

**Academic Press publishes books and journals
in many areas of the biological, medical, and
biomedical sciences including:**

anatomy, histology and cell biology
biochemistry and molecular biology
cancer research and oncology
cardiology and the vascular system
environmental science
food science and nutrition
genetics and human development
immunology and hematology
microbiology and virology
neurosciences, neurology and psychiatry
oceanography and marine biology
ophthalmology and otolaryngology
pathology, clinical pathology and parasitology
pharmacology, therapeutics and toxicology
physiology, biophysics and biostatistics
radiology and nuclear medicine
reproductive and perinatal medicine

**For a list of titles in your subject area,
please complete and mail the
coupon below**



To ACADEMIC PRESS
24-28 Oval Road, London NW1 7DX *
111 Fifth Avenue, New York, N.Y. 10003 * (**delete as necessary*)

Please send me your latest catalogue on:

- | | | | |
|----------------------------------|--------------------------|--------------------------------------|--------------------------|
| Behaviour & Social Sciences | <input type="checkbox"/> | Mathematics & Computer Sciences | <input type="checkbox"/> |
| Chemistry & Chemical Engineering | <input type="checkbox"/> | Biological Sciences | <input type="checkbox"/> |
| Medicine & Biomedical Sciences | <input type="checkbox"/> | Physics, Earth Science & Engineering | <input type="checkbox"/> |

Please send me details of new titles on:

.....
.....
NAME
ADDRESS
.....
..... POSTAL CODE

How To Comply With The New Copyright Law

Libraries everywhere have found the easy way to fill photocopy requests legally and instantly, without the need to seek permissions, from this and over 3000 other key publications in business, science, humanities, and social science.

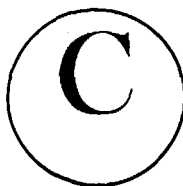
Participation in the Copyright Clearance Center (CCC) assures you of legal photocopying at the moment of need. You can:

Fill requests for multiple copies, interlibrary loan (beyond the CONTU guidelines), and reserve desk without fear of copyright infringement.

Supply copies simply and easily from registered publications. The CCC's flexible reporting system accepts photocopying reports and returns an itemized invoice. You need not keep any records, our computer will do it for you.

The Copyright Clearance Center is your one-stop place for on-the-spot clearance to photocopy for internal use. You will never have to decline a photocopy request or wonder about compliance with the law for any publication registered with the CCC.

For more information, just contact:



**Copyright
Clearance
Center**

21 Congress Street
Salem, Massachusetts 01970
(617) 744-3350

a not-for-profit corporation

Instructions for Authors: Papers and short notes from contributors anywhere in the world are welcome for consideration for publication in *The Lichenologist* and may be on any aspect of lichenology.

Manuscripts must be typewritten on foolscap or A4 size paper in double or treble spacing with 1 inch margins all round and submitted **in duplicate** to the Editor.

Line illustrations must be in black ink on stiff white card, preferably Bristol board.

As a guide to the layout of synonymy, keys, references, etc., recent issues should be consulted. The spellings of locality names in Britain and abroad must follow those of the most recent editions of maps published by the Ordnance Survey and *The Times Atlas of the World*, respectively. Titles of periodicals should be abbreviated as in the fourth edition of the *World List of Scientific Periodicals* and its supplements. In lists of references the publisher and place of publication of books should be given; editions other than the first should be indicated.

Copyright/Offprints. Authors submitting a manuscript do so on the understanding that if it is accepted for publication, copyright in the paper for the United States of America shall be assigned to the Society. In consideration for the assignment of copyright, the Society will supply 50 offprints of each paper, but not Short Communications or Book Reviews. Further offprints may be ordered at extra cost at the proof stage. The Society will not put any limitation on the personal freedom of the author to use material contained in the paper in other works which may be published in North America or elsewhere. Reprints must be ordered directly from Academic Press Inc. when the author returns the proofs of his article.

Books dealing with any aspect of lichenology will be reviewed. Publishers wishing to have works reviewed in *The Lichenologist* should send them to the Editor in the first instance.

This journal is covered by *Current Contents* and *Biological Abstracts*.

Notice: While the Editor and Assistant Editors endeavour to check the accuracy of statements in contributions in as far as they are able, it should be emphasized that views expressed in papers in *The Lichenologist* are those of their authors and do not necessarily represent those of the British Lichen Society, Academic Press Inc. (London) Ltd, the Editor or the Assistant Editors.

Referees: The function of referees is to assist members of the British Lichen Society in the identification of lichens. Specimens submitted should be adequate in size and well documented, including details of country, county or vice-county, borough or parish, precise locality and grid reference, altitude, date, habitat and ecology, notes, name of collector and collecting number. Identification should be attempted before sending material to a referee and details of spores and chemical reactions included where appropriate. Members wishing to send large numbers of specimens to a referee should first of all check that he is willing to name their collections for them. Return postage should always be included.

Referees (Beginners)

F. H. Brightman, B.Sc., F.L.S., South London Botanical Institute, 323 Norwood Road, London SE24 9AQ.

F. S. Dobson, F.L.S., Richmond Publishing Co. Ltd, Orchard Road, Richmond, Surrey TW9 4PD.

O. L. Gilbert. Address under 'Bulletin Editor'.

D. Jackson Hill, D.Phil., Department of Extra-Mural Studies, The University, Bristol, BS8 1HR.

Referees (Advanced)

B. J. Coppins, B.Sc., Royal Botanic Garden, Inverleith Row, Edinburgh, EH3 5LR. (*Bacidia* and *Micarea* spp. only.)

A. Fletcher, Ph.D., Address under 'Conservation Officer'. (Marine and maritime lichens.)

D. L. Hawksworth, D.Sc., F.L.S., Address under 'Editor'. (Lichenicolous fungi.)

P. W. James, B.Sc., F.L.S., Department of Botany, British Museum (Natural History), Cromwell Road, London, SW7 5BD. (All groups.)

J. R. Laundon. Address under 'Secretary'. (Sterile crustose lichens.)

F. Rose. Address under 'President'. (Corticolous lichens.)

G. Salisbury, 35 Carrick Road, Curzon Park, Chester, CH4 8AN. (Sand dune lichens, microlichens esp. *Thelocarpaceae*, *Thelotrema* s. lat.)

J. W. Sheard. Address under 'Regional Treasurer'. (*Buellia*, *Rhizocarpon*, *Rinodina*.)

T. D. V. Swinscow, 24 Monmouth Street, Topsham, Exeter, Devon, EX3 0AJ. (Pyrenocarpous lichens.)

L. Tibell, Ph.D., Institute of Systematic Botany, University of Uppsala, P.O. Box 541, S-751 21 Uppsala 1, Sweden. (Caliciales s. lat.)

THE LICHENOLOGIST

Vol. 13 Part 3

1981

SWINSCOW, T. D. V. & KROG, Hildur—The genus <i>Phyllopsora</i> , with a report on East African species	203
GILBERT, O. L., HENDERSON, A. & JAMES, P. W.—Citrine-green taxa in the genus <i>Candelariella</i>	249
FAHSELT, Dianne—Secondary compounds following north-south transplantation of three lichen species	
ARCHER, A. W.—Quantitative distribution of lichen products in Australian scyphose <i>Cladonia</i> species	259
HILL, D. J.—The growth of lichens with special reference to the modelling of circular thalli	265
GOYAL, R. & SEAWARD, M. R. D.—Lichen ecology of the Scunthorpe heathlands II. Industrial metal fall-out pattern from lichen and soil assays	289
HENDERSON, A.—Literature on air pollution and lichens XV	301

SHORT COMMUNICATIONS

HENSSEN, Aino— <i>Anarctomia</i> , a genus based on discordant elements	307
SEAWARD, M. R. D.—Lichen herbarium in the Botanical Institute, University of Wrocław (WRSL)	309

BOOK REVIEWS	311
--------------	-----

© 1981 British Lichen Society. The appearance of the code at the bottom of the first page of a paper in this journal indicates the copyright owner's consent that copies of the paper may be made for personal or internal use, or for the personal or internal use of specific clients in the U.S.A. This consent is given on the condition, within the U.S.A., that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc., Operations Staff, P.O. Box 765, Schenectady, New York 12301, for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. 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, for resale or for copying or distributing copies outside the U.S.A.

Published three times a year for the British Lichen Society by
Academic Press Inc. (London) Ltd, 24-28 Oval Road, London NW1 7DX, England

Free to full members of the British Lichen Society

Printed in Great Britain by Henry Ling Ltd., at the Dorset Press, Dorchester, Dorset