Phycological Research

Volume 62 • Issue 2 • April 2014

Midori Fujimoto, Koji Nitta, Gregory N. Nishihara and Ryuta Terada
Phenology, irradiance and temperature characteristics of a freshwater red alga, Nemalionopsis tortuosa (Thoreales), from Kagoshima, southern Japan

Javier Carmona Jiménez, Miriam Guadalupe Bojorge García and Rocío Ramírez Rodríguez
Phenology of Paralemanea mexicana (Batrachospermales, Rhodophyta) in a high-altitude stream in central Mexico

Luz Elena Mateo-Cid, A. Catalina Mendoza-González, Abel Sentíes, Jhoana Díaz-Larea and Julio A. Acosta Calderón
Laurencia laurahuertana sp. nov. (Rhodomelaceae, Rhodophyta): An epiphytic species from the Mexican Caribbean

Mikihide Demura, Takuro Nakayama, Fumie Kasai and Masanobu Kawachi
Genetic structure of Japanese Chattonella marina (Raphidophyceae) populations revealed using microsatellite markers

Tingting Liu, Haifeng Gu, Kenneth Neil Mertens and Dongzhao Lan
New dinoflagellate species Protoperidinium halzhounense sp. nov. (Peridiniaceae, Dinophyceae), Its cyst-theca relationship and phylogenetic position within the Monovela group

Kunihiko Watanabe, Yukiko Miyoshi, Fumiyasu Kubo, Ryo Onuma, Shauna Murray and Takeo Horiguchi
Ankistrodinium armigerum sp. nov. (Dinophyceae), a new species of heterotrophic marine sand-dwelling dinoflagellate from Japan and Australia

Jose L. Iriarte, Murat V. Ardelan, Luis Antonio Cuevas, Humberto E. González, Nicolás Sanchez and Sverne M. Myklestad
Size-spectrum based differential response of phytoplankton to nutrient and iron-organic matter combinations in microcosm experiments in a Chilean Patagonian fjord

Yoshimasa Yamamoto and Fuh-Kwo Shiah
Research note: Growth, trichome size and akinete production of Cyclidiospermopsis raciborskii (cyanobacteria) under different temperatures: Comparison of two strains isolated from the same pond
Phycological Research

EDITOR-IN-CHIEF
Mitsunobu Kamiya
Faculty of Marine Bioscience, Fukui Prefectural University, Fukui, Japan

ASSOCIATE EDITORS

Jaakko Blomster
Dept. of Environmental Sciences, University of Helsinki, Finland

Daiske Honda
Department of Biology, Faculty of Science and Engineering, Konan University, Japan

Mona Hoppenrath
Senckenberg Research Institute, German Centre for Marine Biodiversity Research, Germany

Mitsunori Iwataki
Asian Natural Environmental Science Center, University of Tokyo, Japan

Regine Jahn
Botanic Garden and Botanical Museum Berlin-Dahlem, Freie Universität Berlin, Germany

Iuf Karsten
Institute of Biological Sciences, University of Rostock, Germany

Chrisos Katsaros
Department of Botany, Faculty of Biology, University of Athens, Greece

Masanobu Kawachi
Environmental Biology Division, National Institute for Environmental Studies, Japan

Jeong Ha Kim
Department of Biological Sciences, Sungkyunkwan University, Korea

Tatyan A. Klochkova
Department of Biology, Kogakuin University, Japan

Shoe-Mei Lin
Institute of Marine Biology, National Taiwan Ocean University, Taiwan

Ichiro Mine
Graduate School of Kuroshio Science, Kochi University, Japan

Rei Narikawa
Department of Biological Science, Shizuoka University, Japan

Wendy Nelson
National Institute of Water & Atmospheric Research & SBS, University of Auckland, New Zealand

Gregory N. Nishihara
Institute of East China Sea Research, Nagasaki University, Japan

Tatsufumi Okino
Faculty of Environmental Earth Science, Hokkaido University, Japan

Hiroyuki Sekimoto
Department of Chemical and Biological Sciences, Faculty of Science, Japan Women’s University, Japan

Kensuke Toyota
Department of Biology, Keio University, Japan

John A. West
School of Botany, University of Melbourne, Australia

Giuseppe C. Zuccarello
School of Biological Sciences, University of Wellington, New Zealand

This journal is available online at Wiley Online Library. Visit wileyonlinelibrary.com to search the articles and register for table of contents email alerts.

Access to this journal is available free online within institutions in the developing world through the AGORA initiative with the FAO, and the OARE initiative with UEP. For information, visit http://www.aginternetwork.org, www.oarescience.org.

AIMS AND SCOPE Phycological Research is published by the Japanese Society of Phycology and complements the Japanese Journal of Phycology. The Journal publishes international, peerreviewed research dealing with all aspects of phycology to facilitate the international exchange of results. All articles are peer-reviewed by at least two researchers expert in the field of the submitted paper. Phycological Research has been credited by the International Association for Plant Taxonomy for the purpose of registration of new non-vascular plant names (including fossils). For further information see http://bgbm3.bgbm.fu-berlin.de/apt/registration/journals/htm.

ABSTRACTING AND INDEXING SERVICES This journal is indexed by Aquatic Sciences & Fisheries Abstracts, BIOSBASE, Biological Abstracts, BIOSIS Previews, Biotechnology & Bioengineering Abstracts, Cambridge Scientific Abstracts, Chemical Abstracts Service, Current Awareness in Biological Sciences, Current Contents, Ecological Abstracts, EMBASE/Excerpta Medica, Environmental Sciences and Pollution Management, GEOBASE, Irrigation and Drainage Abstracts, Microbiology Abstracts, Oceanic Abstracts, Pollution Abstracts, ProQuest (previously University Microfilms), Referativnyi Zhurnal, Science Citation Index (ISI), Soils and Fertilizers, Weed Abstracts, Zoological Record, National Inquiry Services Centre (NISC).

THE JAPANESE SOCIETY OF PHYCOLOGY We invite anyone who is interested in any aspect of phycology to become a member of the Society. As a member you will receive Phycological Research and the Japanese Journal of Phycology free of charge. The annual membership fee for individuals ¥8000. Members who reside outside Japan will receive only the English language journal Phycological Research and the annual membership fee is ¥7000 (student), ¥5000 (student)

Those who wish to join the Society should send the application form (at the back of each issue of the Journal), together with payment, to the Membership Secretary, Dr Shinya Yoshikawa, at the address given on the form. Members who wish to claim for missing or damaged issues should contact the Membership Secretary.

ADDRESS FOR EDITORIAL CORRESPONDENCE Mitsunobu Kamiya, Faculty of Marine Bioscience, Fukui Prefectural University, 1-1 Sakuencho, Obama, Fukui 917-0003, Japan (E-mail: mkamiya@fpu.ac.jp).

DISCLAIMER The Publisher, Japanese Society of Phycology and Editors cannot be held responsible for errors or any consequences arising from the use of information contained in this journal; the views and opinions expressed do not necessarily reflect those of the Publisher, Japanese Society of Phycology and Editors, neither does the publication of advertisements constitute any endorsement by the Publisher, Japanese Society of Phycology and Editors of the products advertised.

Copyright © 2014 Japanese Society of Phycology.

Cover An endangered freshwater red alga Nemalionopsis tortuosa Yoneda et Yagi inhabiting in an irrigation canal in Kawanabe, Kagoshima Prefecture, Japan (April 27, 2008). Indeed, this species can be found on the shaded substratum from direct sunlight, and its unique photosynthetic characteristic was reported in an article of the current issue. Photo by Ryuta Terada.

Note to NIH Grantees
Pursuant to NIH mandate, Wiley Blackwell will post the accepted version of contributions authored by NIH grant-holders to PubMed Central upon acceptance. This accepted version will be made publicly available 12 months after publication. For further information, see www.wiley.com/go/nihmandate.

For submission instructions, subscription and all other information visit http://wileyonlinelibrary.com/journal/pre

ISSN 1322-0829 (Print) ISSN 1440-1835 (online)
The Japanese Society of Phycology

Officers for 2013–2014

President: Jiro Tanaka  Tokyo University of Marine Science and Technology, Japan
Secretary: Hidekazu Suzuki  Tokyo University of Marine Science and Technology, Japan
Treasurer: Takanori Matsuoka  Nippon Dental University, Tokyo, Japan
Membership Secretary: Satoko Sekida  Kochi University, Japan

President: Jiro Tanaka  Tokyo University of Marine Science and Technology, Japan
Secretary: Hidekazu Suzuki  Tokyo University of Marine Science and Technology, Japan
Treasurer: Takanori Matsuoka  Nippon Dental University, Tokyo, Japan
Membership Secretary: Satoko Sekida  Kochi University, Japan

Shinya Yoshikawa  Fukui Prefectural University, Japan; Kensuke Toyoda  Keio University, Japan; Shin-ichiro Abe  National Research Institute, Fisheries Research Agency, Japan

Members of Executive Council 2013–2014

Put O. Ang Jr.  The Chinese University of Hong Kong, China
Taira Enomoto  Kobe University, Japan
Daisuke Fujita  Tokyo University of Marine Science and Technology, Japan
Masahiko Idei  Bunkyo University, Japan
Masanobu Kawachi  National Institute for Environmental Studies, Japan
Kazuhiko Kogame  Hokkaido University, Japan
Kazuyoshi Kuwano  Nagasaki University, Japan
Ichiro Mine  Kochi University, Japan
Daisuke Muraoka  Tohoku National Fisheries Research Institute, Japan

Tamotsu Nagumo  The Nippon Dental University, Japan
Takeshi Nakayama  University of Tsukuba, Japan
Wendy A. Nelson  The National Institute of Water and Atmospheric Research, New Zealand
Tadahide Noro  Kagoshima University, Japan
Claude E. Payri  Institut de Recherche pour le Developpement, France
Hidetoshi Sakayama  Kobe University, Japan
Yukihiko Serisawa  University of Yamanashi, Japan
Yoshihiro Shiraiwa  University of Tsukuba, Japan
Shinya Uwai  Niigata University, Japan
Goro Yoshida  National Research Institute of Fisheries and Environment of Inland Sea, Japan

JOIN THE JAPANESE SOCIETY OF PHYCOLOGY AND RECEIVE FOUR ISSUES OF PHYCOLOGICAL RESEARCH PER YEAR FREE OF CHARGE

The Japanese Society of Phycology, founded in 1952, currently has 685 members (including 68 overseas members). The Society is open to anyone who is interested in pure or applied aspects of phycology.

Application for membership

(Please type or write in block letters) Membership starts from 2014

Name in full: ____________________________________, ___________________________________________________
(Family name)  (Given name and initials)
Mailing address: __________________________________________________________________________
_________________________________________________________________________________________________
(Part code)                    (Country)
Telephone:  Fax:
E-mail:  Interests:
Signature:  Date:

The annual fee for individual members is ¥8000
(¥7000 for members who reside outside Japan, ¥5000 for students who submit a verifying statement signed by their Chairperson or Head of Department)

Payment by:  □ Visa  □ MasterCard  □ American Express
Card number: _____-_____-_____ Expiry date: __________

Signature: __________________________________________

□ International postal money order

Send application form to: Shinya YOSHIIKA
Department of Marine Bioscience,
Fukui Prefectural University
1-1 Gakukencho, Obama,
Fukui, 917-0003, Japan
PHONE +81-770-52-9608
FAX +81-770-52-9608
Email: syoshika@fpu.ac.jp