Phycological Research

EDITOR-IN-CHIEF
Hiroshi Kawai
Kobe University Research Center for Inland Seas, Rokkodai, Kobe 657, Japan

ASSOCIATE EDITORS
Sung Min Boo
Department of Biology
Chungnam National University
Korea

Eric C. Henry
Department of Botany and Plant Pathology
Oregon State University
USA

Shuji Hino
Faculty of Science
Yamagata University
Japan

Robert J. King
School of Biological Sciences
University of New South Wales, Australia

In Kyu Lee
Department of Botany
Seoul National University
Korea

Sandra C. Lindstrom
Department of Botany
University of British Columbia, Canada

Taizo Motomura
Institute of Algological Research, Hokkaido University, Japan

Kazuo Okuda
Faculty of Science
Kochi University
Japan

Yoshihiro Shiraishi
Faculty of Science
Niigata University
Japan

Shin Watanabe
Faculty of Education
Toyama University
Japan

EDITORIAL ADVISORY BOARD
Robert A. Andersen
Maine, USA

Hironao Kataoka
Sendai, Japan

Masao Ohno
Kochi, Japan

Makoto M. Watanabe
Tsukuba, Japan

Yuji Fujita
Nagasaki, Japan

Masaori Okazaki
Tokyo, Japan

John A. West
Melbourne, Australia

Terumitsu Hori
Tsukuba, Japan

Noriko Takamura
Tsukuba, Japan

Yasutsugu Yokohama
Shimoda, Japan

Ichiro Imai
Kyoto, Japan

EDITORIAL SECRETARY
Mitsunobu Kamiya
Kobe University Research Center for Inland Seas

PRODUCTION EDITOR
Mandy Naylor
Blackwell Science Asia

AIMS AND SCOPE
Phycological Research is published by The Japanese Society of Phycology and complements The Japanese Journal of Phycology. The Journal publishes international research dealing with all aspects of phycology to facilitate the international exchange of results.

EDITORIAL CORRESPONDENCE
Papers and other material for publication should be sent to the Editor-in-Chief: Dr Hiroshi Kawai, Kobe University Research Center for Inland Seas, Rokkodai, Kobe 657, Japan (fax: +81 78 803 0488; email: kawai@kobe-u.ac.jp). For details concerning the submission of papers to the Journal see the Notice to Contributors at the back of the Journal.

BUSINESS CORRESPONDENCE AND ADVERTISEMENT BOOKINGS
All matters relating to orders and subscriptions, back numbers and offprints, and advertisement bookings should be sent to Blackwell Science Asia, 54 University Street, Carlton, Victoria 3053, Australia (tel: +61 3 9347 0300; fax: +61 3 9347 5001; email: 100036.2660@compuserve.com, http://www.blackwell-science.com/australasia). Blackwell Science Asia provides a free dial (Japanese language) service from Japan (tel: 00 31 61 6238).

SUBSCRIPTION RATES
The Journal is published quarterly and the subscription prices for 1997 are US$256.00/¥27 300.00. The Journal is dispatched to subscribers by surface air-lifted post.

THE JAPANESE SOCIETY OF PHYCOLOGY
We invite anyone who is interested in any aspect of phycology to become a member of The Japanese Society of Phycology. As a member, you will receive Phycological Research free of charge. The annual membership fee for individuals is ¥7000. Members who reside outside Japan will receive the English journal Phycological Research only and the annual membership fee is reduced to ¥6000. Those who wish to join the Society should send the application form (at back of the Journal) together with payment to the Membership Secretary: Dr Shuji Ohtani, Department of Biology, Faculty of Education, Shimane University, Nishi Kawatsu, Matsue 690, Japan (fax: +81 852 32 6259; email: ohtani@botan.shimane-u.ac.jp).

Members who wish to claim for missing or damaged issues of the Journal should contact the Membership Secretary.

ABSTRACTING AND INDEXING SERVICES
This journal is indexed by Biosis, Cambridge Scientific Abstracts (Ecological Sciences and Fisheries Abstracts), Chemical Abstracts Service, Current Awareness in Biological Sciences, Geo Abstracts, and University Microfilms, Zoological Record.

COPYRIGHT AND PHOTOCOPYING
© 1997 Blackwell Science Pty Ltd. Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Blackwell Science Pty Ltd for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of $11.50 per copy is paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923, USA. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed to the Publisher. 1322-0829/96 $11.50

Publication of Phycological Research has been supported in part by a Grant-in-Aid for Publication of Scientific Result from the Ministry of Education, Science and Culture, Japan.

Cover
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 760 members (including 105 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)

Name in full: ____________________________ ____________________________
(Family name) (Given name and initials)

Mailing address: ______________________________________________________

Telephone: ____________________________ Fax: ____________________________

E-mail: ____________________________ Interests: ____________________________

Signature: ____________________________ Date: ____________________________

The annual fee for individual members is ¥7,000
(¥6,000 for members who reside outside Japan)

Payment by: □ Visa □ MasterCard □ American Express

Card number: ____________________________ Expiry date: ____________________________

Signature: ____________________________

□ International giro postal transfer (Postal account No.: 00180-5-68429)
□ International postal money order

Send application form to: Dr Shuji Ohtani
Department of Biology
Faculty of Education, Shimane University,
Nishi Kawatsu, Matsue 690, Japan
Fax: +81 852 32 6259; email: ohtanish@botan.shimane-u.ac.jp
Phycological Research

Formerly The Japanese Journal of Phycology

Volume 45 • Issue 2 • June 1997

Michio Masuda, Taiji Itoh, Yoshihide Matsuo and Minoru Suzuki
Sesquiterpenoids of Laurencia majuscula (Ceramiales, Rhodophyta) from the Ryukyu Islands, Japan
59

Takeo Horiguchi and Fumiyasu Kubo
Roscoffia minor sp. nov. (Peridiniales, Dinophyceae): A new, sand-dwelling, armored dinoflagellate from Hokkaido, Japan
65

Terunobu Ichimura
Hidden deleterious genetic factors affecting post-meiotic viability in zygospore progeny of a unicellular haplontic alga, mating group A of the Closterium ehrenbergii species complex (Chlorophyta)
71

Koji Iwamoto and Tomoyoshi Ikawa
Glycolate metabolism and subcellular distribution of glycolate oxidase in Spatoglossum pacificum (Phaeophyceae, Chromophyta)
77

Markus Kapp, Rolf Knippers and Dieter G. Müller
New members of a group of DNA viruses infecting brown algae
85

Bettina Bischoff-Bässmann, Inka Bartsch, Bangmei Xia and Christian Wiencke
Temperature responses of macroalgae from the tropical island Hainan (P.R. China)
91

Wei Huang and Yuji Fujita
Callus induction and thallus regeneration in some species of red algae
105

Hisao Ogawa and Minoru Fujita
The effect of fertilizer application on farming of the seaweed Undaria pinnatifida (Laminariales, Phaeophyta)
113