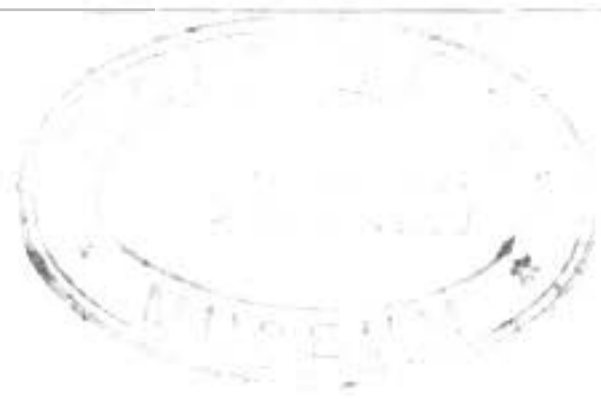


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MOSS EXCHANGE CLUB.



REPORT

*For the Year 1906.*



Work :

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1906.

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## SECRETARY'S REPORT.

This year's Report has been unavoidably delayed through the sad domestic trouble that has befallen our distributor, Mr. Jones, to whom I tender the sympathy of the Members.

The Club continues in a very flourishing state. Six new Members have been admitted, and two have lost interest and have withdrawn. The Members now number 38.

The new Census Hepatic Catalogue has sold very well, and the bill has been paid without crippling the funds. Part only of the receipts appears in this year's Balance Sheet.

I am keeping one Catalogue on which to enter all new records with a view to a revised Edition later, and shall be glad to receive records from Members along with Voucher Specimens when possible, which Mr. Macvicar and myself will examine. Several Members have already enabled me to improve the distribution.

I hope soon to take up the matter of a Census Moss Catalogue, and intend to write to some of our leading Members to form a working Committee. There has been a strong expression of opinion in the Club Note Book that we should get to work with the Census Moss Catalogue, and Prof. Barker has a good suggestion that we should use both the Provinces and the Vice-Counties, thus VII.; VIII. 57; IV. 58, 59, 60;—

I hope all Members will do what they can to help to make the Census Moss Catalogue as complete as possible.

WM. INGHAM, *Hon. Secretary.*

8th May, 1906.

THE ELEVENTH ANNUAL REPORT  
OF THE  
MOSS EXCHANGE CLUB,  
1906.

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DISTRIBUTER'S REPORT.

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The number of parcels received this year was 27. Six Members sent Catalogues only. Those who participated in the Distribution numbered 35.

The Club is to be congratulated upon the number of interesting species sent in ; and the quality of the material, with few exceptions, has been highly satisfactory.

It is gratifying to find that several species and varieties, hitherto undescribed or not recorded for Britain, have been added to our lists of Mosses and Hepatics by Members of the Club during the year.

The number of packets received has been much in excess of what was contributed last year. Several Members expressed a desire to receive *well-prepared* specimens of plants already represented in their herbaria by poor material. It was therefore decided not to adhere too closely to the Club's Desiderata Lists.

In order to secure more accuracy as to the plants required by the Club, and also to facilitate the work of the Distributer, it is proposed to circulate desiderata sheets shortly, wherein each Member will be expected to fill his own wants.

A new Moss Catalogue would greatly assist both Members and Distributer, and it is to be hoped that the Club will see its way clear to publish one before the next Distribution.

Messrs. Barker, Macvicar, Nicholson, Ingham, Wheldon and Horrell have again undertaken the duties of Referees, to all of whom the best thanks of the Club are due.

D. A. JONES, Distributer.



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MOSSES AND HEPATICS FOR DISTRIBUTION, 1906.

	MOSSES.		HEPATICS.		TOTAL.	
	Species and Vars.	Packets.	Species and Vars.	Packets.	Species and Vars.	Packets.
Miss E. Armitage ..	64	208	9	22	73	230
Prof. T. Barker ..	20	213	—	—	20	213
Mr. H. Beesley ..	51	208	—	—	51	208
Mr. F. J. Chittenden..	12	54	—	—	12	54
Mr. E. Cleminshaw ..	12	87	1	4	13	91
Mr. Ll. J. Cocks ..	21	83	9	37	30	120
Mr. C. Crossland ..	9	67	—	—	9	67
Mr. H. Darton ..	15	90	—	—	15	90
Mr. H. N. Dixon ..	31	150	—	—	31	150
Mr. J. B. Duncan ..	32	194	—	—	32	194
Mr. A. R. Horwood ..	7	24	2	32	9	56
Mr. J. Hunter ..	11	51	—	—	11	51
Mr. W. Ingham ..	20	151	8	63	28	214
Mr. A. B. Jackson ..	4	28	—	—	4	28
Mr. D. A. Jones ..	29	249	8	92	37	341
Mr. H. H. Knight ..	6	47	3	14	9	61
Rev. D. Lillie ..	—	—	1	6	1	6
Rev. W. R. Linton ..	8	91	1	3	9	94
Mr. W. E. Nicholson..	14	103	3	48	17	151
Mr. S. J. Owen ..	24	123	6	30	30	153
Rev. W. H. Painter ..	7	34	—	—	7	34
Rev. H. P. Reader ..	—	—	2	30	2	30
Sir J. Stirling ..	19	49	—	—	19	49
Rev. C. H. Waddell ..	8	60	2	8	10	68
Mr. J. A. Wheldon ..	27	130	1	20	28	150
Mr. A. Wilson ..	23	110	—	—	23	110
Mr. W. Young ..	52	150	13	51	65	201
	526	2754	69	460	595	3214

## LIST OF MOSSES AND HEPATICS.

- Sphagnum Warnstorffii* Russ., Docker (60), 9/03. J.A.W.
- S. Girgensohnii* v. *xerophilum* Russ., Wheeldale (62), 4/04. W.I.  
 "Is *S. fimbriatum* Wils."—E.C.H. "See 905 Report, page 181. There may have been a mixture in the packets, but the original gathering was verified No. 169 by Mr. Horrell as *S. Girgensohnii* v. *xerophilum*.—W.I."
- S. rubellum* v. *flavum* C. Jens., Cockerham Moss (60), 8/02. J.A.W.; v. *pallidum* Warnst., near Keswick (70), 8/03. H.B.; v. *rubrum* Grav., Cockerham Moss, 7/01. H.B.
- S. quinquefarium* Warnst., and v. *virescens* Warnst., Llyfnant Valley (46), 8/03. W.H.P.
- S. subnitens* v. *flavo-rubellum* Warnst., Dartmoor, 8/05. L.J.C.; also, Borwick (60), 7/01. A.W.; v. *obscurum* Warnst., Oakenclough (60), 9/02. A.W.; v. *violascens* Warnst., Hindburn (60), 9/02. A.W.; v. *virescens* Warnst., Over Kellet (60), 9/04. A.W.; also, Clougha (60), 9/02. J.A.W. "Latter is *S. quinquefarium* Warnst."—E.C.H.
- S. squarrosum* v. *subsquarrosum* Russ., Llyfnant Valley (46), 8/03. W.H.P.; v. *imbriatum* Schp., Carr (59), 7/04. J.A.W.
- S. teres* v. *subsquarrosum* Warnst., Carr (59), 8/04. J.A.W.
- S. riparium* Angstr., Cockerham Moss (60), 11/02. A.W.
- S. cuspidatum* v. *submersum* Schp., Llanwrtyd (42), 6/01. W.H.P.
- S. pulchrum* Warnst., Heysham Moss (60), 7/04. J.A.W.
- S. obtusum* Warnst., Carr (59), 7/04. J.A.W.
- S. recurvum* v. *mucronatum* Warnst., Flaxmere (58), 8/03. J.A.W.
- S. molluscum* Bruch, c.fr., Heysham Moss (60), 7/04. A.W. Also, near Killin (88), 7/05. J.A.W.
- S. compactum* v. *subsquarrosum* Warnst., Tiptree Heath, Essex, 12/03. F.J.C.
- S. contortum* (Schultz) Limpr., Docker (60), 8/02. A.W.
- S.*———. Lords Lot Wood, Arkholme (60), 5/05. J.A.W.  
 "Is *S. obesum* Warnst."—E.C.H.
- S. turfacem* Warnst., Heysham Moss (60), 7/04. A.W.; "Is *S. papillosum* v. *sublaeve* Limpr."—E.C.H.
- S. cymbifolium* Warnst., Llyfnant Valley (46), 8/03. W.H.P.

*Sphagnum papillosum* v. *normale* Warnst., Barmouth (48), 8/04. F.J.C.; v. *sublaeve* Limpr., Udale (60), 10/99. J.A.W.

*S. medium* Limpr., Arthog (48), 6/05. D.A.J. "New to Wales."; v. *glauco-purpurascens* Russ., Tatham Moor (60), 9/02. A.W.; v. *roseo-pallescent* Warnst., and v. *roseum* Warnst., Cockerham Moss (60), 8/02. J.A.W.

*Andreaea petrophila* Ehrh., Cauldron Snout (66), 7/03. H.B.; also, Pentland Hills (83), 10/05. J. McAndrew. Com. W.Y.

*A. alpina* Sm., Ben Heasgarnich (88), 8/03. J. Conway. Com. H.B.; also, Naddle Forest (69), 9/03. J.A.W.; Corrie Ceanmor (92), 7/04. W.Y.; and Snowdon (49), 8/04. S.J.O. "First and last are marked forms."—T.B.; H.N.D.

*A. Rothii* W. & M., Dartmoor, 8/05. Ll.J.C.; also Nab Scar (69), 3/05. E.A.; and Glen Lochay (88), 7/98. W.Y. "Last is *A. alpina*.—T.B.

*A. crassinervis* Bruch, Dartmoor, 9/05. Ll.J.C.; also, Nab Scar (69), 3/05. E.A.; v. *Huntii* Braithw., Croesor (48), 8/05. S.J.O.; "See Report for 1905."—T.B.

*A. nivalis* Hook., and v. *fuscescens* Hook., Ben Nevis, 7/75. J. Whitehead. Com. T.B.

*Catharinaea tenella* Röhl, near Goudhurst (16), 12/05. J.S.

*C. crispa* James, Grizedale (60), 8/99. A.W.

*Polytrichum nanum* Neck., Bramfield (20), 3/05. H.D.; also, Warton Crag (60), 3/05. A.W.; and Wyre Forest (37), 11/04. J.B.D.

*P. uruigerum* L., Cwm Mawr (48), 9/04. J.B.D.

*P. alpinum* L., Am Binuein (88), 7/03. W.Y.

*P. sexangulare* Ehrh., Am Binuein (88), 7/03. W.Y.

*P. piliferum* Schreb., Dunearn Hill (85), 4/05. W.Y.

*P. strictum* Banks, Cockerham Moss (60), 6/04. H.B.; also, Ben Lawers, 7/99. W.Y.; and Loughrigg Fell (69), 5/03. E.A.

*P. gracile* Dicks., c. fr., Brynmawr Moor (42), 6/99. E.A.

*Diphyscium foliosum* Mohr, Ambleside (69), 3/05. E.A.

*Archidium alternifolium* Schp., Shirley (57), 2/06. W.R.L.; also, near Salisbury, 1/04. H.N.D.

*Pleuridium axillare* Ldb., Martinshaw Woods (55), 9/05. A.R.H.; also, Balerno (83), 10/05. J. McAndrew. Com. W.Y.

*Ditrichum tortile* Hpe., c. fr., Lindfield, Sussex, 11/04. W.E.N.

- Ditricium homomallum* Hpe., near Snaefell (71), 7/02. H.B.
- D. flexicaule* Hpe., c.fr., near Cortina d' Ampezz, Tirol. 9/04. J.S.; v. *densum* Braithw., St. Annes (59), 6/05. H.B.; also, Ask-rigg Common (65), 6/05. W.I.
- Seligeria Doniana* C.M., Hampton Loade (40), 11/04. J.B.D.
- Selania casia* Ldb., Saeterstoen, Norway, 7/98. W.E.N.
- Ceratodon purpureus* v. *brevifolius* Milde, Coatham Marshes (62), 8/05, W.I. "A small and short leaved form, but not Milde's v. *brevifolius*, which is characterised by a nerve, excurrent as a mucro."—T.B.
- C. conicus* Ldb., Kingsthorpe (32), 5/03. H.N.D.; also, 6/05. A.B.J.
- Rhabdoweisia denticulata* B. & S., Cadar Idris (48), 8/98. T.B.; also, Dunearn Hill (85), 4/05. W.Y.; and, Dolgelley (48), 1/05. S.J.O.
- R. crenulata* Jameson, Moelwyn Bach (48), 4/03. D.A.J.
- Cynodontium Bruntoni* B. & S., Buckstone (34), 5/04. E.A.
- C. polycarpum* Schp., app. *C. laxivete* Grebe, Croesor (48), 12/05. S.J.O. & D.A.J.
- C. strumiferum* De Not., Christiania, Norway, 6/80. T.B.
- C. virens* Schp., c.fr., Ben Cruban (88), 7/05. E.C.
- Dichodontium pellucidum* Schp., Lucerne, Switz., 9/05. J.S.
- D. flavescens* Ldb., Ben Cruban (88), 7/05. A.W. "Is *Cynodontium virens* Schp."—T.B.
- Dicranella heteromalla* v. *interrupta* B. & S., Frodsham (58), 8/02, D.A.J.; v. *sericea* Schp. (forma), Pierrefitte, Htes Pyrénées, 8/02. H.N.D.
- D. curvata* Schp., Llanfrothien (48), 12/05. S.J.O.
- D. varia* Schp., Glencorse Reservoir (83), 10/05. J. McAndrew, Com. W.Y.
- Campylopus Schimperii* Milde, Meall na Saone (88), 8/03. D.A.J.
- C. Schwarzii* Schp., Cwm Mawr, near Harlech (48), 9/04. J.B.D. "Is *C. atrevirens* v. *gracilis* mihi, a slightly more robust form than most I have seen. The hair-points will be found fairly well developed, at any rate quite distinct, if careful examination is made with the lens, here and there. The areolation is more elliptic and sinuose than in *C. Schwarzii*."—H.N.D.
- C. Shawii* Wils., Adrigole, Co. Cork, 8/05. J.B.D.; also, S.J.O. and D.A.J.

*Campylopus flexuosus* Brid., c. fr., Monmouth (35), 2/05. E.A.; also, app. v. *uliginosus* Ren., Wickly Bank (66), 7/98. W.I.; v. *uliginosus* Ren., Cader Idris (48), 4/79; and v. *paradoxus* Husn., Kinderscout (57), 3/82. J. Whitehead, Com. T.B.

*C. pyriformis* Brid., c. fr., Branksome Woods (9), 5/98. E.A.

*C. fragilis* B. & S., Silverdale (60), 6/04. H.B.; also, c.fr., Turk Mt., Killarney, 8/05. D.A.J.

*C. introflexus* Brid., Killarney, 8/05. J.B.D.

*C. brevipilus* B. & S., Cwm Mawr near Harlech (48), 9/04. J.B.D.; v. *auriculatus* Ferg., Adrigole, Co. Cork, 8/05. D.A.J. "It might go as the var., with a warning note, that the degree of development of the auricles varies much on the same plant."—H.N.D.

*Dicranodontium longirostre* B. & S., Wyresdale (60), 6/02. A.W.; v. *alpinum* Schp., Roeburndale (60), 7/99. A.W.

*Dicranum spurium* Hedw., Skipwith Common (61), 7/98. W.I.

*D. Bergeri* Bland., Wybunbury Moss (58), 8/02. D.A.J.

*D. Bonjeani* v. *rugifolium* Bosw., Wyre Forest (37), 4/05. J.B.D.

*D. scoparium* v. *orthophyllum* Brid., Glen Lochsaidh (89), 7/97. W.Y. "Is v. *spadiceum* Boul."—T.B.; v. *spadiceum* Boul., Wheel-dale (62), 6/03. W.I.; also, Greygarth Fell (60), 5/05. J.A.W. "Latter is an approach to the var." H.N.D.; v. *ericetorum* Corbière, Hebden Bridge (63), 1/06. C.C.

*D. Mühlenbeckii* Bry. Eur., Lac Saousat, Pyrénées, 8/02. H.N.D.

*D. fuscescens* Turn., (form with short basal cells), Dyffryn Ceidrych (44), 12/05. H.H.K. "Is v. *falcifolium* Braithw. I find some leaves with the distinctly papillose denticulate apex of *fuscescens*, and I think this might decide it."—H.N.D.; also, Buckstone (34), 2/03. E.A. "Is *D. Scottianum* Turn."—H.N.D.

*D. Scottianum* Turn., Dartmoor, 8/05. Ll.J.C.; also, Mangerton Mt., Co. Kerry, 8/05. J.B.D.

*D. elongatum* Schleich., Kongswoold, 7/70; and Nytrauen, 6/80. Norway. T.B.

*D. strictum* Schleich., Roslin Wood, Edinburgh, 5/05. J.H.; also, J. McAndrew, Com. W.Y.

*D. montanum* Hedw., near Heiligenblut, Carinthia, 8/04. J.S.

*D. longifolium* Ehrh., Krimml, Salzburg, 9/82. T.B.; also, near Heiligenblut, 8/04. J.S.

*D. albicans* Bry. Eur., Suldén, Tirol, 8/04. H.N.D.

*Fissidens incurvus* Starke, Hertford (20), 8/05. H.D.

*Fissidens tamarindifolius* Wils., (?) Shirley (57), 2/06. W.R.L.  
 "After some hesitation, I think it may be referred to that var.,  
 though the characters are none too well marked."—H.N.D.

*F. Curnowii* Mitt., banks, Ysgethin R. (48), 1/04. D.A.J.

*F. crassipes* Wils., Clifford Hill (32), 11/90. H.N.D.

*F. rufulus* B. & S., Bolton Woods, Yorks., 7/96. H.N.D.

*F. polyphyllus* Wils., Glengariffe, Ireland, 5/03. H.D.

*F. adiantoides* v. *collinus* (Mitt.), Pirton (20), 4/05. H.D. "This  
 is referable no doubt to that form, having cells 8-10  $\mu$  wide and  
 often obscure."—H.N.D.

*F. decipiens* De Not., Llanwrtyd (42), 6/01. W.H.P.

*F. grandifrons* Brid., Luchon, Pyrénées, 7/02. H.N.D.

*Oclodiceras Julianum* Brid., Bewdley (37), 7/04. J.B.D.

*Grimmia apocarpa* v. *gracilis* W. & M., Ben Heasgarnich (88),  
 7/99. W.Y.; v. *alpicola* (Sw.), Upper Teesdale, 8/96. and R. Wye,  
 Builth (42), 7/03. H.N.D.

*G. conferta* Funck, Largo Law (85), 7/04. J. McAndrew. Com.  
 W.Y. "Is v. *pyrmosa* Braithw."—T.B.

*G. maritima* Turn., Glen Maye (71), 7/03. H.B.; also, Kirk-  
 caldy (85), 6/03. W.Y.

*G. crinita* Brid., Aigle, Switz., 10/05. Miss Cleminshaw. Com.  
 E.C.

*G. incurva* Schwgr., Sulden, Tirol, 8/04. H.N.D.

*G. funalis* Schp., Craig Mohr (88), 7/92. W.Y.

*G. torquata* Hornsch., White Force (65), 8/97. W.I.; also, Ben  
 Lawers, 10/05. J.H.

*G. orbicularis* Bruch, Llandecwyn (48), 12/04. S.J.O.

*G. Stirtoni* Schp., Barmouth (48), 9/04. J.B.D.

*G. decipiens* Ldb., c. fr., Dartmoor, 2/01. L.J.C.; also, Stanner  
 Rock (43), 3/03. E.A.

*G. Hartmani* Schp., near Heiligenblut, 8/04. J.S.

*G. patens* B. & S., Ben Lawers, 7/93. W.Y.

*G. Doniana* Sm., c. fr., Nab Scar (69), 3/05. E.A.

*G. montana* B. & S., Llanfrothen (48), 9/04. J.B.D.; also, 12/05.  
 S.J.O.; and c.fr., 1/05. D.A.J.

*G. alpestris* Schleich., Lomseggen, Norway, 7/80. T.B.

*G. elongata* Kaulf., Sulden, Tirol, 8/04. H.N.D.

*Grimmia unicolor* Hook., Christiania, Norway, 6/30. T.B.; also, Cauterets, Pyrénées, 8/02. H.N.D.

*Racomitrium protensum* Braun., Naddle Forest (69), 6/01. A.W.; also, near Keswick (70), 8/03. H.B.

*R. fasciculare* Brid., Lancaster (60), 8/03. H.B.; also, Rydal (69), 3/05. E.A. "Latter is *R. canescens* v. *ericoides* B. & S."—T.B.

*R. heterostichum* v. *alopcurum* Hübl., Trellech (35), 3/03. E.A.; also, Ben Heasgarnich (88), 7/03. W.Y.; "Latter is v. *gracilescens* B. & S."—T.B.; v. *gracilescens* B. & S., Craig Mohr (88), 7/98. W.Y. "Is *R. ramulosum* Ldb.—an interesting record."—T.B., and H.N.D.

*R. sudeticum* B. & S., Caenlochan Glen (90), 7/04. W.Y.

*R. canescens* Brid., Lomond Hills (85), 8/90. W.Y. "Is v. *ericoides* B. & S."—T.B.; v. *ericoides* B. & S., Killin (88), 7/98. W.Y.

*Coscinodon cribrosus* Spreng., Barmouth (48), 9/04. F.J.C.

*Hedwigia imberbis* Spr., Glen Dhoon (71), 7/02. H.B.

*Acaulon triquetrum* C.M., c. fr., Newhaven (14), 1/02. W.E.N.

*Pottia truncatula* Ldb., Leslie (85), 1/04. W.Y.

*P. viridifolia* Mitt., Harlech (48), 2/06. D.A.J. "*P. viridifolia* is a highly critical species, but I entirely share the opinion, expressed by Mr. Dixon in the second edition of the Handbook, that it is a derivative of *P. erinita* rather than of *P. truncatula*. With regard to the present plants, I should be inclined to refer them to the *erinita* group, on account of the spatulate leaves, and the short nerve and the highly chlorophyllose cells would bring them under *viridifolia*. There is a certain amount of variation in the shape of the leaves, but taken as a whole, they are distinctly spatulate. If this character however is ignored or refined away, there is but little to distinguish the plants from *P. intermedia*."—W.E.N.; "I agree with Mr. Nicholson's remarks. These maritime Pottias are a most difficult and unsatisfactory group."—H.N.D.

*P. commutata* Limpr., c. fr., Newhaven (14), 1/03. W.E.N.

*P. caespitosa* C.M., c. fr., Lewes (14), 3/04. W.E.N.

*Tortula atrovirens* Ldb., Harlech (48), 2/05. S.J.O.

*T. cuneifolia* Roth, c. fr., Hastings (14), 5/02. W.E.N.; also, St. Minver, Cornwall, 1872. Com. E.A.

*T. marginata* Spr., Lincombe (37), 4/05. J.B.D.

*T. muralis* v. *rupestris* Wils., Wells, Somerset, 50/5. H.D.; v. *vestiva* Brid., Hartlebury (37), 4/05. J.B.D.

*T. canescens* Mont., Aberdovey (48), 4/05. S.J.O. & D.A.J.

*T. angustata* Wils., Hertford, 8/05. H.D.

*Tortula laevipila* v. *laevipilaformis* (De Not.) Limpr., Lewes (14), 2/06. W.E.N.; also, Uplyme (9), 12/03; and Rhaiadr (43), 7/03. H.N.D.

*T. intermedia* Berk., near Priddy, Somerset, 5/05 H.D.; also, Duncarn Hill (85), 4/05. W.Y.

*T. ruralis* Ehrh. (form with erect leaves), Blisworth (32), 5/05. A.B.J.

*T. ruraliformis* Dixon, Skegness (54), 6/05. A.R.H.; also Dunbarine Links, Largo (85), 7/04. J. McAndrew. Com. W.Y.

*Barbula lurida* Ldb., Hungaston (55), 3/05. A.R.H.

*B. cordata* Dixon, St. Sauveur, Pyrénées, 8/02. H.N.D.

*B. rubella* Mitt., Crail (85), 1/98. W.Y.

*B. tophacea* Mitt., Burnham, Somerset, 5/05. H.D.

*B. recurvifolia* Schp., Ben Lawers 7/02, Ll.J.C.; also, Lucerne, Switz., 9/05. J.S.

*B. spadicea* Mitt., Hampton Loade (40), 5/05. J.B.D.

*B. rigidula* Mitt., Auchtertool (85), 5/04. W.Y.; also, Symonds Yat (34), 2/05. E.A. "Is *B. tophacea* Mitt."—W.E.N.

*B. cylindrica* Schp., Upper Teesdale, 8/03. H.B.; also, Duncarn Hill (85), 4/03. W.Y.

*B. vinealis* Brid., Balerno (83), 1/04. J. McAndrew. Com. W.Y.; also, Formby (59), 5/05. J.A.W.

*B. gracilis* Schwgr., Little Doward (36), 1/01. E.A.

*B. icmadophila* Schp., Ben Lawers, 7/93, and cliffs, Quiraing, Skye, 7/93. H.N.D.

*B. revoluta* Brid., Allerston, Yorks., 5/04. H.B.; also, Duncarn Hill (85), 4/03. W.Y.

*B. convoluta* v. *Sardoa* B. & S., Youlgreave (57), 6/05. A.B.J. "Although here and there the leaves in these specimens, especially in two or three of the packets, are slightly longer and more undulate than in the type, I should be inclined to regard the gathering as a transitional form between the type and the var. *Sardoa*."—W.E.N.

*Geheebia cataractarum* Schp., Gavarnie, H<sup>tes</sup> Pyrénées, 7/02. H.N.D.

*Leptodontium gemmascens* Braithw., Stumblewood Common (14), 1/00. W.E.N.

*L. flexifolium* Hpe., Nab Scar (69), 3/05. E.A.

*L. recurvifolium* Ldb., Ben Lawers, 7/05. E.C.; also, Tynygroes (48), 9/04. J.B.D.



*Weisia sterilis* Nicholson, c. fr., Lewes, 3/05. W.E.N.

*W. viridula* v. *densifolia* B. & S., Croesor (48), 4/05. S.J.O.

*W. mucronata* B. & S., Ynys Giffain (48), 4/05. S.J.O.

*W. rupestris* C.M., Gwynfe (44), 10/05. H.H.K.; also, Dunearn Hill (85), 4/03. W.Y.; and, Craig Cille (42), 6/99. E.A.

*W. curvirostris* v. *commutata* Dixon, Cwm Dyfnant (42), 12/05. H.H.K. "This plant has the habit generally associated with the var. *commutata*, but I find the leaves and occasionally even the stem distinctly papillose. The cells, however, are somewhat elongate, and as the papillosity is variable, I should be inclined to refer it to a transitional form."—W.E.N. "I agree that it is a transitional form, but approaches var. *commutata* rather nearly."—H.N.D.; also, Roseneath (99), 9/03. E.A.; v. *scabra* Dixon, (?) Achmore Burn (88), 7/05. E.C. "This is another not wholly satisfactory plant as, although the leaves are moderately papillose, the stems are nearly smooth, and these are generally highly papillose in marked examples of the var. I am inclined therefore, *mutatis mutandis*, to apply the same remarks to this plant, as to the last."—W.E.N. "I quite agree with Mr. Nicholson's remarks on this."—H.N.D.

*W. verticillata* Brid., c. fr., Great Doward (36), 9/01. E.A. "Although there are a few sterile stems of *W. verticillata* in this gathering, I make the whole of the fruiting plant to be *B. tophacea* Mitt."—W.E.N.; also, Cramond (83), 1/05. J. McAndrew. Com. W.Y.

*Trichostomum crispulum* Bruch, (*forma*), Lewes (14), 2/05. W.E.N.

*T. mutabile* Bruch, Great Doward (36), 5/00. E.A.; v. *cophocarpon* Schp., Cader Idris (48), 9/04. J.B.D.

*T. tenuirostre* Ldb., Cwm Bychan (48), 9/04. J.B.D.

*T. hibernicum* Dixon, Killarney, 8/05. J.B.D.; S.J.O.; and D.A.J.

*T. inclinatum* Dixon, Garrarus, Co. Waterford, 7/02. C.H.W. "I am unable to distinguish this plant from *T. flavovirens* Bruch. The leaves are more strongly twisted when dry than is usual with *T. inclinatum*, and rather more spreading when moist. These characters, taken in conjunction with the maritime habit rather point to *T. flavovirens*, though I should not like to speak too definitely on the subject. I have found a very similar plant on a crumbling wall by our Sussex coast, which I have referred to *T. flavovirens*. As I am acquainted with it in the field, *T. inclinatum* seems to be rather a mountain plant. It especially delights in the sandy detritus by the glacier streams in the limestone Alps."—W.E.N. "I quite agree with Mr. Nicholson's remarks; the two plants are very difficult to distinguish, but even without the characters pointed out by Mr. Nicholson, the presumption from the habitat and locality would strongly favour *T. flavovirens*."—H.N.D.

*Trichostomum nitidum* Schp., Great Doward (36), 3/99. E.A.

*T. tortuosum* Dixon, c. fr., Mitcheldean Meend (34), 3/99; and Great Doward (36), 8/04. E.A.; also, Muckcross, Killarney, 8/05. J.B.D.

*Cinclidotus fontinaloides* P.B., c. fr., app. *C. riparius* Arn., Hamerton (64), 10/01. W.I. "My only criticism is of the word *approaching*. The plant has somewhat the habit and smoother leaves of *C. riparius*. I should, however, though this may be a merely personal idiosyncrasy, be inclined to limit the use of the term *approaching* to those forms, which tend to connect forms, which appear to actually merge into one another at the present day, e.g., in speaking of *Barbula fallax* approaching *B. recurvifolia*. As species go and at the present time *C. riparius* is, I believe a perfectly distinct species from *C. fontinaloides*."—W.E.N. "I should endorse Mr. Nicholson's remarks about the term *approach*. '*C. fontinaloides* resembling *C. riparius* in leaf structure' would describe it better."—H.N.D.

*Merceya ligulata* Schp., Lac d' Oo, Pyrénées, 8/02. H.N.D.

*Encalypta commutata* N. & H., Dovrefjeld, Norway, 7/76. T.B.; also, Ben Lawers, 7/93. H.N.D.

*E. vulgaris* Hedw., Symonds Yat (34), 4/00. E.A.

*E. ciliata* Hoffm., Craig an Lochan (88), 8/02. Ll.J.C.

*E. rhabdocarpa* Schwgr., Dunbarine Links, Largo (85), 7/04. J. McAndrew. Com. W.Y. "Mixed with v. *pilifera* (Funck)."—W.E.N.

*E. streptocarpa* Hedw., Little Doward (36), 3/93. E.A.; also, c. fr., near Killin (88), 7/05. E.C.

*Anæctangium compactum* Schwgr., c. fr., Cwm Clydach (44), 10/05. H.H.K.; also, Killin (88), 10/05. J.H.

*Zygodon lapponicus* B. & S., Ben Lawers, 7/02. Ll.J.C.; Caenlochan Glen (90), 8/04. W.Y.

*Z. Mougeotii* B. & S., Glen Tatnich (89), 7/04. W.Y.; also, Scandale (69), 3/05. E.A.

*Z. viridissimus* R.Br., Duncarn Hill (85), 4/05. W.Y. "Is *Z. Stirtoni* Schp.,—habit more rigid and the nerve stout and excurrent."—W.E.N.

*Z. Forsteri* v. *Seudtneri* Dixon, c. fr., Burnham Beeches (24), 6/02. W.E.N.

*Ulota Ludwigii* Brid., Engelberg, Switz., 8/95. T.B.; also, Killin (88), 7/05. E.C. & J.A.W.

*U. Bruckii* Hornsch., Wash Dub Wood (60), 9/03. J.A.W.

*Ulota phyllantha* Brid., Hayburn Wyke, Scarborough, 9/96. L.I.J.C.

● *Orthotrichum rupestre* Schleich., Nab Scar (66), 3/05. E.A.

*O. anomalum* v. *saxatile* Milde, near Priddy, Somerset, 5/05. H.D.; also, Kirkcaldy (85), 1/05. W.Y.

*O. cupulatum* Hoffm., Allt a Mhoineas (88), 7/02. L.I.J.C.; also, Rydal (69), 3/05. E.A. "This is *O. anomalum* v. *saxatile* Milde. The capsule more gradually tapering into the seta, the longer seta and the 8 striae only on the mature capsule will distinguish it from *O. cupulatum*."—W.E.N.; near Priddy, Somerset, 5/05. H.D. "This plant was apparently growing with *O. anomalum* v. *saxatile* Milde; and I have found on one plant a capsule, whose appearance suggests that it is a hybrid between the two species."—W.E.N.; v. *nudum* Braitbw., Litton Dale (64), J. Whitehead. Com. T.B.

*O. speciosum* Nees, Pieve di Cadore, Italy, 9/04. J.S.

● *a. f. v. Schrad.*, Shaugh Mill (3), 8/05. L.I.J.C.; also, Thornley (60), 4/05. H.B. "Latter is *O. anomalum* v. *saxatile* Milde mixed in most of the packets with a little ● *cupulatum* Hoffm."—W.E.N.

*O. stramineum* Hornsch., Great Doward (36), 2/98. E.A.

*Schistostega osmundacea* Mohr, Dartmoor, 8/05. L.I.J.C.; also, c. fr., Duston (32), 4/05. A.B.J.

*Ædiopodium Griffithianum* Schwg., Crinkle Crag (69), 7/05. W.R.L.

*Splachnum ampullaceum* L., Glen Cannich, Inverness, 7/04. L.I.J.C.; also, Killin (88), 7/05. J.A.W., E.C. & A.W.

*S. vasculosum* L., Craig Chailleach (88), 7/05. E.C. & J.A.W.

*Tetraplodon Wormskjoldii* Ldb., near Killin (88), D. Haggart. Com. E.C.—"New to Scotland."

*Physcomitrella patens* v. *Lucasiana* Schp., Waterford Marsh, Hertford (20), 8/05. H.D.

*Funaria ericetorum* Dixon, Festiniog (48), 5/05. S.J.●.

*F. Templetoni* Sm., near Snacfell (71), 7/02. H.B.; also, Tongue Gill (69), 3/05. E.A.

*F. calcarea* Wahl., near Priddy, Somerset, 5/05. H.D.; also, Hamps Fell (69), 5/03. A.W.

*Amblyodon dealbatus* P.B., Freshfield (59), 5/05. H.B.

*Meesia trichoides* Spr., Freshfield (59), 5/05. H.B.; also, Cam Craig (88), 7/00. W.Y.

*Paludella squarrosa* Brid., c.fr., Dovrefjeld, Norway, 7/76. T.B.

*Anlaconium palustre* v. *imbricatum* B. & S., Loch Tay, Killin (88), 10/05. J.H. "This is not extreme enough for v. *imbricatum*, which is a very different looking plant, with the leaves more adpressed, rendering the stems almost julaceous as in *A. turgidum*. These plants could perhaps be referred to v. *congestum* Boul, which is intermediate between the type and v. *imbricatum*."—J.A.W.; "I agree with Mr. Wheldon's opinion; it might I think be called *approaching* v. *imbricatum*."—H.N.D.

*Timmia bavarica* Brid., near Airolo, Switzerland, 9/05. J.S.

*Catascopium nigratum* Brid., Pic de Piméné, Pyrénées, 8/02. H.N.D.; also, Widdy Bank Fell (66), 7/03. H.B.; and Dunbarine Links, Largo (85), 7/04. J. McAndrew. Com. W.Y.

*Philonotis rigida* Brid., banks, Ysgethin K. (48), 9/04. J.B.D.; also, Glen Dhooon (71), 6/02. H.B.

*P. fontana* v. *falcata* Brid., Tanygrisian (48), 6/04. S.J.O. "This agrees with the Handbook description, but not with Schimp. Syn. which describes the nerve as stouter, rufescent, which is hardly the case with Mr. Owen's specimens. If Schimper and Bridel's plant was either *P. calcarea* or *P. seriata*, it would seem as though there was no name for the ordinary form of *P. fontana* with falcate leaves."—J.A.W.; "This is not my idea of var. *falcata*, which (cf. my remarks, Handb. Ed. II. p. 324, for relation with *P. seriata*, and Mr. Wheldon's notes) is simply the ordinary *P. fontana* with markedly falcate leaves. Here, however, the plant differs from type in many directions, colour, lax habit, broadly pointed leaves, shorter nerve, wide, chlorophyllose cells, &c., &c. I should call it '*P. fontana*, a marked form.'"—H.N.D.; v. *amplirectis* Dixon, Moelwyn Bach (48), 9/04. J.B.D.

*P. seriata* Mitt., Ben More, Sutherland, 7/99; and f. *falcata*. Ben Nevis, 7/98. H.N.D.

*Oreas Mieliichhoferi* v. *elongata* B. & S., c. f., near Maristuen, Norway, 8/76. T.B.

*Webera elongata* Schwgr., Cwm Mawr (48), 9/04. J.B.D.; also, Silverdale (60), 6/04. H.B.; and Ben Chuirn (88), 7/03. W.Y.

*W. cruda* Schwgr., Ben Lawers, 7/96. W.Y.

*W. annotina* Schwgr., Walton (59), 7/03. H.B.; also, Derriaghy, Co. Antrim, 1/06. C.H.W. "This, I think, is the segregate *W. annotina* (*W. annotina* Correns emend.) The bulbils are scarcely of the right form for *W. prolifera*."—H.N.D. "The bulbils are not too numerous, but those which I have seen I think belong to *prolifera*, though perhaps not fully developed. They cluster thickly at the top of the stem as is usual in *prolifera*. In *W. annotina* Hedw. so far as I have noticed, they are less slender, much less crowded, and distributed along a greater length of the stem. The habit of the plant is the same as I find here (near Buxton) on gritstone rocks by streams, where *W. prolifera* abounds."—T.B.

*Webera erecta* (Roth) Correns, near Buxton, 9/05. ; also Killin (88). J.H. "The more appressed leaves of the latter plant, with plane margin and faintly toothed apex together with the rather darker coloured stems and slender look point rather to *W. gracilis*, to which I incline to refer it. In the two species the bulbils are said to be similar."—T.B. ; "I must confess I find it difficult or perhaps I should say impossible to distinguish *W. erecta* from *W. gracilis* in the barren state ; and I do not find much help in Correns' remarks on this point. I should incline to call this *W. gracilis*."—H.N.D.

*W. Ludwigii* v. *latifolia* Schp., Ben More, 8/03. J.B.D.

*W. commutata* Schp., Ben Douran (98), and Craig Chailleach (88), 7/98. H.N.D. ; v. *catenulata* Dixon, Ben Lawers 7/93. H.N.D.

*W. gracilis* De Not., St. Gothard Pass, Switz. 8/95. T.B.

*W. carnea* Schp., Slieve Donard, Co. Down, 4/05. C.H.W.

*W. albicans* Schp., Ben Cruban (88), 8/03. J.B.D.

*Plagiobryum Zierii* Ldb., Cwm Clydach (44), 10/05. H.H.K.

*Bryum filiforme* v. *juliforme* Dixon, Carbiss Bay (1), 8/86. H.N.D.

*B. pendulum* Schp., Birkdale (59), 7/97. J.A.W. ; also, Queensferry Rd. (83), 8/04. J. McAndrew. Com. W.Y.

*B. Warnum* Bland., Wallasey (58), 8/03. J.A.W. ; also, Morfa Bychan (49), 9/05. S.J.O. & D.A.J.—"New to v.c.49."

*B. lacustre* Brid., nr. Southport (59), 8/00. H.B. "Is a form of *B. intermedium*, frequent on the coast, and smaller in all its parts than the inland plant. It resembles *B. lacustre* in size and colour, but has a wider mouth, leaves more distinctly bordered, nerve more excurrent, and inner peristome free, with cilia well developed."—J. A.W. ; also, the true *B. lacustre* Brid., Morfa, Harlech (48), 9/05. F.J.C. ; and 6/05. D.A.J.

*B. uliginosum* B. & S., nr. Southport (59), 8/04. H.B.

*B. pallens* v. *speciosum* Schp., Ben Lawers, 7/93. H.N.D.

*B. bimum* Schreb., Caenlochan Glen (90), 7/97. W.Y. "Is *B. pseudo-triquetrum*, male flowers present, but no female."—J.A.W.

*B. pseudo-triquetrum* Schwgr., nr. Fleetwood (60), 7/04. H.B.

*B. neodanense* Itz., nr. Southport (59), 5/05. H.B. ; also, Formby (59), 8/05. J.A.W.

*B. caespiticium* L., Allerston (60), 5/04. H.B. ; also, Keyham (55), 4/04. A.R.H. ; and Stirchley (40), 5/04. W.H.P. "One packet (Stirchley) is *B. inclinatum*."—J.A.W.

*B. capitulare* v. *elegans* Nees, Heiligenblut, Carinthia 8/04. J.S.

*B. rubens* Mitt., Symonds Yat (34), 5/04. E.A.

*B. alpinum* v. *viride* Husn., Croesor (48), 8/05. S.J.O.

- Bryum gemmiparum* De Not., R. Grwyne (42), 8/03. H.N.D.
- B. argenteum* v. *majus* B. & S., Ednaston (57), 1/06. W.R.L.; also, Netherton (59), 2/03. J.A.W.; v. *lanatum* B. & S., Buddon Wood (55), 1/06. A.R.H.
- B. roseum* Schreb., c.fr., Dundrum, Co. Down 4/02. C.H.W.
- Mnium affine* v. *clatum* B. & S., Scorton, Lancs. 8/03. H.B.
- M. serratum* Schrad., Great Doward (36), 5/00. E.A.; also, Hampton Loade (40), 5/05. J.B.D.
- M. orthorrhynchum* B. & S., Meall nan Tarmachan (88), 7/02. L.J.C.
- M. lycopodioides* (Hook.) Schwgr., Ben Lawers, 8/93; and, Luchon, Pyrénées 8/02. H.N.D.; also, King's Seat (88), 7/02. L.J.C.
- M. spinosum* Schwgr., Ben Lawers, 7/02. L.J.C.
- M. stellare* Reich., Ross (36), 1/98. E.A.
- M. cinclidioides* Hiibn., Ben Cruban (88), 7/05. E.C.
- M. punctatum* v. *clatum* Schp., Ben More, 7/05. A.W.
- Cinclidium stygium* Sw., Ben Lawers, 8/02. D.A.J.
- Fontinalis antipyretica* L. (*forma*), Ackworth (63), 3/01. W.I.; v. *cymbifolia* Nicholson, Hemingford Grey (31), 8/01. H.N.D.
- F. squamosa* L., Hurst Moor, Reeth (65), 8/00. "With habit of *F. dalecarlica* B. & S.—see p. 394, 2nd Ed. Handbook." W.I.; also, type, c.fr., Ysgethin R. (48), 9/05. D.A.J.
- Neckera crispa* v. *fulcata* Boul., Warton (60), 9/03. H.B.
- N. pumila* Hedw., Ysgethin Valley (48), 9/04. J.B.D.; also, Killin (88), 10/05. J.H.; v. *Philippiana* Milde, Silverdale (60), 6/04. H.B.
- Daltonia splachnoides* H. & T., Torc Mt., Killarney, 8/05. J.B.D. and D.A.J.
- Hookeria lactevirens* H. & T., O'Sullivan's Cascade, Killarney, 8/05. J.B.D., S.J.O., and D.A.J.
- Pterygophyllum lucens* Brid., c.fr., Symonds Yat (34), 2/02. E.A.
- Pterogonium gracile* Sw., c.fr., Llanfrothen (48), 11/03. D.A.J.; var. ———? Llechwedd, Harlech (48), 11/05. D.A.J. "This seems to me a distinct variety, not only in its habit, but in its stem leaves with longer, narrower acumen, with longer, narrower cells, and with margin very feebly toothed, or almost entire in the oldest leaves. Its relation to type seems on parallel lines with the v. *minus* Bagn. of *Eurhynchium myurum*, and I recommend Mr. Jones to name it v. *minus*."—W.I.

*Habrodon Notarisii* Schp., Killin (88), 10/05. J.H.; also, c.fr. Pnig Mayor, Majorca, 6/05. W.E.N.

*Myrinia pulvinata* Schp., c.fr., Eardisley (36), 4/04. E.A.

*Antitrichia curtispindula* Brid., c.fr., Dartmoor, 8/05. L.I.J.C.; also, Achmore, Killin (88), 10/05. J.H.

*Leskea polycarpa* Ehrh., nr. Preston (60), 7/05. H.B.

*L. nervosa* Myr., Heiligenblut, Carinthia, 8/04. J.S.

*Anomodon longifolius* Hartm., Symonds Yat (34), 2/04. E.A.

*A. attenuatus* Hübn., nr. Bad Schinznach, Switz., 8/05. J.S.

*Pterigynandrum filiforme* Hedw., c.fr., nr. Heiligenblut, Carinthia, 8/04. J.S.

*Heterocladium heteropterum* B. & S., Tollymore Park, Co. Down, 7/01. E.A. "This seems to me distinct from British forms of this species. The large size, yellow colour, and especially the large long pointed stem-leaves with longer narrower cells, mark it off as distinct and it is probably *Hed. Macounii* Best."—W.I.; "I have this form from several localities, and have had a good deal of correspondence with Dr. Best about it and others. It is a parallel form to *H. Macounii* Best, and I think Dr. Best would make a var. of it; but to my mind it is too closely associated with the ordinary forms by intermediates to allow of this."—H.N.D.

*Pseudoleskea atrovirens* B. & S., Ben Lawers, 10/05. J.H.

*P. patens* Limpr., Lac d'Espingo, Pyrénées, 8/02. H.N.D.

*Thuidium leystricosum* Mitt., Shoreham, Kent, 6/05. H.B.

*T. Blandovii* B. & S., Maristuen, Norway, 8/00. H.N.D.

*T. decipiens* De Not., Ben Lawers, 7/05. E.C.

*T. delicatulum* Mitt., c.fr., Nantcol Ravine (48), 10/05. D.A.J.

*T. recognitum* Ldb., Pirton (20), 4/05. H.D.

*Climacium dendroides* W. & M., c.fr., Morfa, Harlech (48), 9/04. J.B.D.; v. *depauperatum* Nob., St. Annes (59), 2/01. H.B.

*Pylaisia polyantha* B. & S., c.fr., Bruck Pinzgau, Alps, 9/82. T.B.; nr. Brugg, Switz., 8/05. J.S.

*Orthothecium rufescens* B. & S., Achmore, Killin (88), 10/05. J.H.

*O. intricatum* B. & S., Great Doward (36), 5/00. E.A.

*Camptothecium lutescens* B. & S., c.fr., Great Doward (36), 5/04. E.A.

*Brachythecium plicatum* B. & S., c.fr., nr. Heiligenblut, Carinthia, 8/04. J.S.



- Brachythecium glareosum* B.&S., Carnforth, (60), 9/03. H.B.
- B. rivulare* B.&S., (*forma*), Saltersgate Beck (62), 8/02. W.I.;  
v. *catractarium* Sauter, Hebden Bridge (63), 6/00. C.C.
- B. plumosum* B. & S., Tollymore Park, Co. Down, 7/01. E.A.
- B. illecebrum* De Not., Penegard Wood (36), 4/99. E.A.
- Eurhynchium praelongum* B. & S., Orrock Hill (85), 4/03. W.Y.;  
v. *Stokesii* L. Cat. Ed. II., Thurmaston (55), 3/05. "New county  
record." A.R.H.
- E. pumilum* Schp., Great Doward (36), 5/00. E.A.; also, Tre-  
reife, Cornwall, 7/94. E.A. "The leaf points and cells of latter  
seem too long for *E. pumilum*. It seems a form of *Amblyst. serpens*."  
—W.I.; "Yes, *Amb. serpens*."—H.N.D.
- E. tenellum* v. *scabrellum* Dixon, Lewes (14), 12/02. W.E.K.
- E. myosuroides* Schp., Stock Ghyll (67), 3/05. E.A.; v. *rivulare*  
Holt, Dartmoor, 8/05. Ll.J.C.
- E. circinatum* B. & S., Wells, Somerset, 5/05. H.D.
- E. meridionale* (Schp.) De Not., Miramar, Majorca. 6/05. W.E.N.
- E. striatulum* B. & S., Great Doward (36), 5/00. E.A.
- E. rusciforme* Milde, Welford (22), 3/05. E.A.; v. *alopeuroides*  
Brid., Corris Valley (48), 7/01. H.N.D.; v. *inundatum* Brid.,  
Ackworth (63), 3/02. W.I.; v. *atlanticum* Brid., Hebden Bridge  
(63), 10/00. C.C.; also, Hermitage, Co. Limerick, 7/01. E.A.
- Sematophyllum demissum* Dixon, Killarney, 8/05. S.J.●.
- S. micans* Braithw., Killarney, 8/05. J.B.D., S.J.●., & D.A.J.
- Plagiothecium elegans* v. *collinum* Wils., Bolton Wood (64), 8/02.  
W.I. "Two packets of this contain a plant which seems identical  
with v. *collinum* Wils. The remainder consist mostly of one which  
is more delicate, with less denticulate or quite entire leaves. The  
latter are more gradually narrowed, and less markedly secund.  
They seem to agree well with the description of *P. nanum* Juratz.,  
which is said to be a small form of *P. elegans*."—J.A.W.; "I  
agree with Mr. Wheldon's remarks. The bulk is *P. elegans* v. *nanum*  
(Jur.) Walth. & Mol. One packet has this and v. *collinum* mixed,  
and one has v. *collinum* only. The rest are v. *nanum*."—H.N.D.
- P. pulchellum* B.&S., c.fr., Cwm Clydach (44), 10/05. H.H.K.
- Amblystegium subtile* Bry. Eur., c.fr., nr. Caux-sur-Montreux,  
Switz., 9/02. J.S.
- A. serpens* v. *salinum* Carr., N. of Bundoran, Co. Donegal, 8/92.  
C.H.W.



*Amblystegium Juratzkanum* Schp., Shirley (57), 3 and 4/05. W.R.L.

*A. varium* Ldb., Shirley (57), 1/06. W.R.L. "The strong nerve and basal cells suggest *Amb. irriguum*."—W.I. "The locality on flat stone just above water would be quite enough to settle the question of the *Amblystegium* as *irriguum* I think, especially as *irriguum* grows near it; many of the leaves have the *irriguum* form which Mr. Ingham calls attention to, but some have the more rapidly narrowing acumen to a narrow acute point, from a wider base, more characteristic of *varium*, of which the plant has the habit too, and I am not surprised that it has been taken for *varium*."—H.N.D.; also, the true *A. varium*, Cleeton (40), 10/05. J.B.D.

*A. filicinum* De Not., Craig Cille (42), 6/99. E.A.; v. *trichodes* Brid., ? Benderg Bay, Co. Down, 1/01. C.H.W. "I find the leaves of v. *trichodes* with the characteristic "*filicinum*" basal cells, which are absent from this. I suggest a form or var. of *Amb. varium* of which it has the neat cell structure."—W.I.; "I am not sure that the basal cell character is quite sufficient to settle this question; I do not think all forms of var. *trichodes* have the enlarged auricular cells. I think Mr. Ingham may very possibly be right; still I should not like to say certainly it is not as named."—H.N.D.; v. *Whiteheadii* Wheldon, Rainford Moss (59), 7/03. H.B.

*A. Kochii* B.&S., Llanfrothen (48), 4/05. S.J.O. "Yes; good *Kochii*—a large form, but distinct from small forms of *Hyp. riparium* in the shorter wider cells."—W.I.

*Hypnum riparium* v. *longifolium* Schp., Rainford Moss (59), 7/03. H.B.

*H. elodes* Spr., St. Anne's (59), 6/01. H.B.

*H. chrysophyllum* Brid., Shirley (57), 6/05. W.R.L.

*H. hispidulum* v. *Sommerfeltii* Myr., Castle Howard, Yorks., 4/04. H.B.

*H. aduncum* v. *intermedium* Schp., nr. Newport Viaduct (58). W. Wilson. Com F.J.C.; v. *paternum* f. *gracilis* Sanio, Walton (59), 7/98. J.A.W.

*H. Suedtneri* Schp. f. *vulgaris* Sanio, Burscough Junction (59), 7/00. J.A.W.

*H. Wilsoni* v. *hamatum* Schp., St. Annes (60), 8/04. A.W.; also, Formby (59), 5/05. J.A.W.

*H. lycopodioides* Schwagr., Skipwith Common (61), 8/00. "Form with slender shoots." W.I.

*Hypnum uncinatum* Hedw., Over Kellet (60), 1/02. A.W.; also, nr. Chorley (60), 5/02. H.B.; and, Kirkcaldy (85), 2/96. W.Y.; v. *plumulosum* Schp., nr. Hebden Bridge (63), 5/02. J. Needham. Com. C.C.; also, Padley Wood (57), 6/01. W.R.L.

*H. fluitans* (Gr. *Amphibium* Ren.) v. *atlanticum* Ren. f. *elongata*, Rishworth (63), 7/01. C.C.; v. *setiforme* Ren. appr. v. *gracilis*, Soyland (63), 4/01. C.C.

*H. fluitans* (*falcatum*) v. *falcatum* Schp., Burnhope Seat (66), 7/98. W.I.; v. *ovale* Ren.MS., Rishworth (63), 7/01. C.C.; v. *Arnellii* Sanio, Skipwith Common (61), 7/98. W.I.

*H. fluitans* (*examulatum*) v. *pinnatum* Boul., nr. Halifax (63), 6/01. C.C.; f. *acuta* Sanio, Wyresdale (60), 6/02. A.W.; f. *stenophylloides* Ren., Wyresdale, 6/02. A.W.; also, Mill Green (19), 11/02. F.J.C.; v. *brachydietyon* Ren., Morley Common (58), W. Wilson. Com. F.J.C.; v. *purpurascens*, Ben Lawers, 7/93. W.Y.

*H. vernicosum* v. *majus* Ldb., Morfa, Harlech (48), 10/04. S.J.O. "Hardly extreme enough for the variety, which is much more robust, darker coloured, and has the leaves still less distinctly striate. Mr. Owen's plants approach the variety principally in the elongated leaves, less distinctly plicate than usual."—J.A.W.

*H. revolvens* Sw., Craig na Lochan (88), 7/93. W.Y.; "Is *H. scorpioides* v. *rubrotinctum* Sanio."—J.A.W.; The true *H. revolvens*, Wybunbury Bog (58), W. Wilson. Com. F.J.C.

*H. intermedium* Ldb., Dinkling Green (60), 3/03. A.W.

*H. commutatum* Hedw., Saltersgate Beck (62), 8/02. W.I.; also, Llanthony (36), 4/94. E.A.

*H. falcatum* Brid., Marshaw Fell (60), 6/03. J.A.W.; v. *virescens* Schp., Clapham, Yorks., 7/96. H.N.D.

*H. incurvatum* Schrad., Heiligenblut, Carinthia, 8/04. J.S.; also, High Force (65), 7/03. H.B.

*H. eupressiforme* v. *erectorum* B. & S., Dunearn Hill (85), 4/05. W.Y.; v. *tectorum* Brid., St. Annes (59), 9/03. H.B.; v. *elatum* B. & S., Glen Helen (71), 7/02. H.B.

*H. Patientice* Ldb., Bramfield (20), 1903. H.D.

*H. molluscum* v. *condensatum* Schp., Loughrigg (69), 3/05. E.A.; v. *robustum* Boul., Slieve Donard, Co. Down, 4/05. C.H.W.—Conf. W.I. & H.N.D.

*H. crista-castrensis* L., Rydall Ghyll (69), 3/05. E.A.; also, Cwm Glas Mawr (49), 8/04. D.A.J. "New to Wales."

*H. palustre* L., Ben Heasgarnich (88), 7/03. W.Y.

- Hypnum dilatatum* Schp., Aber (49), 8/05. S.J.O. & D.A.J.
- H. arcticum* Somn., Ben Lawers 6/01. W.Y. & 7/05. E.C.
- H. ochraceum* Turn., Longridge (60), 8/02. H.B.; also, Can-lochan Glen (90), 7/04. W.Y.; v. *flaccidum* Milde, Crowden (63), 5/68. J. Whitehead. Com. T.B.; also, Norland (63), 4/00. C.C.
- H. scorpioides* L., Naburn (61), 8/00. "Form with acute leaves with longer nerve below." W.I. "This form seems to closely approach v. *angustifolium* Sanio."—J.A.W.
- H. trifarium* W. & M., Meall na Saone, Killin (88), 7/05. E.C.; also, Glen Lochay (88), 8/98. Dr. Braithwaite. Com. H.B.
- H. cordifolium* Hedw., Bromley, Kent, 4/04. Ll.J.C.; also, c.fr., Skipwith Common (61), 7/01. W.I.
- H. sarmentosum* Wahl., Grizedale Pass (69), 3/05. E.A.
- H. Schreberi* Willd., c.fr., Llandecwyn (48), 12/04. D.A.J.
- Hylacomium splendens* B. & S., c.fr., Loughbrickland, Co. Down, 4/05. C.H.W.; v. *gracilius* Boul., Sandhills, Harlech (48), 1/06. D.A.J.
- H. pyrenaicum* Ldb., near Christiania, Norway, 6/80. T.B.
- H. brevirostre* B. & S., Killin (88), 10/05. J.H.
- H. squarrosum* B. & S., c.fr., Staunton (34), 2/03. E.A.; also, Talsarnan (48), 1/04. D.A.J.; v. *callescens* Hobk., Nantcol Ravine (48), 10/05. D.A.J.
- Riccia crystallina* L., Cropton Reservoir (55), 7/05. A.R.H.
- Ricciocarpus natans* (L.) Corda, Thurcaston (55), 7/05. A.R.H.; also, Berkswell (38), 10/05. Leg. Bolton and Clemminshaw, Com. E.C. "New to v. c. 38."
- Conocephalum conicum* Neck., Skenfrith (36), 3/02. E.A.
- Marchantia polymorpha* v. *aquatica* Nees, Netherton (59), 8/05. J.A.W. "New to Britain."
- Pellia epiphylla* (L.) Dum., Rydal Ghyll (69), 3/05. E.A.
- Fossombronia Dumortieri* (Hüb. et Genth.) Lindb., Skipwith Common (61), 8/05. "Antheriferous state." W.I.
- Gymnomitrium concinnum* v. *intermedium* Limpr., Corrie Ceanmor (92), 7/04. W.Y. "This variety is not unfrequently mistaken for *Gymn. obtusum*. It has the margin of the leaf-lobes more or less crenulate, but it may be distinguished from *G. obtusum* by its open sinus, more acute lobes and the crenulations less distinct. *G. obtusum* has a deep and acute, but closed sinus, the lobes are rotundate and markedly crenulate." S.M.M.

*Marsupella Funckii* (W. & M.) Dum., Croesor (48), 8/05. S.J.O.

*M. emarginata* (Ehrh.) Dum., c.fr., Scandale (69), 3/05. E.A.

*Nardia scalaris* v. *distans* Carr., Croesor (48), 12/05. S.J.●.  
“(Stems elongated; leaves distant, more convex, erecto-patent, ventricose, sordid green, shrinking when dry.) Carr. Brit. Hep. p. 24. The Croesor plant is not very characteristic, but I should place it under this variety. In well marked specimens the shrinking of the leaves is very noticeable; rhizoids are comparatively scarce. It occurs in erect swelling cushions in marshy ground.” S.M.M.

*N. hyalina* (Lyell) Carr., Croesor (48), 10/05. S.J.O.

*N. obovata* (Nees) Carr., Llandoverly (44), 11/05. H.H.K. “I find that this plant is frequently, perhaps usually, paroicous, but I consider it to be *N. hyalina*. The perianths and bracts, which I examined are all those of this species—one bract free, the other one-third or so connate to the perianth. The habit, leaves and rhizoids are also those of *hyalina*. Carrington is doubtless right in saying that it is not always dioicous and Arnell has seen paroicous plants.”—S.M.M.

*Aplazia sphaerocarpa* (Hook.) Dum., c.fr., Wbeeldale (62), 4/04; v. *lurida* (Dum.), Saltburn (62), 8/00; v. *Goulardi* (Husnot) Macv., c.per., Robin Hood's Bay (62), 9/05. “New to Britain.” W.I. “*Jung. Goulardi* Husnot Hepaticol. Gall. p. 29. Distinguished from *sphaerocarpa*, of which I consider it only a variety, principally by its ferruginous colour, especially of the perianth, and by the upper part of the perianth being three lobed. In some of the Yorkshire plants, the colour inclines to green.” S.M.M.

*A. riparia* (Tayl.) Dum., c.per., Great Doward (36), 5/99. E.A.

*Lophozia alpestris* (Schleich.) Evans, Glen Shee (89), 7/04. W.Y.

*L. bicrenata* (Schmid.) Dum., Glen Beag (89), 7/03. W.Y. “Is probably *L. ventricosa*, but material is not satisfactory.”—S.M.M.

*L. creisa* v. *arenaria* (Nees) (Part cum typica). Sandhills, Harlech (48), 11/05. “New to Britain.” D.A.J. “*Jung. arenaria* Nees Eur. Leb. II. p. 132. Distinguished chiefly from the type in being rather depauperate, involucrel bracts little or not crisped, less dentate, and the perianth more cylindrical. A still more depauperate form is the var. *Limpriichtii* (Lindb.) which has a small cylindrical perianth.” S.M.M.

*L. incisa* (Schrad.) Dum., Shaugh Bridge (3), 7/05. Ll.J.C.

*L. quinqueidentata* (Huds.) Cogn., Dartmoor, 7/05. Ll.J.C.

*Sphenolobus minutus* (Crantz) Steph., Ben Gulabin (89), 7/04. W.Y.

*S. exsectiformis* (Bridl.) Steph., Kinghorn (85), 1/06. W.Y.

*Plagioclila tridenticulata* Tayl., Killarney, 8/05. S.J.O.

*P. punctata* Tayl., Dartmoor, 8/05. L.I.C.

*P. Owenii* Steph. MS., (spec. nov.) Killarney, 8/05. S.J.O.  
"First detected as a new species by Mr. Macvicar."

*P. asplenoides* v. *major* Nees, Raith (85), 1/06. W.Y.; v. *minor* Carr. and Pears., Rydal Ghyll (69), 3/05. E.A. "Is *Saccogyna viticulosa* (Sm.) Dum." S.M.M.

*Pedinophyllum interruptum* (Nees) Lindb., Bolton Woods (64), 8/00. W.I.

*Chiloscyphus pallescens* (Schrad.) Nees, Ben Gulabin (89), 7/04. W.Y.

*Harpanthus Flotowianus* Nees, Ben Laidgh (98), 7/03. W.Y.

*Saccogyna viticulosa* (Sm.) Dum., c.perig., walls, Maentwrog Valley (48), 5/99. D.A.J.

*Cephalozia Francisci* (Hook.) Dum., Ashdown Forest, Sussex, 10/05. W.E.N.

*Prinolobus Turneri* (Hook.) Schiffn., c.per., nr. R. Gwydderig, Llandoverly (44), 11/05. H.H.K.

*Cephaloziaella byssacea* (Roth) Warnst., Stockton Forest (62), 2/03. W.I.

*C. Limprichtii* Warnst., Journ. of Bot., 1905, p. 186. c.fr., Hamsey (14), 3/05. "New to Britain." W.E.N.

*C. aeraria* (Pears.) Macv., near Copper Mine, Llanfrothen (45), 2/06. D.A.J.

*Kantia Trichomanis* v. *aquatica* Ingham, Naturalist, 1905, Revue Bryologique, No. 1, 1906. Buckden (64) and (65), 8/04. "Var. nov." W.I.

*K. Sprengelii* (Mart.) Pears., Shaugh (3), 8/05. L.I.C.; also, Glen Beag (89), 7/04. W.Y.

*Bazzania Pearsoni* (Steph.) Pears., Hoise's Glen, Killarney, 8/05. D.A.J.

*Lepidozia reptans* (L.) Dum., Rydal Ghyll (69), 3/05. E.A.

*L. trichoclados* C. Müll. Frib., Strensall Common (62), 1/05. W.I.  
"I do not see any female inflorescence, but of course it may be correctly named."—S.M.M.

*Chandonanthus setiformis* v. *alpinus* Hook., Morven (109), 6/04. D.L.

*Anthelia julacea* (L.) Dum., Corrie Ceanmor (92), 7/04. W.Y.; also, R. Brathay (69), 7/05. W.R.L.

*Mastigophora Woodsii* (Hook.) Nees, Horse's Glen, Killarney, 8/05. D.A.J.

*Ptilidium pulcherrimum* (Web.) Hampe, near Kinghorn (85), 1/06. W.Y.

*Trichocolea tomentella* (Ehrh.) Dum., nr. Shaugh Bridge (3), 8/05. Ll.J.C.

*Diplophyllum oratum* (Dicks.) Waddell, Dartmoor, 7/05. Ll.J.C.; also, Croesor (48), 12/05. S.J.●. & D.A.J.

*Scapania compacta* (Roth) Dum., Dartmoor, 8/05. Ll.J.C.; also, Llandoverly (44), 11/05. H.H.K.; and Glen Lochay (88), 7/03. W.Y.

*Radula aquilegia* Tayl., Slieve Donard, Co. Down, 4/94. C.H.W.

*Madotheca laevigata* v. *Thuja* Nees, Eur. Leb. III. p. 166. excl. syn. part. Lewes (14), 5/05. W.E.N. "This variety is readily distinguished from *Mad. Thuja* (Dicks.) by its biting taste, antical leaf-lobe occasionally acute, and the postical lobe and underleaves sometimes ciliate-dentate."—S.M.M.

*M. Thuja* (Dicks.) Dum., Shaugh Mill (3), 8/05. Ll.J.C.

*Lejeunea patens* Lindb., Slieve Donard, Co. Down, 4/05. C.H.W.

*L. diversiloba* Spruce, Turk Mt., Killarney, 8/05. D.A.J.

*Microlejeunea ulicina* (Tayl.) Evans, Shaugh Bridge (3), 8/05. Ll.J.C.; also, Tynygroes (48), 10/05. S.J.O.

*Frullania microphylla* (Gottsche) Peats, Killarney, 8/05. D.A.J. "Is *F. Tamarisci* v. *cornubica* Carr. The leaves are rounder than usual, but it otherwise agrees with the variety."—S.M.M.

*F. fragilifolia* Tayl., Glen Tatnich (89), 7/04. W.Y.

## NOTES ON HEPATICS.

REFERENCE TO REPORT FOR 1901 p. 95.

*Scapania purpurascens* (Hook.) Tayl. In the above Report I gave some distinctions between this plant and *S. unclulata*, but since then I have come to the conclusion that the two are not specifically distinct. This is also the view given by Herr. C. Müller in his recent splendid monograph of the genus. There are many intermediate forms which could as well be placed under the one name as under the other. Müller names the intermediate forms as var. *ambigua* (De Notaris), but they are so numerous and variable in the British Isles, that I do not think that they can be classed with us under a varietal name. He retains both *S. purpurascens* and *S. unclulata* as species in his monograph, so I have followed him in the meantime. He employs the name in general use on the Continent, *S. dentata* Dum., for *S. purpurascens*, but I cannot see why the priority of Hooker's name should be displaced. Müller also expresses doubts of the specific distinction of *S. intermedia* (Husnot) from *S. purpurascens*. With this I agree, and it is the view expressed to me a few years ago by Mr. M. B. Slater.

*Frullania germana* Tayl. The description in our text books of the differences between this species and *F. Tamarisci* are misleading and require alteration. To give the involucre bracts of the former as entire and of the latter as toothed is incorrect. The postical lobes of the innermost bracts of *F. germana* are toothed and ciliate in common with those of *F. Tamarisci*. The amount varies in both species. In the former there is very commonly a large tooth ending in two long cilia, and at the base there are 1-4 cilia in addition. Gottsche mentions the presence of teeth in this species in his Notes to No. 475 of G. & R. Hep. Eur. exs. The tooth varies in *F. Tamarisci*, and there is a cluster of cilia at the base of the lobe. The antical lobe of *germana* is nearly always entire, but one or two blunt teeth are occasionally to be found towards the apex. In *Tamarisci* this lobe is not rarely very nearly entire. The innermost bracteole gives the best distinction between the two plants. In *Tamarisci* the lobes are variously toothed and lacinate-ciliate, and there is a cluster of cilia at the base of the bracteole on each side. In *germana* the lobes are almost invariably entire, and the cilia at the base are only 1-2 in number and are sometimes confined to one side. As far as our *Tamarisci* is concerned, though it does not appear to be the case on the Continent, the line of enlarged cells in the antical lobe of at least some of the leaves is, according to my experience, an invariable distinction between this species and *germana*. In the numerous specimens of *Tamarisci* which I have examined, I have never seen a plant in which I could not detect some leaves with the enlarged line of cells present.

SYMERS M. MACVICAR.

# MOSS EXCHANGE CLUB.

## SECTION II.

Section II. continues to flourish numerically, and the state of the funds is satisfactory.

Six new members were admitted during the year, and three left, so that the total number has reached 38.

Many members are now turning their attention to Hepatics, and a number of these plants will be acceptable for the next distribution.

2,255 packets were contributed by 16 members at the last distribution. Many rare plants were included, and in most cases they were carefully prepared and sufficiently labelled.

Mr. D. A. Jones, F.L.S. is the Secretary, and Mr. W. H. Burrell will act as Distributer for another year.

### BALANCE SHEET FOR 1905.

	£	s.	d.		£	s.	d.
By Balance	...	...	0 3 10	To Distributer's Expenses	1	1	9
.. 45 Subscriptions	...	11	5 0	.. Secretary's	0	15	4
.. Sale of Catalogues (less postage)	...	1	17 4	.. Treasurer's	0	5	4
				.. Mr. Elliott for Printing Report for 1905	6	10	8
				.. Balance...	4	13	1
			£13 6 2				£13 6 2

The cost of the Hepatic Catalogues has come out of the Balance, but was met in, and will appear in the Account for 1906.

J. A. WHELDON,  
Hon. Treasurer.