca* Rayburn et Starr

- 578** **History:** < Nozaki, Hisayoshi **Locality:** Kamogawa/Chiba/Japan (1980-10-19) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Isogamy; Mating type (+); Crosses with NIES-579 **Other strain no.:** 01209-1 **References:** 515, 670
- 579** **History:** < Nozaki, Hisayoshi **Locality:** Kamogawa/Chiba/Japan (1980-10-19) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Isogamy; Mating type (-); Crosses with NIES-578 **Other strain no.:** 01209-7 **Reference:** 515
- 666** **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2428 **Locality:** Nobi/Kanagawa/Japan (1979-05-**) **Isolator:** Kato, Sueo **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Isogamy; Mating type (+); Crosses with NIES-667 **Gene data:** *atpB* (AB014030); *psaA* (AB044213); *psaB* (AB044443); *psbC* (AB044495); *rbcL* (D86823) **Other strain no.:** X-441 **References:** 362, 515, 621, 647, 659, 663, 666
- 667** **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2429 **Locality:** Nobi/Kanagawa/Japan (1979-05-**) **Isolator:** Kato, Sueo **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27 µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Isogamy; Mating type (-); Crosses with NIES-666 **Other strain no.:** X-443 **References:** 515, 621
- 870** **History:** < Nozaki, Hisayoshi **Locality:** Lake Rößlin/Fürstenberg/Germany (1997-07-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Isogamy; Mating type (+) **Other strain no.:** 970730-E-1

- 871** **History:** < Nozaki, Hisayoshi **Locality:** Lake Röblin/Fürstenberg/Germany (1997-07-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Isogamy; Mating type (-) **Other strain no.:** 970730-E-7
- 872** **History:** < Nozaki, Hisayoshi **Locality:** Brandenburg/Germany (1997-07-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Heterothallic; Isogamy; Mating type (+) **Gene data:** *atpB* (AB044172); *psaA* (AB044216); *psaB* (AB044445); *psbC* (AB044497); *rbcL* (AB044168) **Other strain no.:** 970801-E-5 (= Nozaki E-5) **Reference:** 663
- 873** **History:** < Nozaki, Hisayoshi **Locality:** Brandenburg/Germany (1997-07-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Heterothallic; Isogamy; Mating type (-) **Other strain no.:** 970801-E-9
- 874** **History:** < Nozaki, Hisayoshi **Locality:** Brandenburg/Germany (1997-07-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30 µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Heterothallic; Isogamy; Mating type (-) **Other strain no.:** 970801-E-10
- 1859** **History:** < Nozaki, Hisayoshi **Locality:** Noumi Isl./Hiroshima/Japan (2004-08-18) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2005-06-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type (-); Crosses with NIES-1861 **Other strain no.:** Hasu-1
- 1860** **History:** < Nozaki, Hisayoshi **Locality:** Noumi Isl./Hiroshima/Japan (2004-08-18) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2005-06-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type (-); Crosses with NIES-1861 **Other strain no.:** Hasu-2
- 1861** **History:** < Nozaki, Hisayoshi **Locality:** Noumi Isl./Hiroshima/Japan (2004-08-18) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2005-06-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type (+); Crosses with NIES-1859, 1860 **Other strain no.:** Hasu-4

3. List of type specimens (タイプ標本リスト)

Specimen ID: NIES-50001

Scientific name: *Chlorogonium capillatum* Nozaki, M. M.
Watanabe et Aizawa

Class name: Chlorophyceae

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-692

Reference: See section VIII References 555.

Specimen ID: NIES-50002

Scientific name: *Chlorogonium elongatum* (P. A. Dangeard) Francé

Class name: Chlorophyceae

Basionym: *Cercidium elongatum* P. A. Dangeard

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-751 (IAM C-293,
CCAP 12/1, UTEX 204)

Reference: See section VIII References 555.

Specimen ID: NIES-50003

Scientific name: *Chlorogonium euchlorum* (Ehrenberg) Ehrenberg

Class name: Chlorophyceae

Basionym: *Astasia euchlora* Ehrenberg

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-755 (UTEX 2010)

Reference: See section VIII References 555.

Specimen ID: NIES-50005

Scientific name: *Gungnir kasakii* (Nozaki) Nakada

Class name: Chlorophyceae

Basionym: *Chlorogonium kasakii* Nozaki

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-761 (CCAP 12/8)

Reference: See section VIII References 555.

Specimen ID: NIES-50006

Scientific name: *Gungnir neglectum* (Pascher) Nakada

Class name: Chlorophyceae

Basionym: *Chlorogonium neglectum* Pascher

Synonym: *Chlamydomonas neglecta* (Pascher) Korshikov

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-439

Reference: See section VIII References 555.

Specimen ID: NIES-50007

Scientific name: *Rusalka fusiformis* (Matvienko) Nakada

Class name: Chlorophyceae

Basionym: *Chlorogonium fusiforme* Matvienko

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-123 (IAM C-349)

Reference: See section VIII References 555.

4. List of synonyms (シノニムリスト)

Synonym → Current name

- Achnanthes minutissima* Kützing → *Achnanthidium minutissimum* (Kützing) Czarnecki
Achnanthes minutissima Kützing var. *saprophila* Kobayasi et Mayama
 → *Achnanthidium minutissimum* (Kützing) Czarnecki var. *saprophilum* Kobayasi et Mayama
- Amphidinium britannicum* (Herdmann) Lebour → *Togula britannica* (Herdman) Jørgensen, Murray et Daugbjerg
- Anabaena spiroides* Klebahn f. *crassa* (Lemmermann) Elenkin
 → *Anabaena crassa* (Lemmermann) Komárková-Legnerová et Cronberg
- Anabaena spiroides* Klebahn var. *crassa* Klebahn
 → *Anabaena crassa* (Lemmermann) Komárková-Legnerová et Cronberg
- Arthrospira platensis* Gomont → *Spirulina platensis* (Gomont) Geitler
- Asterionella glacialis* Castracane → *Asterionellopsis glacialis* (Castracane) Round
- Batrachospermum vagum* (Roth) Agardh → *Batrachospermum turfosum* Bory
- Cachonina niei* Loeblich III → *Heterocapsa niei* (Loeblich III) Morrill et Loeblich III
- Chattonella verruculosa* Hara et Chihara
 → *Pseudochattonella verruculosa* (Hara et Chihara) Tanabe-Hosoi, Honda, Fukaya, Inagaki et Sako
- Chilomonas paramecium* Ehrenberg → *Cryptomonas paramaecium* (Ehrenberg) Hoef-Emden et Melkonian
- Chlamydomonas neglecta* Korshikov ex Pascher → *Gungnir neglectum* (Pascher) Nakada
- Chlorella kessleri* Fott et Nováková
 → *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
- Chlorella protothecoides* Krüger → *Auxenochlorella protothecoides* (Krüger) Kalina et Puncochárová
- Chlorella zofingiensis* Dönz → *Muriella zofingiensis* (Dönz) Hindák
- Chlorogonium fusiforme* Matvienko → *Rusalka fusiformis* (Matvienko) Nakada
- Chlorogonium kasakii* Nozaki → *Gungnir kasakii* (Nozaki) Nakada
- Chlorogonium neglectum* Pascher → *Gungnir neglectum* (Pascher) Nakada
- Chlorosarcinopsis delicata* S. Watanabe → *Desmotetra delicata* (S. Watanabe) S. Watanabe
- Cricosphaera roscoffensis* (Dangeard) Gayral et Fresnel → *Pleurochrysis roscoffensis* (Dangeard) Fresnel et Billard
- Errerella bornhemienensis* Conrad → *Micractinium bornhemienensis* (Conrad) Korshikov
- Eudorina unicocca* G.M. Smith var. *peripheralis* Goldstein → *Eudorina peripheralis* (Goldstein) T. K. Yamada
- Gonium sacculiferum* Scherffel → *Basichlamys sacculifera* (Scherffel) Skuja
- Gonium sociale* (Dujardin) Warming → *Tetrabaena socialis* (Dujardin) Nozaki et Ito
- Gonium sociale* (Dujardin) Warming var. *sociale* → *Tetrabaena socialis* (Dujardin) Nozaki et Ito var. *socialis*
- Gymnodinium mikimotoi* Miyake et Kominami ex Oda
 → *Karenia mikimotoi* (Miyake et Kominami ex Oda) Hansen et Moestrup
- Gymnodinium nagasakiense* Takayama et Adachi
 → *Karenia mikimotoi* (Miyake et Kominami ex Oda) Hansen et Moestrup
- Haematococcus pluvialis* Flotow → *Haematococcus lacustris* (Girod-Chantrons) Rostafinski
- Katodinium rotundatum* (Lohmann) Loeblich III → *Heterocapsa rotundata* (Lohmann) Hansen
- Microcystis ichthyoblabe* Kützing → *Microcystis aeruginosa* (Kützing) Lemmermann
- Microcystis novacekii* (Komárek) Compère → *Microcystis aeruginosa* (Kützing) Lemmermann
- Microcystis viridis* (A. Brown) Lemmermann → *Microcystis aeruginosa* (Kützing) Lemmermann
- Microcystis wesenbergii* Komárek → *Microcystis aeruginosa* (Kützing) Lemmermann
- Oscillatoria agardhii* Gomont → *Planktothrix agardhii* (Gomont) Anagnostidis et Komárek
- Oscillatoria mougeotii* Kützing ex Lemmermann
 → *Planktothrix mougeotii* (Kützing ex Lemmermann) Suda, M. M. Watanabe, Otsuka, Mahakahant, Yongmanitchai, Nopartnaraporn, Liu et Day
- Oscillatoria raciborskii* Woloszyńska → *Planktothricoides raciborskii* Suda et M. M. Watanabe

- Oscillatoria rubescens* DC. ex Gomont → *Planktothrix rubescens* (DC. ex Gomont) Anagnostidis et Komárek
Pandorina unicocca Rayburn et Starr → *Yamagishiella unicocca* (Rayburn et Starr) Nozaki
Phacus agilis Skuja → *Cryptoglana skujae* Marin et Melkonian
Protogonyaulax catenella (Whedon et Kofoid) Taylor → *Alexandrium catenella* (Whedon et Kofoid) Balech
Scenedesmus abundans (Kirchner) Chodat → *Desmodesmus abundans* (Kirchner) Hegewald
Scenedesmus gutwinskii Chodat var. *heterospina* Bodrogközy
→ *Desmodesmus subspicatus* (Chodat) Hegewald et Schmidt
Scenedesmus serratus (Corda) Bohlin → *Desmodesmus serratus* (Corda) Friedl et Hegewald
Selenastrum minutum (Nägeli) Collins → *Monoraphidium minutum* (Nägeli) Komárková-Legnerová
Staurastrum dejectum Brébisson ex Ralfs → *Stauroidesmus dejectus* (Brébisson ex Ralfs) Teiling
Tetraëdron incus (Teiling) G. M. Smith → *Chlorotetraedron incus* (Teiling) MacEntee *et al.*
Verrucophora verruculosa (Hara et Chihara) Eikrem
→ *Pseudochattonella verruculosa* (Hara et Chihara) Tanabe-Hosoi, Honda, Fukaya, Inagaki et Sako

5. List of former (previously used) names (前名リスト)

Former name and NIES No. → Current name

- Achnanthes longipes* Agardh 330 → *Achnanthes subconstricta* (Meister) Toyoda
Anabaena flos-aquae Brébisson ex Bornet et Flahault f. *flos-aquae* 74 → *Anabaena kisseleviana* Elenkin
Anabaena mendotae Trelease 808 → *Anabaena lemmermannii* Richter
Anabaena solitaria Klebahn f. *solitaria* 80 → *Anabaena planctonica* Brunthaler
Anabaena spiroides Klebahn f. *spiroides* 77 → *Anabaena crassa* (Lemmermann) Komárková-Legnerová et Cronberg
Anabaena spiroides Klebahn f. *spiroides* 79 → *Anabaena pseudocompacta* M. Watanabe
Anabaena spiroides Klebahn f. *spiroides* 263 → *Anabaena ucrainica* (Schkorbatow) M. Watanabe
Cachonina niei Loeblich III 614 → *Heterocapsa horiguchii* Iwataki, Takayama et Matsuoka
Carteria inversa (Korshikov) Bourrelly 424 → *Carteria cerasiformis* Nozaki, Aizawa et M. M. Watanabe
Carteria inversa (Korshikov) Bourrelly 425 → *Carteria cerasiformis* Nozaki, Aizawa et M. M. Watanabe
Characium maximum S. Watanabe 154 → *Kentrosphaera* sp.
Chattonella antiqua (Hada) Ono 557 → *Chattonella marina* (Subrahmanyam) Hara et Chihara
Chlorella fusca Shihira et Krauss var. *fusca* 685 → *Desmodesmus abundans* (Kirchner) Hegewald
Chlorella protothecoides Krüger var. *mannophila* Shihira et Krauss 2165
→ *Auxenochlorella protothecoides* (Krüger) Kalina et Puncochárová
Chlorella pyrenoidosa Chick 226
→ *Graesiella emersonii* (Shihira et Krauss) Nozaki, Katagiri, Nakagawa, Aizawa et M. M. Watanabe
Chlorella pyrenoidosa Chick 2151
→ *Graesiella emersonii* (Shihira et Krauss) Nozaki, Katagiri, Nakagawa, Aizawa et M. M. Watanabe
Chlorella sp. 2176 → *Auxenochlorella protothecoides* (Krüger) Kalina et Puncochárová
Chlorella sp. 1269 → *Chlorella vulgaris* Beijerinck
Chlorella sp. 2177 → *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
Chlorella sp. 2178 → *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
Chlorella sp. 2179 → *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
Chlorella vulgaris 2163 → *Auxenochlorella protothecoides* (Krüger) Kalina et Puncochárová
Chlorella vulgaris 2161
→ *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
Chlorella vulgaris 2162
→ *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
Chlorella vulgaris Beijerinck 2167 → *Chlorella sorokiniana* Shihira et Krauss

- Chlorella vulgaris* Beijerinck 2168 → *Chlorella sorokiniana* Shihira et Krauss
Chlorella vulgaris Beijerinck 2171 → *Chlorella* sp.
Chlorogonium metamorphum Skuja 446 → *Chlamydomonas tetragama* (Bohlin) Ettl
Chlorogonium metamorphum Skuja (in IAM) 123 → *Rusalka fusiformis* (Matvienko) Nakada
Chlorosarcinopsis caeca S. Watanabe 160 → *Chlorokybus* sp.
Draparnaldia plumosa (Vaucher) Agardh 454 → *Stigeoclonium* sp.
Eudorina unicocca G. M. Smith var. *unicocca* 724 → *Eudorina unicocca* G. M. Smith
Eudorina unicocca G. M. Smith var. *unicocca* 725 → *Eudorina unicocca* G. M. Smith
Hafniomonas montana (Geitler) Ettl et Moestrup 257 → *Hafniomonas laevis* Nakada, Suda et Nozaki
Heterocapsa pygmaea Lobelich III, Schmidt et Sherley 472 → *Heterocapsa ovata* Iwataki et Fukuyo
Heterocapsa pygmaea Lobelich III, Schmidt et Sherley 473
→ *Heterocapsa pseudotriquetra* Iwataki, Hansen et Fukuyo
Melosira granulata (Ehrenberg) Ralfs var. *angustissima* O. Müller f. *spiralis* O. Müller 333
→ *Aulacoseira granulata* (Ehrenberg) Simonsen
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 44 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 87 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 88 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 89 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 90 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 91 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 99 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 100 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 101 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 298 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa* 299 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *flos-aquae* (Wittrock) Elenkin 98
→ *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis aeruginosa (Kützing) Lemmermann f. *flos-aquae* (Wittrock) Elenkin 478
→ *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1026 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1061 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1070 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1079 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1090 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1105 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1122 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1182 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis ichthyoblabe Kützing 1183 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis novacekii (Komárek) Compère 901 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis novacekii (Komárek) Compère 902 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis novacekii (Komárek) Compère 1053 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis novacekii (Komárek) Compère 1068 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis novacekii (Komárek) Compère 1143 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis viridis (A. Brown) Lemmermann 102 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis viridis (A. Brown) Lemmermann 103 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis viridis (A. Brown) Lemmermann 1058 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis viridis (A. Brown) Lemmermann 1059 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis viridis (A. Brown) Lemmermann 1091 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis viridis (A. Brown) Lemmermann 1102 → *Microcystis aeruginosa* (Kützing) Lemmermann

- Microcystis wesenbergii* Komárek 1252 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis wesenbergii Komárek 1253 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis wesenbergii Komárek 1254 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis wesenbergii Komárek 1255 → *Microcystis aeruginosa* (Kützing) Lemmermann
Microcystis wesenbergii Komárek 1256 → *Microcystis aeruginosa* (Kützing) Lemmermann
Nanochlorum sp. 1270 → *Picochlorum* sp.
Oscillatoria agardhii Gomont 610 → *Planktothrix rubescens* (DC. ex Gomont) Anagnostidis et Komárek
Phormidium tenue (C. Agardh ex Gomont) Anagnostidis et Komárek 30 → *Leptolyngbya* sp.
Phormidium tenue (C. Agardh ex Gomont) Anagnostidis et Komárek 512 → *Pseudanabaena galeata* Böcher
Phormidium tenue (C. Agardh ex Gomont) Anagnostidis et Komárek 611 → *Pseudanabaena* sp.
Rhodomonas chrysoidea Butcher ex Hill et Wetherbee 1005 → *Rhodomonas* sp.
Scenedesmus acutus Meyen 2158
→ *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
Scenedesmus nanus Chodat 2277 → *Desmodesmus* sp.
Scenedesmus nanus Chodat 2278 → *Desmodesmus* sp.
Scenedesmus quadricauda (Turpin) Brébisson sensu Chodat 96 → *Desmodesmus* sp.
Selenastrum capricornutum (Printz) Nygaard 35 → *Pseudokirchneriella subcapitata* (Korshikov) Hindák
Skeletonema costatum (Greville) Cleve 16 → *Skeletonema marinoi-dohrnii* complex
Skeletonema costatum (Greville) Cleve 17 → *Skeletonema marinoi-dohrnii* complex
Skeletonema costatum (Greville) Cleve 223 → *Skeletonema marinoi-dohrnii* complex
Skeletonema costatum (Greville) Cleve 323 → *Skeletonema marinoi-dohrnii* complex
Skeletonema costatum (Greville) Cleve 324 → *Skeletonema marinoi-dohrnii* complex