Phycological Research

Volume 61 • Issue 3 • July	/ 2013
----------------------------	--------

Lucas A. Martín, María C. Rodríguez, María C. Matulewicz, Eliana N. Fissore, Lía N. Gerschenson and Patricia I. Leonardi Seasonal variation in agar composition and properties from Gracilaria gracilis	
(Gracilariales, Rhodophyta) of the Patagonian coast of Argentina	16
Linwen He, Xiaojuan Zhang and Guangce Wang Expression analysis of phosphoenolpyruvate carboxykinase in Porphyra haitanensis (Rhodophyta) sporophytes and gametophytes	17
Mark Olischläger, Inka Bartsch, Lars Gutow and Christian Wiencke Effects of ocean acidification on growth and physiology of Ulva lactuca (Chlorophyta) in a rockpool-scenario	18
Roberta D'Archino and Judith E. Sutherland First record of the genus Dudresnaya (Dumontiaceae, Rhodophyta) in New Zealand waters	19
V. Joshua Dodson, Jeremy L. Dahmen, Jean-Luc Mouget and Jeffrey D. Leblond Mono- and digalactosyldiacylglycerol composition of the marennine-producing diatom, Haslea ostrearia: Comparison to a selection of pennate and centric diatoms	19
Eun Ju Kang, Ricardo A. Scrosati and David J. Garbary Physiological ecology of photosynthesis in Prasiola stipitata (Trebouxiophyceae) from the Bay of Fundy, Canada	20
Gergana V. Gacheva, Liliana G. Gigova, Natalia Y. Ivanova, Plamen S. Pilarski and Jaromír Lukavský Growth, biochemical and enzymatic responses of thermal cyanobacterium Gloeocapsa sp. (Cyanophyceae) to temperature and irradiance	21
Huan Zhu, Shuang Xia, Qi Zhang, Guo-Xiang Liu and Zheng-Yu Hu Phylogenetic position of Jaoa, a green algal genus endemic to China	22
Penelope Ajani, Shauna Murray, Gustaaf Hallegraeff, Steve Brett and Leanne Armand First reports of Pseudo-nitzschia micropora and P. hasleana (Bacillariaceae) from the	າາ

Discover this journal online at LIBRARY Wileyonline library.com

Phycological Research

Volume 61 · Issue 3 · July 2013

ISSN 1322-0829



WILEY Blackwell The Japanese Society of Phycology

001-pre-v61-i3-oc-4.15mm.indd 1



Phycological Research

EDITOR-IN-CHIEF

Ichiro Mine

Graduate School of Kuroshio Science, Kochi University, Japan

ASSOCIATE EDITORS

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

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

Tatyana Klochkova Department of Biology, Kongju National University, Korea

Rei Narikawa Graduate School of Arts and Sciences, University of Tokyo, Japan

Giuseppe C. Zuccarello School of Biological Sciences, Victoria University of Wellington, New Zealand Daiske Honda Department of Biology, Faculty of Science and Engineering, Konan University, Japan

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

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

Wendy Nelson National Centre of Aquatic Biodiversity and Biosecurity, New Zealand Mona Hoppenrath Senckenberg Research Institute, German Centre for Marine Biodiversity Research, Germany

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

Shigeki Mayama Department of Biology, Tokyo Gakugei University, Japan

Hiroyuki Sekimoto Department of Chemical and Biological Sciences, Faculty of Science, Japan Women's University, Japan Matthew L. Julius Department of Biological Sciences, St. Cloud State University, USA

Gwang Hoon Kim Department of Biology, Kongju National University, Korea

Hideaki Miyashita Department of Interdisciplinary Environment, Graduate School of Human and Environmental Studies, Kyoto University, Japan

Kensuke Toyoda Department of Biology, Keio University, Japan Mitsunobu Kamiya Department of Marine Bioscience, Faculty of Biotechnology, Fukui Prefectural University, Japan

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

Taizo Motomura Field Science Center for Nothern Biosphere, Hokkaido University, Japan

John West School of Botany, University of Melbourne, Australia

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/iapt/registration/journals/htm.

ABSTRACTING AND INDEXING SERVICES This journal is indexed by Aquatic Sciences & Fisheries Abstracts, BIOBASE, 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 (standard), ¥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 Chikako Nagasato, 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 Ichiro Mine, Graduate School of Kuroshio Science, Kochi University, 2-5-1 Akebono-cho, Kochi, Kochi 780-8520, Japan (E-mail: mine@kochi-u.ac.jp).

DISCLAIMER The Publisher, Society 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, Society and Editors, neither does the publication of advertisements constitute any endorsement by the Publisher, Society and Editors of the products advertised.

Copyright © 2013 Japanese Society of Phycology.

Cover Ms. Eun Ju Kang measuring the photosynthesis of *Prasiola stipitata* at the intertidal zone on the Bay of Fundy coast of Nova Scotia, Canada.

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)

PRE.JEB.Jan11



The Japanese Society of Phycology

Officers for 2013-2014

President: Jiro Tanaka Tokyo University of Marine Science and Technology, Japan

Secretary: Hidekazu Suzuki Tokvo 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

Public Relations Secretary: Kensuke Toyoda Keio University, Japan

Secretary for International Affairs: Shin-ichiro Abe National Research Institute, Fisheries Research Agency,

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

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

Kazuhiro Kogame Hokkaido University, Japan Kazuyoshi Kuwano Nagasaki University, Japan

Ichiro Mine Kochi University, Japan

Daisuke Muraoka Tohoku National Fisheries Research Institute, Japan

Tadahide Noro Kagoshima University, Japan Claude E. Payri Institut de Recherche pour le Developpement, France Hidetoshi Sakavama 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

	Application		Cisinp	
(Please type or write in block letters) Name in full: (Family name)		Membership starts from 2013		
		(Given name and initials)		
Mailing address:				
Telephone:			(Postal code)	
E-mail:				
Signature:		Date:		
(¥7000 for members who statement s Payment by: □ Visa	igned by their C	chairperson o	r Head of Departmer	
Card number:				
Signature:				
☐ International postal money order				
Fukui Pre	SHIKAWA nt of Marine Bioscio fectural University encho, Obama,	ence,		

003-pre-v61-i3-ibc.indd 3 7/10/2013 2:44:05 PM

Fukui, 917-0003, Japan PHONE +81-770-52-9608 FAX +81-770-52-9608 Email: syoshika@fpu.ac.jp