

## INSTRUCTIONS TO AUTHORS

*The Lichenologist* is an international journal and welcomes papers and short communications from contributors anywhere in the world on any aspect of lichenology.

Manuscripts must be original, clearly and precisely presented in English and electronic versions submitted to *The Lichenologist* ScholarOne website <<http://mc.manuscriptcentral.com/lich>> following the on-screen instructions. Please note that submission must be done from *The Lichenologist* ScholarOne account belonging to the Corresponding Author. Authors submitting a manuscript do so on the understanding that, if it is accepted, copyright of the paper will be assigned exclusively to the publisher (see Copyright below).

**Key words.** Supply 3–6 key words or phrases in addition to those in the title.

**Text.** This must be word processed on A4 (210×297 mm) or letter (8.5×11 inch) in double spacing with 2.5 cm margins all round. On all points of style concerning text and tables consult recent copies of the journal. Complete scientific names (genus, species and authority) must be cited at first mention. Thereafter the generic name may be abbreviated to the initial except at the beginning of a sentence or where the abbreviation might result in confusion with other genera. Recent issues should be consulted for layout of new species, new combinations, synonymy and lists of specimens examined. Examples of style are given below. All nomenclatural novelties must be deposited in MycoBank <<http://www.mycobank.org>> and the MycoBank number included after the taxon name; this is intended to minimize future confusion and make taxonomic data more widely available. A short diagnosis, in either Latin or English, should follow the MycoBank number. This should be a statement of that which in the opinion of the author distinguishes the new taxon from other taxa. The spelling of locality names in the British Isles and abroad must follow the most recent editions of maps published by the Ordnance Survey and *The Times Atlas of the World*, respectively.

Examples of style employed in

(a) description of new species:

**Fissurina immersa** B. O. Sharma,

**Khadilkar & Makhija sp. nov.**

MycoBank No.: MB561855

Similis *F. inabensis* sed differt ascosporis minoribus et acido norstictico continente.

Typus: India, Karnataka, Mudigiri, 26 January 1980, P. G. Patwardhan 80.92 (AMH—holotypus).

(b) citation of described species or new combinations:

**Pyrenopsis furfurea** (Nyl.) Th. Fr.

*Bot. Notiser* 1866: 58 (1866); type: Scotland, Ben Lawers, 1864, Jones (H-NYL 42916—lectotype; BM—isolectotype).

*Pyrenopsidium terrigenum* (Th. Fr.) Forss., *Nova Acta R. Soc. Scient. Upsal.* ser. 3, 13(6): 81 (1985).—*Pyrenopsis haematopsis* (Sommerf.)  $\beta$ . *terrigena* Th. Fr. in Hellbom, *Öfvers. K. Vetens Akad. Forh.* 22(6): 478 (1865); type:

Sweden, Lule Lappmark, Skarfi, 1864, Hellbom (UPS—holotype).

(c) citation of specimens examined:

Long lists of citations are discouraged. Data should be reproduced as either maps or lists containing only data essential for locating specimens and collecting sites. Complete lists, with the above format, can be deposited with appropriate Institutions, and their location noted in the text.

*Selected specimens examined.* **British Isles:** Scotland: V.C.96, Easternness: Abernethy Forest, near Forest Lodge, 38/01.16, on *Pinus* lignum, 1975, Coppins [2199] & Rose (BM, E).—**Germany:** Bayern: Allgauer Alpen, 1957, Schoppel & Poelt [Poelt, *Lichenes Alpinum* no. 56] (H).—**Australia:** Tasmania: Weindorfers Forest, 41°38'S, 145°56'E, 920 m, 1988, Kanvilas 68/88 (E); Cox Bight, behind west beach, sea-level, 1985, J. A. Elix 20945 (ANUC). Victoria: Belle Creek, c. 1800 m, 5 vi 1983, M. E. Hale (HO).

**Tables.** These must be self-explanatory and each presented on separate pages outside the main text. A short title should be provided with any additional information contained in footnotes. Vertical columns should be separated by spacing; vertical lines must be avoided.

**Figures.** Refer to all drawings, diagrams, graphs and photographs as figures. These should be of the highest quality and suitable for direct reproduction after reduction where appropriate. Each figure should be presented as a separate file. Plan figures to appear within a single column (67 mm) or for reproduction across two columns (139 mm).

*Drawings, diagrams and graphs.* Preferred symbols for graphs are ●, ○, ■, □, ▲, △; keys to symbols, etc, should be given in figure legends. Tick marks should be placed inside the axes of graphs and the use of greyscales should be avoided.

*Photographs* (colour or black and white) should be submitted at the size they will appear. Note that there is a charge for colour printing (see **Charges** below). At the Senior Editor's discretion, images can be published in colour online free of charge while the hard copy appears in black and white, provided that colour is not essential for the interpretation of the paper. In such cases the colour and black and white reproductions must be from the same image file. This facility will be largely restricted to morphological and anatomical images since greyscale graphics are discouraged.

Subdivisions of figures should be labelled with capital letters, e.g. A, B, C, etc. All legends for figures should be provided on a separate page to be included with the text of the paper after the references.

### Format for supplying electronic artwork.

To ensure that your figures are reproduced to the highest possible standards and your article is published as quickly and efficiently as possible, we recommend the following formats and resolutions for supplying electronic figures.

Please ensure that your figures are saved at final publication size and are in our recommended file formats.

**Line artwork** (e.g. graphs, drawings histograms, diagrams)

Format: tif or eps

Colour mode: black and white (also known as 1-bit)

Resolution: 1200 dpi

Size: please size to final publication size

**Combination artwork (line/tone)**

Format: tif or eps

Colour mode: grayscale (also known as 8-bit)

Resolution: 800 dpi

Size: please size to final publication size

**Black and white halftone artwork** (e.g. photographs)

Format: tif

Colour mode: grayscale (also known as 8-bit)

Resolution: 300 dpi

Size: please size to final publication size

**Colour halftone artwork** (e.g. photographs)

Format: tif

Colour mode: CMYK colour

Resolution: 300 dpi

Size: please size to final publication size

**References.** Citations in the text should take the form: Green & White (2004) or (Brown 1999*a, b*, 2001; Smith & Jones 1999). Multiple citations should be ordered chronologically. When papers are by three or more authors, give only the name of the first author followed by *et al.* (e.g. Halonen *et al.* 1998) throughout the text. At the end of the text, list the references alphabetically using the following standard forms:

Scherrer, S. & Honegger, R. (2003) Inter- and intra-specific variation of homologous hydrophobin (*HI*) gene sequences among *Xanthoria* spp. (lichen-forming ascomycetes). *New Phytologist* **158**: 375–389.

Øvstedal, D. O. & Smith, R. I. L. (2001) *Lichens of Antarctica and South Georgia. A Guide to their Identification and Ecology*. Cambridge: Cambridge University Press.

Lumbsch, H. T. (2002) Analysis of phenolic products in lichens for identification and taxonomy. In *Protocols in Lichenology: Culturing, Biochemistry, Ecophysiology and Use in Biomonitoring* (I. Kranner, R. P. Beckett & A. K. Varma, eds): 281–295. Berlin: Springer.

Muggia, L., Schmitt, I., Blaha, J., Rankl, J. & Grube, M. (2006) Evolution of polyketide synthases in lichens. In *Abstracts of the 8th International Mycological Congress, 21–25 August, 2006, Cairns, Australia*, p. 167.

Murtagh, G. J. (1999) *Sex and variation in lichen-forming fungi*. Ph.D. thesis, University of Nottingham.

References should be listed in alphabetic sequence with: single authors, by date; two authors, alphabetically, then by date; three or more authors by date only. When papers are by more than ten authors, give the names of only the first ten followed by “*et al.*”.

**Abbreviations, etc.** For guidance on units, symbols, chemical nomenclature and abbreviations consult author guideline for the *The New Phytologist*.

**Copyright.** Authors submitting a manuscript do so on the understanding that if it is accepted for publication, copyright in the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the British Lichen Society. The Copyright Transfer Agreement, a copy of which is sent with the proofs or can be found on the journal home page listed on the back cover, should be signed by the appropriate person(s) and should accompany the original submission of a manuscript to this journal. The transfer of copyright does not take effect until the manuscript is accepted for publication. Copyright in the paper for the United States of America shall be assigned to the Society. It is the policy of the publisher that authors need not obtain permission in the following cases only: (1) to use their original figures or tables in their future works; (2) to make copies of their papers for use in their classroom teaching; and (3) to include their papers as part of their dissertations.

**Offprints.** In consideration for the assignment of copyright, the Society will supply 25 offprints and a pdf file of each paper or Short Communication but not of Book Reviews. Further reprints can be ordered at extra cost directly from Cambridge University Press when the author returns the proofs of their article.

**Charges.** Page charges are not levied. Authors are responsible for the cost of coloured illustrations. However, the Senior Editor is often able to offer a subsidy from British Lichen Society funds to its members who find that they have insufficient money to meet the full cost of colour printing. Authors should consult the Senior Editor regarding current charges and possible subsidies.

**Book Reviews.** Books dealing with any aspect of lichenology will be reviewed. Publishers wishing to have works reviewed in *The Lichenologist* should send them to Dr D. J. Hill, Yew Tree Cottage, Yew Tree Lane, Compton Martin, Bristol, BS40 6JS, UK, in the first instance.

**Notice:** While the Senior Editor and 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, Cambridge University Press, the Senior Editor, or the members of the Editorial Board.

BRITISH LICHEN SOCIETY

OFFICERS AND CONTACTS 2012

*President*

B. P. Hilton, Ph.D., P.G.C.E., F.R.S.A., Beauregard, 5 Alscott Gardens, Alverdiscott, Barnstaple, Devon EX31 3PT

*Vice President*

J. M. Simkin, Ph.D., 41 North Road, Ponteland, Newcastle-upon-Tyne, NE20 9UN

*Secretary*

C. J. Ellis, Ph.D., Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh, Lothian EH3 5LR (email: c.ellis@rbge.ac.uk)

*Treasurer*

J. F. Skinner, 28 Parkanaur Avenue, Southend-on-Sea, Essex SS1 3HY

*Assistant Treasurer and Membership Secretary*

H. Döring, Ph.D., Mycology Section, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB, (email: h.doring@kew.org)

*Regional Treasurers*

J. W. Hinds, Ph.D., 254 Forest Avenue, Orono, Maine 04473-3202, USA (Americas)

*Senior Editor (Lichenologist)*

P. D. Crittenden, Ph.D., School of Biology, The University of Nottingham, University Park, Nottingham NG7 2RD

*Editor (Bulletin)*

P. F. Cannon, Ph.D., CABI and Royal Botanic Gardens Kew; postal address Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB

*Conservation Officer*

B. W. Edwards, Dorset Environmental Record Centre, Library Headquarters, Colliton Park, Dorchester, Dorset DT1 1XJ

*Mapping Recorder and Archivist*

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

*Librarian*

R. G. Woods, B.Sc., Ty Mawr Mill, Llanfihangel Brynpabuan, Builth Wells, Powys LD2 3SH

*Curator*

R. K. Brinklow, B.Sc., c/o Dundee Museums and Art Galleries, Albert Square, Dundee DD1 1DA, www.herbarium@britishlichensociety.org.uk

*Field Meetings Secretary*

S. G. Price, Woodlands, Combs Road, Combs, High Peak, Derbyshire SK23 9UP

*Members of Council*

G. Boswell    A. J. Britton    T. E. Greenaway    C. Gueidan    D. L. Hawksworth  
L. Knight    A. Pentecost    M. Powell    A. J. Silverside

Membership of the British Lichen Society is open to all individuals (not institutions) anywhere in the world interested in any part of lichenology. Subscriptions, due on joining and afterwards on 1 January each year, are: ordinary members, £30; electronic members, £25; associate members, £22; senior associate members, £10; junior associate members, £5.00 (US dollar rates are double the sterling rates). 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. Associate members do not receive *The Lichenologist*. Details of the membership, facilities and activities of the Society and an application form may be found on the British Lichen Society web site at <http://www.theBLS.org.uk> or obtained from the Membership Secretary (address above).

SINGH, K. P. A tribute to Dharni Dhar Awasthi (1922–2011) 1

## Articles

NAYAKA, S., UPRETI, D. K.,  
PONMURUGAN, P. and  
AYYAPPADASAN, G. Two new species of saxicolous *Pyxine* with yellow medulla  
from southern India 3

ELVEBAKK, A. *Pannaria minutiphylla* and *P. pulverulacea*, two new and  
common, austral species, previously interpreted as  
*Pannaria microphyllizans* (Nyl.) P. M. Jørg. 9

ETAYO, J., FLAKUS, A. and  
KUKWA, M. *Niesslia echinoides* (Niessliaceae, Ascomycota), a new  
lichenicolous fungus on *Erioderma* from Bolivia 21

LIŠKA, J. The significance of Körber's "Typenherbar", with an  
explanation of the locality abbreviations on his labels 25

EVJU, M. and BRUTEIG, I. E. Lichen community change over a 15-year time period:  
effects of climate and pollution 35

MARMOR, L., TÖRRA, T., SAAG, L.,  
LEPPIK, E. and RANDLANE, T. Lichens on *Picea abies* and *Pinus sylvestris* – from tree  
bottom to the top 51

GUZOW-KRZEMIŃSKA, B. and  
STOCKER-WÖRGÖTTER, E. *In vitro* culturing and resynthesis of the mycobiont  
*Protoparmeliopsis muralis* with algal bionts 65

CORNEJO, C. and  
SCHEIDEGGER, C. New morphological aspects of cephalodium formation in  
the lichen *Lobaria pulmonaria* (Lecanorales, Ascomycota) 77

LACKOVIČOVÁ, A., GUTTOVÁ, A.,  
BAČKOR, M., PIŠŮT, P. and  
PIŠŮT, I. Response of *Evernia prunastri* to urban environmental  
conditions in Central Europe after the decrease in air  
pollution 89

BERTUZZI, S. and TRETIACH, M. Hydrogen sulphide inhibits PSII of lichen photobionts 101

VONDRÁK, J. and KUBÁSEK, J. Algal stacks and fungal stacks as adaptations to high light  
in lichens 115

## Short Communications

JØRGENSEN, P. M. Notes on the lichen genus *Arctomia* Th. Fr. in the Southern  
Hemisphere 125

LÜCKING, R. *Minksia chilena* (C. W. Dodge) Redón & Follmann  
belongs in *Graphidaceae* and its correct name is  
*Carbacanthographis chilensis* (Zahlbr.) Lücking 127

HAWKSWORTH, D. L. The oldest sequenced fungal specimen 131

*The Lichenologist*, Vol. 45, Part 1 was published on 8 January 2015

### Cambridge Journals Online

For further information about this journal and  
our **Open Access** option please  
go to the journal website at:  
[journals.cambridge.org/lic](http://journals.cambridge.org/lic)

**CAMBRIDGE**  
UNIVERSITY PRESS

CAMBRIDGE

JOURNALS

# Edinburgh Journal of Botany

An International Journal of Plant Systematics and Biodiversity

Published on behalf of the Royal Botanic Garden Edinburgh

## Senior Editor

David J. Middleton, Royal Botanic Garden, Edinburgh, UK

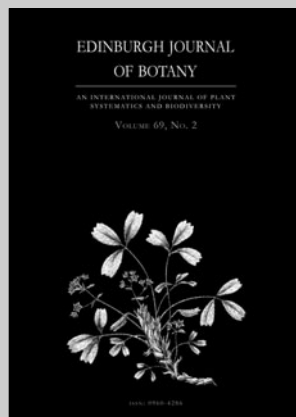
*Edinburgh Journal of Botany* is an international journal of plant systematics and related aspects of bio-diversity, conservation science and phytogeography. It covers all groups of plants and fungi and publishes contributions on all geographic areas, although it is particularly valued for its articles on South East and South West Asian, Sino-Himalayan and Brazilian biodiversity. Papers linking traditional and modern taxonomic techniques are especially encouraged, and commissioned book reviews and review articles are also included. There is an international editorial board of wide-ranging expertise delivering a high quality, fully illustrated journal.

## Price information

is available at: <http://journals.cambridge.org/ejb>

## Free email alerts

Keep up-to-date with new material – sign up at  
<http://journals.cambridge.org/ejb-alerts>



*Edinburgh Journal of Botany* is available online at:  
<http://journals.cambridge.org/ejb>

## To subscribe contact Customer Services

### in Cambridge:

Phone +44 (0)1223 326070

Fax +44 (0)1223 325150

Email [journals@cambridge.org](mailto:journals@cambridge.org)

### in New York:

Phone +1 (845) 353 7500

Fax +1 (845) 353 4141

Email

[subscriptions\\_newyork@cambridge.org](mailto:subscriptions_newyork@cambridge.org)

For free online content visit:  
<http://journals.cambridge.org/ejb>



CAMBRIDGE  
UNIVERSITY PRESS

CAMBRIDGE

JOURNALS

# The Journal of Agricultural Science

## Senior Editor (Animal papers)

Julian Wiseman, *University of Nottingham, UK*

## Senior Editor (Crops & Soils papers)

Paul Bilsborrow, *Newcastle University, UK*

*The Journal of Agricultural Science* publishes papers concerned with the advance of agriculture and the use of land resources throughout the world. It publishes original scientific work related to strategic and applied studies in all aspects of agricultural science, including: crop and animal physiology, modelling of crop and animal systems, the scientific underpinning of agronomy and husbandry, engineering solutions, decision support systems, land use, environmental impacts of agriculture and forestry, impacts of climate change, rural biodiversity, experimental design and statistical analysis, the application of new analytical and study methods (including molecular studies). The journal also publishes book reviews and letters.

## Submit your research online

<http://mc.manuscriptcentral.com/jagrisci>

For free online content visit:  
<http://journals.cambridge.org/ags>



*The Journal of Agricultural Science* is available online at:  
<http://journals.cambridge.org/ags>

## To subscribe contact Customer Services

### Americas:

Phone +1 (845) 353 7500

Fax +1 (845) 353 4141

Email

[subscriptions\\_newyork@cambridge.org](mailto:subscriptions_newyork@cambridge.org)

### Rest of world:

Phone +44 (0)1223 326070

Fax +44 (0)1223 325150

Email [journals@cambridge.org](mailto:journals@cambridge.org)

## Free email alerts

Keep up-to-date with new material – sign up at

[journals.cambridge.org/ags-alerts](http://journals.cambridge.org/ags-alerts)



CAMBRIDGE  
UNIVERSITY PRESS