



BULLETIN  
OF THE  
BRITISH  
BRYOLOGICAL SOCIETY

---

NUMBER 66

JULY 1995

ISSN 0142-3169

---



*Edited by A.R. Perry*

PUBLISHED BY THE BRITISH BRYOLOGICAL SOCIETY  
CARDIFF

## BRITISH BRYOLOGICAL SOCIETY

The British Bryological Society exists to promote the study of mosses and liverworts. The Society was constituted in its present form in 1923, replacing the Moss Exchange Club founded in 1896.

Two Field Meetings, each usually of a week's duration are held every year in districts of bryological interest. In addition two weekend meetings are held in the autumn, one for the Annual General Meeting, the presentation of papers and fieldwork, and the other for practical instruction in the examination and identification of bryophytes.

Members of the Society are entitled to receive the Society's *Journal* and its *Bulletin* free of charge, to borrow books, periodicals and reprints from the Society's library, to consult or borrow specimens from the Society's herbarium, and to consult the Society's panel of referees for assistance in the identification of specimens.

The subscription, due in advance on 1 January each year, is £15.00 for Ordinary Members, £1.00 for Family Members (who do not receive the *Journal*) and £7.50 for Junior Members.

Applications for membership should be addressed to the Membership Secretary, from whom further particulars may be obtained.

### Council for the year 1995

**PRESIDENT:** Dr R.E. LONGTON, Department of Botany, Plant Science Laboratories, University of Reading, Whiteknights, Reading, RG6 2AS

**EX-PRESIDENT:** Prof. J.G. DUCKETT, School of Biological Sciences, Queen Mary & Westfield College, University of London, Mile End Road, London, E1 4NS

**VICE-PRESIDENT:** Mr A.R. PERRY, Department of Botany, National Museum of Wales, Cardiff, CF1 3NP

**GENERAL SECRETARY:** Dr M.E. NEWTON, c/o Department of Botany, Liverpool Museum, William Brown Street, Liverpool, L3 8EN (Envelope to be marked PRIVATE)

**TREASURER:** Mr E.R. HURR, 6 The Woodlands, Chelsfield, Orpington, Kent, BR6 6HL

**JOURNAL EDITOR:** Dr J.W. BATES, Department of Biology, Imperial College at Silwood Park, Ascot, Berkshire, SL5 7PY

**BULLETIN EDITOR:** Mr A.R. PERRY, Department of Botany, National Museum of Wales, Cardiff, CF1 3NP

**BIBLIOGRAPHER:** Mr L.T. ELLIS, Department of Botany, Natural History Museum, Cromwell Road, London, SW7 5BD

**CONSERVATION OFFICER:** Mr R.C. STERN, Botany Bay, Main Road, Fishbourne, Chichester, West Sussex, PO18 8AX

**CURATOR:** Mr A.R. PERRY, Department of Botany, National Museum of Wales, Cardiff, CF1 3NP

**LIBRARIAN:** Dr K.J. ADAMS, Department of Life Sciences, University of East London, Romford Road, London, E15 4LZ

**MEETINGS SECRETARY:** Mr N.G. HODGETTS, Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough, PE1 1JY

**MEMBERSHIP SECRETARY:** Mr A.V. SMITH, 1 Carr Meadow Cottages, Glossop Road, Little Hayfield, via Stockport, Cheshire, SK12 5NR

**PUBLICITY OFFICER:** Dr S.R. EDWARDS, The Herbarium, Manchester Museum, University of Manchester, Manchester, M13 9PL

**READING CIRCLE SECRETARY:** Mr R.J. FISK, 1 Paradise Row, Ringsfield, Beccles, Suffolk, NR34 8LQ

**RECORDERS:** Mr T.L. BLOCKEEL, 9 Ashfurlong Close, Dore, Sheffield, S17 3NN (Mosses); Mr D.G. LONG, Royal Botanic Garden, Inverleith Row, Edinburgh, EH3 5LR (Hepatics)

**RECORDING SECRETARY:** Dr J.W. BATES, Department of Biology, Imperial College at Silwood Park, Ascot, Berkshire, SL5 7PY

**ELECTED MEMBERS:** Mr J. BLACKBURN, Mr T.H. BLACKSTOCK, Mr B.J. O'SHEA, Mrs C. RIESER, Dr A. RUSSELL, Mr M.J. WIGGINTON

---

The cover illustration is of *Clasmatodon parvulus* (Hampe) Hook. & Wils. ex Sull. from Plate 79 of *Icones muscorum, or figures and descriptions of most of those mosses peculiar to eastern North America which have not been heretofore figured*, by W.S. Sullivant, 1864. The height of the original is approximately 130 mm.



# BULLETIN OF THE BRITISH BRYOLOGICAL SOCIETY

---

NUMBER 66

JULY 1995

ISSN 0142-3169

---

*Editor:* A.R. Perry, National Museum of Wales, Cardiff, CF1 3NP, U.K.

## CONTENTS

Income and Expenditure Account for 1994 .....	2
Payment of subscriptions 1995 .....	4
Reports of Officers for 1994 .....	4
Minutes of the Annual General Meeting, Preston Montford, 1994 .....	13
Future Meetings of the Society .....	18
Local Meetings Programme, 1995 .....	22
Other Bryological Meetings, 1995 .....	22
Reports of Local Meetings .....	22
Subscriptions .....	23
Election of Officers and Elected Members of Council .....	23
B.B.S. Committees and Working Groups .....	24
Recording Matters 10 .....	25
B.B.S. Library Sales and Service 1995 .....	27
<i>Marchantia polymorpha</i> in Britain and Ireland. By David G. LONG .....	29
New Vice-county Records and Amendments to the Census Catalogues	
Hepaticae. By D.G. Long .....	37
Musci. By T.L. Blockeel .....	40
Cumulative Index .....	47
Bookshelf .....	48
BBS Postcards .....	52
Additions and amendments to the Membership List: May 1995 .....	52

# BRITISH BRYOLOGICAL SOCIETY

## INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 1994

INCOME	£ 1994	£ 1993
Interest	2,925	3,029
Legacies and Donations	10	100
Subscriptions	8,529	8,124
Sales of Publications, etc.		
Journal of Bryology	16,498	15,983
Other Publications	227	217
Lenses and Forceps	404	314
Sweatshirts	120	360
Postcards	1,139	
Special Illustration in J.Bryol.	-	455
Reading Circle	30	30
Postage and Sundries	129	45
AGM and other Meetings	2,102	2,591
	<u>£32,113</u>	<u>£31,248</u>
LESS EXPENDITURE		
Printing and Distribution		
Journal of Bryology	20,759	18,583
Bulletin	2,108	1,881
Atlas Copies	151	-
Purchases for Resale:		
Postcards	2,259	-
Pubs., Lenses, Forceps	95	685
Sweatshirts	-	371
Postage Balance on Sales	65	178
Library Purchase	-	34
Membership List	302	-
AGM and other Meetings	2,103	2,708
Officers' Expenses	798	518
Reading Circle	90	-
Insurance	442	425
Bank Charges and Sundries	175	459
	<u>£29,347</u>	<u>£25,842</u>
SURPLUS FOR YEAR	<u>£2,766</u>	<u>£5,406</u>

# BRITISH BRYOLOGICAL SOCIETY

## STATEMENT OF AFFAIRS AS AT 31 DECEMBER 1994

CURRENT ASSETS	£ 1994	£ 1993
National Westminster Bank		
(Current Account)	1,389	1,382
(Business Reserve A/C)	20,765	18,201
Girobank	617	678
National Savings Bank	41,709	39,348
	64,480	59,609
LESS CURRENT LIABILITIES		
Publication cost of J.Bryol.(net)	4,995	2,746
Bank Charges	-	144
NET ASSETS	<u>£59,485</u>	<u>£56,719</u>
Represented by:		
Surplus brought forward 1 Jan 94	56,719	51,313
Surplus for year	2,766	5,406
Surplus carried forward 31 Dec 94	<u>£59,485</u>	<u>£56,719</u>

E R HURR  
Treasurer.

I report that the Balance Sheet as at 31st December 1994 and attached Income and Expenditure Account are in accordance with the books and records of the Society.

R. N. Gutteridge  
R. N. GUTTERIDGE, F.C.A.  
Hon. Auditor.

17 Mar 1995.

## PAYMENT OF SUBSCRIPTIONS 1995

Subscriptions were due on 1st January and confirm entitlement to two copies of the *Journal of Bryology* for the current year as well as the other services provided by the Society. If you have not already paid your subscription then an early remittance to the Honorary Membership Secretary\* will help to prevent further postage costs. Current rates are as follows: Ordinary Member: £15.00, Junior Member: £7.50, Family Member: £1.00.

Members are reminded that **if payment is made by Giro, a supplement of £2.50 must be added** to cover transfer charges.

\* Mr A V Smith, 1 Carr Meadow Cottages, Glossop Road, Little Hayfield, Stockport, Cheshire, SK12 5NR, UK.

---

## REPORTS OF OFFICERS FOR 1994

### a) GENERAL SECRETARY'S REPORT

The year has been one of ambitious and detailed planning, not only to provide the full range of services we have all come to expect, but also to ensure that the Society enters its second century on a firm footing. Members of Council can lay the foundations for this, but success depends on strong support from every member of the Society. It is therefore good to see that membership figures remain high and that meetings are still a focal point of activities for many bryologists. I would strongly urge those of you who have not yet done so to take part in some of these enjoyable events.

Meetings in 1996, our centenary year, are intended to stimulate an even greater interest in bryophytes than there is at present. An international symposium will draw together some of the most innovative research, which we hope will inspire new recruits to bryology as well as current devotees of the subject. It is also our hope that field meetings, a coffee-table book, and a new Census Catalogue will play a similarly vital part in achieving that aim. Already promoting the B.B.S. and bryology is a fine set of postcards, which went on sale this year.

Unbeknown to present members of Council until this year, the Society was registered as a Charity in 1966 (no. 228851). It carries with it certain benefits, and also places obligations on members of Council. However, it does not involve any drastic changes to the way in which Council operates, for it has been our policy, throughout, to operate in accordance with recommendations of the Charity Commissioners.

During the year, Council agreed, on behalf of the Society, to donate £1,000 to the Royal Botanic Garden, Edinburgh, for the purpose of helping to establish a cryptogamic reserve at Dawyck. It will be open to the public, and will feature a wide range of educational and promotional material. Indeed, Council hopes to be able to foster a number of other bryological projects through the trust fund it is setting up from, initially, the Trudy Side bequest.

We were saddened to hear of the deaths this year of Prof. D.G. Catcheside, who joined in 1923 and became an honorary member, and of Mrs B.E. Bescoby, whose enthusiasm was a

major ingredient in the success of bryological meetings in NW England. Members at the A.G.M., however, were pleased to applaud the proposal that Dr A.J.E. Smith should be made an honorary member.

Finally, I should like to thank all those members, the referees, local secretaries, local recorders and archivists, who help Council so much. The Society is also indebted to everyone whose photographic skills are enshrined in the B.B.S. postcards.

M.E. Newton, January 1995

## **b) TREASURER'S REPORT**

The BBS financial position is largely dictated by publishing costs and institutional sales of *J. Bryol.* A change of publisher to Maney's in 1993 improved what was becoming a serious situation and a healthy surplus of £5,406 was generated. However, the page count — and thus printing costs — for that year were low. In 1994 a full-size *Journal* sharply increased the net deficit which we have to pay to Maney (from £2746 to £4995), and an even larger issue for this year is expected. To some extent this situation is masked in the 1994 accounts by an exceptional order for back issues of *J. Bryol.* Even so, the overall surplus was last year only £2,766 and had it not been for interest on reserves the annual account would have been in deficit. Over half of these reserves ('Surplus carried forward' in the accounts) are from the Side Bequest with accrued interest (see below). Again, Centenary year projects will consume some of the reserve. Thus, we cannot count on continued income from interest at the current levels.

At least in the short term, it is not likely that institutional sales of *J. Bryol.* can be much improved. I must therefore reluctantly ask for an increase in ordinary members' subscription rates and suggest it be of £5 to £20.

Costs of the *Bulletin* have tended to increase; from £1158 in 1991 to £1894, £1881 and £2108 in 1994. To many ordinary members the *Bulletin* is important and Council do not wish to see any cut in its scope. Economies or possible offsets such as suitable advertizing are being considered.

Officers' expenses have also shown a tendency to increase; from £246 in 1991 to £798 last year, though too much should not be made of single-year totals. A breakdown will be available at the AGM if Members wish to see details.

Insurance costs have in my view been too high, and I have attempted to control them. We have now arranged to join a group of Natural History societies in a shared Public Liability insurance arrangement; and the Librarian hopes to transfer our books and stock to a shared building which should reduce costs of our 'office contents' insurance.

Our reserves are kept in a National Savings Investment account bringing in 6% and a bank 'Capital Reserve' account giving 4.125% but easily accessed to the Current account (both rates as at 31 December 1994). I have looked a good deal at other possible investments, but in general those giving a much better return involve risk and/or are effective only for longer term investment.

The Side Bequest amounted to £24,533 in February 1991, and none of it has yet been used or committed. Approximately £5,500 compound interest has accrued since then, making a total

of about £30,000. I expect during the present year decisions to be made on how some of this money is to be used and future annual accounts will show separately the amounts committed and remaining.

Roy Hurr, May 1995

#### **c) BIBLIOGRAPHER'S REPORT**

Recent Bryological Literature numbers 81 and 82 have appeared in the *Journal of Bryology*, number 83 is in press and number 84 in preparation. I am grateful to all those who have sent me references or reprints for inclusion in these lists. Once again, particular thanks are owed to the staff of the Botany Library at the Natural History Museum, London, for their co-operation and assistance. I much appreciate receiving details of papers and books which I may have overlooked.

L.T. Ellis, February 1995

#### **d) BULLETIN EDITOR'S REPORT**

*Bulletins* 63 and 64 were prepared and published during the year and I am grateful to everyone who supplied me with their material on disk. Copy deadlines are May 15 for the July issue and December 15 for the February issue.

A.R. Perry, January 1995

#### **e) CONSERVATION OFFICER'S REPORT**

1. Contacts have been maintained with the Joint Nature Conservation Committee as well as the county agencies (English Nature, Scottish Natural Heritage and Countryside Council for Wales) throughout the year. The Red Data Book for Bryophytes in Great Britain and Ireland has been delayed in its final stages, but it is now hoped that it will be published in 1995. Regional Recorders have been contributing information for the Lower Plant Biodiversity Register. The survey of the schedule 8 species in Scotland has been carried out, with most species having been re-found. JNCC is establishing a Plant Conservation Working Group and has invited the BBS to be represented on this body.

2. Contacts have also been maintained with Plantlife, and RCS has continued to attend meetings of the Board and Conservation Committee. Plantlife has been a major collaborator with RSPB, WWF, RSNC (now known as the Wildlife Trusts) and other organisations in the preparation of a second edition of 'Biodiversity Challenge'. This document sets out in some detail the conservation needs in Great Britain and includes 'action plans' for individual threatened species including some bryophytes. Several BBS members have provided valuable information for this project.

3. The Conservation Committee met in Weymouth in March and Preston Montford in September. Among matters discussed have been threatened habitats in the uplands (e.g. from skiing developments and hydro-electric schemes) and possible recovery programmes for very rare species.

4. A draft guidance note on provision of information by Regional Recorders has been considered by the Council and it is intended to circulate a finalised version in 1995.

R.C. Stern, December 1994

## f) CURATOR'S REPORT

Voucher specimens incorporated in BBSUK were 143 mosses and 42 liverworts. There were 12 loans totalling 96 mosses and 146 liverworts.

A.R. Perry, January 1995

## g) JOURNAL EDITOR'S REPORT

The first two parts of *Journal of Bryology* (Vol. 18, pts 1 & 2) in revised format appeared in 1994 to much acclaim and surprisingly little criticism. At 396 + vi pages these parts absorbed the full page allowance under our current arrangement with W.S. Maney and Son Ltd, despite earlier predictions that numbers of high quality bryological papers were falling worldwide. The total number of full papers and bryological notes submitted in 1994 was 51, up by nearly 11% on 1993. Forty of these papers were accepted, nine (18%) rejected or withdrawn and two are under revision.

It is my pleasure to acknowledge the generous help given by Associate Editors and referees in dealing with submitted papers. I wish particularly to thank Alan Crundwell, who although no longer an Editor, has helped me on many occasions.

For the future, a new occasional series, *Bryophyte Profiles*, will appear in the *Journal*. Each paper will consist of a detailed synthesis of all aspects of the biology of an individual bryophyte species. It is hoped that this series will appeal as much to amateur members of the Society as to the professionals and I look forward also to receiving papers from a wide range of authors.

I would remind the Society that it still has to address the issue of how the *Journal* will be marketed in future as this aspect is not covered by our new publisher.

J.W. Bates, January 1994

## h) LIBRARIAN'S REPORT

Sales:	J. Bryology (parts)	102
	TBBS (parts)	46
	Distribution of Bryophytes	5
	Census Catalogues (old)	0
	Hepatics of Europe and the Azores	1
	BBS Bulletins	12
	BBS Library Catalogues	2
	Moss Wall Charts	3
	Special Volume: Jubilee	1
	Special Volume: Chromosomes	5
	Special Volume: Tropical Bryophytes	3
	Special Volume: Mosses in English Literature	2
	Bryology (Linn. Soc.)	5
	Mosses & Liverworts of Woodland	10
	German/English Glossary	1
	×20 lenses	22
	Stainless steel forceps	28
	BBS ties	4

Loans:	35 mm slides	3
	Micrometer slide	1

As a result of feedback from members it would seem that most are happy with the cheaper No. 2 Patterson stainless steel forceps. They can in any case be readily sharpened to as fine a point as required by a few strokes on a carborundum block from a local tool shop. However, several members have requested that we restock with Ideal-tek forceps regardless of cost, and new supplies have now been obtained from Arnold Horwell's receiving company. Again at popular request, eyepiece graticules are now stocked. Please however make sure that you measure the inside diameter of your eyepiece before ordering one, as you may need an adaptor ring. The price of both eyepiece graticules and micrometer slides has escalated in recent years and we now have to ask for a £45 cheque deposit against loan of the micrometer slide.

Ken Adams, March 1995

## MEETINGS SECRETARY'S REPORT

Dorset was the venue for this year's spring meeting, organised by Mark Hill. Many of the characteristic Dorset habitats were visited and many of the area's interesting bryophytes seen. The weather was exceedingly variable, changing from warm sunshine one day to gale force winds and rain the next, but BBS members are clearly made of stuff stern enough to withstand such vicissitudes. The delights of out-of-season Weymouth were also enjoyed by the assembled company. My thanks to Mark for being the local secretary for this meeting.

The summer meeting took place over two weeks in western Ireland, the first week being spent principally in the limestone country of the Burren in County Clare and the other in County Galway. Ballyvaughan was an excellent centre and a wide range of species and habitats were seen. A large number of new vice county records were made, especially from the under-worked v.-c. H15. The town of Clifden was the headquarters for the second week, when oceanic species and communities were the main attraction. Meetings in Ireland have tended to attract rather few members in the past, so it was gratifying that this meeting was very well attended. Perhaps there should be a higher proportion of Irish meetings in the Society's programme in future? Unfortunately, we are still hampered by having so few bryologists resident in Ireland. It was particularly good to welcome bryologists from Holland and Scandinavia to this meeting. Warm thanks are due to Donal Synnott for arranging this excellent fortnight.

The autumn meeting and AGM was at Preston Montford Field Centre near Shrewsbury. My thanks to Martha Newton for being local secretary and also to all the speakers for their valued contributions. It was rather a special occasion, as there was a celebratory birthday dinner in honour of Dr Eric Watson, attended by 51 members. The field excursion was to Roundton Hill and the banks of the River Onny on the Welsh borders, where bryological enthusiasm was not dampened by the autumnal weather.

The final meeting of the year was the workshop meeting, held this year at the University of Bristol, and hosted by Dennis Brown. The weekend was spent examining techniques used for growing bryophytes, under the guidance of Harold Whitehouse and Michael Fletcher. Thanks to both the leaders and the local secretary for ensuring that this was an informative and enjoyable meeting (in spite of the weather!).

The attendance figures for this year's meetings are as follows:

	1993	1994
Spring meeting	16	36
Summer meeting week 1	19	12
Summer meeting week 2	-	17
AGM weekend	42	56
Workshop	20	12
TOTAL	97	133

Attendance at the spring meeting was back to its normal level following the unusually low attendance in 1993, which was entirely due to it being held abroad that year. Similarly, the workshop meeting was back to its customary small numbers after the unusual *high* of 1993! As noted above, it was excellent to have such a comparatively large number of members at the summer meeting in Ireland.

Local groups continue to be active, and the southern group in particular seems to be going from strength to strength, often entertaining foreign bryologists as well as those from the southern counties.

May I express once more my heartfelt thanks to all the local secretaries, organisers and helpers, every one of whom has contributed to a very successful crop of meetings. Finally, the traditional plea of the Meetings Secretary: I am *always* grateful for volunteers to be local secretaries and for suggestions for future meetings. These days it seems that *everyone* is permanently busy, with the result that the work of organising meetings falls again and again onto the same small band of willing members. However, they are busy too and I can't ask the same people to organise meetings every year. Meetings are the life-blood of the Society, so *please* consider being a local secretary and let me know if you would like to give it a go, *even* if you think you are too busy. We're all in the same boat!

Nick Hodgetts, March 1995

#### j) MEMBERSHIP SECRETARY'S REPORT

Membership numbers and trends are shown in the attached table. Once again it is pleasing to note the steady rise in membership. However, it would not be appropriate to be complacent about this because the improvements are fragile. Thus the numbers lost have gone down again and this is coincidental with the increase in members joining; it should also be noted that the number of family members is currently very high. The effect of any increase in subscriptions will also have to be considered.

Collection of subscriptions is still an onerous task, although the despatch of an early reminder did seem to improve matters in 1994. It is judged that the introduction of a direct debit system would be an improvement. Once again the collection of subscriptions for North American members was achieved most efficiently by Diana Horton and her help is gratefully acknowledged.

	1989	1990	1991	1992	1994	1995
<b>New Members</b>						
<b>UK</b>	20	20	19	26	24	27
<b>Overseas</b>	7	8	9	4	11	18
<b>Total</b>	<b>27</b>	<b>28</b>	<b>36</b>	<b>30</b>	<b>35</b>	<b>45</b>
<b>Members lost by:</b>						
<b>death</b>	8	5	3	4	2	2
<b>resignation</b>	11	9	11	9	3	4
<b>other</b>	10	15	9	13	19	11
<b>Total Losses</b>	<b>29</b>	<b>29</b>	<b>23</b>	<b>26</b>	<b>24</b>	<b>17</b>
<b>Total overseas</b>	207	199	190	186	187	202
<b>Total UK</b>	323	330	352	360	370	383
<b>NET TOTAL</b>	<b>530</b>	<b>529</b>	<b>542</b>	<b>546</b>	<b>557</b>	<b>585</b>
<b>Comprising:</b>						
<b>Honorary</b>	14	13	12	11	11	11
<b>Ordinary &amp; Junior</b>	502	503	512	513	524	545
<b>Family</b>	14	13	18	22	22	29
<b>Turnover ratio x 100</b>	11	11	11	10	10	11

A.V. Smith, January 1995

## k) PUBLICITY OFFICER'S REPORT

Sweatshirts. For the first time, the BBS sweatshirt account is in profit, albeit by only £2.27 (order 1 cost £502.43, sold £444; order 2 cost £371.30, sold £432; p&p paid separately). Of 96 shirts ordered, 22 remain (8 Medium Ash, 10 Medium Burgundy, 3 Large Grey, 1 Large Burgundy). Future sales are likely to be limited because of the small demand for the smaller sizes that remain.

Postcards. 488 sets (7,808 cards) have been sold, out of 1,500 sets printed, to members and retail outlets. This is more than half-way to profit, although the goal-posts move depending on deals struck with retail outlets. Total costs are £2,379.52 (£71.16 competition, £2,259.26 printing, £49.10 postage and packing), against an income of £1,377.00, leaving a deficit of £1,002.52. Future sales are likely to be buoyant because i) postcards get sent and reordered, ii) I have several major outlets yet to approach, and iii) the Jubilee Year approaches, and there is some argument for not selling out before then. A large reorder might get stale, and if the Society decides that it needs more postcards, it would be worth considering a second set. The cards have been very well received, including a request for information from the BSBI who think it is an act worth following. I must thank not only all those who provided the 16 winning images, but also those who provided the other 170 photographs (almost any of

which could well have graced a postcard), and also our four judges, as well as Judges Postcards for their excellent quality and service.

Car stickers. We were badly let down by our suppliers *Image* last Autumn. The quality was unanimously agreed by Council to be unsaleable, the price invoiced was substantially more than the quoted price of £126.31 inc. VAT for 250 3-colour 3" roundels (51 p/sticker gross), + p.&p., and they were sent to the wrong address. The stickers were returned with an explanatory letter, and the bill was not paid. Unfortunately the company was the same one that had provided the sweatshirts, quite satisfactorily, and they now do not respond to correspondence. The best price now quoted by *Insignia* has increased to £176.25 inc. VAT for 500 (new minimum order) roundels (35p/sticker gross), + p.&p., and Council must decide whether it is worth pursuing. It was a close call the last time round, and I am wary of cheapo companies.

Common names. The list of common names for British bryophytes now totals 2,621 (plus 65 non-British), little changed from last year (2,590 + 56), and appears to be approaching the effective asymptote. I am not sure what to do with it.

Travelling Exhibition. This remains stored at The Manchester Museum, probably pending Council's decision as to its use during the Centenary Year.

BBC Wildlife. (April 1994) published a letter (headed: 'The Shining: Part Two') to the editor on *Schistostega pennata*, in response to an editorial about the mystery of a rabbit hole that glowed. Unfortunately the small paragraph on the BBS Centenary was cut, although the *British Bryological Society* at least got a mention.

Sean Edwards, March 1995

## **I) READING CIRCLE SECRETARY'S REPORT**

Reading Circle contents lists were circulated to 31 members. During the year contents pages for 24 issues of 5 journals were circulated to members, but the Reading Circle Secretary was unable to provide these as regularly as previously. 12 members were supplied with a total of 24 articles. There were continuing problems in overcoming the backlog of *Bryologist* and *Journal of the Hattori Botanical Laboratory* issues, but these seem to be in order at last: I am grateful to members who assisted with back issues.

### **Financial Statement**

INCOME	Members' credit at 1.1.1994	£123.35
	Income	£ 50.00
	Total	£173.35
EXPENDITURE	Photocopies supplied	£ 33.20
	Postage	£ 22.97
	Administration	£ 1.65
	Total	£ 57.82
Excess of income over expenditure		£115.53

M.A.S. Burton, March 1995

#### m) REPORT OF RECORDER FOR HEPATICAE

Though totals for Scotland and Wales are less than last year, those from England and Ireland have greatly increased, largely a reflection of where BBS meetings were held.

	New records collected 1993-94	New records collected pre-1993	Deletions
England	21	2	4
Wales	5	0	1
Scotland	4	0	1
Ireland	24	1	2
TOTALS	54	3	8

Notable in 1994 were significant extensions of range for *Fossombronia incurva*, *Lophozia perssonii*, *Mylia taylorii* and *Riccia rhenana* in England. *Scapania gymnostophila* was an important addition to the Welsh bryoflora, and the new record of *Riccia huebeneriana* in Cardigan was noteworthy. In Scotland the best find was *Scapania degenii* in Sutherland, the most northerly mainland locality. The Irish meeting stimulated a long list of new records amongst which *Acrobolbus wilsonii* new to West Galway and *Petalophyllum ralfsii* new to Clare were perhaps most gratifying.

The following are thanked for contributing in various ways: Jean Paton for checking several critical taxa, and for revising distributions of *Lejeunea*, Nick Stewart for chasing up some old records and vouchers, Mrs L. Snow for updating records from the Isle of Wight and Roy Perry for loans of material from NMW and BBSUK.

D.G. Long, February 1995

#### n) REPORT OF THE RECORDER FOR MOSSES

The number of records this year is similar to 1993, though augmented by a bumper crop of new records from the Irish Meeting.

	New records collected 1993-94	New records collected pre-1993	Deletions
England	55	9	0
Wales	13	1	1
Scotland	23	4	4
Ireland	40	4	9
TOTALS	131	18	14

Two species are new to the British Isles, *Grimmia tergestina* and *Bryum archangelicum*, both in Scotland. Also of interest in Scotland are the new records for *Sphagnum platyphyllum* and *Tortula marginata*.

The number of new records from the Summer Meeting demonstrates how poorly known most Irish counties are in comparison with their British equivalents. Among the more significant

records are the new stations for *Atrichum tenellum* and *Seligeria acutifolia*. Other Irish records include a new locality for *Daltonia splachnoides*, always an exciting event.

The most unexpected find in England and Wales is that of *Schistidium agassizii* at a low altitude in Merioneth, new to Wales. *Grimmia affinis* has been found for the first time for many years in southern England, and there have been notable new localities for *Fissidens rivularis*, *Weissia rostellata* and *Leptodontium gemmascens*. The record for *Thuidium delicatulum* in East Anglia represents a considerable extension of range, and that for *Neckera pumila* is the first there in recent years.

I would like to thank Henk Greven and Alan Crundwell for looking at individual specimens, Roy Perry and David Long for the loan of herbarium material, and Nick Stewart and Mark Hill for correcting errors in the *Census Catalogue*.

T.L. Blockeel, February 1995

#### **o) RECORDING SECRETARY'S REPORT**

The trickle of completed record cards improved slightly in 1994 with significant contributions from a very small number of vice-county recorders. Regional Recorders were asked whether they would like listings or computer disk copies of the data held for their counties at the Biological Records Centre (BRC), the first time that this had been possible on a large scale. At the time of writing the data had still not been sent out by BRC but it should eventually arrive. The first update of the computer database from the several hundred recently submitted record cards is planned for the near future. At the end of 1994 a last effort was made to complete the recording of tetrads in the epiphyte transect across southern Britain by myself and a very small number of helpers. Twenty or so tetrads out of a total of 145 were not visited but a large and interesting dataset has been obtained. An analysis of the results will be undertaken in 1995.

J.W. Bates, February 1995

---

### **MINUTES OF THE ANNUAL GENERAL MEETING, PRESTON MONTFORD, 1994**

Minutes of the Annual General Meeting held at Preston Montford Field Centre, near Shrewsbury, at 4.50 p.m. on Saturday, 24 September, 1994.

**PRESENT:** Dr R.E. Longton (President, in the chair) and 44 other members.

The President opened the meeting by recording the deaths during the year of Prof. D.G. Catcheside, an Honorary Member, and of Mrs B.E. Bescoby, an active member in the north of England, and members stood as a mark of respect.

- (1) **APOLOGIES FOR ABSENCE:** Apologies had been received from Dr J.W. Bates, Dr M.O. Hill, Mr E.R. Hurr, Miss J.M. Ide, Mr F.R. Lammiman, Mr A.R. Perry, Prof. P.W. Richards, Prof. M.R.D. Seaward, Mr R. Stevenson and Mrs E. Wiltshire.

- (2) **MINUTES OF THE LAST A.G.M., RIPON, 1993:** Dr P.E. Stanley said he had discussed with Dr Longton the publication of a statement he, Dr Stanley, had made, but had not seen the published minutes. Dr Longton said he had been told by Dr Stanley that he had intended to send it to Mr Perry as Bulletin Editor. Since it did not appear, he assumed it had not been received. Dr M.E. Newton confirmed that she had not received a copy.

Dr Stanley considered that a question he had put to Dr Newton should be minuted in full, as follows: 'Dr Stanley asked the Secretary if minutes could be seen at an agreed time at her official address, and received the answer, "no".' The sentence was read back to the meeting and confirmed to be as dictated. It was agreed that this would be inserted as the penultimate sentence of item 2, and the minutes would then be signed as a correct record.

(3) **MATTERS ARISING:**

- a) Item 2, Availability of Council Minutes: Dr Longton reported that this had been discussed by Council. In addition to the existing availability, signed minutes from 1992 onwards would be made available as photocopies on request to the President. Dr Stanley said he would bring up the matter later.
- b) Item 10(b), Corresponding Foreign Member: Dr Longton said this had not yet been considered by Council, but was on the agenda for the next meeting.
- c) Item 10(c), Census Catalogue: Dr Longton reported that members of Council were currently making plans for a new *Census Catalogue*, and were sorting out finances.

(4) **REPORTS FROM OFFICERS FOR 1993:** These had all been published in *Bulletin* 64, and gave rise to the following discussion and comment:

- e) **Conservation Officer:** Mr A.C. Crundwell briefly summarized a report he had made on the Wallace Memorial Reserve. The report was heartening, and included the news that *Ricciocarpus natans*, feared lost, had now been refound.
- g) **Journal Editor:** Prof. J.G. Duckett said that if there were any complaints about the *Journal* members should write to Dr Bates, who would be able to deal with them.
- h) **Librarian:** Dr K.J. Adams had recently asked purchasers whether the forceps supplied were suitable, and had received two complaints. He would therefore make available a more expensive type at £11 in addition to the original type at £2. Mr Crundwell and Mrs J.A. Paton said dental or medical tweezers were very good, which is what Dr Adams said these were. Dr Adams also reported that he had ordered eyepiece graticules for re-sale to members.
- k) **Publicity Officer:** Dr S.R. Edwards wished to modify his report. The newspaper report to which it referred had been sent to him about six weeks after publication, having been in the hands of the Secretary for only the Christmas-New Year holiday.
- l) **Reading Circle Secretary:** Dr Longton thanked Dr M.A.S. Burton for her valuable service in this post, from which she now wished to retire.

It was proposed by Mr G. Bloom (seconded by Mrs Paton) and agreed that these reports be passed *en bloc*.

(5) **REPORT FROM COUNCIL:**

- a) **Journal of Bryology:** Dr Longton was pleased to report that Mr T.L. Blockeel had agreed to serve on the panel of Associate Editors. Also reported was Dr Bates' wish to establish a new series of papers in the *Journal*, *Bryophyte Profiles*, for which contributions were sought. Dr Longton also mentioned a note from Prof. Richards

concerning the list of Officers in the *Journal*, and would draw it to the Editor's attention.

- b) **Centenary Celebrations:** Prof. Duckett said that plans for a symposium were well under way, and Dr J.H. Dickson had agreed to make local arrangements in Glasgow. Plans for publication were also in hand, 'possibly in conjunction with the *New Phytologist* Trust. It was thought that the cost of overseas speakers would be less than expected, and Dr Stanley said funds were available from the International Science Foundation of America which would enable speakers from the former Soviet Union states to attend.

To follow the symposium, Mr N.G. Hodgetts was organizing a field meeting, which would consist of a week in the west of Scotland and another in the Central Highlands. The spring field-meeting of 1996 will be in Dolgellau, where the two sections of the Moss Exchange Club were amalgamated, and the paper-reading meeting and A.G.M. will be at Ness, on the Wirral.

Prof. Duckett said other plans included a coffee-table book and a new *Census Catalogue*. In addition, a poster designed by Mr L.T. Ellis had been warmly welcomed by Council. Dr Longton said it showed Mr Ellis to be a surrealist artist of the highest quality.

In response to a question from Dr Stanley, Dr Newton said the members of the Centenary Committee were Dr Bates, Dr G.C.S. Clarke, Prof. Duckett, Mr Hodgetts, Dr Longton, herself and Mr Perry. Dr Longton said the Committee made decisions, except for B.B.S. funding, acted and reported to Council.

Mr Crundwell drew attention to the fact that 1996 would also be the hundredth anniversary of the publication of H.N. Dixon's *Student's Handbook of British Mosses*, which was of great significance, possibly more so than the foundation of the B.B.S. predecessor. Prof. Duckett agreed that this would be borne in mind when drawing up the symposium foreword.

- c) **Publicizing Bryophytes and the Society:** Mr D.G. Long outlined plans which Dr R. Watling of the Royal Botanic Garden, Edinburgh, had been preparing for a nature trail and cryptogamic garden at Dawyck. The intention was to create a focal point, consisting of a chalet with panels to promote and publicize cryptogamic plants and the major societies. This, coupled with labelling and conservation work to promote an interest in these plants, would be expensive. Council proposed to donate £1,000, matching a contribution from the British Mycological Society, and possibly the British Lichen Society. This was approved. Mr Long told Dr Stanley that the centre at Glasnevin had not been involved.
- d) **Membership Figures:** Dr Longton said Council had been pleased that numbers of institutional subscribers were holding steady and, as a report from Mr A.V. Smith had shown, so, too, were those of personal members.
- e) **Legacy of Dr E.W. Jones:** Dr Newton reported that Dr Adams had nearly completed cataloguing those books which were surplus to the Society's needs for the library. Council was therefore considering means of making them available to members in accordance with Dr Jones' wishes, which were that they should not be seen primarily as sources of income and should not be priced beyond the reach of members, preferably younger members, who would use them. Ideas at present were that they would be valued and offered to members at that price. In the event of two or more people expressing an interest in an item, a means of selecting one fairly, and according to the terms of the legacy, would need to be devised. In response to a question from Dr Stanley, Dr Longton said the valuation would be done by a member at no charge to the Society.

In response to a question from Dr J.D. Sleath concerning the microscopes which formed part of the legacy, Dr Adams said that, optically, they were not as good as modern ones and were also in need of mechanical attention.

- f) **Advertizing in Bulletin:** It was reported by Dr Longton that advertisements which were relevant would be accepted for publication in the *Bulletin*, but a charge would be made. Dr Stanley questioned whether advertisements for courses run by the Field Studies Council were paid for, and Dr Newton said they were not. In her opinion, the Society owed a great deal to the F.S.C., a view which other members indicated they shared, Dr Longton pointing out that the courses were of benefit to the Society.
  - g) **Postcards and Car-stickers:** Dr Longton reported that postcards were now selling well. Car-stickers, however, were unsatisfactory and Dr Edwards, with Council's full agreement, was returning them to the supplier.
  - h) **Registration as a Charity:** It had recently been discovered that the Society had been registered as a charity (No. 228851) since 12 April, 1966. Dr Longton said it carried with it certain benefits, but also placed on Council members a number of obligations.
  - i) **Photographic Archive:** Prof. Seaward had asked Dr Newton to draw members' attention to his note in *Bulletin* 64 seeking photographs of members who, he felt, were inadequately represented in the Society's collections. Both Dr Adams and Mrs Paton urged that group photographs in the Archives be taken to meetings for identification of the members in them as soon as possible. Mrs Paton also enquired about photographs taken during the meeting in Ripon last year, to which Prof. Duckett replied that he would obtain prints for the Archives in the near future.
- (6) **ELECTION OF OFFICERS:** Dr Newton reported that Council had nominated Mr R.J. Fisk for election as Reading Circle Secretary, and their present incumbents for re-election to the other four posts for which nominations were required. These were General Secretary (Dr M.E. Newton), Journal Editor (Dr J.W. Bates), Meetings Secretary (Mr N.G. Hodgetts) and Recording Secretary (Dr J.W. Bates). No other nomination had been received. Dr Longton said nominations had, as usual, been called for in the *Bulletin*. Election was proposed (Dr Adams, seconded by Mr Smith) and passed *en bloc*.
- (7) **ELECTION OF ELECTED MEMBERS OF COUNCIL:** Dr Newton said Council had nominated Mr J. Blackburn, Mr B.J. O'Shea and Dr A. Russell. Other nominations had not been received, although Dr Longton said the vacancies had, as usual, been advertized. These nominations were proposed (Mr Long, seconded by Dr Stanley) and declared elected.
- (8) **PLACE AND DATE OF NEXT ANNUAL GENERAL MEETING:** It was announced that this would be on 9 September, 1995, at the University of East Anglia.
- (9) **OTHER FUTURE MEETINGS:** Mr Hodgetts reported that the programme he had in hand would be as advertized in *Bulletin* 64 up to and including the summer meeting of 1996. Thereafter, he had made arrangements for the paper-reading meeting and A.G.M. of that year to be based at Ness Gardens on the Wirral. He also sought some indication of the number of people likely to attend the summer meeting of 1995 in the Tatra Mountains. Dr R. Soltés, the local organizer, had reserved 15 rooms at the Hotel Academia, where the costs of B. & B. would be in the region of £22 for twin-bedded accommodation and £18 for single-bedroom accommodation. Eight members expressed an interest at this stage.

(10) **ANY OTHER BUSINESS:**

- a) **Honorary Membership:** Dr Longton announced that Council wished to propose Dr A.J.E. Smith for honorary membership. He spoke briefly but warmly of his service to the Society as Mapping Secretary, as one of the editors of the *Atlas*, as *Journal* Editor and as a referee of, among other genera, *Grimmia*. He also drew attention to the moss and liverwort floras he had written. Members marked this with a round of applause, and Dr Longton congratulated Dr Smith on his election to honorary membership.
- b) **European Committee for the Conservation of Bryophytes:** Mr Hodgetts, secretary of this committee, reported on a recent meeting in Zurich, which had concentrated on identifying threats to endangered bryophytes in Europe. During a plenary session, a number of important recommendations had been made for EC funding of aspects of nature conservation, and the International Association had sketched out an action plan. Dr Longton said this committee was playing a very important part, and he was delighted the B.B.S. was involved.
- c) **Microscopes:** Prof. Duckett said he had with him several microscopes which he was offering for sale as surplus to the needs of Queen Mary & Westfield College.
- d) **Bryophyte Atlas, vol. 3:** Mr C.D. Preston announced that Dr Hill had one remaining copy of this volume available at the introductory price of £24.
- e) **Minutes and Other Papers:** Dr Stanley expressed the opinion that all Council documents, including minutes, should be made available to members if requested, for the Society was not a secret society, nor were trade secrets involved. He himself would lodge all correspondence generated during his tenure as Treasurer with the Archivist. In reply, Prof. Duckett said that only minutes and appended documents constituted the official records of the Society. Correspondence did not form part of the official papers. Dr Stanley considered this was not the case in respect of correspondence between Officers, but Prof. Duckett disagreed, Dr Longton being of the opinion that to make such correspondence available to members would inhibit officers in their work for the Society. In this context, Dr Newton said it had not been her experience to inherit the correspondence files of her predecessors, except where needed for continuity. Mr R.N. Gutteridge said he spoke as a member of several societies, in none of which were detailed records available to members. He said members appointed officers to act for them, and the officers could not, in his opinion, be expected to act in such a way as to justify every action, for they would be inhibited in discussion and in correspondence. They would need to be diplomats. Mr Gutteridge said B.B.S. Officers were appointed to act in the interests of the Society and he could not see grounds for Council disclosing more than at present. Dr Stanley enquired whether they therefore needed to disclose only what they chose to disclose. As a financial example, Mr Gutteridge said they must prepare accounts, but accounts do not disclose every detail. He said it was necessary to report what had been done, but not why it had been done. Mr M.V. Fletcher submitted that Council must disclose what was required by the A.G.M. Some correspondence was said by Dr Longton to be of a confidential nature. Dr Stanley conceded that this should not be disclosed, and both Mrs K.M. Cocking and Dr Adams said some might be of a personal nature. Dr Longton considered that the Society was a friendly one, whose officers had always acted openly and honourably. Discussion continued with several members, particularly Dr Sleath and Mr Long, drawing attention to the enormous amounts of correspondence generated by Officers, and hence to immense storage problems. Mr M.F.V. Corley also highlighted the fact that some work is done by telephone. Dr Stanley said that it had been by serendipity that he had discovered he had been discussed by Council last year, and he thought he should know about it. Prof. D.J. Cove said that in his knowledge no other society made

correspondence freely available. He reminded members that Officers gave their time freely and, in his opinion, it would be detrimental to ask them to disclose the kinds of papers in question. It was proposed by Prof. Cove (seconded by Mr Crundwell) that the present arrangements should continue. The proposal was carried; voting was 42 in favour and 1 against, with 2 abstentions.

There being no other business, the meeting adjourned at 6.06 p.m.

M.E. Newton, Hon. General Secretary,  
September 1994

---

## **FUTURE MEETINGS OF THE SOCIETY**

Members are reminded to read the BBS Safety Code, which is published in *Bulletin* 43 and is available from local secretaries for inspection during BBS meetings.

### **SUMMER FIELD MEETING 1995 (I), Tatra Mountains, Slovakia, August 13-24.**

Local Secretary: Dr. Rudolf Soltés, Research Station of the Tatra National Park, 05960 Tatranská Lomnica, Slovakia. Fax: 00 42 969967958.

See previous *Bulletin* for further details. Note that the British end of the organisation for this meeting has now been taken over by Peter Martin, Flat 5, Gloucester House Mews, 27 Gloucester Street, Wotton-under-Edge, Gloucestershire, GL12 7DN. Tel: 01452 740187.

### **SUMMER FIELD MEETING 1995 (II), Durham/Northumberland, July 26-August 2.**

Local Secretary: Stuart Hedley, English Nature, Archbold House, Archbold Terrace, Newcastle-upon-Tyne, NE2 1EG. Tel.: 0191 281 6316.

See previous *Bulletin* or contact local secretary for further details.

### **ANNUAL GENERAL MEETING AND SYMPOSIUM MEETING 1995, University of East Anglia, Norwich, 8-10 September.**

Local Secretary: Richard Fisk, 1 Paradise Row, Ringsfield, Beccles, Suffolk, NR34 8LQ. Tel.: 01502 714968.

This meeting will have a distinctively East Anglian slant, with a speaker from the nearby John Innes Institute and a talk on bryophyte recording in Norfolk.

Speakers will include:

Mr. Terry Hedderson (University of Reading): Title to be decided.

Mr. Keith Kingham (University of London): 'Nuclear differentiation in bryophytes.'

Dr Angela Russell (John Innes Institute): 'Searching for a signalling pathway for plant hormones in moss.'

Mr. Rod Stern (Chichester): 'Fifteen years of BBS field meetings.'

Mr. Robin Stevenson (Kings Lynn): 'Recording in Norfolk.'

Mr. Ray Woods (Countryside Council for Wales, Llandrindod Wells): 'Bryophyte communities.'

Accommodation will be in Suffolk Terrace, pleasantly situated on the University campus. UEA is approximately 2 miles along the B1108 from the junction with the Norwich southern bypass (A47), on the right hand side. Sunday's field excursion will take place at localities to the south and west of Norwich. Please contact Local Secretary for further details.

The ANNUAL GENERAL MEETING will be held at 4.30 p.m. on Saturday, 9 September, 1995, in the Arts Building of the University of East Anglia, Norwich.

#### AGENDA

1. Apologies for absence.
2. Minutes of the last A.G.M., Preston Montford Field Centre, near Shrewsbury, 1994 (see pp. 13-18 of this *Bulletin*).
3. Matters arising.
4. Reports of Officers for 1994 (see pp. 4-13 of this *Bulletin*).
5. Report from Council.
6. Election of Officers (see p. 23 of this *Bulletin*)
  - a) Vice President.
  - b) Treasurer.
  - c) Bibliographer.
  - d) Bulletin Editor.
  - e) Conservation Officer.
  - f) Curator.
  - g) Librarian.
  - h) Membership Secretary.
  - i) Publicity Officer.
  - j) Recorder for Hepaticae.
  - k) Recorder for Mosses.
7. Election of Elected Members of Council (see p. 23 of this *Bulletin*).
8. Membership subscriptions (see p. 23 of this *Bulletin*).
9. Place and date of the next Annual General Meeting.
10. Other future meetings.
11. Any other business.

#### **BRYOLOGICAL WORKSHOP 1995, Manchester Museum, 21-22 October.**

Local Secretary: Dr. Sean Edwards, The Herbarium, Manchester Museum, The University, Manchester, M13 9PL. Tel.: 0161 2752000.

The subject of this year's workshop, which Sean Edwards has kindly agreed to host and lead, is peristomes. The peristome of mosses is used extensively in the higher classification of mosses and in the separation of species in many genera (e.g. *Bryum*). However, peristome characters can sometimes be rather obscure to the uninitiated. The workshop will not be limited to the British bryoflora, but will endeavour to cover the full range of peristome structures to be found in the mosses, and will include instruction on the best ways to examine peristomes and interpretation of peristome characters.

## **SPRING FIELD MEETING 1996, Dolgellau, Gwynedd, 10-17 April.**

Local Secretaries: Tim Blackstock & Marcus Yeo, Countryside Council for Wales, Plas Penrhos, Penrhos Road, Bangor, Gwynedd, LL57 2LQ. Tel.: 01248 370444.

This meeting is taking place at the same venue as the last meeting in 1922 of Sections I and II of the Moss Exchange Club during which it was decided to amalgamate the two sections and form the British Bryological Society. The meeting will be part of the Centenary year celebrations. Further details in next *Bulletin*.

## **BBS CENTENARY SYMPOSIUM 1996, University of Glasgow, 4-8 August.**

**Local Secretary:** Dr J.H. Dickson, Department of Botany, The University of Glasgow, G12 8QQ. Tel.: 0141 339 8855, Fax 0141 330 4447.

**Bryology for the Second Century.** This important and forward-looking symposium will comprise invited contributions from an international team of workers at the forefront of current bryophyte research. The programme will include:

- N.W. Ashton (Regina, Canada): '*Physcomitrella* and the mode of action of auxin.'
- H. Bischler-Causse (Paris, France): 'Molecular taxonomy of liverworts.'
- R.S. Clymo (London, U.K.): 'Peatlands and global warming.'
- J.H. Dickson (Glasgow, U.K.): 'New discoveries in sub-fossil bryophytes.'
- J.G. Duckett (London, U.K.): 'Protonemal morphogenesis.'
- D. Edwards (Cardiff, U.K.): 'Origins of land plants: the palaeobotanical perspective.'
- T.A.J. Hedderson (Reading, U.K.): 'Origins of land plants: new evidence from molecular biology.'
- L. Hedenäs (Stockholm, Sweden): 'Cladistic analysis of pleurocarpous mosses.'
- G. Hendry (Sheffield, U.K.): 'The biochemistry of desiccation tolerance.'
- J.A. Lee (Sheffield, U.K.): 'Nitrogen and ozone pollution.'
- R.E. Longton (Reading, U.K.): 'Advances in population biology'
- R. Ligrone (Caserta, Italy): 'Conducting tissues in bryophytes.'
- D. Long (Edinburgh, U.K.): '*Asterella*; taxonomy on a global scale.'
- J. Martinez-Abaigar (Spain): 'Effects of light intensity on aquatic bryophytes.'
- J.A. Raven (Dundee) and H. Griffiths (Newcastle, U.K.): 'New perspectives in the biophysics and physiology of bryophytes.'
- K.S. Renzaglia (Johnson City, Tennessee, U.S.A.) and D. Garbary (Nova Scotia, Canada): 'Cladistic approaches to bryophyte phylogeny.'
- F. Sack (Ohio, U.S.A.): 'Gravitropism in bryophytes.'
- J. Shaw (Durham, N. Carolina, U.S.A.): 'Hybridization in mosses.'
- J. Silvola, H. Vasander and J. Jauhiainen (Joensuu, Finland): 'Effects of elevated nitrogen and carbon dioxide.'
- L. Söderström (Bergen, Norway) and T. Herben (Pruhonice, Czech Republic): 'Modelling the dynamics of bryophyte populations.'
- K.C. Vaughan (Mississippi, U.S.A.) and J. Hasegawa (Kyoto, Japan): 'Cytoskeletal proteins and the systematic position of the hornworts.'
- D.H. Vitt (Edmonton, Canada): 'Taxonomy of mosses; relationships of the major groups.'
- T. Wang (Norwich, U.K.) and D.J. Cove (Leeds, U.K.): 'Molecular development of *Physcomitrella* (The 'Euromoss Project').'

**Poster Sessions.** Offers of posters on any innovative aspect of bryophyte research are welcome and should be addressed to Dr Royce Longton, Department of Botany, University of Reading, Reading, RG6 2AS.

**Accommodation.** Accommodation will be in Queen Margaret Hall, Bellshaugh Road, Glasgow, at a cost of £20.15 per person per night for a single room. For details consult the Local Secretary, or the next issue of the *Bulletin*.

**Registration Fee.** There will be a modest registration fee of about £30.00, with a reduction for full-time students.

**Participation.** The Society looks forward to the participation of bryologists from throughout the world in its Centenary Symposium, and its Summer Field Meeting which will follow immediately afterwards (see below). Booking forms are available from the Local Secretary.

### **SUMMER FIELD MEETING 1996**

#### **(I) Ballachulish, Argyll, 10-17 August.**

Local Secretary: Gordon Rothero, Stronlonag, Glenmassan, by Dunoon, Argyll. Tel.: 01369 6281.

The BBS summer field meeting will immediately follow the Glasgow symposium. The first week will consist of a week in the west of Scotland, based at Ballachulish, at the gateway to Glencoe. It is intended to concentrate on the rich Atlantic bryophyte communities of the area, with trips to some of the finest oceanic woodlands in Europe, as well as to montane and coastal sites. Further details in next *Bulletin*.

#### **(II) Braemar, Kincardine & Deeside, 17-24 August.**

Local Secretary: Dr Noel Pritchard, Foresters' Cottage, Durris, Kincardine, AB31 3BD. Tel.: 01330 811215.

It is intended to explore the many and varied habitats to be found in the Braemar and Deeside area, including some classic Grampian and Cairngorm bryophyte sites and some bryologically lesser known ravines, pinewoods, etc. Further details in next *Bulletin*.

### **ANNUAL GENERAL MEETING AND SYMPOSIUM MEETING 1996: Ness Botanic Garden, Wirral, 20-22 September.**

Local Secretary: Dr Hugh McAllister, Ness Botanic Gardens, The University of Liverpool, Environmental & Horticultural Research Station, Ness, Neston, Wirral, Cheshire, L64 4AY. Tel.: 0151 3530123.

The unique setting of Ness Gardens has kindly been offered for the AGM in our centenary year. Further details in next *Bulletin*.

## LOCAL MEETINGS PROGRAMME, 1995

### SOUTHERN GROUP

If members that are not on the Southern Group mailing list would like details of the winter programme, please contact Howard Matcham on 01243-539113, or write to him at 111 Winterbourne Road, Summersdale, Chichester, West Sussex, PO19 4PB.

---

### OTHER BRYOLOGICAL MEETINGS, 1995

August 4-11, 1995: WOODLAND BRYOPHYTES. Tutor: Dr Martha Newton, Rhyd-y-creuau, Drapers' Field Centre, Betws-y-coed, Gwynedd, LL24 0HB. Offering individual guidance at all levels. Details from the Warden, Mr J. Ellis.

August 11-18, 1995: MOSSES AND LIVERWORTS. Tutor: Dr Martha Newton, Preston Montford Field Centre, Montford Bridge, Shrewsbury, SY4 1DX. Offering individual guidance at all levels. Details from the Warden, Ms S. Townsend.

August 18-25, 1995: MOSSES AND LIVERWORTS OF THE LAKE DISTRICT. Tutor: Dr Martha Newton, Blencathra Field Centre, Threlkeld, Keswick, Cumbria, CA12 4BR. Offering individual guidance at all levels. Details from the Warden, Dr R. Lucas.

August 26 - September 2, 1995: MOSSES AND LIVERWORTS. Tutor: Dr Martha Newton, Kindrogan Field Centre, Enochdhu, Blairgowrie, Perthshire, PH10 7PG. Offering individual guidance at all levels. Details from the Warden, Ms A. Gimingham.

---

### REPORTS OF LOCAL MEETINGS

#### South-East Group

Chiddingstone Ponds, v.-c. 16, 22 January 1994

Chiddingstone Ponds Nature Reserve, managed by the Kent Trust for Conservation, is near Tonbridge. The 17-acre former brickworks is now largely colonised by woodland with over 30 ponds and marshy areas in the old clay pits. Some parts are managed as grassland by regular cutting and scrub clearance, the result being an ecologically diverse site rich in birds, butterflies and dragonflies.

The main bryophytes are *Eurhynchium praelongum* and *Atrichum undulatum* with some *Mnium hornum* on the woodland floor, and *Pseudoscleropodium purum* dominant in the grassy areas. *Hypnum cupressiforme* is the main epiphyte, with *Ulota crispa* and the commoner *Orthotrichum* species on some trees. The very occasional occurrence of *Cirriphyllum piliferum*, *Thuidium tamariscinum* and *Polytrichum formosum* suggested a range of soil pH values. In the summer many of the ponds dry up and the neat rosettes of *Riccia fluitans* are common. *Calliergon cordifolium* is found in some of the marshy places, with *Rhizomnium punctatum* on some pond edges and ditches.

A total of forty-seven species was found, the rarest being *Zygodon conoideus*, on just one tree.

MALCOLM WATLING

A correction is needed to Roy Hurr's account of the Boxhill meeting, 4 December 1994, in *Bulletin* 65, p. 37. The *Hennediella* found by Malcolm Watling was not *H. stanfordensis* but *H. macrophylla*, det. H.L.K. Whitehouse.

MALCOLM WATLING

---

## SUBSCRIPTIONS

Elsewhere in this issue my Report on the 1994 accounts suggests that an increase in subscriptions is once again needed if the Society is to maintain its programme. Whilst our capital position is relatively good, half of this money belongs to the Side Bequest with its accrued interest and I could not use it to support the Society's existing planned programme unless so instructed by Council or the AGM. Council have therefore decided to propose to the AGM an increase in subscriptions payable by Ordinary Members from £15 to £20 as from 1 January, 1996. Overseas Members paying their subscriptions through Girobank will as at present be asked to include the transfer fee charged to the Society of (at present) £2.50 making £22.50 in all. Subscriptions for Family Members and Junior Members will remain at £1.00 and £7.50 respectively.

I very much regret the need for this proposal, coming only 5 years after the previous increase. Nevertheless, it is Council's belief that the proposed new subscription will be consistent with those paid by members of other similar Societies and still represents good value for money. With prudent management and provided that *J. Bryol.* sales hold up, I believe that we can maintain subscriptions at this level for at least five years.

ROY HURR

---

## ELECTION OF OFFICERS AND ELECTED MEMBERS OF COUNCIL

Dr J.W. Bates (Recording Secretary) has signified his wish to retire from office at the end of the year, and Mr A.R. Perry (Vice-President) will become President in 1996. The terms of ten other Officers, the Treasurer, Bibliographer, Bulletin Editor, Conservation Officer, Curator, Librarian, Membership Secretary, Publicity Officer, Recorder for Hepaticae and Recorder for Mosses, expire at the end of 1995, and their present incumbents are eligible for re-election. The three Elected Members of Council who retire at the end of 1995, Mr T.H. Blackstock, Mrs C.S. Rieser and Mr M.J. Wigginton, are not eligible for re-election in this capacity until two years have elapsed. Members are invited to submit nominations for Officers and Elected Members, sending them, in an envelope marked PRIVATE, to the General Secretary of the B.B.S., Dr M.E. Newton, c/o Botany Department, Liverpool Museum, William Brown Street, Liverpool, L3 SEN, to arrive no later than 12 August, 1995. A nomination must not be made without the consent of the person it is wished to nominate. If elections are needed, they will be held at the A.G.M. at the University of East Anglia, Norwich, on 9 September, 1995.

## B.B.S. COMMITTEES AND WORKING GROUPS

### Executive Committee

*Present composition (ex officio):* Dr R.E. Longton (President), Mr A.R. Perry (Vice-President), Dr M.E. Newton (General Secretary & Chief Executive Officer), Mr E.R. Hurr (Treasurer).

*Terms of reference:* To decide on matters of immediate importance.

*Convener:* Dr M.E. Newton, c/o Botany Department, Liverpool Museum, William Brown Street, Liverpool, L3 8EN.

### Honorary Membership Committee

*Present composition (ex officio):* Dr R.E. Longton (President), Dr M.E. Newton (General Secretary), Dr M.O. Hill, Prof. J.G. Duckett (Past Presidents).

*Terms of reference:* To advise Council on the nomination of Honorary Members.

*Convener:* Dr M.E. Newton (address as above).

### Editorial Board

*Present composition:* Dr J.W. Bates (Editor of *J. Bryol.*), Mr T.L. Blockeel, Dr D.H. Brown, Prof. J.G. Duckett, Dr J. Enroth, Dr S.R. Gradstein, Dr L. Hedenäs, Prof. J.A. Lee, Mr D.G. Long, Dr R.E. Longton, Dr M.E. Newton & Dr J.A. Shaw (Associate Editors), Dr P.E. Stanley (Indexing and Editorial Assistance), Mr H.W. Matcham (Editorial Assistance).

*Terms of reference:* Appointed by the Editor of the *Journal of Bryology* and reported to Council.

*Convener:* Dr J.W. Bates, Department of Biology, Imperial College at Silwood Park, Ascot, Berkshire, SL5 7PY.

### Conservation Committee

*Present composition:* Mr R.C. Stern (Conservation Officer), Mr N.G. Hodgetts (Secretary), Mr A.C. Crundwell, Dr P.H. Pitkin, Dr G.C.S. Clarke, Mr R.D. Porley, Mr G.P. Rothero, Mr T.H. Blackstock.

*Terms of reference:* As set out in *Bulletin 52: 56*.

*Convener:* Mr R.C. Stern, Botany Bay, Main Road, Fishbourne, Chichester, West Sussex, PO18 8AX.

### Recording Committee

*Present composition:* Dr J.W. Bates (Recording Secretary), Dr K.J. Adams, Mr C.D. Preston, Mr R.C. Stern, Dr M.O. Hill.

*Terms of reference:* As set out in *Bulletin 56: 20*.

*Convener:* Dr J.W. Bates, Department of Biology, Imperial College at Silwood Park, Ascot, Berkshire, SL5 7PY.

### Tropical Bryology Group

*Present composition of Executive Committee:* Mr B.J. O'Shea, Mr D.G. Long, Dr R.E. Longton, Dr A.J. Harrington, Mr R. Stevenson.

*Terms of reference:* a) To promote the study of tropical bryophytes. b) To involve as many members of the B.B.S. as possible in this activity. c) To support bryologists working in the tropics.

*Convener:* Mr B.J. O'Shea, 141 Fawnbrake Avenue, London, SE24 0BG.

### **Centenary Committee**

*Present composition:* Dr J.W. Bates, Dr G.C.S. Clarke, Prof. J.G. Duckett, Mr N.G. Hodgetts, Dr R.E. Longton, Dr M.E. Newton, Mr A.R. Perry, Dr J.H. Dickson.

*Terms of reference:* To formulate proposals to put to Council concerning ways of marking the Centenary of the Society, and to bring forward advanced plans.

*Convener:* Mr N.G. Hodgetts, Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough, PE1 1JY.

### **English Names Committee**

*Present composition:* Dr S.R. Edwards and six other members.

*Terms of reference:* To agree a list of preferred common names.

*Convener:* Dr S.R. Edwards, Manchester Museum, University of Manchester, Manchester, M13 9PL.

### **Side Bequest Committee**

*Present composition:* Prof. J.G. Duckett, Mr D.G. Long, Mr H.W. Matcham, Dr G.C.S. Clarke and, *ex officio*, Mr E.R. Hurr (Treasurer).

*Terms of reference:* To put forward recommendations for administering this fund.

*Convener:* Mr D.G. Long, The Herbarium, Royal Botanic Garden, Inverleith Row, Edinburgh, EH3 5LR.

### **Sales Committee**

*Present composition:* Dr K.J. Adams, Dr S.R. Edwards, Mr A.R. Perry.

*Terms of reference:* To formulate plans for future marketing.

*Convener:*

---

## **RECORDING MATTERS 10**

### **Regional Recorders**

The following is a list of Regional Recorders for vice-counties in Britain and Ireland. Completed bryophyte recording cards should be sent to the appropriate Recorder. If a vice-county is not listed the records should be sent directly to the Recording Secretary (address below) from whom new recording cards may also be obtained.

**1,2:** Miss R.J. Murphy, Shang-ri-la, Reskadinnick, Camborne, Cornwall, TR14 0BH

**3,4:** Mr M. Pool, 91 Warbro Road, Babbacombe, Torquay, Devon, TQ1 3PS

**5:** Mr B. Gale, 6 Roker Way, Fair Oak, Eastleigh, Hampshire, SO50 7LD

**6,33,34:** Mr P. Martin, Flat 5, Gloucester House Mews, 27 Gloucester Street, Wotton-under-Edge, Gloucestershire, GL12 7DN

**7:** Mr R.D. Porley, English Nature, Foxhold House, Thornford Road, Crookham Common, Newbury, Berkshire, RG15 8EL

**8,11:** Mr R.C. Stern, Botany Bay, Main Road, Fishbourne, Chichester, West Sussex, PO18 8AX

**9:** Dr M.O. Hill, Monks Wood Experimental Station, Abbots Ripton, Huntingdon, PE17 2LS

**10:** Mrs L. Snow, Ein Shemer, Upper Hyde Farm Road, Shanklin, Isle of Wight, PO37 7PS

**12:** Mr A.C. Crundwell, Acorn Cottage, 12 Kay Crescent, Headley Down, Hampshire, GU35 8AH

**13,14:** Mr H.W. Matcham, 111 Winterbourne Road, Summersdale, Chichester, West Sussex, PO19 4PB  
**15:** Mr M.C. Watling, 13 Addington Street, Margate, Kent, CT9 1PN  
**16:** Mr E.R. Hurr, 6 The Woodlands, Chelsfield, Orpington, Kent, BR6 6HL  
**17:** Mr P.G. Adams, 29 Cox Lane, Chessington, Surrey, KT9 1DF  
**18,19,21:** Dr K.J. Adams, 63 Wroths Path, Baldwins Hill, Loughton, Essex, IG10 1SH  
**20:** Mr G. Smith, 59 Tippet Court, Stevenage, Herts, SG1 1XR  
**22:** Dr J.W. Bates, Imperial College at Silwood Park, Ascot, Berkshire, SL5 7PY  
**23:** Mr G. Bloom, 15 Tatham Road, Abingdon, Oxon., OX14 1QB  
**24:** Dr S.V. O'Leary, J.J. Thomson Physical Laboratory, P.O. Box 220, Whiteknights, Reading, RG6 2AF  
**25,26:** Mr R.J. Fisk, 1 Paradise Row, Ringsfield, Beccles, Suffolk, NR34 8LQ  
**27,28:** Mr R. Stevenson, 111 Wootton Road, Kings Lynn, Norfolk, PE30 4DJ  
**29:** Dr H.L.K. Whitehouse, Botany School, Downing Street, Cambridge, CB2 3EA  
**30:** Mr A.R. Outen, 15 Manor Close, Clifton, Shefford, Beds., SG17 5EJ  
**31,76,86-88,99:** Mr N.G. Hodgetts, Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough, PE1 1JY  
**32,60:** Mr M.J. Wigginton, 36 Big Green, Warmington, Oundle, PE8 6TU  
**35,41,44:** A.R. Perry, Department of Botany, National Museum of Wales, Cardiff, CF1 3NP  
**36:** P.J. Port, Hollybush Cottage, Newton Lane, Kington, Hereford, HR5 3NG  
**38:** Mr J.H. Field, 34 Wells Green Road, Solihull, West Midlands, B92 7PG  
**40:** Mr R. Shoubridge, 8 Mary Elizabeth Road, Ludlow, Shropshire, SY8 1LW  
**42,43,47:** R.G. Woods, Countryside Council for Wales, 3rd Floor, The Gwalia, Ithon Road, Llandrindod Wells, Powys, LD1 6AA  
**45:** Dr P.M. Rhind, Countryside Council for Wales, Directorate of Science & Policy Development, Plas Penrhos, Bangor, Gwynedd, LL57 2LQ  
**46:** Mr A. Hale, 26 Garth Dinas, Penparcau, Aberystwyth, Dyfed, SY23 3RZ  
**48-52:** T.H. Blackstock, Countryside Council for Wales, Directorate of Science & Policy Development, Plas Penrhos, Bangor, Gwynedd, LL57 2LQ  
**53,54:** Prof. M.R.D. Seward, School of Environmental Science, University of Bradford, Bradford, BD7 1DP  
**55:** D.W. Ballard, 84 Leicester Road, Groby, Leicester, LE6 0DN  
**57,61-65:** T.L. Blockeel, 9 Ashfurlong Close, Dore, Sheffield, S17 3NN  
**58:** A.V. Smith, 1 Carr Meadow Cottages, Glossop Road, Little Hayfield, via Stockport, Cheshire, SK12 5NR  
**59:** Mr J. Lowell, 37 Henley Avenue, Cheadle Hulme, Cheshire, SK8 6DE  
**66:** Rvd G.G. Graham, 3 The Willows, Bishop Auckland, Co. Durham, DL14 7HH  
**67,68:** Mr T.S. Wharton, Low Barns, Witton-le-Wear, Bishop Auckland, County Durham, DL14 0AG  
**69,70:** F.J. Roberts, Eden Croft, Wetheral Pasture, Carlisle, Cumbria, CA4 8HU  
**72-74:** Dr C. Miles, Braeside, Boreland, Lockerbie, Dumfries, DG11 2LL  
**79,80:** R.W.M. Corner, Hawthorn Hill, 36 Wordsworth Street, Penrith, Cumbria, CA11 7QZ  
**81:** D.G. Long, Royal Botanic Garden, Edinburgh, EH3 5LR  
**82-84:** Dr D.F. Chamberlain, Royal Botanic Garden, Edinburgh, EH3 5LR  
**89,96:** Mr J.A. McMullen, 5 Alder Road, Mansewood, Glasgow, G43 2UY  
**97,98,105:** G.P. Rothero, Stronlonag, Glenmassan, By Dunoon, Argyll, PA23 8RA  
**100:** Mrs K.M. Cocking, 4 Ashwood Crescent, Marple, Stockport, Cheshire, SK6 6LS  
**101-104,110:** M.F.V. Corley, Pucketty Farm Cottage, Faringdon, Oxfordshire, SN7 8JP

**Channel Islands:** C.D. Preston, Monks Wood Experimental Station, Abbots Ripton, Huntingdon, PE17 2LS

**Ireland:**

**H8:** Elinor Wiltshire, 62 Carroll House, Craven Terrace, Lancaster Gate, London, W2 3PR

**H36-40:** Mr P. Hackney, Ulster Museum, Botanic Gardens Belfast, Belfast, BT9 5AB

It is a pleasure to welcome new Recorders for v.-cs 5, 59, 67, 68, 89 & 96. The Recording Secretary is always pleased to hear from volunteers who would like to become Regional Recorders – there are still plenty of vacant vice-counties in the less populous regions where much remains to be done!

**Recording cards**

Stocks were exhausted by the end of 1994 but BRC has printed a new batch and these are now available again from the Recording Secretary. Please specify whether you require the SE (RP23) or standard (RP22) versions.

**BRC records**

I apologise for the non-arrival to Regional Recorders of the promised records. Chris Preston tells me that he has been too busy with other projects to give attention to this but he hopes to be able to start sending out the data, bit by bit, over the coming months. Please be patient! I can report that all completed bryophyte cards received by me from Regional Recorders over the past five years were handed over to Chris at BRC on 18 May for update of the computerised bryophyte database.

*Dr Jeff Bates, Department of Biology, Imperial College at Silwood Park, Ascot, Berkshire, SL5 7PY*

---

**B.B.S. LIBRARY SALES AND SERVICE 1995**

**FOR LOAN (U.K. Members only):**

Members wishing to borrow books or papers are advised to consider whether a Xerox copy of the appropriate pages would suffice instead of the original in those cases where copyright has expired. Charge 10p per exposure. Limit 50.

(a) Approximately 250 bryological books and journals and several thousand offprints of individual papers. A catalogue of the books and journals is available, price £1.00.

(b) Transparency collection, list available (s.a.e.). 630 slides in the collection. Loan charge (to cover breakage of mounts) 50p plus return postage. Only 50 slides may be borrowed at a time to minimize possible loss or damage.

(c) Microscope stage-micrometer slide for calibration of eyepiece graticules. 10µm divisions. Loan deposit £45.00.

**FOR SALE:**

British Bryological Society Bulletins: back numbers from no. 23 @ £1.00 each.

Transactions of the British Bryological Society/Journal of Bryology:

Vol. 1	parts 1-5	(£2.40 each) £12.00 per volume
Vol. 2	part 1-4	(£3.00 each), part 5 out of print

Vol. 3	parts 1-5	(£2.40 each) £12.00 per volume
Vol. 4	parts 1, 3-5	(£2.40 each), part 2 out of print
Vol. 5	parts 1-4	(£3.00 each) £12.00 per volume
Vol. 6	parts 1-2	(£6.00 each) £12.00 per volume - ends series of <i>Transactions</i>
Vols. 7-9	parts 1-4	(£5.00 each) £20.00 per volume - renamed <i>Journal of Bryology</i>
Vol. 10	parts 1,3,4	(£8.00 each), part 2 out of print
Vol. 11	parts 1-4	(£10.00 each) £40.00 per volume
Vol. 12	parts 1-3	(£11.50 each), part 4 out of print
Vol. 13	parts 1-4	(£15.50 each) £62.00 per volume
Vol. 14	parts 1-4	(£18.00 each) £72.00 per volume
Vol. 15	parts 1-4	(£22.50 each) £90.00 per volume
Vol. 16	parts 1-4	(£29.75 each) £119.00 per volume
Vol. 17	parts 1-4	(£39.50 each) £158.00 per volume
Vol. 18	parts 1,2	(£42.25 each)

#### B.B.S. Special Volumes:

1. Longton, R.E. & A.R. Perry, 1985. Proceedings of Jubilee Meeting 1983, 89 pp. (£6.00)
2. Newton, M.E., 1989. A Practical Guide to Bryophyte Chromosomes, 19 pp. (£2.50)
3. O'Shea, B.J., 1989. A Guide to Collecting Bryophytes in the Tropics, 28 pp. (£3.50)
4. Edwards, S.R., 1992. Mosses in English Literature, 44 pp. (£2.50)

#### Census Catalogues:

Duncan, J.B., 1926. Census Catalogue of British Mosses, 2nd edition	(20p)
Sherrin, W.R., 1946. Census Catalogue of British Sphagna	(20p)
Warburg, E.F., 1963. Census Catalogue of British Mosses, 3rd edition	(20p)
Paton, J.A., 1966. Census Catalogue of British Hepatics, 4th edition	(20p)
Corley, M.F.V. & M.O. Hill, 1981. Distribution of Bryophytes in the British Isles: a census catalogue of their occurrence in vice-counties	
Price incl. p.& p.: members (£5.00), non-members (£6.00), trade (£4.00)	

#### Other items:

Evans, D.E. & A.R. Perry, 1987. Moss Wall Chart	Price incl. p.& p. (£2.80)
Grolle, R., 1983. Hepatics of Europe and the Azores: an annotated list of species with synonyms	Price incl. p.& p. (£2.50)
Newton, M.E. <i>et al.</i> (eds), 1988. Bryology: modern research and the ways forward	(£5.50)
Pearman, M.A., 1979. A short German-English bryological glossary	(£0.50)
Perry, A.R., 1992. Mosses and liverworts of woodland, 41 pp.	(£2.95)
BBS Tie, claret with single BBS logo	(£4.95)
Swift x20 handlens and leather case	(£11.70)
Patterson no. 2 stainless steel forceps	(£2.00)
Idealtek no 3 stainless steel forceps	(£9.30)
Eyepiece graticule 1 cm x 10 micrometer, 16 mm. diam	(£25.00)

\*\*\*\*\*  
PLEASE DO NOT INCLUDE CASH WITH ORDERS. Customers will be invoiced for the correct amount including p.& p. (postage and packing is extra unless stated). Address label legibly printed would be appreciated. All the above are available from the BBS Librarian:  
*Kenneth J. Adams, 63 Wroths Path, Baldwins Hill, Loughton, Essex, IG10 1SH, U.K.*

## *Marchantia polymorpha* in Britain and Ireland

DAVID G. LONG

Royal Botanic Garden, Edinburgh, Scotland

### Introduction

The taxonomy of *Marchantia polymorpha* in the broad sense has always been confused to some extent in the British Isles and beyond, with uncertainty over both taxonomic and ecological boundaries and geographical distribution. As a result old literature reports are often difficult to interpret.

The number of taxa recognised this century has varied from one to three. Pearson (1902) maintained only *M. polymorpha*, but Macvicar's work (1905, 1912) included three taxa and his treatment became generally accepted: he recognised *M. polymorpha* (the typical widespread plant) and two varieties, var. *aquatica* Nees and var. *alpestris* Nees. In the first edition of the *Census Catalogue of British Hepatics*, Macvicar (1905) recorded the 'typical' *M. polymorpha* from 44 vice-counties, var. *aquatica* Nees from one vice-county (v.-c. 59) and var. *alpestris* Nees from two (v.-c.s 88 and 92). Ingham (1913), in the second edition of the *Census Catalogue*, recorded the 'typical' *M. polymorpha* from 84 vice-counties, var. *aquatica* Nees from 5 vice-counties and var. *alpestris* Nees from only two (v.-c.s 88 and 92). By the third edition, Wilson (1930) increased these to 89 vice-counties for typical *M. polymorpha*, 12 for 'forma' *aquatica* and 3 for 'forma' *alpestris*. In the fourth edition, Paton (1965) maintained them as varieties, with 133, 45 and 13 vice-counties respectively.

A recent trend has been to reduce the number of taxa: Corley & Hill (1981) recognised two taxa, but elevated them to specific rank as *M. polymorpha* L. and *M. alpestris* (Nees) Burgeff. Smith (1990) took this further and reduced them to only one taxon, *M. polymorpha* L. This was followed by Hill, Preston & Smith (1991). This reduction was not adopted by Schuster (1992) for North American *Marchantia*: on the contrary he treated the same three taxa as species – *M. polymorpha*, *M. alpestris* and *M. aquatica*. Recent publications have, it seems, done little to clarify the situation.

As part of a worldwide monograph of *Marchantia*, Bischler-Causse & Boisselier-Dubayle (1991) and Bischler-Causse (1993) have undertaken new morphological and phytochemical studies on *Marchantia polymorpha*. They concluded that in Europe the aggregate comprises a single species with three subspecific taxa: subsp. *polymorpha*, subsp. *montivagans* and subsp. *ruderalis*.

Because of difficulties of nomenclature and typification, the last two of these subspecies were described as new. However they could not avoid the controversial issue of which of the three taxa the original *M. polymorpha* of Linnaeus represented. In studying this problem (Bischler-Causse & Boisselier-Dubayle, 1991) they designated a Dillenian illustration (with a supporting specimen) as type. This was called 'Water Liverwort' by Dillenius and is identical to the traditional var. *aquatica*. Therefore, they concluded that the 'true' *Marchantia polymorpha* is what was formerly called var. *aquatica*, and not what is now called var. *ruderalis*, as had been generally supposed. This conflicts with Schuster's application of the names.

Their three taxa equate in the greater part with the taxa traditionally recognised in the British Isles: subsp. *polymorpha* equates with the former *M. polymorpha* var. *aquatica*;

subsp. *montivagans* is the same as the former *Marchantia alpestris*, *M. polymorpha* forma *alpestris* and var. *alpestris*; and subsp. *ruderalis* is approximately the former 'true' *M. polymorpha*.

### Taxonomic distinction of the subspecies

The morphological differences given by Bischler-Causse & Boisselier-Dubayle (1991) and Bischler-Causse (1993) for the three subspecies are summarised in the table below.

subspecies	thallus colour	thallus habit	thallus width	black line	branching	appendage margins	fertility
<i>polymorpha</i>	dark green	erect	>9 mm	strong	remote	entire	infrequent
<i>ruderalis</i>	green	prostrate	<9 mm	indistinct	dense	sharply toothed	frequent
<i>montivagans</i>	yellowish-green	usually prostrate	>9 mm	absent	dense	toothed	frequent

The most easily-recognised subspecies is subsp. *polymorpha*, on account of its (a) thin elongate little-branched dark green thalli with (b) a very strong median black line and (c) entire appendages to the median ventral scales (those visible from above in the apical notch of the thallus). The other two subspecies differ from subsp. *polymorpha* in their (a) shorter more branched paler green thalli, thicker and leathery in texture (b) median black line absent or weakly developed and (c) strongly toothed appendages on the median ventral scales.

Subsp. *ruderalis* and *montivagans*, are typically distinct from each other but can sometimes be difficult to distinguish. Morphologically they appear to be closely allied to each other but less so to subsp. *polymorpha*. Subsp. *ruderalis* is normally smaller in size and prostrate and usually has at least an indistinct median black line. However, some forms of subsp. *ruderalis* (notably those from moister habitats especially river banks) can be almost as robust as subsp. *montivagans*, and sometimes lack virtually all trace of a black line. Such plants are difficult to distinguish but a useful character (J.A. Paton, *in litt.*) is the angle of divergence of the branches: mostly 30 to 60° in subsp. *ruderalis* and mostly 60 to 90° in subsp. *montivagans*. Subsp. *montivagans* is also paler and more yellowish-green in colour.

### Revision of British and Irish material

On the basis of these characters the distributions of the three subspecies have been revised. Material from BBSUK, BEL, BM, CGE, DBN, E, GL, NMW and OXF and some private herbaria has been checked. These specimens demonstrate the broad distributions of the subspecies, though many gaps remain and a number of old published records are not accounted for. These must await re-collection or location of a voucher specimen. Because of the obscurity and doubtful basis of many old published vice-county records of '*M. polymorpha*', it has been necessary to accept only those supported by a voucher specimen. Unsubstantiated reports have therefore been ignored.

The revised British and Irish distributions of the three subspecies are presented in two ways, by vice-county distribution and by 10 km grid squares.

### 1. Revised vice-county distribution:

Subsp. *polymorpha*: 2-6, 11-14, 17, 19, 20, 22-24, 26-29, 31, 32, 34-36, 38, 39-43, 49, 51, 52, 57-62, 64-70, 72-78, 80-83, 85-90, 92, 94-96, 98, 99, 101, 104, 106, 108-112. H1, 2, 6, 7, 10, 11, 13, 15, 16, 18, 20-22, 25, 27-30, 32-40.  
Subsp. *ruderalis*: 1-3, 5, 6, 8-25, 27, 29-37, 39-42, 44, 46, 48, 49, 55-66, 68-70, 73, 77, 78, 80-83, 85, 86, 88-97, 103, 107, 108, 111. H1, 7, 9, 16, 17, 21-23, 25, 29, 30, 33, 37-39. C.  
Subsp. *montivagans*: 52, 64, 68, 70, 72, 77, 80-83, 85, 88-93, 95-98, 105, 106, 108, 112. H28.

In the Appendix below are listed vice-county 'voucher' specimens of the three subspecies. For subsp. *montivagans* all vouchers are listed, because of past confusion. For subsp. *polymorpha* and subsp. *ruderalis* the distribution of Paton (1964) is taken as a base-line as she correctly distinguished the two subspecies (later treatments have united them). Only vouchers for additional records are listed. In some cases only a very old voucher has been seen. In the case of subsp. *polymorpha* and subsp. *montivagans* this may genuinely reflect subsequent extinction, but in such cases the localities should first be checked by local recorders before extinction is confirmed. It is unlikely that subsp. *ruderalis* has become extinct in any vice-county.

Of the vice-counties listed by Corley & Hill (1981) for the aggregate, material has not been seen from: 7, 45, 47, 50, 53, 54, 79, 84, 100, H3, 5, 8, 19, 24, 31. *Marchantia polymorpha* should be sought in these counties. Full lists of checked specimens for specific counties or regions are available from the author and will be deposited with the BBS Recorder for Hepaticae.

### 2. Revised 10 km grid square distribution:

The known British and Irish distributions of the three subspecies are mapped in Figs. 1, 2 and 3. The maps give a reasonable indication of the distribution, but are still very incomplete, especially in Scotland and Ireland. Subsp. *polymorpha* is generally distributed. It is the most-recorded subspecies in Ireland but this does not appear to reflect any clear oceanic pattern. Its habitats are probably more abundant in Ireland. Subsp. *ruderalis*, as expected, is most-recorded in the most densely-populated parts of the country. It is rare in western Scotland and Ireland. Subsp. *montivagans* shows the most restricted distribution: it is common only in south-east Scotland and the eastern Highlands. This suggests a continental influence to its range.

## Discussion

Traditionally, the ruderal form has been regarded as the typical *M. polymorpha*, e.g. by Macvicar (1912). This treatment has been followed by Müller (1951-1954) and Schuster (1992), but must now be abandoned. The other perhaps unexpected implication from Bischler-Causse and Boisselier-Dubayle's (1991) work is that the most distinctive of the three subspecies is subsp. *polymorpha*. Indeed, on the basis of the thallus morphology and ventral scale margins it could be argued that there are two not one species present in Europe: *M. polymorpha* s.s. (var. *aquatica*) and a second species comprising *ruderalis* and *montivagans*. Such a solution would create new nomenclatural problems.

In the British Isles 'var. *aquatica*' was the taxon which was considered least distinct from var. *polymorpha* and Corley & Hill (1981) united the two under *M. polymorpha* and kept *M. alpestris* separate.

In fact, it is now clear that var. *aquatica* was correctly treated as a good taxon, and virtually all old British and Irish specimens named var. *aquatica* were correctly identified

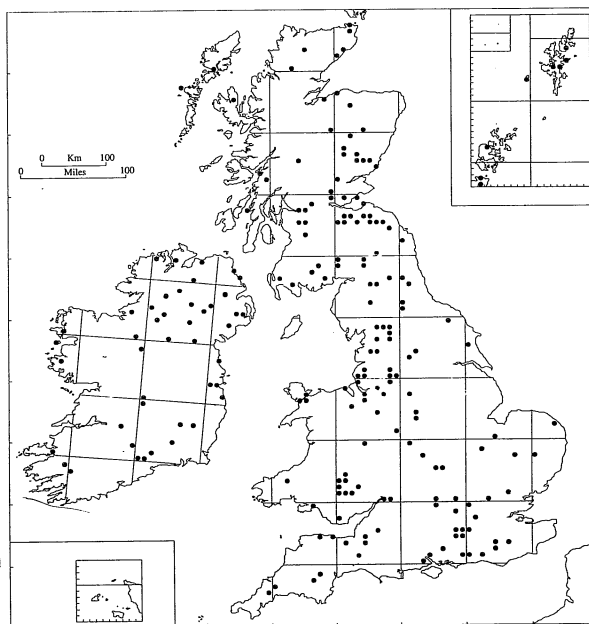


Fig. 1. Map of the distribution of subsp. *polymorpha* in Britain and Ireland.

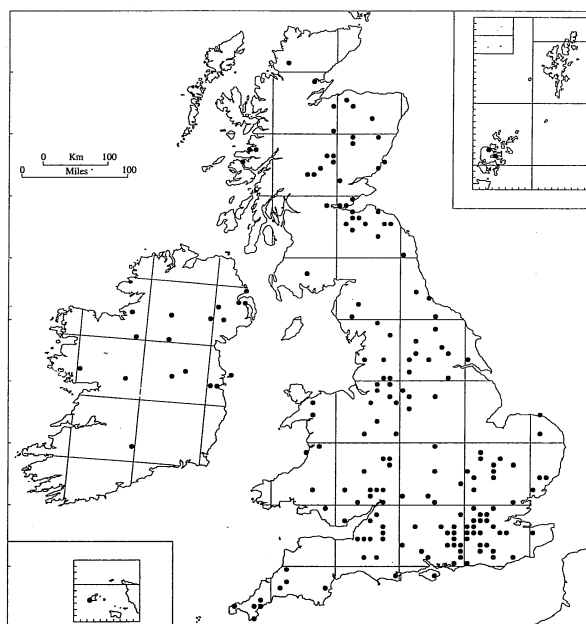


Fig. 2. Map of the distribution of subsp. *ruderalis* in Britain and Ireland.

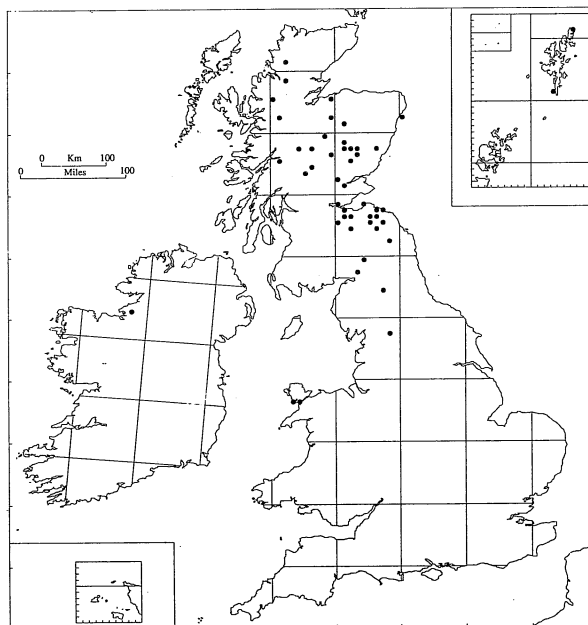


Fig. 3. Map of the distribution of subsp. *montivagans* in Britain and Ireland.

(now called subsp. *polymorpha*) and the vice-comital distribution of Paton (1965) is thus essentially accurate though incomplete. The greater problem was in fact with subsp. *ruderalis* which was inadequately understood: plants from disturbed habitats with a faint median black line were often wrongly identified as *M. alpestris*. Consequently, the v.-c. distribution of subsp. *montivagans* has had to be radically pruned, in effect removing the erroneous records of '*M. alpestris*' from lowland disturbed and man-made habitats, specimens which rightly belong to subsp. *ruderalis*.

### Ecology

Subsp. *polymorpha* typically grows in natural wet habitats such as bogs, fens and marshes, damp streambanks and lake shores. It is especially common on damp silty rocks and boulders in and beside streams. Occasionally it grows on wet peat or on *Sphagnum*. It occurs from sea level (Achill Island) up to 450 m (Lammermuir Hills).

Subsp. *ruderalis* typically grows in anthropogenic or disturbed lowland habitats, such as glasshouses, plant-pots, old railways, footpaths, waste ground, spoil heaps, disturbed streambanks, often in towns and cities. It is recorded from sea-level up to 240 m, but probably occurs higher than this.

Subsp. *montivagans*, like subsp. *polymorpha*, is typical of springs, marshes, flushes, usually somewhat calcareous, and is mostly subalpine or montane in Britain, apart from records from coastal dune-slacks e.g. in v.-cs 52, 82, 93 and 112. Another characteristic habitat is on damp calcareous mossy banks and rocks on streambanks and in ravines. It grows at 1100 m on Ben Lawers.

All three subspecies are recorded from damp rocks and boulders by streams. Subsp. *polymorpha* commonly grows in this habitat but can readily be identified by its broad median black band. However, it is in this habitat that the distinction between subsp. *ruderalis* and subsp. *montivagans* can be difficult. In such habitats subsp. *ruderalis* can be as robust as subsp. *montivagans*. Usually the colour of the plants differs and at least a faint median band can be detected.

There is no good evidence for decline or increase in range of the three subspecies. Subsp. *montivagans* is the rarest and has the most specialised ecology and must have suffered some decline through drainage of wetland habitats. The most weedy of the three, subsp. *ruderalis*, is likely to have spread through increased urbanisation and particularly through the horticultural trade. It commonly becomes established in horticultural nurseries and must be regularly spread by this means. The earliest specimen seen of subsp. *ruderalis* is one collected in London in 1730 by Isaac Rand, which is proof that the subspecies has been present in Britain for at least 260 years.

### Acknowledgements

The author wishes to acknowledge Mrs J.A. Paton for considerable advice and help in supplying records and specimens, unpublished information based on her own studies, and for critically checking the manuscript. The Curators of BBSUK, BM, BEL, CGE, DBN, GL, NMW and OXF are thanked for arranging large loans of specimens. C.D. Preston and the staff of the Biological Records Centre, Monks Wood are thanked for help with tracing localities and printing the distribution maps. D.M. Synnott is thanked for help with Irish localities.

### References

- Bischler-Causse H. 1993.** *Marchantia* L. The European and African taxa. *Bryophytorum Bibliotheca* 45: 1-129.
- Bischler-Causse H, Boisselier-Dubayle MC. 1991.** Lectotypification of *Marchantia polymorpha* L. *Journal of Bryology* 16: 361-365.
- Corley MFV, Hill MO. 1981.** *Distribution of bryophytes in the British Isles. A census catalogue of their occurrence in vice-counties.* Cardiff: British Bryological Society.
- Hill MO, Preston CD, Smith AJE. 1991.** *Atlas of the Bryophytes of Britain and Ireland. Volume 1. Liverworts.* Colchester: Harley Books.
- Ingham W. 1913.** *A Census Catalogue of British Hepatics.* 2nd edition. Darwen: Moss Exchange Club.
- Macvicar SM. 1905.** *Census Catalogue of British Hepatics.* York: Moss Exchange Club.
- Macvicar SM. 1912.** *The Student's Handbook of British Hepatics.* Eastbourne: Sumfield.
- Müller K. 1951-1954.** *Die Lebermoose Europas.* In: *Rabenhorst's Kryptogamen-Flora.* 3rd edition, part 1. Leipzig: Geest & Portig.
- Paton JA. 1965.** *Census Catalogue of British Hepatics (4th edition).* British Bryological Society.
- Pearson WH. 1902.** *The Hepaticae of the British Isles.* 2 volumes. London: Reeve & Co.
- Smith AJE. 1990.** *The Liverworts of Britain and Ireland.* Cambridge: Cambridge University Press.
- Schuster RM. 1992.** *The Hepaticae and Anthocerotae of North America.* Volume 6. Chicago: Field Museum of Natural History.
- Wilson A. 1930.** *A Census Catalogue of British Hepatics.* 3rd Edition. Berwick-on-Tweed: British Bryological Society.

## APPENDIX: Revised British and Irish Distributions of subspecies of *Marchantia polymorpha*

Note: the voucher selected is the first well-localised specimen. Grid references in [ ] have been added.

**a. subsp. *polymorpha*:** records additional to those listed by Paton (1965) for var. *aquatica*:

### Deletions:

Delete (71), no voucher traced.

### Additions:

Peaty soil on edge of pool in old gravel pits, Red Moor near Tredinnick, Bodmin 20/06 (2), vi 1962, J.A. Paton (OXF); on rocks in East Lyn River, Southern Wood, east of Brendon, 21/74 (4), ix 1970, J. Appleyard (NMW); drained bed of Fleet Pond [41/85] (12), viii 1941, E.C. Wallace (BM) [mixed with *ruderalis*]; on partly submerged concrete and brickwork of lock and bridge, Grand Union Canal, Cassobury Park, Watford [51/09] (20), ix 1966, P.D. Coker (NMW); wet hollow in calcareous fen, Thelnetham Old Fen [62/07] (26), v 1959, F. Rose (NMW); calcareous fen, Great Fen, Catfield, 63/32 (27), vii 1974, F. Rose (NMW); Blo' Norton Fen [62/07] (28), vi 1938, E.C. Wallace (NMW); in *Juncus* etc., at the margin of Gray's Moor Pits, N of March, 53/40 (29), iv 1967, E.R.B. Little & J.G. Duckett (BBSUK); ironstone block in lake, Fawsley Park [42/55] (32), vi 1965, T. Laffin 13197 (CGE); stones in stream, 1250ft., S slope of Sugar Loaf, Abergavenny, 32/21 (35), v 1980, G.W. Garlick 164a (NMW); Coombe Abbey lake bed, near Coventry [42/37] (38), xii 1943, W.B. Turrill (BM); peat bogs, Cannock Chase [33/91] (39), vi 1926, P.G.M. Rhodes 2637 (BBSUK, NMW, OXF, mixed with *ruderalis*); margin of pool, Wildmoor, Longmynd [32/49] (40), v 1970, T. Laffin 17559 (CGE); Boughrood [32/13] (43), vi 1933, H.A. Hyde (NMW); rocks by the Wenning, near Wennington West [34/66] (60), viii 1899, A. Wilson (NMW); Lastingham [44/79] (62), v 1899, W. Ingham (BM); dripping rocks, Chopwell Woods [45/15] (66), vi 1933, E.M. Lobley (BBSUK); Till bank, near Weetwood Hall [46/02] (68), x 1926, J.B. Duncan & W.C. Millar (BBSUK); flat sandstone rocks by stream in ravine, above Low Gelt Bridge near Brampton [35/55] (70), ix 1959, E.F. Warburg (OXF); Holme Glen, New Galloway [25/67] (73), ix 1899, J. McAndrew (E); Darvel [26/53] (75), viii 1900, P. Ewing (GL); Possil Marsh [26/55] (77), vi 1961, coll.? (GL); banks of Medwyn Water above Medwyn Head [36/05] (78), viii 1904, W. Evans (E); rocks in stream bed, Black Burn, Newcastleton [35/48] (80), vii 1952, D.A. Ratcliffe (E); muddy rocks in stream, R Dye, Rathburn, Longformacus 36/65 (81), x 1971, D.G. Long 1792 (E); Luffness Links [36/48] (82), vii 1898, W. Evans (E); small pool by disused railway with *Sphagnum* etc., Wemyss Firs near Kirkcaldy [36/39] (85), v 1972, H. Caldwell (BBSUK, E); woodland ride, Dougalston near Milngavie [26/57] (86), ix 1953, A.C. Crundwell (NMW); pond side, Schaw Park near Alloa, [26/99] (87), 1847, R.K. Greville (E); ditch near Leitchfield Loch, parish of Ardersier [28/85] (96), vii 1844, A. Croall (BM); swamp by Kilcheran Loch, Lismore [17/83] (98), vii 1949, E.C. Wallace (NMW); hills behind Bowling [26/47] (99), vi 1849, coll.? (E); in sedges in small loch, Danna na Cloiche, Danna, Loch Sween, Kintyre [16/67] (101), viii 1966, E.C. Wallace (BBSUK); amongst rocks in stream running into Loch Leathan, Skye [18/45] (104), ix 1959, M.A.P. Madge (BBSUK); calcareous spring by stream ravine, stream W of Lubcroy, Strath Oykel [29/30] (106), vii 1966, U.K. Duncan (E; BBSUK); in flush on margin of boggy valley floor, 80m, R Mudale near Altnaharra, 29/53 (108), vii 1988, D.G. Long 15108 (E); Achnaclyth, Dunbeath [39/13] (109), vi 1899, D. Lillie (GL); meadow, Akerness, Evie [3N0/32] (111), vii 1905, M. Spence 890 (E); beside Isbister Loch, Whalsey [4N1/56] (112), viii 1907, D. Lillie (GL); rocks under bank of Finglas River, Camp, [Q/70] (H1), vii 1955, A.P. Fanning 1908 (DBN); submerged, Ross Island, Killarney [V/98] (H2), viii 1936, W.B. Turrill (BM); Knockmealdown Mountains [S/00] (H6), vii 1933, E. Armitage (BBSUK); among boulders by the stream, Knockastakeen, Galtee Mountains [R/92] (H7), viii 1966, J.W. Fitzgerald (BBSUK); on wet rocks by river in wooded valley, Clare Glen near Newport [R/75] (H10), ix 1967, H.H. Birks, H.J.B. Birks & D.A. Ratcliffe (BBSUK); rocks in R Nore, Dysart Castle, Inistoge [S/53] (H11), ix 1966, J.G. Duckett (BBSUK); earth bank by stream, Farranafreny, Leighlinbridge [S/66] (H13), x 1969, J.W. Fitzgerald (BBSUK); silted rocks beside Boleyneendorish River, Slieve Aughty 12/55 06

(H15), vii 1994, J.A. Paton 7621 (BBSUK); Muckanaght [L/75] (H16), viii 1957, M. Forsyth (BEL); Glencullen River, Enniskerry [O/21] (H20), viii 1975, D.M. Synnott (DBN); near Dublin [O/13] (H21), T. Taylor (BM); on fallen mud-covered tree at water level, R. Nanny, E of Cooper Hill Bridge, Julianstown [O/17] (H22), ix 1978, D.M. Synnott (DBN); marsh near Knockvicar Bridge, Boyle River [G/80] (H25), x 1971, L. Farrell (DBN); Clare Island [L/68] (H27), viii 1909, R.L. Praeger (DBN); in standing water, calcareous marsh, Lough Duff [H/63] (H32), vii 1980, N. Lockhart (BBSUK); on rocks in river, Crana River, Ballymagan, E of Buncrana, [C/33], ix 1967 (H34), J.W. Fitzgerald (BBSUK); on edge of Sessiagh Lough, Dunfanaghy [C/03] (H35), v 1969, J.A. Paton (NMW); on limestone pavement at edge of river, Corick Bridge near Newtown Stewart [H/48] (H36), ix 1956, M.P.H. Kertland & J.W. Fitzgerald (BBSUK, BEL); on wall of mill leat, Carrickaness near Benburb, [H/85] (H37), ix 1966, J.W. Fitzgerald (BBSUK); among rushes etc., Rathfriland [J/23] (H38), vii 1887, C.H. Waddell (BM).

**b. subsp. *ruderalis*:** records additional to those listed by Paton (1965) for '*M. polymorpha*':

*Deletions:*

Delete 4, 7, 26, 28, 38, 43, 45, 47, 50-54, 67, 72, 74-76, 79, 84, 87, 98-101, 104, 106, 109, 110, 112, H3, 5, 6, 8, 10, 18, 19, 20, 27, 28, 31, 35, 36. Many of the vouchers for these records are subsp. *polymorpha*.

*Additions:*

Shanklin [40/58] (10), viii 1854, Ralfs (BM); bank of the Spey, Craigellachie [38/24] (94), vi 1962, A.C. Crundwell (BBSUK); by lower part of Allt nam Uamh, Inchnadamph [29/21] (108), ix 1960, E.F. Warburg (OXF); forestry road in woods N of Knockastockeen, Galtee Mountains, [R/92] (H7), viii 1966, J.A. Paton (BBSUK).

**c. subsp. *montivagans*:** all vouchers:

Wet ditch, dune slack on Newborough Warren [23/46] (52), xi 1951, J.A. Paton & R.E. Parker (BBSUK); wet ledges on limestone cliffs, 1800ft., east cliffs of Penygvent 34/87 (64), viii 1969, J.G. Duckett (BBSUK); in flush on hillside above Bizzle Burn, Cheviot [36/82] (68), ix 1963, J.A. Paton (BBSUK); basic flush at 1900ft., Nunnery Hill near Nenthead [35/74] (70), vi 1964., D.A. Ratcliffe (BBSUK); Penton Linns [35/37] (72), no date, C. Scott (BM); basic flush by stream, by Medwin Water opposite Medwinhead, 36/05 (77), iv 1975, D.G. Long 4517 (BBSUK); below waterfall, 800ft., stream north of Hermitage Water, Newcastleton [35/49] (80), vii 1960, E.W. Jones & D.A. Ratcliffe (NMW); by side of hill stream between Tollishill and Seenes Law, 36/55 (81), x 1903, W. Evans (E); marshy edge of a pool, Aberlady [36/48] (82), vi 1936, J. Sinclair 316-b (E); Pentland Hills (83), vii 1846, J.H. Balfour (E); Dunfermline [36/08] (85), 1848, Dr Gilchrist (DBN); Broxden [37/02] (88), x 1896, R.H. Meldrum (E); shore of Loch Valigan [27/96] (89), vi 1958, E.C. Wallace & A.C. Crundwell (BBSUK); Reeky Lynn [37/25] (90), iv 1906, J. Aimer (BM); Clatterin Brig [37/67] (91), ix 1861, R. Kidston & A. Croall (GL); rocks in Corrie Kandor, Glen Callater [37/18] (92), vii 1934, E.C. Wallace (BEL); in dune slack with *Juncus bufonius* and *Sagina* sp., Sands of Forvie, near Newburgh [48/02] (93), vii 1975, T.J. Wallace (BBSUK); soil at base of calcareous sandstone in wooded ravine, Whitemire near Brodie [28/95] (95), vi 1974, R. Richter (BBSUK); bryophyte-dominated springs in late snow gully at 2600ft., A'Bhuidheanach, Laggan [27/67] (96), viii 1957, D.A. Ratcliffe (BBSUK); stony base-rich flush, 800m, W end of Coire Cheap, Ben Alder Forest, 27/47 (97), ix 1979, D.G. Long 8833 (E, BBSUK); in a place where snow lies late, among boulders, Bidean nam Bian, 27/15 (98), viii 1953, J. Appleyard (NMW); base-rich flush near Coulin Lodge, S of Beinn Eighe 28/05 (105), v 1979, J.A. Paton 6072 (BBSUK); Coire Dhomain, Carn Eige [28/12] (106), vii 1947, E.C. Wallace (DBN); boulders in Allt nan Uamh, Inchnadamph [29/21] (108), ix 1960, A.R. Perry (BBSUK); dune slack, Quendale, Dunrossness parish, Mainland [4N1/31] (112), viii 1960, E.F. Warburg (E, BBSUK, OXF); Benbulbin [G/74] (H28), ix 1871, D. Moore (DBN, NMW).

## NEW VICE-COUNTY RECORDS AND AMENDMENTS TO THE CENSUS CATALOGUES

All undated records are based on specimens collected in 1994; for specimens collected in earlier years the year of collection is given before the collector's name. Where the specimen bears a collector's number, this is given after the collector's name. The 10 km grid square is given with each locality, when known. All specimens are deposited in BBSUK, except where otherwise indicated. Numbers and nomenclature follow Corley & Hill (1981), *Distribution of bryophytes in the British Isles: a census catalogue of their occurrence in vice-counties*.

### HEPATICAEE

D.G. LONG

- 5.1 *Reboulia hemisphaerica*, Killasser near Swinford G/30 (H26), O'Donovan.
- 8.1 *Preissia quadrata*, place 43 in ( ), not recorded since 1919, (Woods, 1993).
- 11.1 *Ricciocarpus natans*, bank of dyke on peaty soil, Dunwich Heath 62/46 (25), Strauss.
- 12.3 *Riccia huebeneriana*, abundant on bare mud, 160 m alt., W. bank of Afon Teifi, 150 m upstream of Pont Einon, Cors Caron N.N.R. 22/66 (46), Chater.
- 12.5 *R. rhenana*, abundant in two freshwater ponds, Pendarves Wood, S. of Camborne 10/63 (1), Gainey.
- 12.11 *R. beyrichiana*, on soil at edge of limestone pavement, 2 km SE of Cappaghmore M/30 (H15), Blockeel & Preston 23/173.
- 13.1 *Metzgeria fruticulosa*, on old elders with *Zygodon conoideus* etc., 40 m alt., West Bergholt, Hillhouse Wood 52/92 (19), Pyner; on *Sambucus* by old farm buildings, 190 m alt., Knockaphrumpa, SE of Roundwood T/29 (H20), Long 25430.
- 16.1 *Cryptothallus mirabilis*, under *Sphagnum auriculatum*, edge of wet woodland, 50 m alt., Furzley, NE of Bramshaw 41/21 (8), Stern.
- 17.1 *Riccardia multifida*, mildly base-rich flush, above Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7622.
- 17.3 *R. incurvata*, damp gravelly track on heathland with pine trees, 45 m alt., Wool Heath N. of Bovington 30/89 (9), Long & Whitehouse 25250
- 18.2 *Pellia neesiana*, steep bank below flush, above Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7677.
- 22.5 *Fossombronina pusilla* a var. *pusilla*, earthy slope in scrub, N.-facing side of Glen of Clab, Gortaclare Mt. M/20 (H9), Paton 7679.
- 22.6 *F. wondraczekii*, place 10 in ( ), not recorded since ca. 1926, comm. Snow.
- 22.8 *F. incurva*, damp gravelly track on heathland with pine trees, 45 m alt., Wool Heath N. of Bovington 30/89 (9), Long 25251.
- 23.1 *Petalophyllum ralfsii*, damp soil on limestone at edge of sand dunes, 2 m alt., Fanore M/10 (H9), Long 25469.
- 28.1 *Lophozia ventricosa* a var. *ventricosa*, associated with *Campylopus paradoxus* on NW-facing moorland, ca. 350 m alt., NE of Cox Tor, Dartmoor 20/57 (3), Pool; N.-facing shaded bank of disused pit, Creech Heath near Wareham 30/98 (9), Hill; roadside bank on pebbly soil, 110 m alt., Epping Forest, Jacks Hill 51/49 (18), Pyner; shady slope on coal mine waste, 100 m alt., N slope of bing near Smeaton Shaw 36/36 (83), Long & Rothero 25278; rock outcrop in rough pasture, 270 m alt., Howemill, Strathglass, E. of Dufftown 38/43 (94), Long 25808.

- 28.4 *L. sudetica*, sheltered boulder on N.-facing side of rocky tor, 330 m alt., SW of Foeldrygarn, Mynydd Prescelly 22/13 (45), Blackstock & Yeo.
- 28.5 *L. perssonii*, on spoil heap in Carboniferous Limestone quarry, 230 m alt., Middleton Dale, Stoney Middleton 43/27 (57), Blockeel 23/118.
- 28.6 *L. excisa* a var. *excisa*, place 10 in ( ), not recorded since ca. 1926, comm. Snow.
- 28.9 *L. opacifolia*, wet rocks in gully on N.-facing cliffs, 420 m alt., NE corrie of Bengower, Twelve Bens L/75, (H16) Long 25486.
- 29.2 *Leiocolea badensis*, vertical calcareous bank of streamlet near Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7632.
- 29.5 *L. bantriensis*, calcareous flush above Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7634.
- 30.1 *Gymnocolea inflata* a var. *inflata*, place 10 in ( ), not recorded since 1908, comm. Snow.
- 32.1 *Sphenolobus minutus*, in eroding blanket mire, 600 m alt., Y Gyrn, Brecon Beacons, Brecknock 22/92 (42), Blackstock & Yeo.
- 35.3 *Tritomaria quinquedentata*, on weakly base-rich grit boulder in moorland valley, 260 m, Abbey Brook, Upper Derwent Valley 43/19 (63), 1993, Blockeel 22/539.
- 37.1 *Mylia taylorii*, on vertical side of hummock in bog, 410 m alt., Sandy Ford, West Okement Valley, Dartmoor 22/58 (4), Pool.
- 38.11 *Jungermannia hyalina*, place 10 in ( ), not recorded since 1908, comm. Snow; stone on bank beside Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7638.
- 38.12 *J. paroica*, place 41 in ( ), not recorded since 1932 (Perry, 1994).
- 39.2 *Nardia scalaris*, peaty woodland boundary bank, 55 m alt., Furzley, NE of Bramshaw 41/21 (8), Stern.
- 40.2 *Marsupella sphacelata*, delete H10, the voucher specimen (S. slope of Keeper Hill, 1979, van Melick (BBSUK)) is *M. emarginata*, comm. Paton.
- 42.1 *Acrobolbus wilsonii*, wet N.-facing crag at ca. 1600 ft. alt., Bengower, Twelve Bens L/75 (H16), Paton 7636.
- 46.4 *Plagiochila britannica*, shady basalt rocks in conifer plantation, 150 m alt., Kylee Fort, Kylee Crag 46/03 (68), Long 25224; damp bank of stream, 130 m alt., wooded valley below Humble Kirk 36/46 (82), Long 25313.
- 46.6 *P. spinulosa*, under Back Tor, Edale, 1898, W.R. Linton (57) in ( ), (LIV); comm. Blockeel.
- 48.6 *Lophocolea fragrans*, place 43 in ( ), not recorded since 1919 (Woods, 1993).
- 49.1 *Chiloscyphus polyanthos*, silted rocks beside Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7676.
- 54.3 *Diplophyllum obtusifolium*, N.-facing slope by gravel pit, 40 m alt., Stokeford Heath W. of Wareham 30/88 (9), Long 25243.
- 55.1 *Scapania gymnostomophila*, in very small quantity with *Leiocolea heterocolpos* and *Scapania aequiloba* in a mixed cushion of *Amphidium mougeotii* and *Anoetangium aestivum*, on N.-facing Old Red Sandstone rock-face, ca. 600 m alt., Bannau Sir Gaer, Black Mountain (44), Blackstock & Yeo; new to Wales.
- 55.11 *S. degenii*, in flushed grassland on a steep E.-facing slope below ± basic crags, 500m alt., Coire Gorm, Glas Bheinn, Assynt 29/22 (108), Rothero 94/052.
- 55.12 *S. irrigua*, place 10 in ( ), not recorded since 1908, comm. Snow; steep wet bank beside Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7643.
- 55.16 *S. undulata*, damp brick-lined drainage gully at base of N.-facing church wall, 70 m alt., Lambourne Churchyard 51/49 (18), Pyner; silted rocks beside Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7678.

- 55.21 *S. gracilis*, rock on bank above Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7675.
- 58.2 *Cephalozia subdentata*, bog in valley S. of Rinnaflaghla Point, Rosguill (H35), 1969, Paton (NMW); conf. Paton.
- 67.3 *Lepidozia pearsonii*, in hanging mat of bryophytes on damp steep rock face with *Plagiothecium undulatum* etc., 250 m alt., low coire of Benchoona, Lough Fee L/76 (H16), Rothero 94/044.
- 66.3 *Kurzia sylvatica*, peaty bank on heathland above Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7628.
- 69.1 *Calypogeia neesiana*, peaty bank on heathland above Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 7629.
- 72.2 *Ptilidium pulcherrimum*, on sloping alder trunk, Cavenham Heath 52/77 (26), Strauss.
- 75.2 *Radula lindenbergiana*, in crevice formed by crack in huge boulder on open moorland, above Lough Nalawney, Errisbeg L/64 (H16), Blockeel 23/203.
- 77.2 *Porella obtusata*, with *Frullania tamarisci*, Greensand outcrop in unimproved grassland, 160 m, Blackgang 40/47 (10), Pope, comm. Snow.
- 83.1 *Lejeunea cavifolia*, on ash tree in swampy woodland, Garryland Wood M/40 (H15), Hodgetts 2949.
- 83.2 *L. lamacerina*, N.-facing calcareous siltstone (Silurian) outcrop, ca. 120 m alt., SW of Castle Bridge, Downton, S. side of R. Teme S of Downton Castle 32/47 (36), Perry 9888; vertical rock faces of waterfall, Thomason Foss, Goathland 45/80 (62), 1968, H. Milne-Redhead (BBSUK), det. & comm. Paton.
- 83.3 *L. patens*, delete 1, the voucher specimen (below Kynance Farm, 1963, J.A.Paton (BBSUK)) is *L. lamacerina*; voucher specimen for 2 (lane to Ellbridge, St Mellion 20/36, 1962, J.A. Paton (BBSUK)) is *L. lamacerina*; replace by: damp shaded rocks by river, Trebartha Estate (2), 1966, H.J.B. Birks (BBSUK); delete 4, voucher specimen (Hoarok Water above Waters Meet 21/74, 1971, J.A. Paton (BBSUK)) is *L. lamacerina*; delete 45, voucher specimen (Dale Village, Dale, 1964, D.H. Dalby (BBSUK)) is *L. lamacerina*; delete 62, the voucher specimen (see above) is *L. lamacerina*; delete 92, voucher specimen (Breakneck Fall, Glen Callater, 1934, E.C. Wallace (BBSUK)) is *L. cavifolia*; voucher specimen for 108 not traced, replace by: boulders near Elphin (108), 1960, J.A.Paton & A.J.E. Smith (BBSUK); voucher specimen for H27 (near Sraheens Lough, Achill Island, 1962, E.F. Warburg (BBSUK)) is *L. lamacerina*; replace by: rock in ravine below N. ridge of Devil's Mother L/96 (H27), 1987, J.A. Paton 7604 (herb. Paton); delete H38, voucher specimen (Shimna River, Tollymore Park, Newcastle, 1962, M.P.H. Kertland & J.W. Fitzgerald (BBSUK)) is *L. lamacerina*; delete C, the voucher specimen (cliffs below Fort George, Guernsey, 1969, J.A.Paton (BBSUK)) is *L. lamacerina*; all records det. & comm. Paton.
- 83.8 *L. ulicina*, on bough of hawthorn in humid boulder clay woodland, 20 m alt., Aversley Wood 52/18 (31), Hodgetts 3076.
- 85.1 *Cololejeunea calcarea*, on north-facing basic crag, Knockaveen, Clare Island L/78 (H27), Blockeel 23/216.
- 85.3 *Cololejeunea minutissima*, trunk of Field Maple, 60 m alt., Round Wood, Brokerswood near Westbury 31/85 (8), Stern; on trunk of *Fraxinus*, *Fraxinus*/mixed woodland on Liassic limestone in W.-E. valley on coast, 30-40 m alt., Cwm Mawr, 3 km S. of St Bride's Major 21/87 (41), 1993, Perry 9759 (NMW).

- 86.1 *Aphanolejeunea microscopica*, on *Corylus* on shady limestone cliff, 180 m alt., S. side of Glen of Clab, The Burren M/20, (H9), Long 25451; with *Metzgeria fruticulosa* and *Colura* on *Salix* branch, Boleynneendorish River, Slieve Aughty M/50 (H15), Paton 7655.

#### Contributors of hepatic records, 1994

T.L. Blockeel, T.H. Blackstock, A.O. Chater, P.A. Gainey, M.O. Hill, N.G. Hodgetts, D.G. Long, G. O'Donovan, J.A. Paton, A.R. Perry, M. Pool, C. Pope, C.D. Preston, T. Pyner, G.P. Rothero, L. Snow, R.C. Stern, D. Strauss, H.L.K. Whitehouse, R.G. Woods, M.J.M. Yeo.

#### References

- Perry AR. 1994.** Hornworts, liverworts and mosses of Glamorgan. In: Wade AE, Kay QON, Ellis RG, eds. *Flora of Glamorgan*, pp. 219-248. London: H.M.S.O.  
**Woods RG. 1993.** *Flora of Radnorshire*. 292 pp. Cardiff: National Museum of Wales.

#### MUSCI

T.L. BLOCKEEL

- 1.4 *Sphagnum magellanicum*, *Erica tetralix* wet heath on fairly steep SE-facing slope, Measygwiell Isaf & Llundain-fechan, Dinefwr 22/64 (44), Bevan, comm. Motley.  
 1.11 *S. warnstorffii*, Lisarilly H/52 (H32), 1980, Lockhart (Herb. Forest & Wildlife Service, Newtown Mount Kennedy), comm. Stewart.  
 1.15 *S. molle*, wet gritty ground at side of small stream by old farm, 350 m alt., in side valley of upper Wye near the flume, Pont Rhydgaed, ca. 1.5 km NW of the village 22/88 (47), Bates 3280.  
 1.18 *S. platyphyllum*, in extensive mat in rather acid flush at foot of grassy scree, 530 m alt., Coire Gorm, Glas Bheinn, Assynt 29/22 (108), Rothero 94/051, conf. Hill.  
 1.27 *S. recurvum* b var. *tenue*, boggy field, Lower Kingcombe, nr Toller Porcorum 30/59 (9), Hill; on overgrown floor of old brickpit under birch and willow, with *S. squarrosum* and *S. fimbriatum*, Hurst Hill, Oxford 42/40 (22), Porley, conf. Hill; Buckstruther Moss, 235 m alt., Hawick 36/51 (80), Corner, conf. Hill; edge of small boggy woodland, 170 m alt., Whiteadder Water opposite Retreat House 36/76 (81), Long 25817.  
 4.1 *Tetradontium brownianum*, on sandstone ledges in shady ravine, 15 m alt., Linn Dean, Paxton House 36/95 (81), Long 25304.  
 5.2 *Polytrichum longisetum*, place 43 in ( ), not recorded since 1908 (Woods, 1993); peat in cleared conifer plantation, 40 m alt., Derryclare Wood L/85 (H16), Long 25600.  
 5.3 *P. formosum*, on leached soil on hummock in grassland over limestone, 25 m alt., near L. Briskeen, ca. 5 km west of Gort M/40 (H15), Blockeel 23/157.  
 5.8 *P. alpestre*, place 41 in ( ), not recorded since 1908 (Perry, 1994).  
 6.1 *Pogonatum nanum*, place 43 in ( ), not recorded since ca. 1910 (Woods, 1993).  
 6.2 *P. aloides* a var. *aloides*, peaty bank by forestry track, near Pollboy, Slieve Aughty M/50 (H15), Hodgetts 2960.  
 8.1 *Atrichum crispum*, on bare soil, 100 m alt., by R. Onny, 2 miles south of Craven Arms 32/48 (40), Martin.

- 8.2 *A. tenellum*, marshy track, west side of Blackwater River above bridge, W. of Kenmare V/76 (H1), 1983, Paton 2536; wet gravelly bank, hamlet N. of Kylemore River, Twelve Bens L/75 (H16), Paton 2697.
- 14.2 *Ditrichum flexicaule* sens. str., Breckland grassland, Lakenheath Warren 52/78 (26), Hill; on rock shelf in old Magnesian Limestone quarry, Creswell Crags 43/57 (56), 1982, Blockeel; on limestone rocks in disused quarry, 100 m alt., Dalby Forest 44/88 (62), Blackburn.
- 15.2 *Distichium inclinatum*, on irrigated slabby rocks in base-rich gully, 150 m alt., Dunban SSSI, Kintyre 16/51 (101), Rothero 94/032.
- 18.3 *Seligeria acutifolia*, on damp shaded limestone at base of crag, 180 m alt., Glen of Clab M/20 (H9), Blockeel 23/171.
- 23.1 *Rhabdoweisia fugax*, crevices of basaltic rocks, 120 m alt., N. slope of Traprain Law 36/57 (82), 1993, Long 25040.
- 28.1 *Dicranella palustris*, wet bank beside Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 2699.
- 28.5 *D. subulata*, slaty-clayey bank of forestry track with *Diplophyllum albicans* and *Nardia scalaris*, 100 m alt., Nant y Factory valley, just south of Glaspwll 22/79 (46), Bates 3254; steep shady N.-facing bank with *Calluna*, 320 m alt., White Castle above Castle Moffat 36/66 (82), Long 25292; delete H17, entry in *Census Catalogue* is a transcription error.
- 28.6 *D. rufescens*, on muddy stream bank with *Scapania irrigua*, near Pollboy, Slieve Aughty M/50 (H15), Hodgetts 2965.
- 28.9 *D. cerviculata*, place 43 in ( ), not recorded since 1908 (Woods, 1993).
- 32.12 *Dicranum montanum*, on tree bole in damp Alder woodland, 55 m alt., Ellers Wood, nr. Thornton Dale, Pickering 44/88 (62), Blockeel & Blackburn, Blockeel 23/096.
- 34.4 *Campylopus fragilis*, steep bank beside Boleyneendorish River, Slieve Aughty M/50 (H15), Paton 2700.
- 36.1 *Leucobryum glaucum*, delete 41, all specimens examined are *L. juniperoideum* (Perry, 1994).
- 37.2 *Fissidens viridulus*, on silt in and around dripping muddy rock faces near stream in *Quercus* woodland, Brynchwith Farm, Gwynee 22/72 (44), 1993, Graham; on humus on vertical bank of fluctuating stream by area of limestone pavement, Carran, The Burren R/29 (H9), Blockeel 23/161.
- 37.2A *F. pusillus* a var. *pusillus*, vertical sandstone face with dripping water, 230 m alt., by Hindon Beck, Cowclose Plantation 45/02 (66), Wharton.
- 37.4 *F. bryoides*, bank in Sitka Spruce plantation, near Pollboy, Boleyneendorish River, Slieve Aughty M/50 (H15), Stern.
- 37.6 *F. rivularis*, on stones submerged in fast-flowing river by base-rich *Quercus-Fraxinus-Corylus* woodland, or on exposed stones at stream side and around tree roots, Afon Cennen, Llandeilo 22/61 (44), 1993, Graham.
- 37.11 *F. exilis*, on soil under hazel on steep bank of burn, 60 m alt., Corachan Burn, NE of Southend, Kintyre 16/71 (101), Rothero 94/034.
- 37.15 *F. cristatus*, chalk down with scrub, Coppermill Down, Harefield 51/09 (21), Wiltshire.
- 40.5 *Tortula virescens*, with *T. papillosa* and *T. intermedia* on trunk of Walnut in farmyard, Cholderton Estate 41/24 (12), Stern & Crundwell.
- 40.9 *T. marginata*, on brickwork of bridge, 120 m alt., Chapel on Leader 36/54 (81), Long 25390; with *Barbula rigidula* on crumbling mortar at base of wall at rear of Letterdife House, Roundstone L/74 (H16), Paton & Whitehouse.

- 40.10 *T. subulata* d var. *graeffii*, soil over limestone outcrop, 1000 ft alt., Trefor Rocks, 1.5 miles NE of Llangollen 33/24 (50), 1972, Perry (Herb. Perry); on ledges of calcareous crag with *Homalothecium sericeum*, 300 m alt., crags below Binnein Fithich, Dunban, Kintyre 16/61 (101), Rothero 94/031.
- 40.11 *T. papillosa*, scattered individual stems on bark of *Sambucus*, 100 m alt., Pantmeinog Farm, near Llangadog 22/72 (44), 1993, Graham.
- 40.14 *T. cuneifolia*, delete H4, all records traced are from Cork and are in H5 or are inadequately localised, comm. Stewart.
- 41.3 *Aloina aloides* a var. *aloides*, on dry sand in sand quarry, east of Cardigan 22/24 (46), Hale.
- 42.2 *Desmatodon convolutus*, delete H3, the only record traced (Connemara, leg. T. Taylor, in Lett (1915)) is from H16 comm. Stewart.
- 45.2 *Pottia starkeana* a subsp. *starkeana* var. *starkeana*, place 41 in ( ), not recorded since 1929 (Perry, 1994): c ssp. *conica*, flower bed, Coole, 3 km north of Gort M/40 (H15), Hodgetts, Porley & Whitehouse.
- 45.10 *P. bryoides*, in patch of *Weissia* sp. growing on unshaded soil amongst short grasses and herbs, NW side of Bredon Hill 32/94 (37), 1992, Holyoak.
- 45.11 *P. recta*, delete H4, all records traced are from Cork and are in H5 or are inadequately localised, comm. Stewart; on compacted soil of flower bed, with *Phascum cuspidatum*, Coole Park M/40 (H15), Porley.
- 46.1 *Phascum cuspidatum* c var. *schreberianum*, on bare soil patches on roadside verge, slightly shaded by grasses and hedgerow, near S. end of Tiddesley Wood, SW of Pershore 32/94 (37), 1992, Holyoak.
- 46.2 *P. curvicolle*, bare soil on steep slope on limestone hillside, Breedon Hill 43/42 (55), Hodgetts 2898.
- 46.3 *P. floerkeanum*, stubble field, 20 m alt., north-east of Beachamwell Hall, Beachamwell 53/70 (28), Stevenson.
- 49.4 *Barbula revoluta*, place 43 in ( ), not recorded since ca. 1899 (Woods, 1993).
- 49.5 *B. acuta*, in open chalk turf on south-west facing slope with *Thuidium abietinum* subsp. *hystricosum*, 160 m alt., Pulpit Hill 42/80 (24), Porley.
- 49.10 *B. spadicea*, place 43 in ( ), not recorded since ca. 1899 (Woods, 1993).
- 49.16 *B. trifaria*, on soil among calcareous rubble in small shrubbery, 20 m alt., Clifden L/66 (H16), Blockeel 23/242.
- 49.22 *B. ferruginascens*, place 43 in ( ), not recorded since 1926 (Woods, 1993).
- 50.3 *Gymnostomum recurvirostrum*, on limestone slab in rough grassland at edge of *Cladium* marsh, 25 m alt., near L. Briskeen, ca. 5 km west of Gort M/40 (H15), Blockeel 23/160.
- 54.1 *Weissia controversa* b var. *crispata*, on sandy soil of steep unshaded limestone hillslope, Brean Down 31/25 (6), 1992, Holyoak.
- 54.3 *W. perssonii*, crevice of S. facing cliff face above raised beach, 5-10 m alt., Ardscalepsie point, Isle of Bute 26/05 (100), Cocking.
- 54.6 *W. microstoma* b var. *brachycarpa*, marshy area on clay, with *Fossombronina pusilla*, Oxhey Woods, nr. Watford 51/19 (20), Rieser; on small patch of bare soil in meadow, N. of the Boynes, W. of Upton-upon-Severn 32/84 (37), 1992, Holyoak.
- 54.8 *W. rostellata*, fallow arable field, 60 m alt., near Llechryd 22/24 (46), Chater, comm. Hale.
- 54.12 *W. longifolia* a var. *longifolia*, bare soil, Hazeley Wood, Milton Keynes 42/83 (24), Higgs.

- 55.1 *Oxystegus sinuosus*, on sandstone boulder by stream, 130 m alt., wooded valley below Humble Kirk 36/46 (82), Long 25314.
- 55.2 *O. tenuirostris* a var. *tenuirostris*, in horizontal crevice in shaded wet sandstone, Blackling Hole, Hamsterley Forest 45/02 (66), Wharton.
- 55.3 *O. hibernicus*, on periodically irrigated ledges of  $\pm$  basic crags above river, 60 m alt., Abhainn nan Gilleann, West Loch Tarbert 16/86 (101), Rothero 94/067.
- 56.1 *Trichostomum crispulum*, on small limestone boulder at edge of lough, 25 m alt., near L. Briskeen, ca. 5 km west of Gort M/40 (H15), Blockeel 23/156.
- 56.2 *T. brachydontium*, calcareous grassland, Lakenheath Warren 52/78 (26), Hill.
- 57.3 *Tortella flavovirens* b var. *glareicola*, stabilized sand dunes, Gibraltar Point 53/55 (54), 1993, Hodgetts 2687.
- 59.1 *Trichostomopsis umbrosa*, limestone fountain, Belton Park 43/93 (53), 1993, Hodgetts 2886.
- 60.2 *Leptodontium gemmascens*, on old rotting thatch, Hardy's Cottage 30/79 (9), Hodgetts *et al.* 2910.
- 63.3 *Schistidium agassizii*, on shaded rocks in lower flood zone of stream in steep-sided wooded valley, 60 m alt., Llanbedr, Afon Cwmnantcol, 200 m upstream of Pont Aberartro 23/62 (48), Orange 10069, new to Wales.
- 64.1 *Grimmia anodon*, delete 98, the voucher (Creagan Sturra, Loch Melfort, leg. M.F.V. Corley, 1965 (BBSUK)) and other specimens traced belong to *G. tergestina* (cf. Greven, 1994), or *Schistidium apocarpum* agg.
- 64.3 *G. laevigata*, delete 98, the voucher (dry andesite rocks, Creag an Sturra, Loch Melfort leg. A. McG. Stirling & A.G. Kenneth, 1967, BBSUK) is *G. tergestina*; rock by cliff above beach, 10-15 m alt., west of Garrochty, Isle of Bute 26/05 (100), Cocking; delete 103, the voucher is *G. tergestina* (q.v.).
- 64.3A *G. tergestina* Tømm., 98, new to the British Isles (Greven, 1994); Carsaig Bay, Isle of Mull 17/52 (103), 1968, P.W. James & Ursula Duncan (BBSUK, E), det. Blockeel, conf. Greven.
- 64.4 *G. montana*, place 43 in ( ), not recorded since 1894 (Woods, 1993).
- 64.6 *G. donniana* a var. *donniana*, on dry boulder, 70 m alt., near east margin of L. Bollard, Errisbeg L/64 (H16), Blockeel 23/195.
- 64.8 *G. affinis*, on shaded boulder near foot of scree slope, 130 m alt., East Lyn Valley, near Watersmeet 21/74 (4), Pool, conf. Greven.
- 64.14 *G. orbicularis*, delete H38, the only specimen traced (Spelga Mt., leg H.W. Lett, 1886 (DBN)) is *G. trichophylla*, det. Synnott, comm. Stewart.
- 64.20 *G. decipiens*, on  $\pm$  basic exposed igneous rocks on SW facing slope by sea, 10 m alt., Port Dornach, W. of Dunagoil, Isle of Bute 26/05 (100) Rothero 94/007.
- 66.3 *Racomitrium aquaticum*, a single patch on periodically irrigated grit rock face below crag, with *Andreaea rothii*, 540 m alt., Nether Tor, Grindsbrook, Edale 43/18 (57), Blockeel 23/126.
- 66.4 *R. fasciculare*, plentiful on tiles of W. porch, Bursledon Church 40/40 (11), Rose & Sandell; on clay tile roof, 40 m alt., Old School House, Ebernoe, near Petworth 41/92 (13), Stern & Matcham.
- 66.5A *R. affine sensu* Frisvoll, on wall top, 100 m alt., Glencoaghan, below SW slopes of Derryclare L/85 (H16), Blockeel 23/180.
- 67.1 *Ptychomitrium polyphyllum*, re-instate 9, the record (railway ballast, Powerstock Common 30/59, 1969, leg. Duckett, *Trans. Br. Bryol. Soc.* 6: 207) was inadvertently omitted from the current edition of the *Census Catalogue*.
- 71.2 *Funaria muhlenbergii*, bare soil amongst limestone outcrops on steep hillside, Breedon Hill 43/42 (55), Hodgetts 2895.

- 71.5 *F. fascicularis*, delete H4, the only specimen traced (Douglas, leg O. Peyton, 1907 (DBN)) is *F. hygrometrica*, det. Synnott, comm. Stewart.
- 75.2 *Ephemerum sessile*, in soil pockets on bare ground by reservoir, with *E. serratum*, 185 m alt., Linacre Reservoirs, west of Chesterfield 43/37 (57), Blockeel 23/272.
- 84.1 *Leptobryum pyriforme*, delete H3, the only record traced (Blarney Castle, leg. I. Carroll, in Lett (1915)) is from H4, comm. Stewart.
- 85.9 *Pohlia bulbifera*, edge of pool on damp acidic sandy soil, Winterton Dunes 63/42 (27), Strauss.
- 85.11 *P. camptotrachela*, margin of Venford reservoir, Dartmoor 20/67 (3), 1992, Pool.
- 85.12 *P. myldermansii*, side of recently bulldozed track, 295 m alt., Hurston, Chagford 20/68 (3), Pool.
- 86.1 *Epipterygium tozeri*, place 43 in ( ), not recorded since 1891 (Woods, 1993).
- 87.1 *Plagiobryum zieri*, place 41 in ( ), not recorded since 1932 (Perry, 1994).
- 89.16A *Bryum archangelicum* B., S. & G., 90, new to the British Isles (Townsend, 1994).
- 89.19 *B. donianum*, delete H3, the only record traced (R. Lee above Cork Jail, in Lett (1915)) is from H4, comm. Stewart.
- 89.27 *B. pallescens*, concrete at base of pylon, Briants Puddle Heath, near Affpuddle 30/89 (9), Hill; in crevices between stones of church wall, stained with iron by run-off from grid over window, 290 m alt., Vaynor 32/01 (42), Orange & Woods, Orange 10156.
- 89.30 *B. caespitium*, place 43 in ( ), not recorded since 1905 (Woods, 1993).
- 89.48 *B. microerythrocarpum*, in *Lolium perenne* field, Cappaghmore, 5 km SW of Kinvarra M/30 (H15), Stanley, Stern & Whitehouse.
- 89.49 *B. bornholmense*, bare patches in sown rye-grass field, Cappaghmore, SW of Kinvarra M/30 (H15), Stern, conf. Crundwell.
- 89.50 *B. rubens*, barley field, 2 km west of Mountmellick N/40 (H14), 1987, Whitehouse; base of wall, Coole, 3 km north of Gort M/40 (H15), Hodgetts, Porley & Whitehouse.
- 91.6 *Mnium stellare*, humus on basic rock face under overhanging tree, 30 m alt., Derryclare Wood L/84 (H16), Blockeel 23/241.
- 94.2 *Plagiomnium affine*, sandy ground at margin of pine plantation on dunes, 4 m alt., near mouth of Hedderwick Burn, West Barns 36/67 (82), 1993, Long 25030; in *Lolium perenne* field, Cappaghmore, 5 km NW of Kinvarra M/30 (H15), Stanley, Stern & Whitehouse.
- 94.3 *P. elatum*, basic flush, near Pollboy, Boleyneendorish River, Slieve Aughty M/50 (H15), Stern.
- 94.5 *P. ellipticum*, place 43 in ( ), not recorded since 1886 (Woods, 1993).
- 101.1 *Plagiopus oederi*, place 41 in ( ), not recorded since 1932 (Perry, 1994).
- 102.4 *Bartramia ithyphylla*, place 41 in ( ), not recorded since 1906 (Perry, 1994).
- 104.1 *Bartramidula wilsonii*, near Maam (H16 in ( )), 1868, s. coll. (E).
- 105.3 *Philonotis arnellii*, on ledge of rock outcrop, 60 m alt., W. side of River Nith at Nith Linns, Drumlanrig 26/80 (72), Corner.
- 105.4 *P. caespitosa*, damp ground in lee of boulder, 10 m alt., coastal track along S. shore of L. Hourn 18/90 (97), 1990, Chamberlain.
- 105.8 *P. calcarea*, 15m alt., Messingham Pits Nature Reserve 44/90 (54), Lammiman.
- 109.2 *Zygodon baumgartneri*, on oak at lough margin, 15 m alt., Derryclare NNR L/84 (H16), Rothero 94/046.
- 109.3 *Z. conoideus*, on several old elders in small area at east of wood by footpath, 40m alt., Hillhouse Wood, West Bergholt 52/92 (19), Pyner; on elder with *Metzgeria fruticulosa*, Tiger Hill, Assington 52/93 (26), Strauss; on elder in scrubby

- secondary woodland, 100 m alt., Bellmount, Belton Park 43/93 (53), Hodgetts 3074; on Elder, 120 m alt., Cragside House, near Rothbury 46/00 (68), Blockeel 23/253; on *Sambucus* by stream in wooded valley, 10 m alt., Linn Dean, Paxton House 36/95 (81), Long 25299.
- 110.3 *Orthotrichum striatum*, on *Betula* in limestone woodland, 220 m alt., Bollihope Burn, south-west of White Kirkley 45/03 (66), Humphreys; branches of poplar tree in garden, Coole M/40 (H15), Hodgetts 2958.
- 110.8 *O. rivulare*, on willow subject to inundation, 6 km E. of Abbeyfeale, by bridge over Allaghaun River R/12 (H8), Wiltshire & Reynolds.
- 110.9 *O. sprucei*, patches of silt-encrusted bark of *Salix* cf. *alba* and *Alnus*, flood zone of Afon Tywi, Typica Farm, Dryslwyn 22/52 (44), 1993, Graham.
- 110.11 *O. cupulatum* b var. *riparium*, on wall top of bridge, 100 m alt., Swallowford, 3 km NW of South Molton 21/62 (4), Martin & Brown.
- 110.14 *O. stramineum*, on horizontal alder trunk in carr by reed bed, Minsmere Reserve 62/46 (25), Strauss; on sloping elder trunk in sheltered ditch, Devil's Ditch, between B1102 road and disused railway SE of Reach 52/56 (29), Preston; delete H1, the only record traced (Ross Bay, leg. B. Carrington, in Lett (1915)) is from H2, comm. Stewart.
- 110.16 *O. tenellum*, on low horizontal branch of Sallow, 53 m alt., Thorley Flood Pound by River Stort, Lt. Hallingbury 52/41 (19), Pyner; on bark of elder bushes, shaded by deciduous trees, Southwood, SE. of Shelsley Beauchamp 32/76 (37), 1992, Holyoak.
- 110.18 *O. pulchellum*, on trunk of *Fraxinus*, 30-40 m alt., *Fraxinus*/mixed woodland on Liassic limestone in W.-E. valley on coast, Cwm Mawr, 3 km S. of St. Bride's Major 21/87 (41), 1993, Perry 9758 (NMW); on elder in swamp, Belton Park, Grantham 43/93 (53), Hodgetts 2892; branch of Elder, Pollboy, Boleyneendorish River, Slieve Aughty M/50 (H15), Stern.
- 111.2 *Ulota drummondii*, tree branch, Derryclare Wood L/84 (H16), Paton 2702.
- 111.4 *U. calvescens*, on willow with *U. crispa* var. *norvegica*, near Pollboy, Slieve Aughty M/50 (H15), Hodgetts 2961.
- 111.6 *U. phyllantha*, on branch of elder in coastal scrub, Gibraltar Point 53/55 (54), Hodgetts 2902.
- 112.2 *Hedwigia integrifolia*, extensive patches with occasional small patches of *H. ciliata* on exposed rocky outcrops, hillside above uppermost car park, Bodnant Gardens, ca. 1.6 km north of Talycain 23/87 (50), Lewis, first found by W. Hay & W. McCarthy, 1993.
- 113.1 *Fontinalis antipyretica* c var. *gigantea*, boulder on margin of Ballynahinch Lake, E. of Clifden L/74 (H16), Paton 2704.
- 113.2 *F. squamosa* a var. *squamosa*, on stones in upland stream, near Pollboy, Slieve Aughty M/50 (H15), Hodgetts 2967.
- 114.1 *Climacium dendroides*, in area of dumped calcareous waste, in damp hollow amongst *Juncus inflexus*, 20 m alt., site of old water works, Springfield 52/70 (18), Pyner.
- 115.1 *Cryphaea heteromalla*, sloping *Quercus* trunk, nr. Kenwood House, Hampstead Heath 51/28 (21), 1993, Duckett.
- 116.1 *Leucodon sciuroides*, on a tombstone cut from limestone, Hardmead Churchyard 42/94 (24), Higgs.
- 120.1 *Leptodon smithii*, place 41 in ( ), not recorded since 1933 (Perry, 1994).
- 121.3 *Neckera pumila*, trunk of ash, Potsford Wood, nr Wickham Market 62/25 (25), Fisk.

- 127.1 *Daltonia splachnoides*, stream valley at edge of forestry, slopes of Knockanimpaha R/23 (H8), Wiltshire & O'Brien.
- 131.1 *Pseudoleskeella catenulata* b var. *acuminata*, on open E.-facing basic crag, 800 m alt., Craigue Doubs, Caenlochan Glen 37/17 (90) Rothero 94/087; on slab of calcareous rock under overhang, 900 m alt., crags above Coire Chratein, Beinn Dorain 27/33 (98), Rothero 94/035.
- 137.3 *Thuidium delicatulum*, base of willow bole in birch/willow valley woodland, Dunwich Heath 62/46 (25), Strauss.
- 140.3 *Campylium polygamum*, place 43 in ( ), not recorded since 1906 (Woods, 1993).
- 141.2 *Amblystegium fluviatile*, on shaded stonework by river, towpath by R. Thames at Marlow 41/88 (24), O'Leary; stream valley at edge of forestry, slopes of Knockanimpaha R/23 (H8), Wiltshire & O'Brien.
- 141.4 *A. varium*, alder stump at edge of artificial lake, Belton Park, Grantham 43/93 (53), Hodgetts 2899.
- 141.5 *A. humile*, walls of weir by old mill pond in site of old water works, 20 m alt., Chelmer-Blackwater Canal, Springfield 52/70 (18), Pyner; on silty soil of bank just above river-level, shaded by deciduous trees, Holt Fleet 32/86 (37), 1992, Holyoak.
- 142.1 *Platydictya confervoides*, limestone rock, Garryland Wood, Coole, 3 km north-west of Gort M/40 (H15), Whitehouse.
- 143.4 *Drepanocladus fluitans* b var. *falcatus*, damp heathland, 45 m alt., Plaitford Common, E. of Landford 41/21 (8), Stern.
- 143.7 *D. vernicosus*, delete 85, the record (in shallow pool, dune slack, Dumbarrie Links, near Largo, Fife, 1967, leg. A. McG. Stirling (BBSUK)) is *D. cossoni*, comm. Long.
- 144.1 *Hygrohypnum ochraceum*, on rocks in stream, near Pollboy, Slieve Aughty M/50 (H15), Hodgetts 2962.
- 150.5 *Brachythecium mildeanum*, upper salt marsh grassland, Dornoch Point 28/88 (107), Wright, comm. Long.
- 152.1 *Scleropodium cespitans*, on footpath by R. Thames at Hambledon Hill 41/78 (24), O'Leary & Husain; on large limestone boulder by lough, 25 m alt., L. Inchiquin, NW of Corofin R/28 (H9), Blockeel, Dirkse & Paton, Blockeel 23/147.
- 153.1 *Cirriphyllum piliferum*, clearing in Old Park Wood, Harefield 51/09 (21), Wiltshire.
- 154.2 *Rhynchostegium lusitanicum*, on rock in swift-flowing river, 100 m alt., Kylemore River, Glencorbet L/75 (H16), Blockeel 23/217, first found by Rothero.
- 155.7 *Eurhynchium schleicheri*, place 43 in ( ), not recorded since 1886 (Woods, 1993).
- 156.1 *Rhynchostegiella tenella* b var. *litorea*, on stone in lane bank, north end of Hammer Lane, east of Headley 41/83 (12), Crundwell.
- 157.2 *Orthothecium intricatum*, in damp hollow on shaded limestone crag, 180 m alt., Glen of Clab M/20 (H9), Blockeel & Hodgetts, Blockeel 23/170.
- 159.3 *Plagiothecium denticulatum* b var. *obtusifolium*, in chinks of vertical exposed west-facing granite, 550 m alt., Dinger Tor, Dartmoor 20/58 (4), Pool; wet rocks in gully on N.-facing cliffs, 420 m alt., Twelve Bens, NE corrie of Bengower L/75 (H16), Long 25845.
- 159.5 *P. curvifolium*, shady woodland, on rotten log, 40 m alt., Lochinch Estate, near Stranraer 25/16 (74), Long 25228.
- 159.6 *P. laetum*, on hazel stool at roadside, Highnam Copse, near Froyle 41/74 (12), 1982, Crundwell.
- 165.1 *Pylaisia polyantha*, on old *Sambucus* in swampy woodland, 115 m alt., Ford Glen, near Pathhead 36/36 (83), Long 25055.

- 166.1 *Platygyrium repens*, on inclined trunk of *Salix cinerea* in damp woodland overlying Gault Clay, Honey Hill Copse, nr. Wootton Bassett 41/17 (7), Porley; frequent on vertical and horizontal trunks of old coppiced Ash, at south edge of wood, in marshy area, 25 m alt., Hillhouse Wood, West Bergholt 52/92 (19), Pyner; on decaying log, 160 m alt., 'Haines Ash Bottom', Cirencester Park 32/90 (33), Tofts.

### Contributors of moss records, 1994

J.W. Bates, J. Bevan, J.M. Blackburn, T.L. Blockeel, J. Brown, D.F. Chamberlain, A.O. Chater, Mrs. K.M. Cocking, R.W.M. Corner, A.C. Crundwell, G.M. Dirkse, J.G. Duckett, R.J. Fisk, J.J. Graham, A.D. Hale, Mrs. F.A. Higgs, M.O. Hill, N.G. Hodgetts, D.T. Holyoak, B.M. Humphreys, T. Husain, F.R. Lammiman, R. Lewis, N. Lockhart, D.G. Long, P. Martin, H.W. Matcham, G.S. Motley, M.V. O'Brien, S.V. O'Leary, A. Orange, Mrs. J.A. Paton, A.R. Perry, M. Pool, R.D. Porley, C.D. Preston, T. Pyner, Mrs. S. Reynolds, Mrs. C. Rieser, F. Rose, G.P. Rothero, K. Sandell, P.E. Stanley, R.C. Stern, C.R. Stevenson, N. Stewart, D. Strauss, R. Tofts, T.S. Wharton, H.L.K. Whitehouse, Mrs. E. Wiltshire, R.G. Woods, J. Wright.

### References

- Greven H. 1994. *Grimmia tergestina* Tonn., new to Britain. *Journal of Bryology* **18**: 368.  
Lett HW. 1915. Census report on the mosses of Ireland. *Proceedings of the Royal Irish Academy* **32**, Section B, No. 7: 65-166.  
Perry AR. 1994. Hornworts, liverworts and mosses of Glamorgan. In: Wade AE, Kay QON, Ellis RG, eds. *Flora of Glamorgan*, pp. 219-248. London: H.M.S.O.  
Townsend CC. 1994. *Bryum archangelicum* B., S. & G. in Scotland, new to Britain. *Journal of Bryology* **18**: 277-280.  
Woods RG. 1993. *Flora of Radnorshire*. 292 pp. Cardiff: National Museum of Wales.

---

## CUMULATIVE INDEX

The Index is now all but finished and it is intended that it be published in 1996. In this way it will cover the 100 years since the foundation of the Moss Exchange Club.

Through the kindness of members I have been able to obtain copies of the the MEC and BBS Reports. However, from time to time other occasional publications of the MEC and BBS have been brought to my attention, such as a printed copy of the Rules of the MEC (1896) as well as Miss Eleonora Armitage's 'A short account of the Moss Exchange Club and the British Bryological Society' which she had printed in 1944. If members have other examples of publications of the MEC and BBS I would be pleased to hear from them (no later than the end of September 1995) and also to receive a photocopy so that an appropriate citation may be entered into the Index.

*Dr Philip Stanley, 48 Glisson Road, Cambridge, CB1 2HF*

---

## BOOKSHELF

The following publications are available from IDH-Verlag, Irene Düll-Hermanns, Funkenstraße 13, D-53902 Bad Münstereifel-Ohlerath, Germany. Tel. 02257/3282, Tel./Fax 02257/1586.

### *Bryologische Beiträge* **Zeitschrift zur Mooskunde**

ISSN 0723-2470. Price per volume: subscription DM 30,-, otherwise DM 35,-.

#### **Volume 1.** 1982. 179 pp.

- R. DÜLL: Fritz Koppe und die Bryofloristik.  
T. PÓCS: An epiphyllous liverwort community from the Caucasus Mountains.  
R. OCHYRA: *Orthodontium lineare* Schwaegr. - a new species and genus in the moss flora of Poland.  
F. KOPPE & R. DÜLL: Beiträge zur Bryologie und Bryogeographie von Tenerife.  
S. RISSE: *Riccia subbifurca* Warnst. neu für Deutschland.  
I. DÜLL-HERMANN: Literaturreferat 1980/81.

#### **Volume 2.** 1983. 115 pp.

- R. DÜLL: Distribution of the European and Macaronesian Liverworts (Hepaticophytina). (Distribution of the European and Macaronesian liverworts with extensive information on the general distribution.)

#### **Volume 3.** 1984. 119 pp.

- M. HÄUSLER: Die selteneren *Tortula*-Arten der Sektion *Cuneifolia* in Deutschland.  
I. GALAMBOS & S. ORBAN: *Crossidium crassinerve* (De Not.) Jur., new member of the Hungarian bryoflora.  
E. KUTA, L. PRZYWARA & R. OCHYRA: Chromosome studies on Polish bryophytes I.  
R.H. ZANDER: Bryophyte sexual systems: -oicous versus -oecious.  
K. ADAMEK: Bryogeographisch-ökologische Untersuchung der Moose des MB Overath (5009) im Bergischen Land (NW).  
R. DÜLL: Nachruf für Fridolin Neu.  
I. DÜLL & J. VÁNA: Literaturreferat.

#### **Volume 4.** 1984. 113 pp.

- R. DÜLL: Distribution of the European and Macaronesian Mosses (Bryophytina). Part I. (Distribution of the European and Macaronesian mosses with information on the general distribution.)

#### **Volume 5.** 1985. 122 pp.

- R. DÜLL: Distribution of the European and Macaronesian Mosses (Bryophytina). Part II. (Extensive register.)

**Volume 6.** 1986. 131 pp.: Beiträge zur Moosflora von Makaronesien.

G. SCHWAB et al.: Beitrag zur Moosflora der Kanareninsel La Gomera.

F. KOPPE & R. DÜLL: Beiträge zur Moosflora Madeiras.

F. KOPPE & R. DÜLL: Beiträge zur Moosflora von Gran Canaria.

R. MAY: Notes on some Macaronesian *Tortella* species.

I. DÜLL-HERMANN: Taxonomy of *Homalia lusitanica* Schimp. and *H. subrecta* (Mitt.) Jaeg.: is *H. subrecta* a species or a variety?

G. NORDHORN-RICHTER: Die Gattung *Pohlia* in Makaronesien.

R. DÜLL: Revision of *Rhynchostegiella* and closely related taxa in Macaronesia with reference to their occurrence in Europe.

I. DÜLL-HERMANN & J. VÁNA: Literaturreferat.

**Volume 7.** 1987. 117 pp.

J.-P. FRAHM: A revised list of the *Campylopus* species of the world.

(First summary of all known *Campylopus* species of the world with synonyms.)

**Volume 8/9.** 1992. 223 p.

R. DÜLL: Distribution of the European and Macaronesian Mosses (Bryophytina). Annotations and Progress.

(Notes on the European and Macaronesian mosses with information on the taxonomy and nomenclature. All important publications between 1986 and 1992 on taxonomy, nomenclature and distribution of mosses are considered, too. Price for subscribers: DM 50,-, otherwise DM 65,-.)

**Volume 10.** probably autumn 1995

R. DÜLL: Bryophytes of Greece.

(Complete list of all known bryophytes of Greece from the literature and some original work on the content and the area.

### Deutschlands Moose

The distribution of bryophytes in Germany (incl. the former GDR), their altitudinal distribution and notes on endangered species.

R. DÜLL & L. MEINUNGER. Part 1. 1 edition, 1989. 255 pp., price DM 53,50. ISBN 3-925425-03-9. Anthocerotae, Marchantiatae, Bryatae: Sphagnidae, Andreaeidae, Bryidae: Tetraphidales - Pottiales with 98 distribution maps.

R. DÜLL. Part 2. 1 edition, 1994. 211 pp., price DM 42,80. ISBN 3-925425-10-1. Grimmiales to Orthotrichales (part 1) with 51 distribution maps.

R. DÜLL. Part 3. 1 edition, 1994. 256 pp., price DM 42,80. ISBN 3-925425-11-X. Orthotrichales (part 2) to Hypnales with 46 distribution maps.

This is the first publication with an extensive information on the distribution of bryophytes since the book of Limpricht 1904. The valid names have their complete literature-quotations. You will find the general distribution and the altitudinal distribution of the species in Germany and the degree of endangering of species. Species which are rare at least in some

parts of the country and geographically interesting species are especially mentioned, with locations and maps. Synonyms and all important varieties are included. At the end there is an extensive register and a short summary on the most important German literature on bryology.

**Ruprecht Düll**  
**Die Moose Tirols mit besonderer Berücksichtigung des Pitztals**

Part 1. 1 Edition, 1991, 230 pp., price DM 50,-. ISBN 3-925425-06-3

Part 2. 1 Edition, 1991, 216 pp., price DM 45,-. ISBN 3-925425-06-X

This book for the first time after the bryophyte flora of Tirol by Dalla Torre 87 years ago, tries to give a modern though provisional overlook of the bryophyte flora of the Austrian Tirol. Bryophytes only known from the Southern Tirol (Italy) are mentioned and all species which have been found there up to publication date are included. Twelve liverworts and 9 mosses are new for the Austrian Tirol and are mentioned here for the first time.

Under each species the following observations are made: valid name with quotation, basionym (and if necessary synonym(s)), the altitudinal distribution in Tirol, the general distribution of the species, the 'areal type', and the most important locations. The level of threat to these species in Tirol is discussed. One hundred maps show the distribution of the most interesting species in Tirol. The heart of this work is based on the thorough study of the Pitz-valley where at the start of the investigation only 50 species were known. Most of these species are shown in the maps.

**H. Kutzelnigg, W. Ostendorp & R. Düll**  
**Moosbibliographie Zentraleuropas**

1 edition, 1992, 416 pp., price DM 80,-. ISBN 3-925425-09-8 (also available on a data disk)

This book is the first extensive bryophyte bibliography for Germany, Austria and Switzerland. It comprises about 7,500 publications which are supplied with catchwords.

Included are the following:

- publications concerning floristic, ecology, phytogeography and phytosociology of Central Europe,
- all bryological standard publications,
- important publications of the neighbouring countries,
- all middle-european and international publications concerning taxonomy, cytology, physiology and genetics of species to be found in the area.

In the detailed register all quotations are arranged in the order of the different subjects mentioned above. Because of all these different matters this bibliography is not only an important work of reference but also a guide to the different subjects of bryology.

**Ruprecht Düll**  
**Exkursionstaschenbuch der wichtigsten Moose Deutschlands**

An introduction to bryology with special reference to the ecology of bryophytes. It includes the identification of easily recognizable species in the country.

4 edition, 1993. 335 pp., price DM 49,-. ISBN 3-925425-00-4

This book is different from all other bryology books. It contains the knowledge of 30 years of bryological studies of the author. In the general part there are methodical instructions, an introduction into the life-history of bryophytes and the position and importance of bryophytes in nature.

All important species (214) – which are about half of the German species – have an extensive description which contains their ecology and the German names. There are also special references to other bryophytes with which confusion is possible. Interesting stories concerning natural history, usage and other things are mentioned, too. Most illustrations are by the author himself.

New in the third and fourth edition: the mentioning of the indicator values after Ellenberg *et al.* and the summary of the distribution of all German bryophytes together with their latest frequency after Düll & Meinunger (see below).

**R. Düll & H. Kutzelnigg**  
**Punktkartenflora von Duisburg und Umgebung**

This work deals with the ecology, the origin, the way of introduction into the German flora and the endangering of all phanerogams known in or around Duisburg since 1800.

2 edition, 1987. 378 pp., price DM 42,-. ISBN 3-925425-02-0

This is the first flora in Germany with an extensive text for every species, and distribution maps. The book contains more than 1500 maps which show the distribution of all phanerogams which have been known in the area of Duisburg (incl. the area of Krefeld, Moers, Mülheim, part of Essen) since 1800.

In the text there is important information on the ecology, the origin, the way, the time and the degree of introduction into the flora and notes on the endangering of the species. This is the flora of a very urban area which has been discussed very extensively.

**H. Kutzelnigg & R. Düll**  
**Die Gefäßpflanzen des Pitztals / Tirol**

1 edition. 1989 237 p. price DM 42,-. ISBN 3-925425-05-5

This is the first extensive flora of the austrian Alps which includes distribution maps.

The general part gives a description of the vegetation of the area with special references to nature conservation. The special part discusses over 1000 species which have been known from the Pitz-valley up to the present time. The highest and the lowest altitude of location are mentioned for every species. There is also some information on their ecology and frequency at different altitudes.

## BBS POSTCARDS

BBS postcards are selling well, with 462 sets of 16 cards sold so far. Post them off to somebody (preferably not BBS members, who will already have some), and buy more!

If you haven't bought your sets yet, and also if you have, each set of 16 stunning colour postcards of British bryophytes costs only £2.95, which is 18½p a card. They have been bought by several major retail outlets, who are selling them for up to 30p per card. Order several sets and:

- \* publicise mosses and liverworts;
- \* help the BBS (we must sell more than one set per member to break even!);
- \* impress your friends;
- \* save money by not buying other more expensive cards.

The A6 postcards are printed by Judges, and are laminated with semi-gloss anti-UV film. The photographs are the best 16 selected from 186 entries to the BBS photographic competition.

Available from: Sean Edwards, Manchester Museum, Manchester University, Oxford Road, Manchester M13 9PL. U.K. Postage and packing 50p extra for one set, 60p for two, 70p for 3, and £1.00 for 4 sets (because of the bigger envelope). Also available at BBS meetings. Cheques payable to the British Bryological Society. Please telephone for more information:- work 0161-275-2671, home 0161-442-9346.

---

## ADDITIONS AND AMENDMENTS TO THE MEMBERSHIP LIST: MAY 1995

### NEW MEMBERS

**Bingley**, Mr F J, The Clock House, Balsham, Cambridge, CB1 6DJ, UK.  
**Campbell**, Ms V, Postgraduate Pigeonholes, School of Biological Science, University of Sussex, Falmer, Brighton, East Sussex, BN1 9QG, UK.  
**Cargill**, Ms D C, Dept of Ecology &, Evolutionary Biology, Monash University, Wellington Road, Clayton, Victoria 3168, Australia.  
**Conyers**, Mr Tim, 58 Church End Lane, Runwell, Wickford, Essex, SS11 7JG, UK.  
**Edwards**, Mr R J, 362 Garstang Road, Fulwood, Preston, Lancs, PR2 4RY, UK,  
**Edwards**, Mrs R J, 362 Garstang Road, Fulwood, Preston, Lancs, PR2 4RY, UK,  
**Gibson**, Mr J A, 10 Chepstow Court, Lyde Road, Yeovil, Somerset, BA21 5DN, UK,  
**Lansdown**, Mr Richard, 4 Glentworth Cottages, Coombe, Wotton-under-Edge, Glos, GL12 7ND, UK,  
**Milne**, Mrs Josephine, 95 Queens Road, Pearcedale, Victoria 3912, Australia.  
**Mott**, Mr John, 21 Queen's Road, Hethersett, Norwich, NR9 3DB, UK.  
**Oxley**, Mrs Valerie M, Brookside, Firbeck, Worksop, Notts, S81 8JZ, UK.  
**Preston**, Ms Christine, 11 Christchurch Gardens, Reading, RG2 7AH.  
**Price**, Ms Michelle, Haulfryn, Deinol Road, Bangor, Gwynedd, LL57 2UP, UK.  
**Radford**, Mr R, 7 Godward Road, New Mills, Nr Stockport, Cheshire, SK12 3BU, UK.

(F)

**Robinson**, Mrs Sylvia, The Old Gasworks, The Batts, Whitey, N. Yorkshire, YO21 1PG, UK.  
**Schmidt**, Carsten, Hardtstr. 42, D-46282 Dorsten 1, Germany.  
**Tuba**, Professor Zoltán, Dept. of Botany & Plant Physiology, Agricultural University of Godollo, H-2103 Godollo, Pater K. u. 1., Hungary.  
**Viney**, Dr Deryck, 138 Tubbenden Lane, Orpington, Kent, BR6 9PR, UK.  
**Watson**, Mr K, 1/2, 71 Kelvindale Gardens, Glasgow, G20 8NW, UK.

# **CHANGES OF ADDRESS OR NAME OR BOTH**

**Barker**, Dr Marilyn, 3211 Providence Drive, Dept of Biological Science, University of Alaska, Anchorage, Alaska 99508, USA. (1991)  
**Belyea**, Ms Lisa R, 27 (IF2) Woodburn Terrace, Morningside, Edinburgh, EH10 4SS, UK. (1993)  
**Carpenter**, Mr Roy, Flat 1, Kensington Court, 22 Castle Street, Ryde, Isle of Wight, PO33 2EE, UK. (1979)  
**Carter**, Dr R N, 3 Chaucer Close, Maldon, Essex, CM9 6DA, UK. (1985)  
**Colacino**, Dr Carmine, Dip.to di biologia, difesa e b a, Universita della Basilicata, I - 85100 Potenza, Italy. (1991)  
**Fife**, Mr Allan J, Landcare Research N Z Ltd, P O Box 69, Lincoln, New Zealand (1983)  
**Flatt**, Mrs Mary E, (née Scruby), Chalk Cottage, Soames Lane, Ropley, Alresford, Hampshire, SO24 0ER, UK. (1985)  
**Frahm**, Dr J P, Botanisches Institut der Universitat Bonn, Meckenheimer Allee 170, D-52115 Bonn, Germany. (1973)  
**Glime**, Dr Janice M, Department of Biological Sciences, College of Sciences & Arts, Michigan Technological University, Houghton, MI 49931-1295, USA. (1975)  
**Goode**, Mr J A, 43 Summerville Gardens, Cheam, Surrey, SM1 2BU, UK. (1991)  
**Hans**, Florian, Kreuzweilerstrasse 22, D-66706 Perl-Sinz, Germany. (1989)  
**Hoellwarth**, Dr Michael, Albert Schweitzer Str. 4A, D-64409 Messel, Germany. (1976)  
**Leonard**, Dr J K, Orchard House, Hopesay, Craven Arms, Shropshire, SY7 8HD, UK. (1993, F)  
**Leonard**, Dr E Marjorie, Orchard House, Hopesay, Craven Arms, Shropshire, SY7 8HD, UK. (1993)  
**Ludwig**, Herr Gerhard, Prinz-Albrecht-Strasse 42, D-47058 Duisburg 1, Germany. (1990)  
**Martincic**, Dr A, Institut za Biologijo, Univerze v Ljubljani, Ljubljana, Slovenia. (1973)  
**Matcham**, Mr H W, 111 Winterbourne Road, Summersdale, Chichester, West Sussex, PO19 4PB, UK. (1985)  
**Matcham**, Mrs Louise, 111 Winterbourne Road, Summersdale, Chichester, West Sussex, PO19 4PB, UK. (1981, F)  
**Mazimpaka**, Dr Vicente, Departamento de Biologia (Bot. Facultad de Ciencias), Univ. Autonoma de Madrid, C U de Cantoblanco, 28049 Madrid, Spain. (1989)  
**Mishler**, Dr B D, Dept of Integrative Biology, 345 Mulford Hall, University of California, Berkeley, CA 94720, USA. (1985)  
**Mues**, Prof. Dr Rudiger, Universität des Saarlandes, Fabrichtung 13.1 Botanik, Postfach 1150, D-66041 Saarbrücken, Germany. (1984)  
**Perry**, Dr C L, Windrush, 39 Haven Road, Haverfordwest, Dyfed, SA61 1DU, UK. (1992)  
**Poelt**, Professor J, Holteigasse 6, A-8010 Graz, Austria. (1972)

**Schuster**, Dr Rudolph M, Department of Botany, University of Massachusetts, Amherst,  
MA 01002, USA. (1955)  
**Scott**, Dr G A M, 5 King William Street, Fitzroy 3065, Australia. (1956)  
**Selkirk**, Dr Patricia M, School of Biological Sciences, Macquarie University, North  
Ryde, NSW 2109, Australia. (1981)  
**Soames**, Mr Barry, East Grange Lodge, Blairhall, Dunfermline, Fife, KY12 9PY, UK. (1994)  
**Söderström**, Professor Lars, Department of Botany, University of Trondheim, N-7055  
Dragvoll, Norway. (1984)  
**Stark**, Mr Gavin, Institute of Terrestrial Ecology, Merlewood Research Centre,  
Windermere Road, Grange over Sands, Cumbria, LA11 6JU, UK. (1991)  
**Studlar**, Professor Susan Moyle, Dept of Biology, West Virginia University,  
Morgantown, WV 26506-6057, USA. (1980)  
**Zanten**, Dr B O van, Vogelzangsteeg 8, 9479 TG Noordlaren, The Netherlands. (1964)

#### RESIGNED

**Burgoine**, Mr Peter F, 1 Montpelier Close, Styvechale, Coventry, CV3 5PL. (1983)  
**Curle**, Mrs Shirley, 18 Irvine Crescent, St Andrews, Fife, KY16 8LG. (1986)  
**Hammond**, Mr H N, 39 Outgang Road, Aspatia, Carlisle, Cumbria, CA5 3HS. (1990)  
**White**, Mr A J, 25 Shelsey Drive, Parklands, Northampton, NN3 8ET. (1994)  
**Wilberforce**, Mr P W, Llanbryde, North Connell, By Oban, Argyll, PA37 1RA. (1993)  
**Woodward**, Mr S, 19 Highfield Road, Groby, Leicester, LE6 0GU. (1985)

#### DECEASED

**Milne**, Mr A R, 39 Kennedy Gardens, Sevenoaks, Kent, TN13 3UG. (1993)

\*\*\*\*\*



