

VOLUME 24

1992

PART 1

---

---

# The Lichenologist

---

---

AN INTERNATIONAL JOURNAL

EDITED

BY

D. H. BROWN

V. AHMADJIAN, T. AHTI, R. M. BROWN, B. J. COPPINS,

D. J. GALLOWAY, 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 1992

*President and Treasurer*

F. S. Dobson, F.L.S., 57 Acacia Grove, New Malden, Surrey KT3 3BU

*Vice President*

Professor B. W. Fox, Ph.D., F.L.S., Tryfan, Longlands Road, New Mills, Stockport, Cheshire SK12 3BL

*Secretary*

O. W. Purvis, Ph.D., Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD

*Publicity Officer*

T. H. Moxham, Department of Plant Sciences, University of Bath, Claverton Down, Bath, Avon BA2 7AY

*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, Saskatoon, Saskatchewan, S7N 0W0 Canada

*Mapping Recorder*

Professor M. R. D. Seaward, D.Sc., F.L.S., F.I.Biol., Department of 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*

P. D. Crittenden, Ph.D., Department of Botany, The University, Nottingham NG7 2RD

*Conservation Committee Chairman*

D. H. Dalby, Ph.D., F.L.S., 132 Gordan Road, Camberley, Surrey GU15 2JQ

*Curator*

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

*Field Meetings Secretary*

T. G. C. Duke, B.Sc., Sandrock, The Compa, Kinver, Staffordshire DY7 6HS

*Members of Council*

B. Aguirre-Hudson    J. C. David    P. W. James    J. R. Laundon    A. Orange    F. Rose  
P. A. Wolseley

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, £20; 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 24, 1992, published quarterly for the British Lichen Society, by Academic Press at 24-28 Oval Road, London NW1 7DX, UK. Annual subscription price including postage: £104 UK and US \$193 overseas. Subscription orders should be sent to Academic Press Limited, Fooks Cray, Sidcup, Kent DA14 5HP, UK (Tel: 081-300 3322). Send notices of changes of address to the Assistant Treasurer and the publisher (Institutions) 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.