

BRITISH BRYOLOGICAL SOCIETY

PRESIDENT: DR H.L.K. WHITEHOUSE

BULLETIN

No. 40. July, 1982

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RECENTLY PUBLISHED BY THE BRITISH BRYOLOGICAL SOCIETY

Distribution of bryophytes in the British Isles: a Census Catalogue of their occurrence in vice-counties. Edited by M.F.V. Corley and M.O. Hill. 1981.

Available from British Bryological Society, c/o Department of Botany, National Museum of Wales, Cardiff CF1 3NP, Wales. Price £5.00 post free to members of the British Bryological Society, £6.00 post free to non-members.

Vice-county distributions are listed for all species, subspecies and varieties of bryophytes occurring in the British Isles. There is an index listing all maps of bryophytes hitherto published by the British Bryological Society through its mapping scheme. Taxonomic revisions and species notified since publication of the standard British floras are cited in the annotations.

BRITISH BRYOLOGICAL SOCIETY

STATEMENT OF AFFAIRS AS AT 31st DECEMBER 1981

<u>Liabilities</u>		<u>Assets</u>	
	£		£
Blackwell's 1981 a/c outstanding	5,442.78	National Westminster Bank -	
Advance subscriptions	700.00	Current account	1,117.72
Capital a/c brought forward	12,388.80	Deposit account	1,187.00
	18,531.58	National Savings Bank Investment a/c	10,765.00
<u>less</u> excess of expenditure over income, 1981	4,963.86	Grant-in-aid towards 1981 <u>Journal</u> , outstanding	500.00
	<u>13,567.72</u>		<u>13,567.72</u>

INCOME AND EXPENDITURE ACCOUNT, YEAR ENDED 31st DECEMBER, 1981

<u>INCOME</u>			
(1980)			
£	<u>Publications</u>	£	£
4,354.40	Blackwell's : subscriptions to <u>Journal of Bryology</u>	5,236.45	
340.68	: sales of <u>Journal</u> back issues	386.20	
370.19	: sales of <u>Journal</u> offprints	452.35	
49.00	: advertising in the <u>Journal</u>	-	
141.89	Sales through K.J.Adams (B.B.S.Library)	379.22	
82.62	Sales through A.J.E.Smith (Provisional Atlas/record cards)	172.24	
+	Sales of new Census Catalogue	709.50	
-	Royalties (mostly from ' <u>Bryophyte Systematics</u> ')	371.84	
<u>5,338.78</u>			7,707.80
<u>General</u>			
2,926.24	Subscriptions from members	2,834.27	
34.58	Reading Circle subscriptions	43.94	
-	Postage	23.20	
100.00	Legacy	-	
-	Grant-in-aid towards publication of <u>Journal</u>	500.00	
2,094.00	Interest from National Savings Bank Investment Account	1,758.00	
.15	Interest from National Westminster Bank deposit account	185.64	
<u>5,154.97</u>			5,345.05
<u>10,493.75</u>			<u>13,052.85</u>
Excess of expenditure over income for the year 1981			4,963.86
			<u>18,016.71</u>

<u>EXPENDITURE</u>			
(1980)			
£	<u>Publications</u>	£	£
	Blackwell's : <u>Journal</u> , vol.11 parts 3 and 4 :-		
583.20	Paper	906.50	
439.30	Artwork	643.20	
3,969.30	Printing	4,900.80	
184.90	Corrections	169.00	
912.40	Binding	1,274.70	
711.11	Despatch	1,027.70	
319.70	Offprints	543.70	
<u>7,119.21</u>			<u>2,465.60</u>
	Blackwell's : General costs :-		
14.20	Advertising	12.10	
55.78	Cost of reprints	17.10	
25.00	Storage of back issues	25.00	
44.25	Sharing cost of post and telephone	49.20	
138.33	Other costs	-	
<u>277.56</u>			<u>103.40</u>
1,088.60	Blackwell's : 25% of subscription income	1,309.11	
85.17	25% of sales of back issues	96.55	
129.57	35% of sales of offprints	158.32	
396.80	Servicing 481 members @ 40p per issue	384.80	
<u>1,700.14</u>			<u>1,948.78</u>
<u>496.80</u>	<u>Bulletin</u> , 2 issues for 1981		<u>702.95</u>
-	Reprint of <u>Journal of Bryology</u> , 7 (3)		<u>1,428.00</u>
-	Production costs of new Census Catalogue		<u>3,587.50</u>
	<u>General</u>		
93.44	Expenses - field meetings / A.G.M.	111.34	
210.80	- 10-km square mapping	135.50	
-	- grant to M.Corley	55.00	
75.00	- other	-	
33.90	Stationery, typing and telephone costs	121.30	
133.75	Postage	268.41	
73.26	Photocopying	24.65	
-	Library purchases	25.00	
15.30	Insurance of B.B.S. Library	15.30	
7.50	Subscription to Biological Council	17.50	
20.00	Refund of subscriptions	6.50	
<u>662.95</u>			<u>780.50</u>
<u>10,257.36</u>			<u>18,016.71</u>

CERTIFICATE

We hereby certify that the Income and Expenditure Account, and Statement of Affairs, have been prepared from the books and statements presented to us by M. Pearman, Hon. Treasurer, and to the best of our knowledge and belief show a true statement of the affairs of the Society as at 31st December 1981.

Date: 12-6-82 Signed: Berkeley Hall & Co.

Berkeley Hall & Co., Chartered Accountants, Shepton Mallet

REPORT OF OFFICERS FOR 1981

a) GENERAL SECRETARY'S REPORT

As I look back over the last 8-odd years to Autumn 1973 when I was elected Hon. Sec. of the B.B.S., the vista that I recall is one with a good deal of heavy industry. This year has been no exception. We held our usual programme of meetings, the accounts of all appearing in Bulletin 39. Ken Adams ran the Spring Meeting in Suffolk "with the impending deadline for the mapping scheme very much in mind". He continued the successful trend of the 1978 Carmarthen meeting that I organized, of setting up a lab. for the use of beginners, and making a special effort with them in the field. I believe this trend has paid off for it frequently results in valuable contributions to bryology from them. The Summer Meeting was in Scotland, the first week organized by David Long, the second week by Peter Pitkin. Many exciting species, records and bryological localities were discovered, and everyone had a good time. The AGM and Paper-reading Meeting was ably organized by Martha Newton who proved what a first class Meetings Secretary she is. Lancaster was the venue, with Andrew Malloch, the local Secretary, making the home arrangements. Paddy Coker yet again ran the Taxonomic Workshop in Thames Polytechnic and the enthusiasm of the participants shows that this type of meeting is very much appreciated. Despite the occasional murmuring that there is lack of support for our meetings and so their number per year needs to be reduced, there is no evidence of this need in the records of attendance in 1981, viz. Spring (32), Summer (14 + 18), AGM and Paper-reading (36), Taxonomic Workshop (18). Indeed I felt there was a case for field meetings additional to these so I suggested to Council the possibility of weekend field meetings held in various places throughout the country in order to attract the many local members unable to manage the dates or expense of the usual meetings. Not only could many members benefit from these meetings, but they could be arranged in areas poorly recorded for the Mapping Scheme. The idea has now been advertized (Bulletin 39) and it remains to be seen how successful the venture is.

Arising out of a proposal at the Council meeting in April 1979 when Officers were asked for ideas on possible bryological projects for the membership, including amateur and junior members, Royce Longton at the 1981 AGM offered to get together a package on reproductive biology of some British mosses, and with help from Ken Adams, a document was produced and published in Bulletin 39.

During the year, Journal of Bryology volume 11 parts 2 & 3 were published and we thank Tony Smith and his editorial board for the work they have put into them. A good deal of discussion and research behind the scenes, about the content of the Journal, has been going on, but Tony is convinced that it should have a nicely balanced content. I edited and published two Bulletins, numbers 36 & 37. Finally, towards the year's end, "Distribution of Bryophytes in the British Isles, a Census Catalogue of their Occurrence in Vice-Counties" prepared by Martin Corley and Mark Hill, was published, giving a welcome stimulus to field recording in 1982, especially as the present phase of the mapping scheme is due to finish at the end of 1982 in the production of an Atlas.

Our Treasurer, Michael Pearman, has been trying to make ends meet, but in a report to Council in April he pointed out that for £6 in

1980 each member received £9.20 worth of goods. So with regret Council decided to recommend increase in Ordinary and Junior subscriptions from January, 1982. At the AGM it was unanimously agreed to raise the subscriptions to £10 and £5 respectively. It was the first increase since January 1975 when the rise to £6 in Ordinary membership subscription caused a small initial drop in membership numbers. We have to expect the same to happen in 1982, I fear, but I hope that as in 1975, the decline will be overwhelmed by the number of new members joining during 1982.

We were sorry to hear of the deaths of four of our members during 1981; Derek Foster (Treasurer 1975-1980), A.J. Pettifer (Librarian 1958-1969, President 1970-1971) and two of our distinguished foreign members, Dr. Monte G. Manuel and Prof. van der Wijk.

At the AGM Dr. D.G. Catcheside F.R.S. was elected to Honorary Membership. A member of the B.B.S. since 1923/24, he played a large part in helping towards the recovery of the Society after the last war. He has recently published his book on the "Mosses of South Australia".

There have been some changes in Officers of the Society as from January 1982. Michael Proctor was elected Vice President to succeed Harold Whitehouse who takes up the Presidency, and we have to thank the retiring President, Stanley Greene, for steering us along the right lines. Owing to increasing other commitments our Conservation Officer, Paddy Coker, was forced to resign. He has been active in many ways on our behalf and we are grateful for his work. Chris Preston is his replacement. It was with a great deal of reluctance that I resigned as Secretary. The post has been exacting and challenging and I have enjoyed witnessing some of the fruits of my efforts. More particularly, however, I have welcomed the marvellous opportunity that the Secretaryship brings of getting to know the membership better. But I believe there must be regular change both for the individual and for the Society, and I felt that eight years was enough in this case.

The Secretaryship as I took it on in 1973 comprised several curiously unrelated duties. New Members were welcomed to the throng and their first subscription received, and resignations and changes of address noted; and Blackwells were informed of all changes in order to update their mailing list for the Journal: two Bulletins a year were edited, got printed and published: and arrangements for the two Council meetings and the AGM each year were made, and agenda and Minutes were produced and published. After a year or so of feeling my way I found that things were ticking over nicely to my satisfaction. But in arriving at relative efficiency I began to find the duties onerous. So I made the suggestion to Council in 1978 that a post of Membership Secretary might be created. This was put into practice and the first, and present incumbent, George Geyman, happily, it seems, fills in much of his (and his wife's) spare time with the duties. In 1981 I suggested a further separation of my remaining duties into those traditionally secretarial and those of Bulletin production. And at the AGM this was proposed and accepted, and I was very pleased to be elected into the new post of Bulletin Editor.

I have now handed over the Secretarial bag to my worthy successor Royce Longton, of Reading University, and I wish him well and hope all members will smooth his path as much as they can. In concluding I would like to pay tribute to all Officers of the Society. I thank

them for their help, cooperation and hard work during the last 8 years. Because of them I believe the B.B.S. is now as flourishing as it ever was, probably more so.

A.R. Perry,
March, 1982

b) TREASURER'S REPORT

The Journal of Bryology accounts for such a high proportion of our annual budget (c.49% of income; c.63% of expenditure), that without the final bill from Blackwell's it is impossible to prepare a conclusive annual report. At the time of writing (March 1982) the 1981 invoice has not yet been received although I hope that the Society's balance sheet can be prepared this year in time for the summer issue of the Bulletin, and thus appear alongside this report.*

Blackwell's have, however, supplied me with estimates for 1981 and although these should be treated with caution the overall figures, using these estimates, would be as follows :-

	(1979)	(1980)	1981
	£	£	£
Income	(7,888)	(10,493)	12,327
Expenditure	(6,366)	(10,257)	17,644
Profit or loss	(+1,522)	(+236)	-5,317

I anticipate, therefore, a net loss over the year of more than £5,300. This deficit consists of two parts. Much of it (c.£4,300) was the net cost (i.e. printing cost less sales) of two publications, i.e. the new Census Catalogue and the reprint of the Journal vol.7 part 3. Sales of these should eventually reimburse the Society but only over a number of years: in the meantime we lose investment income of c.£600 p.a. The remaining deficit (c.£1,000) was on the Journal, the Bulletin, and the Society's running expenses. This latter figure, added to the loss of investment income mentioned above, is the best indicator we have to our likely financial position in 1982; there is little doubt that we will need every penny of the additional income (c.£1,800) from our subscription increase if we are not to incur a deficit for a further year. Much will depend, however, on the number of pages included in the 1982 Journal issues.

Assets The financial assets of the Society at the end of 1981, excluding the £700 that had been received as advance subscriptions for 1982, were as follows:-

	(1979)	(1980)	1981
	£	£	£
Current account	(774)	(366)	424
Deposit account	(1)	(1)	1,187
National Savings Bank	(11,733)	(16,004)	10,763
TOTAL	(12,508)	(16,372)	12,374

The bulk of the Society's capital remains in our National Savings Bank Investment Account, which continues to yield a satisfactory rate of interest of 15%. The multiple signatures now needed by the N.S.B. to withdraw institutional investment makes rapid access to our savings impossible and a small, more flexible 'float' is maintained in our bank's deposit account to enable us to meet our

* This appears on pp. 2 and 3

debts with reasonable promptness.

M.A. Pearman,
March, 1982

c) EDITOR'S REPORT

A larger number of papers than usual was submitted to Journal of Bryology and, although some of these (mainly ecological) were unacceptable, volume 11, parts 3 and 4 totalled 483 pages, more than in any previous year. Some difficulties have been experienced with Blackwell's, probably mainly due to their having three different subeditors, each with different ideas, during the past three years. With the cost per page of the Journal in 1981 being £20 I must ask contributors to make their papers as concise as possible. I am very grateful to Mr. A.C. Crundwell for preparing the index to vol. 11 - a task made more than usually tedious because of incorrect pagination by the printers - and to Dr. E.W. Jones and Mr. A.R. Perry for help with checking the proofs.

A.J.E. Smith,
March, 1982

d) REPORT OF THE RECORDER FOR MOSSES

The main activity this year has been the production of the new Census Catalogue. The data for both mosses and liverworts have been computerized. Copy for the printer was largely generated by the computer at my place of work (ITE Bangor). Several members of the B.B.S. have asked for listings of the taxa recorded from particular vice-counties; these listings were also provided by the computer.

This year, species were no longer being revised for the new Census Catalogue; there has been only one deletion. The number of records is markedly down on last year, but I doubt whether members were less active. The difference is probably attributable to the fact that this year's records were almost entirely based on new recording, whereas those for last year included a large number that had been dug up or reworked from the past. An "old" species is one included - at whatever rank - in Dixon's Handbook.

	Old spp.	New spp.	Vars.	Total
England	49	29	16	94
Wales	6	2	1	9
Scotland	47	26	10	83
Ireland	21	4	0	25
Total	123	61	27	211

I am very grateful to Messrs. Coker, Corley, Crundwell and Whitehouse for providing second opinions, and to Dr. R.E. Andrus for confirming the Irish Sphagnum subfulvum.

M.O. Hill,
Dec. 1981

e) REPORT OF THE RECORDER FOR HEPATICS

The 1981 new vice-county records list includes 124 new records, an increase of 50% on last year. The numbers of new records for England, Wales, Scotland and Ireland are 35, 11, 63 and 15 res-

pectively. These figures are very similar to those for last year except for Scotland (16 last year). The increase here is an indication of the great success of the B.B.S. Summer Meeting. I am most grateful to Jean Paton and David Long who have confirmed the identity of a number of specimens.

In the wake of the new Census Catalogue it has been necessary to review the list of hepatic referees to accord with the new numbering of genera. Some referees have resigned, and I should like to thank them on behalf of the Society, for their services, which are of great value to the Society's members. Some new referees have been co-opted, and I am grateful to them for accepting this task.

M.F.V. Corley,
February, 1982

f) LIBRARIAN'S REPORT

Sales:	Census Catalogues	27
	Transactions/Journal (parts)	128
	Library Catalogues	4
	Bulletins	17
Loans:	49 items of books/separates, 5 loans of slides.	

Due to the rising cost of xerox copying it is regretted that the charge for good quality photocopies has had to be raised to 10p per copy.

Kenneth J. Adams,
January, 1982

g) BIBLIOGRAPHER'S REPORT

This has been another year in which the number of publications on bryophytes has been remarkably high. As usual, the majority of entries in the list are papers that include bryological information incidentally, rather than setting out to be solely bryological papers. In some ways this is very encouraging because it means that non-bryologists are not only aware of the bryophytes, but can also see where they provide useful data or experimental material for a wide range of topics.

Nevertheless, for the future, it will be very important for the number of workers who specialize in bryology to be maintained, if not increased, because they are the people who feed the original data into the system. Without a good supply of specialist bryological papers at their disposal, non-bryologists would soon forget what bryophytes have to offer their work.

G.C.S. Clarke,
January, 1982

h) CURATOR'S REPORT

81 Hepatic and 216 Moss vouchers were received.
245 specimens were sent out on loan, most of them to one person (216 hepatics).
Work has commenced on bringing nomenclature and numbering on moss herbarium index cards into line with the new Census Catalogue.

S.G. Harrison,
February, 1982

i) MAPPING SECRETARY'S REPORT

Records continued to arrive at about the same rate as in 1980, although mainly from reasonably well-worked parts of the British Isles. It is to be hoped that the series of local excursions co-ordinated by the Meetings Secretary for 1982 will result in an augmented number of records during the last year of this phase of the scheme. The Biological Records Centre have commenced extracting records from field record cards and it is hoped to publish maps in 1985.

A.J.E. Smith,
March, 1982

j) MEETINGS SECRETARY'S REPORT

All four meetings held during 1981 were well attended, thus reversing a tendency in recent years for the summer meetings to attract few participants. It is to be hoped that this welcome improvement will be continued. Perhaps the best way of ensuring that it does, would be to involve more people in the selection of places to visit. While the Society could not hope to visit everyone's favourite site, I should like to encourage everyone to give some thought to suitable centres for future meetings and to let me know of their ideas. It would make the job of meetings secretary easier but, more importantly, her decisions would become more democratic !

As always, the Society has leaned heavily on the efforts of local organizers and has been splendidly served by those involved this year. Accounts of two meetings have been prepared by the organizers themselves, which makes it appropriate that members' appreciation of their work, Dr. K.J. Adams' at Stowmarket and Mr. D.G. Long's and Dr. P.H. Pitkin's at Newtonmore and Crianlarich, respectively, should be recorded here.

I also wish to record my thanks to Prof. J.G. Duckett, who took a keen interest in ensuring that things ran smoothly when I took over from him at the beginning of the year and who has proved himself ready to help with difficult problems.

M.E. Newton,
January, 1982

k) MEMBERSHIP SECRETARY'S REPORT

1981 opened with 522 paid-up members. During the year there were 18 U.K. and 10 Overseas new members. 19 members are in arrears with their 1981 subscriptions, and during the year 22 resigned on notification of the increased subscription. There were four deaths, M.G. Manuel, Malaysia (1971), Dr. W.D. Foster (1969), A.J. Pettifer (1952) and Prof. van der Wijk (1948). Total losses over the year being 44. At December 31st there were 303 U.K., 172 Overseas and 12 family members equalling 492.

George G. Geyman,
February, 1982

MINUTES OF THE ANNUAL GENERAL MEETING, LANCASTER, 1981.

Minutes of the Annual General Meeting held at 1650 hrs on Saturday 19 September, 1981 in the Department of Biological Sciences, University of Lancaster.

PRESENT: Dr. S.W. Greene (President - in the Chair) and 35 other members.

(1) APOLOGIES: Apologies for absence received from Dr. P.D. Coker, Mr. S.G. Harrison, Mrs. J.A. Paton, Prof. P.W. Richards, Mr. D.A. Synnott and Mr. M. Walpole.

(2) MINUTES: The Minutes of the Annual General Meeting held on 20 September, 1980, in the University of Bristol, were approved and signed as a correct record.

(3) MATTERS ARISING: There were none.

(4) OFFICERS' REPORTS FOR 1980:

(a) GENERAL SECRETARY: There were no comments.

(b) TREASURER: Mr. Pearman, referring to the last report of our late Treasurer, Dr. Foster, in *Bulletin* 38, said that it did not mention the fact that there was a bill from our publishers of about £4,000 outstanding at that time which would reduce our capital of £16,004.

(c) EDITOR: There were no comments.

(d) RECORDER FOR MOSSES: Mr. Hill announced that the page proofs of the forthcoming new Census Catalogue were being checked.

(e) RECORDER FOR HEPATICS: There were no comments.

(f) LIBRARIAN: Dr. Adams said he did most of the photocopying for the Reading Circle and apologized for its poor quality. Better quality is available but more expensive. He said that he was taking orders for x20 lenses.

(g) BIBLIOGRAPHER: Dr. Clarke asked to be notified of any obscure references that members came across.

(h) CURATOR: There were no comments.

(i) MAPPING SECRETARY: Dr. Smith requested that all field records of bryophytes be sent to him as soon as possible for incorporation in the forthcoming Atlas.

(j) MEETINGS SECRETARY: Dr. Newton thanked Prof. Duckett for all his help since she took over from him as Meetings Secretary. Mr. Long expressed concern at the suggestion he had heard, of amalgamating the Summer meeting with the Paper-reading meeting. Mr. Synnott had written to the Secretary saying he strongly disagreed with the suggestion of having a Summer field meeting only every second year: this would seriously affect bryological field work in Ireland. Dr. Greene said these matters had been discussed by Council and he assured the Meeting that there was no intention of amalgamating the Summer meeting with the Paper-Reading meeting or of reducing the number of Summer meetings. Dr. Newton said Council had been discussing the possibility of arranging weekend field meetings in addition to our usual run of meetings. She had compiled a list of poorly worked areas suitable for these.

(k) MEMBERSHIP SECRETARY: Mr. Geyman said the membership was more or less stable. Mr. Perry asked why membership numbers were not rising as in some other societies. It was the general feeling that this was because there were

no coloured illustrated books on bryophytes as there were, for example, on lichens, and it was suggested that perhaps we might produce a booklet to remedy this.

(1) CONSERVATION: It was announced that Dr. Coker had found it necessary to resign as Conservation Officer owing to heavy pressures from other work.

(5) ELECTION OF OFFICERS, 1982-83:

(a) VICE-PRESIDENT: Dr M.C.F. Proctor was unanimously elected as the new Vice-President.

(b) GENERAL SECRETARY: The meeting thanked Mr. Perry for his work and Dr. R.E. Longton was unanimously elected as the new General Secretary.

(b 1) CONSERVATION OFFICER: Dr. Greene said Dr. Coker had resigned from this post last night, and as it was important to fill the post as soon as possible here requested the Meeting's permission to elect a replacement now. This was agreed. He said Council had nominated Dr. Chris Preston as the new Conservation Officer. Dr. Preston was proposed by Dr. Newton, seconded by Mr. Long and unanimously elected.

(c) OFFICERS: All the other Officers were due for re-election. It was proposed by Mr. Wallace, seconded by Mr. Wanstall, that all remaining Officers be elected en bloc for a further 2 years. This was carried unanimously.

(6) CREATION OF NEW OFFICE OF BULLETIN EDITOR ON COUNCIL: Dr. Greene said Council had agreed to the creation of a new post of Bulletin Editor. He said Mr. Perry, who had edited the Bulletin whilst he was General Secretary, was willing to continue doing so if elected. Dr. Proctor proposed a new post of Bulletin Editor be created with Mr. Perry holding this office. This was seconded by Mr. Wanstall and carried unanimously.

(7) ELECTION OF THREE MEMBERS OF COUNCIL: The Council's nominees, Messrs. Bloom, Crundwell and Fisk, were unanimously elected to serve on Council for two years from 1 January, 1982.

(8) MEMBERSHIP SUBSCRIPTIONS: Mr. Pearman said it was no great surprise that it was at last necessary to raise the membership subscriptions: the great surprise was that we had held them at £6 (ordinary membership) and £3 (junior membership) for so long. He anticipated a deficit of £6,000 in 1981. At present we each get £10.20 worth of services. In the past we have been subsidized by Institutions and helped by interest from our investments. Next year institutional subscriptions will be rising to £24; the difference between this and our present ordinary membership subscription of £6 is very great and should be lessened: institutional members have provided us with 42% of our income over the last two years. Our investment account will be dropping from about £12,000 to around £6,000, therefore the interest will also decrease. In addition to these considerations Mr. Pearman said he believed it bad policy to increase subscriptions by numerous small steps; this practice also increases work, makes it onerous for members to keep their banker's orders up-dated, and so on.

Mr. Long asked how long it would be before the next increase in subscriptions might be expected, but Mr. Pearman didn't hazard a guess at this. Dr. Birks asked whether we ought to shop around for another, less expensive, publisher, but Dr. Greene said that Mr. Pearman had examined Blackwell's account very carefully and had found that we are getting good value for what we are paying.

It was proposed by Mr. Pearman that as from 1 January, 1982 the ordinary member-

ship subscription be raised to £10, the junior membership subscription be raised to £5 and the family membership subscription remain at £1. This was seconded by Mr. Corley and carried unanimously.

A tribute was paid to our late Treasurer, Dr. Foster.

(9) PLACE AND DATE OF NEXT ANNUAL GENERAL MEETING, 1982: Dr. Newton said Oxford had been suggested for this, and it was agreed that Dr. E.W. Jones approach Dr. Sarah Watkinson about arranging it there. He himself would be willing to lead the field meeting. The meeting would be some time in September, 1982.

(10) OTHER MEETINGS IN 1981 AND 1982:

(a) TAXONOMIC WORKSHOP, 1981: It was reported that this was being organized by Dr. Coker in Thames Polytechnic, 28-29 November.

(b) SPRING MEETING, 1982: It was proposed that this be based on Okehampton, Devon. Dr. Proctor said he would look into this.

(c) SUMMER MEETING, 1982: It was suggested that this should be in the Penrith/Keswick area.

(d) TAXONOMIC WORKSHOP, 1982: It was stated that this would be in November, possibly at Bradford.

Mr. Long commented that the 1981 Summer meeting had been arranged from Tuesday to Tuesday; some people had found this a good arrangement whilst others found it difficult. Mr. Crundwell said in some places with limited hotel accommodation Tuesday-Tuesday bookings might be impossible.

(11) ANY OTHER BUSINESS:

(a) HONORARY MEMBERSHIP: Dr. Greene said we currently have eleven Honorary Members and that Council had put forward the name of Dr. D.G. Catcheside F.R.S. for Honorary Membership. A distinguished bryologist and member of the Society since 1923/24, Dr. Catcheside had played a large part in helping towards the recovery of the Society after the last war. Dr. Catcheside was proposed to Honorary Membership by Mr. Wallace; this was seconded by Dr. Proctor and carried unanimously.

(b) PROJECTS COMMITTEE: Dr. Adams said that so far there had been no applications for grants for bryological projects. Dr. Longton subsequently volunteered to write and advertize in the next Bulletin a B.B.S. project on the reproductive biology of selected British mosses.

(c) JOURNAL REPRINTING: Mr. Lightowlers asked why it was necessary to reprint various parts of the Journal. Dr. Adams said that it has been traditional to keep our stocks up. Dr. Malloch said that if Journals are kept or reprinted as an investment then their prices should rise each year.

(d) MR. A.J. PETTIFER: Mr. Wallace reminded the Meeting of the death of Mr. Pettifer last June, aged 86. He had joined the Society in 1952 and had been Librarian from 1958 to 1969. He was made President in 1970.

(e) CONSERVATION COMMITTEE: Dr. Birks asked if the old Conservation Committee under Dr. Coker was now disbanded now that Dr. Coker had been replaced. Dr. Greene said that this was so, and that a new Committee would be formed under Dr. Preston.

(f) DR. W.D. FOSTER: Mr. Pearman said Dr. Foster's widow had asked him to convey her thanks to the Society for all the letters of sympathy she had received. He said that the obituaries of Dr. Foster and Miss E.M. Lobley would be published at the same time, about next June.

Thanks were given to Dr. Malloch for all his work in making the local arrangements for this weekend, and to Prof. Piggott for allowing us to use the facilities in his Department in the University of Lancaster.

The meeting closed at 1815 hrs.

A.R. Perry,
Hon. General Secretary,
September, 1981

FUTURE MEETINGS OF THE SOCIETY

SUMMER FIELD MEETING, 1982 Penrith, 28 July - 4 August.

Organizer and Local Secretary: Mr. Phil Taylor, 2 Meadowside,
Off Sedbergh Road, Kendal, Cumbria. Tel.: (work) Kendal 24555 ext 30.

Headquarters: Edenhall Hotel, Edenhall, By Langwathby, Penrith,
Cumbria. Tel.: Langwathby (076881) - 454. B. & B. £10.60.

Other accommodation: A wide range of hotels and bed and breakfast accommodation is available, details of which may be had from the Local Secretary. Early booking is recommended.

Maps: O.S. 1:50,000 sheets 86,90,91 or
1:63,360 sheets 82,83,84,88,89,90.

Equipment: Members are advised to ensure that they are properly equipped for the terrain on each day. Full details of the localities are available from the Local Secretary.

The programme drawn up for this meeting is exceptionally attractive, offering a well-balanced mixture of known bryological localities in the area, as well as promising sites in 10 km squares from which few or indeed no records are available. There will be opportunities to examine a range of upland communities, a deep wooded sandstone gorge, woodland on limestone, a steep limestone gill, as well as Borrowdale Woodlands. The last is particularly rich in Atlantic bryophytes and in richness rivals sites in North Wales and the western Highlands. Species include Hylacomium umbratum, Hypnum callichroum, Bartramia halleriana, Ptilium crista-castrensis, Sematophyllum novae-caesareae, Radula voluta, R. aquilegia, Jubula hutchinsiae, Colura calyptrifolia and Marchesinia mackaii. Other venues include peatland on limestone, a modified basin mire and boulder-strewn deciduous woodland. Reflected in this wide variety of habitats will be the range of species which can be expected during the week. Species such as Rhytidium rugosum, Distichium inclinatum, Leucodon sciuroides, Targionia hypophylla, Orthothecium rufescens, Amblyodon dealbatus and Calliargon giganteum give some indication of the scope of this meeting, which promises to be of great interest.

ANNUAL GENERAL MEETING AND PAPER READING MEETING, 1982, Nottingham,
24 - 26 September.

Organizer and Local Secretary: Dr. J.O. Rieley, Department of Botany, University of Nottingham, University Park, Nottingham, NG7 2RD.

Accommodation has been reserved in a hall of residence at Nottingham University, where the lectures and conversazione will be held. The cost of full board for the entire weekend will be £31.00 and bookings are required by the end of July. The cost will be itemised as usual for the convenience of members who only require meals or who intend to stay for only part of the time. It must be stressed, however, that it is also necessary to book meals in advance.

Speakers who have kindly agreed to contribute to this meeting include the following.

Professor E.G. Cutter (Manchester): Growth and response to light of archegoniophores and setae of liverworts.

Professor J.G. Duckett (Queen Mary College): Does photography render the collection of bryophytes unnecessary?

Dr. D.H. Lewis & Dr. A. Christie (Sheffield): The phylogeny of hepatics in relation to their success as land plants.

Miss S.V. McAdam (Aberdeen): Karyotype variation in the Brachytheciaceae: a pattern of relationships.

Mr. C.J. Miles (Reading): Studies on the establishment of mosses from spores.

Mr. C.C.J. Miller (Queen Mary College): Experimental studies of spermatogenesis in bryophytes.

Mr. M. Walpole (Loughborough): A bibliophile's view of bryological literature.

During the conversazione on the Saturday evening, facilities for posters and demonstrations will be available. Two exhibits have already been offered and more would be welcomed.

The Sunday field excursion will provide members with a contrasting selection of habitats at Ticknall Limeyards, Derbyshire, and Chartley Moss N.N.R., Staffordshire. The former site, which will be visited in the morning, is managed by the Derbyshire Naturalists' Trust and it contains a mixture of calcicolous species of limestone rock and grassland together with a rich mixed deciduous woodland.

Chartley Moss, National Nature Reserve, has a wide diversity of acid habitats. The main part of the reserve contains a large ombrophilous, part-floating mire some 50 hectares in area. An interesting feature of the mire is the secondary development of an area of fen formed under the influence of nutrient-rich ground water forcing its way upwards through about 8 m of acid peat. It would be interesting if bryophyte species could be related to the different microhabitats on the site. Wellington boots are essential.

Chartley Moss is situated between the M1 and M6 motorways and is within easy reach of major road and rail communications to all parts of the county. As such it will be a suitable place to depart from at the end of the meeting.

TAXONOMIC WORKSHOP, 1982, Bradford, 27 - 28 November

Organizer and Local Secretary: Dr. M.R.D. Seaward, Postgraduate School of Studies in Environmental Science, University of Bradford, BD7 1DP.

This meeting will present an ideal opportunity to concentrate on problems encountered in identifying species of Scapania and of small mosses on soil. Mr. David Long and Mr. Tom Blockeel, respectively, having kindly agreed to deal with these two topics. Some material will be collected during the associated field excursion but participants are encouraged to bring any suitable specimens they may already have. Special techniques involved in preparing specimens for identification will be demonstrated and put into practice.

SPRING FIELD MEETING, 1983, Ilkley, 6 - 13 April

Organizer and Local Secretary: Mr. T.L. Blockeel, 20 Heathfield Close, Bingley, West Yorkshire, BD16 4EQ. Tel.: (home) Bradford (0274) 567093.

Headquarters: Ilkley College, Wells Road, Ilkley, West Yorkshire, LS29 9RD. A provisional booking has been made at the College, a local Training College, which should provide an excellent centre for the meeting. 1982 prices are £13.50 full board, £6.50 B. & B. (+ VAT, + £2 extra on the first day). It is expected that microscopes will be available for evening use.

Bookings: IMPORTANT - The College requires three months notice of bookings and therefore details will be required before the next issue of the Bulletin is likely to appear. It is essential that members who think they may attend give their names now to the Local Secretary, who will circulate booking forms later in the year. Bed and Breakfast is widely available in Ilkley for those who do not wish to stay at the Headquarters. However, members wanting such accommodation should make their own arrangements.

Ilkley is a market town in Wharfedale (vc 64). The surrounding hills are of millstone grit, but the mountain limestone is easily accessible higher up the Dales. It will therefore be possible to visit a wide variety of habitats, including some of the classic Yorkshire sites. Excursions will include the following:-

Pen-y-ghent - mountain limestone with montane cliffs and a fine upland gill. Species include Pedinophyllum interruptum, Seligeria trifaria, Encalypta spp., Mnium thomsonii, Plagiopus oederi, Amblyodon dealbatus, Zygodon gracilis, Pseudoleskeella catenulata and Orthothecium rufescens.

Malham - important calcareous wetlands with Cinclidium stygium and Homalothecium nitens; many other mountain limestone species.

Bolton Abbey Woods and The Strid - rocky woodland by R. Wharfe on millstone grit with influence of adjacent limestone. Species

include Harpanthus scutatus, Scapania cuspiduligera, Cololejeunea rossettiana, Dicranum montanum and Cincidotus mucronatus; many old records for refinding, including Orthodontium gracile.

Nidderdale - millstone grit with Harpanthus scutatus, Hygrobiella laxifolia, Jubula hutchinsiae and Isothecium holtii.

Magnesian limestone - lowland limestone east of the millstone grit rich in small Pottiaceae; Lophozia perssonii, Tortula stanfordensis and Gymnostomum luisieri have been recorded from it in recent years.

Other species likely to be seen during the meeting are Orthotrichum sprucei, which occurs by the R. Wharfe, and Discelium nudum. One of the two British gatherings of Scapania paludicola was collected on Denton Moor near Ilkley.

SUMMER FIELD MEETING, 1983, Kerry, last week in July & first week of August.

Organizer and Local Secretary: Mr. D.M. Synnott, National Botanic Gardens, Glasnevin, Dublin 9, Irish Republic.

It is proposed to spend the first week in Killorglin and the second in Kenmare. Further details will be given in the next Bulletin.

JUBILEE MEETING, 1983, London, 17 - 18 September.

Plans for this meeting, to be held in a college of London University, are now well-advanced. Full details will be given in the next Bulletin but it can be noted that there will be four main categories of activity on the Saturday and a fifth on the Sunday.

- 1) A paper-reading session devoted to a series of invited papers that will be particularly pertinent to the Society's 60th anniversary.
- 2) A discussion session concerned with the future of the Society and of bryology.
- 3) The A.G.M.
- 4) A buffet conversazione and exhibits.
- 5) A field excursion to the area of Boxhill, followed by tea at Juniper Hall Field Centre, where laboratory space has been kindly put at our disposal.

Invitations to contribute to this meeting have already met with a favourable response and it is clear that it should prove to be a memorable occasion.

LOCAL MEETINGS

Details circulated in Bulletin 39, have met with a mixed response. In some areas, participation has been excellent and it is hoped that more members will contact the organizers to arrange further meetings. Interest is such that Dr. P. Brough, Meadow Cottage,

Old Lane, Ashford Hill, Newbury (tel.: Tadley 5965), in conjunction with a number of other bryologists, has offered to arrange a meeting somewhere in the vicinity of Andover and Newbury, Hampshire. Suggested dates are 9 - 10 October 1982, and anyone interested in taking part is asked to get in touch with Dr Brough as soon as possible.

B.B.S. MAPPING SCHEME

FINAL REQUEST FOR RECORDS

The final date for field recording for the proposed Bryophyte Atlas is December 1982. To date I have received records from 87% of British and 43% of Irish 10 km grid squares. Will any members who still have records that they have not sent in please let me have them by the end of December. Also any records from unworked squares (even if of only 3 or 4 species) will be useful - of the 250 record cards received this year only about 10 have been from previously unrecorded British squares. The situation map in J. Bryol. 11, 169 is little changed in so far as unrecorded squares are concerned. Particularly valuable would be records from the English Midlands, N.E. Scotland and most parts of Ireland.

A.J.E. SMITH

PACKAGING OF THE JOURNAL

The Journal is now being received through the post in a sealed polythene bag rather than, as previously, in a cardboard envelope, and several members have complained that this new method of packaging has led to their copies of the Journal being damaged on arrival. Council is interested in ensuring that members' views are heard on this subject so members are asked to write to the Hon. General Secretary, Dr R. Longton, Department of Botany, The University, Reading, RG6 2AS, if they have anything to say on the matter.

B.B.S. ARCHIVE

The late Dr Foster suggested to Council that B.B.S. correspondence and members' letters that might be of interest to anyone wishing to write a history of the Society should be preserved in a B.B.S. Archive. Council subsequently formally agreed that the Librarian should collect together and store this material.

If any member or officer has material they think might be worth preserving please would they sort and annotate where necessary, and send to the librarian.

CONSERVATION AND THE BBS

Since I was asked to become Conservation Officer in September, I have been thinking about the way in which we can best promote bryophyte conservation. I have put the following suggestions on paper for discussion by Council.

As a small Society, we can contribute to the conservation of bryophytes by

- (i) acting as an advisor to bodies such as NCC, county naturalists' trusts, RSPB, National Trust, etc.
- (ii) increasing public awareness of the need for bryophyte conservation.

To fulfil our advisory role adequately we will need to collect, and have available in an accessible form, information on the current status of rare and threatened species and of sites of bryological importance. I think that it is too ambitious to attempt both these at the moment, and with the mapping scheme in its present state we should concentrate on building up information on the rare species.

Rare species

Tony Smith's plan is to ask members with a special interest in a species to edit or compile the map for that species. I suggest (with Tony's agreement) that any member taking on a species which has been recorded in less than 15 10 km. squares since 1960 is also asked to provide as much information as possible on the known sites (past and present) in a standard format. BRC's Individual Record Card is a suitable form to use. The 10 km. square limit is that used as the criterion for inclusion in the vascular plant Red Data Book. Once this information has been gathered it could be reviewed, supplemented where necessary, and then form the basis for a Red Data Book for bryophytes. I believe that the preparation of such a book would give a stimulus to bryophyte conservation.

In the longer term, ecological studies like those of Malloch on Gongylanthus (J. Bryol. (1972), 7, 81-85) and Birks & Dransfield on Scorpidium turgescens (Trans. BBS. (1970), 6, 129-132) are vital. The Projects Committee might consider further investigations along these lines worthy of support.

Sites of bryological importance

Although I think that for the moment we should not attempt to draw up definitive lists of these, this does not mean that we should ignore site recording entirely. Once the current phase of the mapping scheme comes to an end I think we should turn from 'square bashing' to concentrate more on recording individual sites (nature reserves, SSSIs, etc., etc.) - rather as we do at present on BBS meetings. I have been in touch with NCC who have circulated an internal notice about bryophyte conservation. We have already had enquiries from regions who would welcome more liaison with BBS members.

C.D. Preston

NEW VICE-COUNTY RECORDS AND AMENDMENTS TO THE CENSUS CATALOGUES

All undated records are based on specimens collected in 1981. The names and numbers follow Corley & Hill, Distribution of bryophytes in the British Isles: a census catalogue of their occurrence in vice-counties (1981).

HEPATICA

M.F.V. Corley

- 1/1. Anthoceros agrestis, shaded bank in garden, Nantgaredig, nr Carmarthen (44), Stern.
- 2/1. Phaeoceros laevis a ssp. laevis, side of ditch, roadside by L. Gowna, N of Inchmore (H.24), Synnott, 1980.
- 3/2. Sphaerocarpos texanus, rape field by old railway near Bradfield Combust (26), Appleyard.
- 9/2. Marchantia alpestris, at junction of wall and paving slabs, Park Avenue passage, Stratford, London E15 (18), Adams; rich black soil of fallow nursery plot, Notcutts Nurseries, Woodbridge (25), Adams; soil in plant pot, experimental area, Cambridge Botanic Garden, Cambridge (29), Preston.
- 12/4. Riccia fluitans, pond in field by Burnt Wood, nr Newtown (10), Stern.
- 12/6. R. canaliculata, damp sandy ground on loch margin, Ring Point, L. Lomond (99), Stirling.
- 12/7. R. glauca, floor of old quarry, Cwmfelin Mynach (44), Appleyard; mud on shore at south end of L. Mhor, NE of Fort Augustus (96), Crundwell.
- 12/8. R. warnstorffii, top of rut in woodland ride, Hitch Wood, nr St. Paul's Walden (20), Bloom, 1980.
- 13/1. Metzgeria fruticulosa, on elder, Tiger Hill, nr Assington (26), Bloom; on elder beside playing field, Llansantffraid-Cwmdeuddwr, nr Rhayader (43), Woods; on old elder, Roxby Woods, Staithes (62), Robertson; on Sambucus in garden, Drinishader, S of Tarbert, S. Harris (110), Long.
- 17/3. Riccardia incurvata, damp hollows on fixed dunes, Achmahaird Bay (105), Long.
- 18/2. Pellia neesiana, by small stream, Cavenham Heath (26), Appleyard; marshy grassy place, foot of Waun-wen, Abersychan (35), Garlick, 1980; marsh in wood between Dubh Eas and R. Falloch, N of L. Lomond (87), Paton; muddy ground in alder carr, Killicronan, L. na Keal, Mull (103), Corley.
- 18/3. P. endiviifolia, culvert in Notcutts Nurseries, Woodbridge (25), Stern.
- 20/1. Moerckia hibernica, basic flush on N-facing slope, Coire Chuirn, Drumochter Hills (96), Long.
- 20/2. M. blyttii, damp soil amongst scree, E cliffs of Ben Oss, Tyndrum (87), Long.
- 22/3. Fossombronina caespitiformis, delete 60, specimen (NMW) - see next entry - is F. husnotii, comm. Wigginton.
- 22/4. F. husnotii, Warton Crags (60), A. Wilson & J.A. Wheldon, 1906 (NMW), comm. Wigginton.
- 22/5. F. pusilla a var. pusilla, damp woodland ride, Bulls Wood, Cockfield (26), Adams; side of drain by L. Gowna, N of Inchmore (H.24), Synnott, 1980.
- 22/6. F. wondraczekii, Carr's Fields, Bruna Hill, Garstang (60), A. Wilson, 1906 (NMW).

- 22/9. F. fimbriata, gravelly bank of stream amongst scattered Juncus and grasses, Allt na Feith Duibhe, Glen More Forest (96), Long.
- 24/1. Haplomitrium hookeri, wet peaty bank in late snow area, Feith Buidhe below Cairn Lochan, Cairngorms (94), Long.
- 26/4. Barbilophozia atlantica, in Dicranum tufts on stable N-facing scree, Flora Craig, Innerleithen (79), Corner, 1976.
- 28/1. Lophozia ventricosa a var. ventricosa, ravine of stream, Drumderg, nr L. Gowna (H.24), Synnott: b var. silvicola, steep banks in sheltered woodland, Coille na Sroine, L. Ba, Mull (103), Corley.
- 28/5. L. perssonii, crevices in disused chalk quarry, Springwell, nr Harefield (21), Gardiner & Milnes-Smith; Magnesian limestone rubble, old part of Bishopmiddleham Quarry, Durham (66), Graham.
- 28/6. L. excisa, gravel pit, Waulkmill, Ythan estuary (93), Crundwell.
- 28/9. L. opacifolia, block scree on steep slope, E cliffs of Ben Oss, Tyndrum (87), Long; damp gravelly slopes below dripping rocks, Feith Buidhe, above Loch Avon, Cairngorms (94), Long; wet mossy cliff ledge, Coire Roineabhal, S. Harris (110), Long.
- 29/1. Leiocolea turbinata, bare soil, terraced chalk downland, Cockthorpe Common nr Wells-next-the-Sea (28), Libbey & Swann; clay bank above Royal Canal, Drapers Bridge (H.24), Synnott, 1980.
- 29/4. L. alpestris, damp sandy turf slope, N end of Luskentyre Banks, S. Harris (110), Long.
- 30/1. Gymnocolea inflata a var. inflata, Corracullin Bog, S of Moate (H.23), Synnott, 1979.
- 31/1. Sphenolobopsis pearsonii, vertical face of moist rock by stream, Corrie-shalloch, Ullapool (105), Wigginton.
- 32/1. Sphenolobus minutus, in Dicranum tufts on stable N-facing scree, Flora Craig, Innerleithen (79), Corner, 1976.
- 35/2. Tritomaria exsecta, on rocks in oak/ash woodland E of Crannant-fach, Llanwrthwl (42), Woods.
- 35/4. T. polita, basic flush, NW corrie of An Caisteal (87), Long; basic flush on hillside, Coire Chuirn, Drumochter Hills (96), Long & Chamberlain.
- 38/5. Jungermannia borealis, N-facing limestone rocks near summit of Sliabh Gaoil, S. Knapdale (101), Corley & Kenneth.
- 38/7. J. confertissima, rocky Old Red Sandstone bank at The Burn, Fettercairn (91), Paton & U.K. Duncan, 1963.
- 38/8. J. sphaerocarpa, damp ground by burn, stream above L. Oss, Ben Oss (87), Long.
- 38/11. J. hyalina, wet hollow of derelict site containing slag spoil, etc., adjacent to Ladymoor Pool, Bilston (39), Ashton.
- 38/12. J. paroica, side of shaded ditch SW of Ewshott (12), Crundwell; rocky bank of stream in ravine, E of Barachandroman, L. Spelve, Mull (103), Corley; shady bank of stream, Glen Rodel, S. Harris (110), Long.
- 38/14. J. subelliptica, N-facing limestone rocks near summit of Sliabh Gaoil, S. Knapdale (101), Corley & Kenneth; ledge on wet rock face by water-fall, E end of Glen Trollamarig, N. Harris (110), Long.
- 39/1. Nardia compressa, rocks in burn, Kielderstone Cleuch (80), Corner & F.J. Roberts.

- 39/3. N. geoscyphus, N-facing limestone rocks near summit of Sliabh Gaoil, S. Knapdale (101), Corley & Kenneth.
- 39/4. N. breidlerii, bare stony mountain top, W ridge of Ben Dubhcaraig, Tyn-drum (87), Long.
- 40/2. Marsupella sphacelata, wet track in field W of Stuckindroin, nr Ardlui, L. Lomond (99), Paton; mud on edge of track across wet field, nr Knock, L. Ba, Mull (103), Corley.
- 40/3. M. funckii, exposed footpath on hillside, Abhainn an t-Stratha above Urrgha, N. Harris (110), Long.
- 40/4. M. sprucei, bare soil, near summit of Sliabh Gaoil, S. Knapdale (101), Corley & Kenneth.
- 40/9. M. adusta, on stone in scree, NW corrie of An Caisteal (87), Long; small stones of scree on E-facing slope, N corrie of Ben More, Mull (103), Corley.
- 40/10. M. brevissima, bare stony soil on mountain top, Ben Lui (87), Long.
- 42/1. Acrobolbus wilsonii, wet rock face in ravine, Allt a'Bhaird, S of Loch-buie, Mull (103), Corley.
- 46/3. Plagiochila asplenoides, face of limestone cliff by R. Boyne, Beauparc (H.22), Synnott, 1978.
- 46/4. P. britannica, shaded limestone rock in woodland, Heald Brow, Silverdale (60), Wigginton, 1978; shady wall of ruined castle in woodland, Finlarig Castle, Killin (88), Long & Payne; ledge of N-facing basalt cliff, Creag a'Ghaill, Ardmeanach, Mull (103), Corley; dry limestone wall at NE edge of Caslan's Wood, 3 km N of Strokestown (H.25), Synnott.
- 46/7. P. killarniensis, S-facing basic rocks in wooded glen, N bank of the R. Conwy at the Fairy Glen, Betws-y-Coed (50), Benoit.
- 48/4. Lophocolea heterophylla, old estate woodland, Ballinlough Castle (H.23), Synnott, 1980.
- 48/6. L. fragrans, wet shaded rocky gully, above Cliff Farm, Shanklin (10), Snow.
- 49/2. Chiloscyphus pallescens, calcareous ditch on machair, Traigh an Taoibh Thuath, nr Norton, S. Harris (110), Long.
- 51/1. Harpanthus flotovianus, flush below dripping rocks, Feith Buidhe, above Loch Avon, Cairngorms (94), Long.
- 51/2. H. scutatus, steep shaded slope in ravine, W of Stuckindroin, nr Ardlui, L. Lomond (99), Paton.
- 54/3. Diplophyllum obtusifolium, bare gravelly soil, Hen Wood, nr West Meon (11), Stern.
- 55/2. Scapania calcicola, clefts of damp basic rock face, N-facing cliffs, Coire Garbhach, Glen Feshie (96), Long.
- 55/3. S. cuspiduligera, damp sandy turf slope, N end of Luskentyre Banks, S. Harris (110), Long.
- 55/5. S. curta, peaty soil on bank in rough pasture, Altar Lane, Bingley (63), Blockeel.
- 55/8. S. parvifolia, hollow on exposed mountain top, summit of An Caisteal (87), Long; moist schist bank below N-facing cliffs, Meall na Samhna, W of Killin (88), Paton.
- 55/10. S. nemorosa, on clay, sandstone quarry, Derreenargan, SE of Keadew (H.25), Synnott.

- 55/13. S. paludicola, Sphagnum-rich wet grass heath, nr Mynydd Nodol, nr Bala (48), Wigginton, 1979, new to Wales.
- 55/18. S. paludosa, semi-submerged with Sphagnum in small hillside spring, N side of Cwm Graianog, above Nant Ffrancon (49), Blackstock; amongst stones in stream in steep gully on N-facing cliffs, Coire an Lochain, Beinn a' Chreachain (98), Long.
- 55/22. S. ornithopodioides, soil on wet cliff ledge, E cliffs of Ben Oss, Tyndrum (87), Long.
- 55/23. S. nimbosea, amongst block scree below cliffs, E cliffs of Ben Oss, Tyndrum (87), Long.
- 57/3. Odontoschisma elongatum, in stony flush, NW corrie of An Caisteal (87), Long.
- 57/4. O. macounii, wet slab of base-rich schist, N-facing cliffs of Beinn an Dothaidh (98), Long.
- 58/1. Cephalozia elachista, in tuft of Mylia anomala in acidic valley mire, Shatterford, New Forest (11), R.P.H. Welsh; Sphagnum-rich mire in unimproved pasture adjoining heathland, near Oretton Common (40), Wigginton; litter in bog, Esgyrn Bottom, SE of Fishguard (45), Paton, 1980.
- 58/3. C. rubella, sides of drain, damp sandy soil, forest road, Woolpitch Wood, Trelleck (35), Garlick, 1973; peaty-sand by Tarnbrook Wyre, Bowland (60), Wigginton, 1978; side of track 2 miles S of Callander (87), Crundwell.
- 58/4. C. hampeana, Nmansland, nr Wheathampstead (20), Bloom, 1980.
- 58/6. C. divaricata, tree stump, woodland, Somerford Common, Brinkworth (7), Garlick, 1978.
- 58/7. C. stellulifera, sides of drain, damp sandy soil, forest road, Woolpitch Wood, Trelleck (35), Garlick, 1973.
- 60/1. Nowellia curvifolia, peaty bank under sparse Calluna on N-facing slope, S side of Holyhead Mt. (52), Blackstock.
- 61/2. Cladopodiella fluitans, centre of raised bog, Cloonshannagh, S of Roosky (H.25), Synnott.
- 64/2. Anthelia juratzkana, bare stony mountain top, W ridge of Ben Dubhcraig, Tyndrum (87), Long.
- 66/1. Kurzia pauciflora, with Sphagnum, etc., in acidic mire, Rhosgyll, N of Llanystumdwy (49), Blackstock.
- 66/2. K. trichoclados, moist face of grit boulder, Hebden Valley (63), Block-eel; steep shaded slope in ravine W of Stuckindroin, nr Ardlui, L. Lomond (99), Paton; peaty bank by loch, W end of Loch a Mhorghain, N of Tarbert, N. Harris (110), Long.
- 66/3. K. sylvatica, vertical bank of peat below Callunetum, slopes of Cairnwell (92), Payne, 1980.
- 67/2. Lepidozia pearsonii, amongst boulders, W of Loch Avon, Cairngorms (94), Paton.
- 68/1. Bazzania trilobata, in heathery tussock among boulders, head of L. Avon, Cairngorms (94), Crundall.
- 69/2. Calypogeia integristipula, amongst Cephalozia connivens, damp valley woodland, Holmsley, New Forest (11), R.P.H. Welsh.
- 69/5. C. fissa, by rides in wood, Bonny Wood, between Barking and Willisham (25), Jones.

- 69/6. C. sphagnicola, amongst Sphagnum in blanket bog, Torr a'Bhlair, S side of L. na Keal, Mull (103), Corley.
- 69/8. C. arguta, by rides in wood, Bonny Wood, between Barking and Willisham (25), Jones; shaded soil in oakwood, Glenfalloch Woods, N of L. Lomond (87), Long.
- 77/1. Porella arboris-vitae, delete 79, the locality (Leap Burn) is in 80, comm. Corner.
- 77/3. P. platyphylla, N-facing limestone bluff, Fore (H.23), Synnott, 1979.
- 78/1. Frullania teneriffae, rock, roadside bank beside Red Wharf Bay and Llanddona (52), Gardiner, 1971.
- 78/2. F. tamarisci, limestone quarry, S of Crazy Corner, Mullingar (H.23), Synnott, 1979.
- 83/1. Lejeunea cavifolia, ash trunk by stream, Torosay Gardens, Mull (103), Corley; base of ash tree in estate woodland, Ballinlough Castle, S of L. Shesk, Clonmellon (H.23), Synnott, 1980.
- 83/2. L. lamacerina, shaded grit boulder by small stream, Marles Wood, Salesbury Hall, Ribbles Valley (59), Blockeel.
- 83/8. L. ulicina, on birch in wet woodland, Fletcherstown (H.22), Synnott, 1978.
- 84/1. Colura calyptrifolia, on spruce, E. side of Slieve Bawn, Strokestown (H.25), Synnott.
- 85/3. Cololejeunea minutissima, on Acer trunk by burn, Luskentyre, S. Harris (110), Long.

MUSCI

M.O. Hill

- 1/1. Sphagnum imbricatum, overgrown boggy margin of lake, Loch a'Mhuilinn, Lochranza (100), Dickson; raised bog, Cloonshannagh, S of Roosky (H.25), Synnott.
- 1/4. S. magellanicum, in conifer plantation, Moss of Auguharney, SW of Peterhead (93), Crundwell.
- 1/5. S. squarrosum, raised bog, Cloonlarge, 8 km E of Roscommon (H.25), Synnott.
- 1/11. S. warnstorffii, flushed slope, below Combe Scar, Dentdale (65), Blockeel, 1979.
- 1/14A. S. subfulvum Sjörs, in small hummocks with S. subnitens, Errisbeg, Roundstone, 200 m alt. (H.16), A. Moen, 1980, comm. Synnott, conf. R.E. Andrus - new to Ireland and first confirmed record for the British Isles; flush below the large corrie on the N side of Mweelrea (H.27), Synnott, 1980.
- 1/19. S. auriculatum a var. auriculatum, wet place in field nr Ruislip Lido (21), Gardiner & Milnes-Smith: b var. inundatum, Walberswick Reserve, nr Southwold (25), Appleyard.
- 1/27. S. recurvum b var. tenue, edge of flush, above Derrydaroch, Glen Falloch (87), Long.
- 2/4. Andreaea rothii a ssp. rothii, grit boulder in wooded clough, Strines Reservoir nr Sheffield (63), Blockeel.
- 4/1. Tetradontium brownianum, shady rock face in deep wooded ravine, Allt

- Gil Bhigurra, Pairc, Lewis (110), Long.
- 5/8. Polytrichum alpestre, raised bog, N of Frenchpark (H.25), Synnott.
- 8/2. Atrichum tenellum, edge of forestry track, Glen Shellish, Glenbranter, SE of Stracher (98), Paton.
- 14/1. Ditrichum cylindricum, Ruislip Lido (21), Gardiner & Milnes-Smith; steep soil bank beside beck above Wray (60), Wigginton, 1978; waste ground at roadside, 3 km NW of St. Fergus (93), Crundwell.
- 14/5. D. zonatum a var. zonatum, gravelly bank of burn in late snow area, Feith Buidhe, below Cairn Lochan, Cairngorms (94), Long; acid rock crevice, 450 m alt., Meall Beag, S. Knapdale (101), Corley & Kenneth: b var. scabrifolium, damp soil amongst scree, E cliffs of Ben Oss, Tyndrum (87), Long.
- 14/7. D. lineare, dry peaty/stony area, 1000 m alt., on flat ground below summit of Beinn Heasgarnich (88), Payne.
- 17/1. Brachydontium trichodes, on vertical E-facing Old Red Sandstone above Llyn y Fan Fach, Llanddeusant (44), Woods.
- 18/5. Seligeria paucifolia, disused chalkpits, Springwell, nr Harefield (21), Milnes-Smith & Gardiner.
- 21/1. Ceratodon purpureus b ssp. conicus, fixed dunes, Fraserburgh Bay (93), Crundwell.
- 28/2. Dicranella schreberana, in hollow below old railway, nr Bradfield Com-bust, 10 km SSE of Bury St. Edmunds (26), Appleyard.
- 28/3. D. grevilleana, damp turfy ledge on limestone nr caves, Gleann Dubh, Inchnadaph Forest (108), Long.
- 28/8. D. staphylyna, arable field W of Skipton-on-Swale (65), Blockeel; waste ground by road, Loch Falloch, N of Loch Lomond (87), Long; in kirkyard, Kirktown of Slains (93), Crundwell; on path, Torosay Gardens, Mull (103), Corley.
- 32/2. Dicranum polystyum, among Calluna, Ashley Heath, W of Ringwood (11), Wallace.
- 32/12. D. montanum, on dead wood, Bradfield Woods, 10 km SE of Bury St. Edmunds (26), Gardiner; on base of birch tree, woodland at Crag End, nr Lancaster (60), Wigginton, 1978.
- 32/14. D. tauricum, on Salix trunk, Hopton Fen (26), Blockeel.
- 34/2. Campylopus schimperi, in turf on steep slope among scree, 650 m alt., N corrie of Ben More, Mull (103), Corley.
- 34/4. C. fragilis, vertical rock face in ravine, Vat Burn, Muir of Dinnet, nr Ballater (92), Crundwell.
- 34/5. Campylopus pyriformis b var. azoricus, on decaying tussock among Molinia, Wortham Ling (25), Harrington, conf. Corley; on peat, Cockerham Moss (60), Wigginton, 1978, conf. Corley; on peat in conifer plantation, Moss of Auquharney, SW of Peterhead (93), Crundwell; in thin turf, 0.5 km NE of the farm, Stuckindroin, nr Ardlui (99), Townsend, conf. Corley.
- 34/8. C. shawii, slightly flushed boggy slope nr road, E. of Barachandroman, L. Spelve, Mull (103), Corley.
- 34/11. C. introflexus, old railway, nr South Duffield (61), D. Grant; fixed dunes, Sands of Forvie (93), Crundwell; W end of Loch Avon, Cairngorms (94), Long et al.
- 35/1. Paraleucobryum longifolium, small tuft on top of granite boulder, 700 m alt., by Loch Avon, Cairngorm (94), Payne.

- 36/2. Leucobryum juniperoideum, deciduous woodland, Lettermay Burn, W side of Loch Goil (98), Paton.
- 37/2. Fissidens viridulus, clayey ground nr Grand Union Canal, W of Harefield (21), Gardiner & Milnes-Smith; earth bank, Stuston Common, nr Diss (25), Appleyard; clay bank by stream, S side of Hill of Ushnagh, W of Mullingar (H.23), Synnott, 1980.
- 37/2A. F. pusillus a var. pusillus, on rocks in R. Dee, opposite Wynnstay, nr Wrexham (50), Hill, 1972; b var. tenuifolius, on serpentine rocks, NW side of Conic Hill, Balmaha (86), Stirling et al.
- 37/2B. F. limbatus, on soil, Larkhill (36), A. Ley, 1875 (MANCH), conf. Corley; crevices of limestone rocks, Monsal Dale (57), G.A. Holt, 1887 (MANCH), conf. Corley.
- 37/3. F. incurvus, soil in garden, N. of Wiggenhall St. Mary, nr King's Lynn (28), Stevenson; on mound of ice-house, Glashill Rectory (H.18), C.D. Russell, 1892 (DBN), conf. Corley.
- 37/8. F. crassipes, on stones in river from L. Nablahy, N of Stokestown (H.25), Synnott.
- 37/12. F. celticus, on friable soil, low bank of SW-facing slope in Quercus petraea woodland, Stonethwaite (70), Wigginton; clay bank in ravine below waterfall, ESE of Kilronan Mt., Arigna (H.25), Synnott.
- 37/14. F. taxifolius b ssp. pallidicaulis, flushed rock scar, Coed-y-Rhygen (48), Wigginton, 1978.
- 40/1. Tortula ruralis a ssp. ruralis, limestone rocks, Hill of Ushnagh (H.23), Synnott, 1980.
- 40/3. T. intermedia, basic rock at the Laird o' the Linn, Leap Linn, Alewater (80), Corner.
- 40/5. T. virescens, church wall, Marcham (22), Bloom; wall by R. Gipping, Stowmarket (25), Bloom; on elder, Hopton Fen (26), Corley.
- 40/8. T. muralis b var. aestiva, N wall of church, Knebworth (20), Bloom.
- 40/10. T. subulata b var. angustata, on ground beside stream in wood, Vale Farm, N of Shottisham (25), Newton; d var. graeffii, base of tree by R. Tees, Croft (66), Stern, 1980.
- 40/12. T. latifolia, on Acer on river bank, R. Deveron, Turriff (93), Long.
- 41/2. Aloina rigida, floor of disused chalk quarry, Springwell, nr Harefield (21), Milnes-Smith & Gardiner.
- 45/2. Pottia starkeana b var. brachyodus, bare places in field, Budleigh Salterton (3), Appleyard, 1956; c ssp. conica, arable field, cliff top, Watchet (5), Appleyard, 1970; soil of recent grave, Tilney All Saints churchyard, nr King's Lynn (28), Stevenson; bare soil nr Holme on Spalding Moor (61), Robertson; d ssp. minutula, chalk track E of Chillington nr Chard (5), Appleyard, 1971; bank by roadside, Brill (24), Appleyard, 1953.
- 45/8. P. truncata, brickyard nr Cruden Bay (93), Crundwell.
- 45/10. P. bryoides, Ruislip Lido (21), Gardiner & Milnes-Smith.
- 46/1. Phascum cuspidatum c var. schreberianum, edge of arable field in Shelley, nr Hadleigh (26), A.C. Smith.
- 46/3. P. floerkeanum, arable field on S-facing slope on Magnesian limestone, Thorner, nr Leeds (64), Blockeel.
- 48/1. Hyophila stanfordensis, trampled ground under hawthorn, between two arms

- of mill stream, N bank of R. Stort, S of Rowneybury, S of Sawbridgeworth (20), Whitehouse; under bushes on vertical river bank, right bank of Thames NE of Windsor (22), Miss J.J. Dennis & Whitehouse; footpath on wooded bank of R. Till, Twizel Bridge (68), Long.
- 49/1. Barbula convoluta b var. commutata, on gravel path in churchyard, Haws-tead, 5 km S of Bury St. Edmunds (26), Corley.
- 49/3. B. hornschurchiana, limestone quarry, Maddysrulla, W of Portrunny Bay, L. Ree (H.25), Synnott.
- 49/5. B. acuta, on calcareous soil, Heald Brow, Silverdale (60), Wigginton, 1978.
- 49/15. B. nicholsonii, on bridge by R. Stour, Child Okeford (9), Wallace, 1980; side of retaining wall at ford, Conford (12), Wallace & Crundwell.
- 49/16. B. trifaria, stonework by R. Kelvin below Queen Margaret Bridge, Glasgow (77), Crundwell.
- 49/20. B. cylindrica, on shaded bank of stream, R. Lark at Hall, nr Hawstead, 5 km S of Bury St. Edmunds (26), Corley.
- 49/22. B. ferruginascens, on soil among rocks, N-facing basalt cliffs, Creag a'Ghaill, Ardmeanach, Mull (103), Corley.
- 50/1. Gymnostomum calcareum, on Upper Greensand stone in lane-bank N of Steep Marsh (12), Crundwell.
- 51/1. Gyroweisia tenuis, vertical stone by small stream, Notcutt's Nursery, Woodbridge (25), Appleyard; on church, Ringshall, nr Stowmarket (26), Bloom.
- 52/1. Anoetangium aestivum, delete 81, specimens (BBSUK, E) are Barbula convoluta, comm. Long, conf. Hill.
- 53/1. Eucladium verticillatum, underside of bridge, S of L. O'Donra, N of Strokestown (H.25), Synnott.
- 54/6. Weissia microstoma a var. microstoma, sandy hillside by sea, coast N of Luskentyre, S. Harris (110), Long.
- 57/4. Tortella inclinata, on limestone rock at ground level, pasture, Carn-forth (60), Wigginton, 1978.
- 60/2. Leptodontium gemmascens, on decaying Juncus effusus, moist hollow in heathland, Wortham Ling (25), Harrington & Wanstall.
- 61/3. Cinclidotus mucronatus, silted roots by R. Thames, Penton Hook Island, nr Laleham (21), Milnes-Smith & Gardiner.
- 63/7. Schistidium boreale, sloping calcareous rocks on S side of Ben Vrackie (89), Perry, 1968.
- 64/14. Grimmia orbicularis, limestone scar in pasture, Silverdale (60), Wigginton, 1977.
- 64/17. G. trichophylla a var. trichophylla, brick wall, Needham Market (25), Blockeel.
- 66/2. Racomitrium aciculare, on N side of church, Hunsdonbury, nr Hunsdon (20), Driver.
- 75/5. Ephemerum serratum c var. minutissimum, arable field, Mott Street, Sewardstone (18), Adams, 1968.
- 80/2. Splachnum ampullaceum, old cow pat in fen, Cors Bodeilio (52), Benoit.
- 82/2. Mielichhoferia mielichhoferi, on soil among rocks, Beinn Dorain (98), Corley, 1971, conf. Coker & Crundwell.

- 83/1. Orthodontium lineare, W bank of Loch Garten, Abernethy Forest (96), Long et al.; on bark nr base of larch, garden woodland, Stronachullin, nr Ardrishaig (101), Kenneth.
- 84/1. Leptobryum pyriforme, ledge in limestone quarry, Croghan, N of Elphin (H.25), Synnott.
- 85/1. Pohlia elongata c ssp. polymorpha, rock crevice, N corrie of Ben More, Mull (103), Corley.
- 85/6. P. drummondii, stabilized shingle bank beside river, Afon Teifi at Strata Florida, nr Pontrhydfendigaid (46), P. Curry.
- 85/9. P. bulbifera, detritus on rock, beside Afon Teifi, shortly below Llyn Teifi, nr Pontrhydfendigaid (46), A. Orange; on roadside, E of Barachandroman, Loch Spelve, Mull (103), Corley; on gravel by burn, Abhainn an t'Stratha, above Urgha, N. Harris (110), Long.
- 85/11. P. campotetrachela, sandy soil at edge of reservoir, Scaling Dam (62), Blockeel; gritty soil by track, below Embsay Moor, between Rylston and Skipton (64), Blockeel.
- 85/12. P. muyldermansii, wet roadside bank, west side of Gareloch opposite Shandon (99), Crundwell; trackside, Allt Ceann Locha, N of Loch Merkland (107), Milnes-Smith & Gardiner.
- 85/13. P. ludwigii, damp soil amongst scree, 950 m alt., E cliffs of Ben Oss, Tyndrum (87), Long.
- 85/14. P. lutescens, sandy soil beside badger holes, Tiger Hill, Assington (26), Preston.
- 85/15. P. lescuriana, steep streambank on damp, slightly peaty loam, Thornley (60), Wigginton, 1979.
- 89/9. Bryum pallens, side of wet ditch, Petersville cross roads, N of Moynalty (H.22), Synnott, 1978 (sterile, presumed to be var. pallens).
- 89/13. B. cyclophyllum, damp muddy exposed margin of drained reservoir, Kilmanman Reservoir, Kilpatrick Hills (99), Stirling.
- 89/19. B. donianum, sandy ground by Morecambe Bay, Morecambe (60), Wigginton, 1978.
- 89/20. B. capillare b var. rufifolium, on rather dry limestone rocks in the lower part of Monk's Dale (57), Townsend.
- 89/23. B. flaccidum, on elder at Enfield (21), Driver; bole of Crataegus monogyna, woodland nr Stockton (38), Wigginton; on trunk of elm by Water of Milk, Paddockhole (72), Crundwell & Dickson; on elder, nr Ballogie, Deeside (92), Crundwell; on Sambucus on waste ground, Turriff (93), Long.
- 89/24. B. torquescens, waste ground in old limestone quarry, Carnforth (60), Wigginton, 1978.
- 89/30. B. caespitium a var. caespitium, on stony soil around triangulation point, Sliabh Gaoil, S. Knapdale (101), Corley & Kenneth.
- 89/35. B. mildeanum, side of stream, Gleann Bheag (92), Appleyard, 1964, conf. Whitehouse.
- 89/36. B. dixonii, on rocks in bed of stream in gully, N cliffs of Ben Oss, Tyndrum (88), Long & Townsend; boulders on shore of Loch Laggan, nr Ardverikie (97), Wallace, 1972; on crumbling base-rich schist slab, nr Loch Tulla, N-facing cliffs on Beinn Dothaidh (98), Long.
- 89/38. B. gemmiferum, Notcutts Nursery, Woodbridge (25), Bloom; on loam, bank by R. Lune, Lancaster (60), Wigginton, 1979; soil on E bank of R. Swale,

- nr Skipton-on-Swale (62), Blockeel; soil on W bank of R. Swale, nr Skipton-on-Swale (65), Blockeel.
- 89/40. B. dunense, dunes, Cruden Bay (93), Crundwell.
- 89/42. B. radiculosum, on wall of old church, Turriff (93), Long.
- 89/43. B. ruderales, waste ground 3 km NW of St. Fergus (93), Crundwell.
- 89/44. B. violaceum, waste ground at roadside, 3 km NW of St. Fergus (93), Crundwell.
- 89/45. B. klinggraeffii, damp track, Side Downs, nr Silverton (3), Appleyard; barley field W of Hatton (93), Crundwell.
- 89/46. B. sauteri, sandy soil in woodland beside R. Wear, Finchdale Priory, 5 km N of Durham (66), L. Freese, 1980.
- 89/47. B. tenuisetum, on peat in boggy flush, Conford (12), Wallace & Crundwell; by track on sandy peaty ground, Bayhurst Wood, Ruislip (21), Milnes-Smith & Gardiner.
- 89/49. B. bornholmense, sandy ground by Morecambe Bay, Morecambe (60), Wigginton, 1978.
- 89/50. B. rubens, in kirkyard, Kirktown of Slains (93), Crundwell.
- 93/2. Rhizomnium magnifolium, wet ground under boulder beside stream through scree, N side of Meall na Samhna, W of Killin (88), Synnott; on decaying bases of Athyrium alpestre splashed by the waterfall of Feith Buidhe, W end of L. Avon (94), Synnott; amongst stones in stream, steep gully on N-facing cliffs, Coire an Lochain, Beinn a' Chreachain (98), Long; bog nr summit of Connimheall, Ben More Assynt (107 in ()), W.E. Nicholson & H.N. Dixon, 1899 (BM,NMW), comm. & conf. Long.
- 94/2. Plagiomnium affine, with Littorella, shore of L. Ree, St. John's Wood (H.25), Synnott.
- 98/1. Meesia uliginosa, basic flush, 420 m alt., head of Chapel Grain Burn, Twistlehope (80), Corner.
- 99/1. Amblyodon dealbatus, calcareous upland spring, N. of Capel-y-ffin, Black Mountains (42), A. Burn.
- 105/3. Philonotis arnellii, soil in rock crevice, N-facing basalt cliff, Creag a'Ghaill, Ardmeanach, Mull (103), Corley; damp calcareous rock, above loch in corrie between Cranstackie and Beinn Spionnaidh, Loch Eriboll (108), Long, 1973.
- 106/1. Breutelia chrysocoma, Champernhayes Marsh nr Lyme Regis (9 in ()), Miss G. Lister, 1890 (DCR).
- 109/2. Zygodon baumgartneri, on large ash nr Cyfyng, Lledr valley, SW of Betws-y-Coed (49), Benoit, 1980.
- 110/3. Orthotrichum striatum, on Salix in wood below conifer plantation, S slope of Keeper Hill (H10), Paton, 1979.
- 110/6. O. affine, on elders beside Grand Union Canal, nr Ickenham (21), Driver.
- 116/1. Leucodon sciurioides, E-facing steep siliceous outcrop, Dun Mhuirich, nr Tayvallich, Knapdale (101), Kenneth.
- 117/1. Antitrichia curtispindula, on ash by Harden Burn, Hawick (80), Corner, 1978.
- 122/1. Homalia trichomanoides, on stump in Torosay Gardens, Mull (103), Corley.
- 132/1. Leskea polycarpa, on tree-root by stream, Haughley, NW of Stowmarket (26), Preston.

- 135/1. Heterocladium heteropterum a var. heteropterum, ravine below waterfall, ESE of Kilronan Mt., Arigna (H25), Synnott.
- 137/4. Thuidium philibertii, old limestone quarry, Maddysrulla, W of Portrunny Bay, L. Ree (H.25), Synnott.
- 140/3. Campyllum polygamum, in turf at edge of saltmarsh, Lochdon, Mull (103), Corley.
- 141/3. Amblystegium tenax, bank of R. Thames, Penton Hook, nr Laleham (21), Milnes-Smith & Gardiner.
- 141/5. A. humile, silty margin of R. Thames, Penton Hook Island, nr Laleham (21), Milnes-Smith & Gardiner; Weston Fen, Market Weston (26), Jones; damp ground at back of dunes, Rattray Head (93), Crundwell.
- 143/4. Drepanocladus fluitans b var. falcatus, in conifer plantation, Auquharney Moss, SW of Peterhead (93), Crundwell.
- 144/3. Hygrohypnum luridum a var. luridum, in wet stone gully, base of N-facing wall, S. Pickenham church, nr Swaffham (28), Libbey & Swann.
- 146/2. Calliargon trifarium, among Scorpidium scorpioides, S side of Errisbeg, Roundstone (H.16), A. Moen, 1980.
- 147/2. Isoetecium myosuroides b var. brachythecioides, around base of birch tree, below Ben Hee, nr Loch Shin (107), Gardiner & Milnes-Smith.
- 147/3. I. holtii, riverside rock, falls of Glencassley, S of Loch Shin (107), Gardiner & Milnes-Smith.
- 147/4. I. striatulum, limestone wall above turlough at Mullygollan, NE of Castleplunket (H.25), Synnott.
- 148/1. Scorpiurium circinatum, limestone boulder on shore of L. Ree, St. John's Wood (H.25), Synnott.
- 150/5. Brachythecium mildeanum, among grass, bank of dried-up pond, meadow nr Kings Walden (20), Bloom, 1981.
- 150/9. B. glaciale, amongst block scree under ferns, nr Feith Buidhe, above Loch Avon, Cairngorms (94), Long.
- 150/12. B. populeum, on shaded stone slab in graveyard, Hawstead, 5 km S of Bury St. Edmunds (26), Corley.
- 152/1. Scleropodium cespitans, base of Alnus on river bank, R. Endrick, nr Wards, Loch Lomond NNR (99), Stirling.
- 153/3. Cirriphyllum crassinervium, base of wall, gardens of Hampton Court (21), Milnes-Smith & Gardiner; on bole of elm beside stream in wood, R. Lark at Hall, 5 km S of Bury St. Edmunds (26), Corley.
- 155/4. Eurhynchium pumilum, clay bank in wet woodland, Bunbrosna (H.23), Synnott, 1980.
- 155/5. E. praelongum b var. stokesii, on soil in planted woodland, Cruden Bay (93), Crundwell.
- 155/8. E. speciosum, at edge of carr, Redgrave Fen, close to road between Redgrave and S. Lopham (26), Corley.
- 156/1. Rhynchostegiella tenella a var. tenella, gravestone in churchyard at Hawstead, nr Bury St. Edmunds (26), J.E. Beever.
- 159/5. Plagiothecium curvifolium, on rotten log, Sinclair Hills, S of Fraserburgh (93), Crundwell.
- 159/6. P. laetum, bole of alder, Cotton Hill, S of Cullen (94), Crundwell.
- 159/9. P. succulentum, on bank by stream in ditch, E side of Slieve Baurne (H.25), Synnott.

- 159/10. P. nemorale, base of Fraxinus, Dane's Moor, Chipping Warden (32), Wigginton; on base of Fraxinus, Halton (60), Wigginton, 1978; on earth-covered rock in shade, nr Ballogie, Deeside (92); Crundwell.
- 160/2. Herzogiella seligeri, on rotten log, Combley Great Wood, nr Haven Street (10), Rose.
- 162/1. Isopterygiopsis muellerana, shady clefts of vertical rock-face, N-facing cliffs, Coire Garbhlach, Glen Feshie (96), Long & van Melick.
- 164/1. Sematophyllum demissum, on rocks in light shade in woodland, Nant Gwynant, nr Beddgelert (49), Ratcliffe.
- 166/1. Platygyrium repens, on inclined bole of ash in open woodland, Ringstead Downs, nr Hunstanton (28), Libbey.
- 168/3. Hypnum cupressiforme c var. lacunosum, sandy turf, Staines (21), Milnes-Smith & Gardiner.
- 168/7. H. bambergeri, with Saxifraga oppositifolia and other calcicoles on rotten granite, 700 m alt., Glen Gairn, 7 km N of Braemar (92), Payne, 1977.
- 168/8. H. lindbergii, mud on shore, S end of Loch Mhor, Stratherrick (96), Crundwell; damp roadside verge, Inchnadamp Hotel (108), Long.
- 168/9. H. callichroum, sheltered rocks on boulder scree, shore of Loch Avon, Cairngorms (94), Lightowlers.
- 171/1. Hyocomium armoricum, rocks by waterfall, E of Kilronan Mt., Arigna (H.25), Synnott.
- 173/3. Rhytidiadelphus subpinnatus, woodland, Roeburndale, nr Wray (60), Appleyard.
- 175/2. Hylocomium pyrenaicum, with Saxifraga rivularis on wet rocks, 1100 m alt., Black Spout, Lochnagar (92), Payne, 1978.
- 175/3. H. umbrata, on slope of shaded ravine, Twistleton Glen, Ingleton (64), Blockeel.

Contributors of records, 1981

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REQUEST FOR MATERIAL

I am studying the cytotaxonomy of Rhizomnium punctatum and R. pseudopunctatum and would appreciate living material from a range of populations. Specimens, which need not have sporophytes, should be posted in a polythene bag inside an envelope. Postage will be refunded.
Phil. D. Marshall, Dept. of Botany, The University of Manchester,
Oxford Road, Manchester, M13 9PL.

RECENT CHANGES IN THE MEMBERSHIP

Concurrent with this Bulletin is published a new List of Members, July 1982, which includes all the entries below and also recent changes of address.

NEW MEMBERS TO JUNE, 1982

BLACKBURN, Miss R.E., 29 Tuscan Road, Plumstead, London, SE18 1SY (1982 J)
BOS, F., Bochooltstraat 49, 7102 BT Winterswijk, Netherlands. (1982)
BOWERS, Dr F., Biology Dept., University of Wisconsin, Stevens Point,
Wisconsin 54481, USA (1982)
CAULFEILD-BROWNE, Mrs C.M., Hanwood House, 18 Dinham Crescent, Exeter,
Devon, EX4 4EF (1982 F)
CAULFEILD-BROWNE, P., Hanwood House, 18 Dinham Crescent, Exeter, Devon,
EX4 4EF (1982)
CURTIS, C., 2 Manor Road, Barton, Notts NG11 0AA (1982)
JOHNSON, F.E.B., Oakdene, Hall Lane, Thornham, Hunstanton, Norfolk
PE36 6NB (1982)
LESLIE, Dr A.C., Monksilver, 72 Boxgrove Road, Guilford, Surrey GU1 1UD (1982)
MARSHALL, P.D., 19 Scarsdale Road, Victoria Park, Manchester M14 5PZ (1982 J)
MOORE, A.J., c/o Jonathan Parkin & Son Ltd., Unit 2, The Industrial Estate,
Fakenham, Norfolk (1982)
SARGENT, Dr Caroline, Institute of Terrestrial Ecology, Monks Wood,
Abbots Ripton, Huntingdon, Cambs. PE17 2LS (1982)
SCOTT, D.J., 76 Welbourne, Werrington, Peterborough PE4 6NQ (1982)
SMITH, D.R., 9 Halfmoon Crescent, Oadby, Leics L22 4HD (1982)
THOMAS, D.K., Sunnysdale, Scurlage, Gower, Swansea, W.Glam., SA3 1BA (1982)
WATKINSON, M.R., c/o Botany Department, Oxford University, South Parks Road,
Oxford OX1 3RA (1982 F)
WATKINSON, Dr Sarah C., Botany Department, Oxford University, South Parks
Road, Oxford OX1 3RA (1982)

CHANGE OF NAME

KUNGU, Mrs E.M. (formerly Ms E.M. Field)

CHANGE OF ENTRY

SNOW, Mrs L. instead of SNOW, R.A.

RESIGNATIONS

ATKINSON, C.J., Bangor
BARKER, F.L., Dorset
BRAITHWAITE, M.E., Hexham
DELANEY, K.D., Harpenden

FLETCHER, Mrs M.V., Reading
GREIG-SMITH, Mrs J.A., Aldershot
JONES, Miss C., Pentraeth
STRACHAN, Dr I., Oslo

TRANSFER OF LIVERPOOL UNIVERSITY'S BRYOPHYTE HERBARIUM

In May 1982 the Liverpool University Botany Department's collections of British and world-wide mosses and liverworts were transferred on permanent loan from the Botanic Garden at Ness to Merseyside County Museums (LIV). This follows the earlier transfer, in 1974, of the flowering plants and ferns.

The bryophyte specimens are estimated to number about 5000 packets, and are currently being merged with the Museums' existing bryological collections of about 12,000 specimens. The combined herbarium remains open for study and enquiries, and loans are available to recognised institutions.

John Edmondson (Keeper of Botany), Merseyside County Museums,
William Brown Street, Liverpool L3 8EN

LETTERS TO THE BULLETIN EDITOR

From Mr Philip Jackson

CELL WIDTH

I am moved to ask what seems a most elementary question because (a) an eminent member of the Council of the B.B.S. could not tell me the answer, & (b) you might think fit to publish an agreed answer in the Bulletin.

When a cell is obviously rectangular, or square, or actinomorphic, there is no difficulty in understanding what is meant by 'width'.

But what of the cells (particularly in Hepaticae & Mniaceae) which cannot be so described? Frequently the 'cell width' is referred to without any further qualification. Does one take the least, or the greatest distance between the walls of a cell; or the axis of the cell parallel to the nerve or stem; or the axis at 90 degrees, or what?

I feel sure that many others as well as I would appreciate an authoritative opinion. -----Yours, etc.

Philip Jackson, Griffons, North Street, Stamford, Lincs. PE9 1AA. 19.10.1981.

From Dr Clive Stace

ABBREVIATED NAMES FOR VICE-COUNTIES

The section on the names of vice-counties in the excellent and very welcome new Census Catalogue (Distribution of Bryophytes in the British Isles, by M.F.V. Corley & M.O. Hill, pp. 11-14, 1981) has prompted the following comments.

As the authors state, the vice-county names used by Watson (1852) and Dandy (1969) were so haphazard that they cannot seriously be taken as the definitive list. The names used by Corley & Hill are very similar to (though not identical with) those given in Atlas of the British Flora (Perring & Sell, 1962). It should be noted that the list of names given in Watsonia 11: 185-7 (1976) is not of those "recommended by the Botanical Society of the British Isles" (no such list exists), but was a list of abbreviated names intended for use in Watsonia, notably under Plant Records. Moreover they have been superseded by a revised list of abbreviated names given in Watsonia 13: 94-6 (1980). With regard to Irish vice-county names, the list given by Corley and Hill is in fact the same as that in the later Watsonia list, not the former as stated.

Maybe the B.B.S. does not have a need for a list of abbreviated names, but should it do so I would like to recommend the later Watsonia list for consideration. Its main merit is that it was constructed in consultation with the vice-county recorders and regional subcommittees of the B.S.B.I., and should therefore have local support. One of its main aims was to avoid abbreviated vice-county names which were the same as the name of a town. It has done this by adding 'Co.' as a prefix (for Ireland and Durham) or 's.' as a suffix (for the rest of England and for Scotland), except where the county is subdivided, where it is unnecessary.

The B.B.S. Irish list is unhelpful, because it does not state which counties duplicate a town name and therefore require 'Co.' - e.g. Monaghan does but Fermanagh does not. Some of the towns with the county name are so small (the same is true in Wales) that they are only on detailed maps. The B.S.B.I. Welsh names are perhaps rather over-abbreviated, but they were adopted because they were (with one exception) recommended by the Welsh Regional Committee and were already in use in the National Museum of Wales and by local recorders. -----Yours, etc.

Clive Stace, Department of Botany, University of Leicester, LE1 7RH. 26.1.1982.

Edited by

A.R.Perry, Department of Botany, National Museum of Wales, Cardiff CF1 3NP. U.K.