The Lichenologist

AN INTERNATIONAL JOURNAL EDITED FOR THE BRITISH LICHEN SOCIETY

BY

D. H. BROWN

V. AHMADJIAN, B. J. COPPINS, D. J. GALLOWAY,
D. L. HAWKSWORTH, R. HONEGGER, A. PENTECOST
and D. H. S. RICHARDSON



ACADEMIC PRESS

LONDON SAN DIEGO NEW YORK

BOSTON SYDNEY

TOKYO TORONTO

ISSN 0024-2829

BRITISH LICHEN SOCIETY

OFFICERS 1989

President

B. J. Coppins, Ph.D., Royal Botanic Garden, Inverleith Row, Edinburgh EH3 5LR.

Vice-President

Professor D. H. S. Richardson, D.Phil., F.T.C.D., School of Botany, Trinity College, University of Dublin, Dublin 2, Eire.

Secretary

T. H. Moxham, Department of Plant Sciences, University of Bath, Claverton Down, Bath, Avon BA27AY.

Treasurer

F. S. Dobson, F.L.S., 58 Parkway, London SW20 9HF.

Acting Assistant Treasurer

J. M. Gray, Myrtle Cottage, Church Lane, Kingston St Mary, Taunton, Somerset TA2 8HR.

Regional Treasurer (N. America)

J. W. Sheard, Ph.D., Department of Biology, University of Saskatchewan, Saskatchewan, Canada.

Mapping Recorder

M. R. D. Seaward, D.Sc., F.L.S., F.I.Biol., School of Studies in Environmental Science, The University, Bradford, West Yorkshire BD7 1DP.

Senior Editor, Librarian and Archivist

D. H. Brown, D.Sc., F.I.Biol., Department of Botany, The University, Woodland Road, Bristol BS8 1UG.

Bulletin Editor

O. L. Gilbert, Ph.D., Department of Landscape Architecture, University of Sheffield, Sheffield S10 2TN.

Conservation Chairman

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

Conservation Officers

D. H. Dalby, Ph.D., F.L.S., Department of Botany, Imperial College, Prince Consort Road, London SW7 5BB.

R. B. Jarman, M.Sc., The National Trust, Spitalgate Lane, Circncester, Gloucestershire GL7 2DE.

Curatos

R. K. Brinklow, B.Sc., Dundee Museums and Art Galleries, Albert Square,
Dundee DD1 1DA.

Field Meetings Secretary

C. J. B. Hitch, Ph.D., The Whin, Wadd Lane, Snape, Saxmundham, Suffolk IP17 1QY.

Amundiam, Sunok II 17

Members of Council

R. W. Alexander P. Cayton P. D. Crittenden D. Galloway J. R. Laundon F. Rose

Membership of the British Lichen Society is open to all persons anywhere in the world interested in any part of lichenology. Subscriptions, due on joining and afterwards on 1 January each year, are: ordinary members, £15; junior associate members, £5. Details of membership, activities of the Society and application forms may be obtained from the Secretary (address above). Members receive the Bulletin of the British Lichen Society and issues of The Lichenologist published in the year they join, and afterwards while they remain members of the Society, free of charge. Junior associate members do not receive The Lichenologist.

The Lichenologist: ISSN 0024-2829. Volume 21, 1989, published quarterly by Academic Press at 24-28 Oval Road, London NW1 7DX, UK. Annual subscription price including postage: £80 UK and US \$164 overseas. Subscription orders should be sent to Academic Press Limited, Foots Cray, Sidcup, Kent DA14 5HP, UK (Tel: 01-300 3322). Send notices of changes of address to the Treasurer and the publisher at least 6-8 weeks in advance, including both old and new addresses.

Second class postage rate paid at Jamaica, NY 11431, USA.

Air freight and mailing in the USA by Publications Expediting Inc., 200 Meacham Avenue, Elmont, NY 11003, USA.

USA POSTMASTERS: Send change of addresses to *The Lichenologist*, c/o Publications Expediting Inc., 200 Meacham Avenue, Elmont, NY 11003, USA.

Printed in UK.