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May, 1986.

No. 37

OUT AND ABOUT

In North America

By William R. Buck.

SINCE THIS CORRESPONDENT has been delinquent in his duties and has not had an O & A article since the end of 1983, much has happened in North America and only the highlights and recent developments will be reported.

In 1985 the annual ABLS Meeting with AIBS was held at the University of Florida at Gainesville. Dana Griffin organized and led the foray into subtropical Florida. Dana, when not teaching, spent the past year working on his NSF-sponsored moss flora of the Venezuelan paramos. At the ABLS meetings Bruce Allen was presented the first "annual" A.J. Sharp award for the best student paper presented each year. It was based on his dissertation "Revision of the Dicnemonaceae" which was supervised by Jerry Snider at the University of Cincinnati. Bruce is now on a postdoc at the Missouri Botanical Garden and currently doing field work in Panama. Also at Missouri, Marshall Crosby has recently finished the computerization of *Index Muscorum* (he gave a demonstration of it at the ABLS Meetings) and is working on other bibliographic projects. These projects suffered something of a setback when Cheryl Bauer recently resigned her position at Missouri. Bob Magill, although bogged down in computer consultations, is making progress on the next fascicle of his southern African moss flora.

Also working on the floras are several researchers at the New York Botanical Garden. Bill Steere is polishing his account of the mosses of Ecuador, based on his several recent trips there as well as other collections he can locate. Bill Buck is working on the pleurocarps of the West Indies for his projected flora, and hopes to begin the acrocarps later this year. He

is also working on the mosses for the Flora del Paraguay and spent a month collecting in that country in October 1984. Barbara Thiers is mostly through with her Lejeuneaceae for the Flora of Australia project. Steve Churchill and Inés Sastre, both NYBG students working on *Lepidopilum* and neotropical Neckeraceae, respectively, are preparing the mosses for the flora of the Department of Antioquia, Colombia. They spent several weeks last summer collecting there and hope eventually to expand the project to the whole country. Bill Buck has recently returned, with a week-long stopover at the British Museum, from three weeks in Namibia and South Africa as a participant in the foray of the International Association of Lichenologists. During a week in the Transvaal, the IAL foray was joined by Nancy Slack who was in South Africa to give a paper at the South African Association of Botanists annual meeting, held this year in the Transkei. She was a guest of British expatriot, Shaun Russell.

Richard Zander is preparing an NSF-sponsored generic account of the Pottiaceae, illustrated by his wife, Patricia Eckel. Patricia is also preparing illustrations for the long-awaited "Moss Flora of Mexico", being edited by Jack Sharp and Howard Crum.

1985 saw the first annual Blomquist Foray for the southeastern United States. It was organized by Brent Mishler, (Lewis Anderson's replacement at Duke University) with the help of Lewis Anderson and Jack Sharp. Also at Duke is Jon Shaw who is there on a postdoc, having shifted from Bryacean taxonomy and ecology to heavy metal tolerance in mosses. This year's Blomquist Foray will be

held October 3-5 in Tennessee and organized by Dave Smith.

The 1985 Andrews Foray in the northeastern United States was organized by Cyrus McQueen and held in northern Vermont. Although heavily *Sphagnum*-oriented, it was very successful, with about 50 participants. The 1986 Andrews Foray will be held on Long Island, NY, on September 19-21, and be organized by Bill Buck.

During 1985 Dominick Basile spent his sabbatical at Washington University in St. Louis, Missouri. He and his wife, Peggy, also took over editorship of *The Bryologist* from Richard Zander.

Ron Pursell is working on an NSF-sponsored monograph of the neotropical species of *Fissidens* for publication in *Flora Neotropica*, which until now has been bryophyteless! Ron was scheduled to go to Brazil last year, but postponed it until this spring due to an emergency, but successful operation. Ron's most recent student, Lloyd Stark, finished and defended his dissertation, "a taxonomic monograph of *Forstroemia* Lindb. (Bryopsida: Leptodontaceae)."

Also finishing his Ph.D in 1985 was Joe Rohrer with his dissertation "A phenetic and phylogenetic analysis of the Hylacomiaceae and Rhytidiaceae with a revision of the genera" at the University of Michigan, under Howard Crum. Joe is currently working on Rosaceae at the Illinois Natural History Survey. Howard is nearing completion of his editorial responsibilities for the Mexican moss flora and will be turning his energies to the Sphagna of tropical America.

Although there is a rumor that Diana Horton has fallen into the black hole of Iowa, she is alive and well! Heavy teaching responsibilities have curtailed Diana's previous voluminous correspondence. She is also readying the final chapter in the *Encalypta* saga, and editing the recently-revived "Bulletin of Bryology" in *Taxon*.

[continued on p. 2.]

Out & About in North America (continued from page 1.)

On the Canadian front, American John Christy finished his M.S. at the University of British Columbia on *Sciaromium* and has taken a job as Cryptogamic Collections Manager at the Milwaukee Public Museum. Wilf Schofield has finally finished his masterful *Introduction to Bryology* and is working with Helen Ramsay on the *Sematophyllaceae* of Australia. Dale Vitt and his student, Noris Salazar A., were also working in Australasia this past summer. They were collecting in the New Hebrides with Al Miller as part of Al's Pacific studies.

If anyone who has not been mentioned would like his or her activities included, please contact me. There has been no intentional neglect.

The New York Botanical Garden,
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U.S.A.

OUT AND ABOUT In Australasia

By R.D. Seppelt

1985 SAW A BUSY YEAR for Australasian bryologists. Rod Seppelt spent three months in Japan at the National Institute of Polar Research working with Hiroshi Kanda on Antarctic *Bryum* and other mosses. He also spent some time at TNS with Hiroshi Inoue and visited Hironori Deguchi at Kochi, Ken-Ichi Satake at Tsukuba, Zen Iwatsuki at Hiroshima, Harumi Ochi at Tottori, and attended the annual meeting of the Japan Bryological Society on Mt. Daisen. It was a time of sashimi, sake and even some serious science, renewing old acquaintances and making new ones. I could go on for pages!

Dana Bergstrom, Helen Ramsay, Ella Campbell and George Scott attended the International Conference on Bryoecology in Vácrátót and spoke enthusiastically about it.

Ilma Stone has been busy as usual chasing Queensland mosses. Alan Fife is now permanently in New Zealand working on a new moss flora. Jessiva Beever and John Bartlett have also been busy in New Zealand.

Late in the year Rod Seppelt deposited Rick Hancock in Antarctica to commence a year-round programme studying Antarctic mosses. Terrestrial botany has finally made it in Australian Antarctic research!

Further details of Australasian activities will be found in the *Australasian Bryological Newsletter* No.13, December 1985. The John Child Bryological Foray at Cass, New Zealand, was a great success to start the year of 1986. Full details will appear in the next *Australasian Newsletter*.

George Scott's book "Southern Australian Liverworts" has now been published and must stimulate hepaticology in Australasia. At A\$ 19.20 and lavishly illustrated with excellent photographs by Bruce Fuhrer and drawings by Rod Seppelt it would be a worthwhile addition to any library.

George Scott is leaving Monash University to take up the Mastership of Queen's College, University of Melbourne. We all wish him well and he assures me his research activities on hepatics and herbals will continue.

So, we are busy as ever. There is now a steady increase in activity and interest in bryophytes throughout Australasia and bryology must benefit from it.

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BRYOLOGICAL BOOK OF RECORDS

Biggest starch grains in mosses

IN RHIZOIDAL TUBERS of *Dicranella rufescens* I found starch grains of a remarkable size. Well-developed grains measured $15\ \mu\text{m} \times 10\ \mu\text{m}$ on average, with the biggest ones measuring up to $21\ \mu\text{m} \times 14\ \mu\text{m}$ (Fig. 1). Starch grains of that size are not always found in tubers of *D. rufescens*. The material for Fig. 1 was collected in May 1984 on earthy banks of a small brook in Northrhine-Westphalia. The tubers were tightly filled with starch grains and oil bulbs.

According to Rancken (1914, p.16-18), starch grains in mosses are seldom longer than 3-4 μm . In liverworts starch grains up to the size of 42 μm have been found. Lorch (1931, p.305) found starch grains measuring up to 13 μm in *Climacium dendroides*.

Maybe the tuber cells of *D. rufescens* hold a record too, for apparently being the biggest tuber cells in European bryophytes known up to now. According to Whitehouse (1969, p. 762) their diameter is 70-100 μm , thus being more than the cell size of any other tuber listed by Whitehouse (1966, p.106 f.).

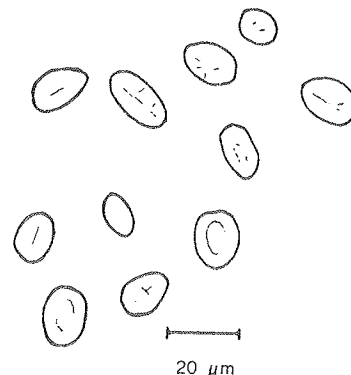
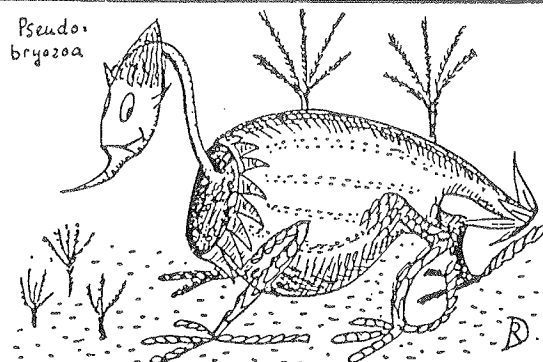


Fig. 1: Starch grains from tuber cells of *Dicranella rufescens*.

References

- Lorch, W. 1931. Anatomie der Laubmoose. In: Linsbauer, K. *Handbuch der Pflanzenanatomie*. Bd. VII/1. Berlin.
- Rancken, H. 1914. Über die Stärke der Bryophyten. *Acta Soc. Fauna et Flora Fenn.*, 39, No. 2. Helsingfors.
- Whitehouse, H.L.K. 1966. The occurrence of tubers in European mosses. *Trans. Br. Bryol. Soc.*, 5: 103-116.
- Whitehouse, H.L.K. 1969. *Dicranella staphylina*, a new European species. *Trans. Br. Bryol. Soc.*, 5: 757-764.
- S. Risse, Milkdelles 3, D-4300, Essen 1, West Germany.



Animal,
Vegetable,
or
SpooF?

COMPUTER TECHNIQUES *

The use of Purchasable software for Bryology

by Jan-Peter Frahm

THE QUESTION IS OFTEN ASKED, just what can be done with a micro-computer and which software is most useful for bryologists? Only a small number of bryologists will have the time and energy to develop computer programs for their own purposes, but there are a large number of commercially-available programs, especially for the computers of the large computer manufacturers. This article outlines some of the uses that can be made of such software for day-to-day bryological work. This may stimulate existing users of microcomputers to try out new applications, or may provide ideas for the use of microcomputers in the future.

There are several advantages of using purchasable software. Although these programs may be quite expensive, compared with the time and energy to develop one's own programs especially for beginners, they are cheap compared with programs purpose-written by a programmer and they can be used immediately with a high probability of working properly. Purpose-written programs will need a certain time to test, make changes and correct programming errors. They have, though, some disadvantages. These programs are developed for a broad variety of purposes and users, and thus may contain facilities which add to their complexity whilst providing unwanted functions: they may also take a 'lowest common denominator' approach, being too general to solve specific problems. Thus, compared with a self-developed program, you may have to use a menu with a large number of unnecessary options, whilst still not having precisely what you want. If it is possible to get a printout of the program (but most purchasable software cannot be listed in this way), it may be possible to make alterations to improve its usefulness, such as removing unnecessary parts, introducing new facilities, or altering the dialogue to make it more appropriate to your application.

In most cases, however, the benefits of a purchasable program are greater than the disadvantages.

* A contribution to the Computer Column edited by J.-P. Frahm & B.J. O'Shea. For addresses, see *Bryol. Times*, 31:9.

Software (usually on tape-cassette or 'floppy' diskette) and lists of available software are obtainable from several sources:

(i) Computer shops — but they are not always sufficiently well-informed or offer only a few standard programs. Some provide very good advice, and may even produce their own software, or be willing to co-operate with programmers to produce new software, if it is commercially viable.

(ii) Computer manufacturers — who may have their own programs available for sale, or may market software produced by others specialising in their hardware.

(iii) Libraries — where there are (sometimes rather impenetrable) books with lists of software arranged by subject. They may also have other books containing printed listings of programs for specified computers, that may be keyed in manually.

(iv) Computer journals

(v) Local computer clubs — who may give additional information, especially for users of less commonly-used microcomputers. Clubs may have libraries of 'public domain' (i.e. free software) that may be copied free of charge.

(vi) Bulletin boards — are an increasingly popular computer-based noticeboard, allowing access to both information and programs, and also to a mail service and conferencing system for subscribers — sometimes internationally. Apart from the benefit of picking the brains of other users of the Bulletin Board, there is usually a large store of programs that can be downloaded to your own microcomputer, free of charge. Access to such a system may be free, but more usually there is a charge. It requires a special device called a modem to connect your computer to a standard telephone line.

The variety of commercial software useful to bryologists is relatively limited, but usable facilities include database programs, word processors, statistics and graphics programs. This first item deals with database programs

Database Programs

Database programs are probably the most versatile and useful programs for bryologists and can be used for such purposes as producing herbarium labels and specimen lists, printing addresses, producing standard letters, filing book references, and many others. Generally they allow all the operations normally performed using file cards, but more quickly and easily. They can store an enormous mass of information on small, flexible disks, be searched for certain key information or parameters, the information can

be altered on the screen, or it can be printed. This variety of use is possible by defining the structure of the information to be stored (e.g. how many items are to be stored, the maximum size of each item, etc.), and the key by which it is to be accessed (e.g. species name, accession number, etc.). Here are a few examples:

Producing herbarium labels

The database will hold the definition of the format for a label that you have provided, for instance 12 lines for the text (limited by the width of your label) and 2 heading lines. Every label will be numbered sequentially by the program, which allows the label to be recalled whenever required for amendment or printing. Many thousand labels may be stored in this way. The heading line can be stored separately and will be printed on every label. A disadvantage is that the interaction with the computer may take longer than with a purpose-made herbarium label program. Also, sub-programs for editing, listing, printing or sorting must be loaded separately, rather than being integrated with the database, which may only take a small amount of extra time, but can be very irritating. The general advantages of printing herbarium labels with a microcomputer have been summarized in *Bryol. Times*, 23: 4-5, 1983.

Herbarium lists

In terms of the data held, a list of herbarium specimens is similar to that of a file of herbarium labels. In particular it will hold the species name, and it will be possible to search for a specific species, and all locality information stored for the species will be given on the screen or on a printer. The most useful programs will allow a search for several characters in combination, for instance for geographical data like countries or counties, special geological substrates or all locality information from areas above 1,500m, etc. The time required to search for such characters depends on the quality of the program: with several thousand species records stored it can take several minutes or longer to find, for instance, all information on species from limestone in Scotland below 500m. (With some computers it is better to go for lunch while you wait!).

If every accession to a herbarium is stored on a computer, there is enormous potential for manipulating the label information. Taxonomists have to compile long lists of specimens. With computer-held information, such data can be sorted alphabetically, arranged geographically, added to, changed and even used for the final manuscript, if the data program is compatible with the text program.

Portable microcomputers can even be used for visits to foreign herbaria.

Address labels

Like special address-holding or mailing programs, database programs can also be used to store addresses. This allows not only access to addresses on the screen or the printing of address labels (a single one, or a list), but also logical operations such as searching for specified information, e.g. part of the address, for instance, or additional information relating to that particular addressee. This additional information may be, say, telephone numbers, or birthdays. It could also be the numbers of reprints from your publication list that have been mailed, so that the computer can select all receivers of reprints who have not yet had from no. 75 onwards, or perhaps those who have interests in a particular field. Such lists could also be used for membership lists, perhaps holding subscription information, thus allowing lists to be produced of, say, overdue subscriptions. Some databases have built-in text processing, but if not, then in combination with a compatible text program, letters can be written with these addresses inserted automatically as a reminder. Standard letters can also be completed in this way for exchange or loan forms.

Bryophyte mapping

Input of bryophyte species and the grid reference in which they were found (and additional information if required) allows sorted lists to be produced, together with the grid reference in which they have been found, or lists of grids and the species found in them. Any change to the file will automatically be included in the next printout, avoiding the handwritten list - which can become so heavily amended that it becomes misleading. Such data could then be used as input to a map generating system.

[To be continued]

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The South Georgian Moss Flora

A Progress Report

By

P.J. Lightowers and B.G. Bell

ELEVEN YEARS AGO the first paper in the series "A Synoptic Flora of South Georgian Mosses" appeared in the *British Antarctic Survey Bulletin*. South Georgia, a subantarctic island in the South Atlantic Ocean, has a well-developed but poorly-known moss flora, for which the series aims to pro-

vide keys, descriptions and illustrations. When complete, the series will be a stepping stone to unravelling the little-known floras of the Antarctic Peninsula, the subantarctic and Fuegia. To date, 68 species from 28 genera have been described in 11 parts:

I. *Dendroligotrichum*, *Polytrichum* and *Psilopilum* by S.W. Greene. *Bull. Br. Antarct. Surv.*, No. 36: 1-32, 1973. [Issued 1974].

II. *Chorisodontium*, *Dicranoloma*, *Dicranum*, *Platyneuron* and *Conostomum* by B.G. Bell. *Bull. Br. Antarct. Surv.*, No. 37: 33-52, 1973. [Issued 1974].

III. *Leptotheca*, *Philonotis*, *Mielichhoferia* and *Pohlia* by G.C.S. Clarke. *Bull. Br. Antarct. Surv.*, No. 37: 53-79, 1973. [Issued 1974].

IV. *Bartramia* and *Breutelina* by M.E. Newton. *Bull. Br. Antarct. Surv.*, No. 38: 58-71, 1974.

V. *Willia* and *Racomitrium* by B.G. Bell. *Bull. Br. Antarct. Surv.*, No. 38: 73-101, 1974.

VI. *Cheilothea*, *Dicranella*, *Distichium*, *Myurella* and *Catagonium* by M.E. Newton. *Bull. Br. Antarct. Surv.*, No. 46: 1-21, 1977.

VII. *Pottia* by C.M. Matteri. *Bull. Br. Antarct. Surv.*, No. 46: 23-28, 1977.

VIII. *Calliergon* and *Brachythecium* by M.E. Newton. *Bull. Br. Antarct. Surv.*, No. 48: 133-157, 1979.

[IX]. *Campylium* by M.E. Newton. *Bull. Br. Antarct. Surv.*, No. 61: 53-58, 1983.

[X]. *Grimmia* and *Schistidium* by B.G. Bell. *Bull. Br. Antarct. Surv.*, No. 63: 71-109, 1984.

[XI]. *Tortula* by P.J. Lightowers. *Bull. Br. Antarct. Surv.*, No. 64: 41-77, 1985.

Parts I-V are available, bound as one fascicule, from the British Antarctic Survey (Distribution Centre, Blackhorse Road, Letchworth, Herts. SG6 1HN, U.K. Current price £8.50 (including postage), while reprints of many of the other parts are available from their authors. A paper giving additions and corrections to the distribution records in Parts I-V was published by B.G. Bell and S.W. Greene (*Bull. Br. Antarct. Surv.*, No. 40: 65-69, 1975).

When the series was started, it was the intention to issue parts in a series of bound fas-

cicules similar to Parts I-V. But subsequent changes in editorial policy by the British Antarctic Survey has resulted in this practice being discontinued. An even more unsatisfactory editorial change has been to discontinue the numbering system so that the last 3 parts published (Nos. IX-XI) lack numbers in their titles, hence the use of square brackets in the list above. However, their contents and format accord with previous papers in the series.

We estimate that at least 60 moss species remain to be described to complete the 'Flora'. Currently underway are revisions of the ecologically-important genera *Bryum* and *Drepanocladus*, while Dr. R. Ochya of Kraków is working on *Cratoneurosis*.

There is abundant South Georgian bryophyte material at our disposal in the AAS herbarium, and we welcome enquiries from taxonomists interested in tackling revisions of South Georgian genera for the Flora.

Institute of Terrestrial Ecology, Bush Estate, Penicuik, Midlothian EH26 0QB, Scotland.

Nomenclature Column

By Gea Zijlstra

THIS SECOND COLUMN will inform you of the progress, made by the Committee for Bryophyta, and of some special problems involving one of the proposals: to conserve *Haplocladium* (K. Müller hal.) K. Müller hal. against *Haplocladium* Nägeli, 1862.

Accepted by the Committee for Bryophyta

For several proposals the discussions have come to an end, in some of the cases after a slight amendment to the proposal. A ballot has been taken which appears to have had positive results for each of these proposals:

Lophozia: the Committee retracts its previous action to recommend this name for conservation.

Pellia: for this name (which is already in the Code with an asterisk) the Committee recommends the proposed change (except for the addition of *Pellia* which was considered to be unnecessary).

Calypogeia: the discussion resulted in a proposal with a "left hand entry" only, to conserve the "i" spelling against the "j" spelling. The discovery of an earlier lectotypification made superfluous the proposed conservation of a later lectotypification.

Lopholejeunea, *Acrolejeunea* and *Trachylejeunea* were accepted by the Committee unaltered.

So these names came through the first step of the conservation procedure, which comprises two further steps: approval by the General Committee on Botanical Nomenclature (after publication of the report in *Taxon*) and finally acceptance by an international Botanical Congress (Berlin in 1987).

Revised and New

(440 bis) *Jubula*

Jubula is awaiting further discussion having been under consideration for many years already. The Committee has now started to consider it as a nom. cons. prop. without a nom. rej. prop. standing against it.

Jubula Dum., Commentat. Bot. 112, 1822.

T.: *J. hutchinsiae* (W.J. Hook.) Dum. (*Jungermannia hutchinsiae* W.J. Hooker) (typ. cons.).

(793) *Papillaria*

A proposal to conserve *Papillaria* (K. Müller hal.) Lorentz (1864) against *Papillaria* J. Kickx (1835) (fungi) has been made by Isoviita (*Taxon*, 34: 534-536, 1985).

On *Haplocladium* (1)

The proposal to conserve *Haplocladium* (K. Müller hal.) K. Müller hal. appeared to be disputable in several respects. Ochyra (the proposer) considered K. Müller hal. (1896) to have raised *Hypnum* sect. *Haplocladium* K. Müller hal. (1879) to generic rank. Although *Index Nominum Genericorum* (ING) and *Index Muscorum* treat *Haplocladium* in the same way, the Committee cannot agree, because Müller (1896) only described two new species in *Haplocladium*, without giving any reference to the section name.

It appeared that *Haplocladium* was validly published in generic rank in 1899, by application of Art. 42 ICBN to the description of a new species, *Haplocladium transvaaliense* K. Müller hal. This species is a taxonomic synonym of *H. augustifolium*, the latter being congeneric with *H. microphyllum* (a species of which *H. laterculi*, indicated as the lectotype by Ochyra, is a taxonomic synonym). Thus the new type of *Haplocladium* does not cause a problem in the application of the moss name *Haplocladium*.

With respect to the alga name *Haplocladium* Nägeli (1862) Ochyra already stated the questionable generic status. Although the majority of the Committee members at present consider Nägeli to have validly published *Haplocladium* as the

epithet of a subdivision of a genus only, but not in generic rank, our discussions on this point have not yet come to an end.

There is one more complication, though probably not a serious one. Watanabe & Iwatsuki (1981) published a substitute name for *Haplocladium* (K. Müller hal.) K. Müller hal. (1896), non Nägeli (1862), *Bryohaplocladium*. These authors completely relied on ING in their statement that *Haplocladium* (K. Müller hal.) K. Müller hal. (1896) is a later homonym and thus needs a new name. They seem not to have checked the original publications, nor were they aware of the questionable status of Nägeli's name.

In my opinion, *Haplocladium* Nägeli (1862) is clearly invalid and ING needs correction in this respect. However, as yet I cannot tell you what the consequences of this invalidity would be for the status of *Bryohaplocladium*. For the present column the data on *Haplocladium* are already complicated enough. The saga will be continued in a future column, as soon as the Committee has taken a decision on Nägeli's name.

This account on *Haplocladium* is not only given to keep you informed on the Committee's progress in a special case, but also as the story carries a moral. Taxonomists should not rely too readily upon ING, especially in controversial cases where the data need to be verified.

Instituut voor Systematische Plantkunde, Heidelberglaan 2, 3584 CS Utrecht, The Netherlands.

Profile of H.N. Dixon (1861 - 1944)

I AM PREPARING a profile of the eminent bryologist H.N. Dixon, who lived for most of his life at Northampton in England, and who was from 1884-1914 headmaster of a school for the deaf and dumb. He was, of course, a prominent member of the Moss Exchange Club and afterwards the British Bryological Society. He collected in many parts of Europe, often being accompanied by his friend, W.E. Nicholson. I would very much like to hear from anyone who can let me have any of the following:-

1. Copies of letters to or from him.
2. Vignettes of his life.
3. Details of herbaria in which there are substantial collections by him.
4. Photographs of him, or which pertain to him.
5. Any other information about H.N. Dixon.

Dr. Philip E. Stanley, 48 Glisson Road, Cambridge CB1 2HF, England. Tel. England 0223-313644.

Personalia

Dr. S. ROB GRADSTEIN, Utrecht, has been appointed visiting Professor at the University of Michigan during the academic year 1986/87. From August 20, 1986 until June 1, 1987, his address will be: Dept. of Botany, The University of Michigan, Ann Arbor, Michigan 4819-1048, U.S.A., tel.: 764-8538 (Howard Crum's office). During his leave from Utrecht, Guido van Reenen will be acting Curator of the cryptogamic herbarium of the University of Utrecht and deal with all correspondence concerning loans, etc. Correspondence concerning IAB membership and payments may, as usual, be sent to Utrecht, where Mr. Nico de Kwaadsteniet (IAPT-bureau) will continue to deal with IAB administration during Dr. Gradstein's absence.

Dr. NAOKI NISHIMURA of the Hiruzen Research Institute, Okayama University of Science, will leave Japan for Canada in mid-April for a visit of one year to study the genus *Ectropothecium*. His address in Canada will be: c/o Dr. D. H. Vitt, Dept. of Botany, Univ. of Alberta, Edmonton, Alberta, Canada T6G 2E9.

Dr. HARUMI OCHI retired as Professor from Tottori University on 31st March 1986. He is still very enthusiastic about continuing with his life work on Bryaceae at his home. Correspondence as from 1st April should be addressed to: 743-9, Gyetoku-1, Tottori City (680), Tottori-ken, Japan.

Dr. GEORGE A.M. SCOTT of the Department of Botany, Monash University, Clayton, Victoria 3168, Australia, has been appointed to the Mastership of Queen's College, University of Melbourne, Parkville, Victoria 3052, Australia, from June 1986. He and his family expect to move in mid June.

Membership of IAB

THE FOLLOWING LISTS for the period 1 February-15 March, 1986, update those already published. The last list appeared in *Bryol. Times*, 36:6.

New Members

Srivastava, S.C.*; Timme, Steve L.*

Addresses

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Bryological Book of Records

The Highest Bryophyte Taxocenes on Earth?

By Stephan Halloy

A RECENT EXPEDITION (Nov.-Dec. 1984) to the Socompa Volcano on the Argentina-Chile border (24° 25' S) rediscovered six "hot-spots" between 5750 and 6060 m. altitude. (See figures 1 and 2). At these points water vapour and apparently carbon dioxide emerges from warm scree slopes or crevasses in rocks. These were occupied by dense bryophyte taxocenes, including mosses and liverworts (both foliose and thallose), plus lichens, fungi and algae. The total area covered at each point varies from 4 to 200 sq. meters.

To my knowledge this constitutes an altitudinal record far above those reported for high altitude mosses and liverworts. This is also the highest known point for complex continuous autotrophic communities and for a series of animal dependents. For comparison, the highest-known isolated plants (vascular) reach 6350 m. (Zimmerman, 1953), while the highest known continuous autotrophic communities reach 5000 m. (Dobremez, 1976: 220).

These facts are all the more surprising because in the Socompa region the highest vascular plants reach only 4600 m. (Halloy, 1983).

The taxa at 6000 m. are unrelated to those belonging to the vegetation limit and, on the contrary, seem rather closely related to cloud forest habitats hundreds or thousands of kilometers away. This represents a surprising case of insular biogeography.

Although as yet unidentified at the species level (many seem to be new, possibly endemic species), the number of taxa found is remarkable: about 8 species of mosses, 1 thallose and 3 foliose liverworts, 9 lichens, 2 Agaricales, etc. The mosses are now being studied by M. Schiavone, the liverworts by G. Hässel de Menéndez, the lichens by A. Henssen and the algae by B. Tracanna.

The fragility of these systems is remarkable, due to the altitude, slope and the small

area. This justified, in my opinion, the search for international protection of the area.



Figure 1: Hotspot No. 2, on south-facing scree slope, 5750 m Socompa. Note remains of snow all around and nevés. The 2 to 5 cm thick carpet of mosses, liverworts and lichens to the right of the ice-ax is the largest one found (+200 m²). Soil at 10 cm depth was 22°C, while at 20 m away from the bryophytes, at the same depth, temperature was 6.2°C. 26th November, 1984, 13 hrs., wide-angle lens.



Figure 2: SE side of Socompa Volcano, seen from the road to Chile at 3830 m, with a 200 mm telephoto lens. Locations of bryophyte hotspots are marked with arrows. Numbers 3 to 6 are just behind the ridge. 21st November, 1984.

The Hedwig Medal For Outstanding Contributions to the Development of Bryology

THE PROCEDURE for selecting the recipient of the Hedwig Medal to be presented at the XIV International Botanical Congress in Berlin (West), July 1987, will be as follows:

- (1) Nominations can come from any member of the IAB and should be supported by a short, written statement explaining the work of the person proposed, and in particular how his/her work has contributed to the development of bryology. The statement should list any relevant publications of the person proposed.
- (2) The Medal Committee will ensure that the proposals are well prepared and will call for further information if necessary. Each proposal will be sent to two confidential specialists, chosen by the Committee, for assessment.
- (3) The Committee will send the nominations, together with the referees' reports, to the President of the IAB who will decide, with the help of the Executive Committee, who shall be the recipient.

Nominations, with supporting statements and a list of relevant publications, should reach the Chairman of the Medal Committee by 1 October, 1986, at the latest. The award is open to workers in any branch of Bryology.

H. Bischler, Chairman,
IAB Medal Committee,
Laboratoire de Cryptogamie, 12 rue Buffon, 75005, Paris, France.

The archaeologist Beorchia Nigris (1975) seems to be the only person to have observed and published the first comments on the Socompa mosses. His note on p. 23 is worth transcribing: "En las inmediaciones (de la cima), diez metros cuadrados de musgo verde de unos 3 cm. de alto crecía lozano en un suelo húmedo y caliente a 6,000 metros sobre el nivel del mar!."

I recognize that literature on altitudinal records and conditions of growth at high altitudes is widely dispersed in heterogeneous publications. This makes pertinent references hard [continued on page 7.]

[The highest Bryophyte taxocenes on earth? Continued from page 6.]

to find. Besides, many records are simply not published. I would greatly appreciate any relevant information from specialists worldwide.

My thanks are due to the Programa de Herpetologia and Fundacion Miguel Lillo, and to the persons who made the expedition possible. A. Grau and R. Vides were of invaluable help during the climb itself.

References

- Beorccchia Nigris, A., 1975. El volcan Socompa. - Centro de Investigaciones Arqueológicas de Alta Montaña Tom. 2: 22-24. San Juan.
- Dobremez, J.F., 1976. Le Népal. *Ecologie et Biogéographie*. Cahiers Népals du CNRS. Paris, 366 pp.
- Halloy, S., 1983. Límite superior de aridez, límite de vegetación y el problema de los lagos, nevés y glaciares activos en el "Núcleo Árido" de la Cordillera Andina. *Actas Iera. Reunion Grupo Periglacial Argentino, Mendoza. Anales 83, Ianigla*, 5: 91-108.
- Zimmerman, A., 1953. The highest plants in the world. In *The Mountain World*. New York, Harper, 130-136.
- Facultad de Ciencias Naturales, Instituto Miguel Lillo de al Fundacion, Tucuman, Argentina. Present address: Department of Botany, University of Otago, Box 56, Dunedin, New Zealand.

Professor

E.A.C.L.E. Schelpe

PROFESSOR EDMUND ANDRÉ CHARLES LOIS ELOI (Ted) SCHELPE died after a sudden heart attack at his home on Saturday, 12 October 1985.

Professor Schelpe was born in Durban on 27 July, 1924. He completed a BSc with distinction in Botany at Natal University in 1943 and at the same University obtained an MSc (Class 1) in 1946. He obtained the D.Phil. degree of Oxford University (Wadham College) in 1952. He held the following posts at the University of Cape Town: Lecturer in Botany, 1953-1954; Senior Lecturer and Curator of the Bolus Herbarium, 1954-1968; Associate Professor and Curator of the Bolus Herbarium, 1968-1973, the title Curator being changed to Director from 1970; Professor (ad hominem) and Director of the Bolus Herbarium, 1973-1985.

Professor Schelpe was an elected fellow of the Royal Soc-

iety of South Africa, the Linnæan Society of London, and the University of Cape Town. He was a Fellow and Gold Medallist of the Orchid Society of South East Asia. He was a Silver Medalist of the South African Association of Botanists. Since 1975 he had been Vice-President of the International Orchid Commission, and Chairman of its Committee on Orchid Taxonomy. From 1964 he had been a member of the Committee on Pteridophyta of the International Association of Plant Taxonomists. The wide circle of friends he made overseas and his warm hospitality to the distinguished visitors he invited to his home at the Cape, have helped strengthen international interests in South African botany.

Professor Schelpe made major contributions to the systematics of Pteridophyta in southern Africa. A few days before he passed away he finished checking the final proofs of the Pteridophyta volume for the *Flora of Southern Africa*. This was a culmination of studies in the course of which he published the accounts of the Pteridophyta for the *Flora Zambesiaca*, the *Flora de Mocambique* and the *Conspectus Florae Angolensis*. He published over 100 scientific papers and books, which besides Pteridophyta covered topics in orchids, bryophytes, plant ecology and phytogeography. The school of orchid research he established continued a long-standing tradition of studies of this group at the Bolus Herbarium. As an enthusiastic horticulturist, he built up a living collection of over 100 species of the orchid genus *Dendrobium*. Both this and field work on the interesting genera *Diascia* and *Nemesia* (Scrophulariaceae) were starting to yield valuable systematic data at the time of his death.

His research students, encouraged by his enthusiastic approach to systematics, gained training of a quality which has led them to occupy leading positions in herbaria in southern Africa and elsewhere.

Among voluntary societies, he played a valuable role in helping found the Orchid Society of southern Africa and was President of the Botanical Society of southern Africa.

Professor Schelpe was a distinguished and internationally well-known botanist, and his passing away is a sad loss to the scientific community.

A.V. Hall,
University of Cape Town,
Bolus Herbarium, Rondebosch,
7700 South Africa.

The BULLETIN is born again!

By S.W. Greene

AFTER A LAPSE of almost 5 years the IAB *Bulletin of Bryology* has started appearing again in *Taxon*. No. 20 was published in *Taxon*, 30 (2): 538-542, May 1981 and No. 21 (the current number) has recently appeared in *Taxon*, 35(1): 189-194, Feb. 1986. The decision to revive the *Bulletin* was taken at the memorable Tokyo World Conference of Bryology (see *Bryological Times*, 21:4, 1983) and it is anticipated that it will appear biannually (i.e. every 6 months): so the next issue can be expected in August, 1986. Members of IAB wanting copies as off-prints should apply directly to its editor.

Dr. Diana G. Horton (University of Iowa) is to be congratulated on this first number under her editorship. Since very many readers of these columns do not see *Taxon* on a regular basis it is the intention to publish a brief resume of the contents of each *Bulletin* in this Newsletter to make the readership aware of its contents. *Bulletin* No. 21 comprises the following articles:

- Introductory editorial.
Glime, Janice M. Presentation of the first Hedwig Medals; with an account of the achievements of the first Hedwig Laureates, Prof. Geneva Sayre and Prof. Yoshinori Asakawa.
Cao, T. Chinese Bryologists Abroad; being an account of Chinese bryologists tours abroad since the start of the "open door" policy in Chinese foreign affairs 5 years ago.
Kack, Cynthia L. & Susan Murphy. Iowa Lakeside Laboratory; which gives an account of a recent bryological field course and the revival of the famous "Moss Clinic" started by Henry S. Conard.
Review of Wilfred B. Schofield's *Introduction to Bryology*.

When the *Bulletin* was started it was the only Newsletter of the IAB. In the early days, while the membership was small and activities not too numerous, a biannually-appearing *Bulletin* was an adequate form of communication. During this time it was ably and successfully produced by S. Rob Gradstein, apart from 2 issues edited by Gary L. Smith. But as the membership of the IAB grew and the scope of its activities broadened, a need was felt for a larger and more frequent publication which led to the appearance of the *Bryological Times* in January 1980.

(continued on page 8.)

The Bulletin is born again!
(contd. from p. 7.)

So some may now ask, do we need a Bulletin? Dr. Horton answers this question in her editorial as follows: "It might appear that The Bryological Times has superseded the need for a Bulletin; however, each serves a different purpose. The Bryological Times is an informal publication where items of local and/or specialized interest, as well as more general information on field trips and meetings, can be publicized rapidly. In contrast, the Bulletin represents the formal communication of international bryological activities, not only to bryologists, but also to other botanists."

With this view I agree entirely and I have long been a strong advocate for the revival of the Bulletin. It is my belief that no Newsletter or Bulletin will survive unless a clear need for it exists, its objectives and policy are clearly spelt out and understood and it is supported by the community it seeks to serve. In Bryol. Times 7: 1-3, 1981, I gave my views on the relationship of the Bryological Times to the Bulletin, and on re-reading these 4 years later, I find nothing I want to alter. The Bryological Times is mostly read by bryologists and although taken regularly by a small (but increasing) number of libraries, it remains essentially an internal publication written for the "faithful". The Bulletin, on the other hand, I called the "Flag Carrier" to the wider botanical world. It is read by many who do not see the Bryological Times (and, it should be remembered, the Bulletin is not seen regularly by a large number of bryologists), and so is primarily a means of keeping the wider botanical world aware of on-going activities and developments that it might otherwise overlook. The Advances in Bryology, which did not appear until the end of 1981 was conceived to play an entirely different role. It is intended to appear every 2 years and contain only up-to-the-minute review articles designed to keep readers abreast of the changing frontiers of bryological research over its whole range.

I believe the IAB needs a Bulletin and in Dr. Horton the IAB is fortunate to have found an energetic and enthusiastic editor with a clear vision of what is required. I hope all the members of the IAB will support the Bulletin and help to make it the success it deserves to be.

Department of Botany, University of Reading, London Road, Reading RG1 5AQ, Berkshire, U.K.

Second Announcement

XIV International Botanical Congress

Under the auspices of the International Union of Biological Sciences
Berlin (West), Germany, 24th July to 1st August, 1987.

The Second Circular and Preliminary Programme were circulated widely during the autumn of last year. As announced in the First Circular, and reported in these columns (Bryol. Times, 23:9, 1983), the Programme is divided into six Divisions, two of which have Symposia of particular interest to bryologists, viz.:-

Division 2: Developmental Botany

2-10. Developmental biology of non-vascular plants. Organizers:
W.P. Jacobs, M. Bopp.

Division 5: Systematic and Evolutionary Botany

5-12. Life strategies in Bryophytes: tropical rain forests.

Organizers: S.R. Gradstein, J.-P. Frahm.

5-13. Life strategies in Bryophytes: arid environments.

Organizers: M.C.F. Proctor, W. Frey.

5-14. Taxonomy of higher categories and generic concepts in Bryophytes. Organizers: D.H. Vitt, R.M. Schuster.

5-15. Evolution in Bryophytes: chemosystematics: approach.

Organizers: S. Huneck, R. Mues.

5-16. Cytobiology and systematics of Bryophytes.

Organizers: B.E. Lemmon, A.J.E. Smith.

5-17. Ultrastructure and systematic relationships.

Organizers: B. Crandall-Stotler, W. Frey.

Each symposium will last a total of 3½ hours, with a ½-hour break. Papers will be mostly 15 (rarely 30) minutes long. The Organizers will invite half the speakers for each symposium, and select the remainder from the contributed papers offered. There will be no separate sessions of contributed papers, so those not accepted for presentation in a symposium will be presented as posters. The emphasis of the Symposia will be on interdisciplinary approaches, narrow sectional topics not being considered acceptable. Details of the other Divisional Symposia will be found in the 2nd Circular.

The working language of the Congress will be English. The Nomenclature Section will convene in Berlin on 20-24th July.

As already announced (Bryol. Times, 34:7, 1985), A Bryological Methods Workshop will be held in Mainz, Germany, before the Congress (17-23 July).

Many of the 62 Congress Excursions will provide opportunities for examination of the bryoflora of various parts of Europe, but the following four have been devised as being wholly or predominantly bryological in emphasis:-

No. 06. The bryoflora and vegetation of the mountain areas of C. and S. Germany (FRG). - 14 days post Congress.

Organizers: J.-P. Frahm and W. Frey.

Route: Berlin (West) - Fulda (Rhön) - Freudenstadt (Black Forest) - Tübingen (Swabian Alb) - Sonthofen (Alps of the Allgäu) - Garmisch-Partenkirchen (Bavarian Alps) - Bayreuth (Fichtel Mountains) - Berlin (West).

Dates: 2 August (morning) to 15 August (evening).

No. 14. The bryophytes and bryogeographical regions of Switzerland - 6 days post Congress.

Organizer: Patricia Geissler.

Route: Geneva - Visp - Locarno - Zürich.

Dates: 3 August (late morning) to 9 August (morning).

No. 33. The vegetation and bryophyte flora of the Faroe Islands (Denmark). - 8 days pre Congress.

Organizers: Jette Lewinsky and J. Jóhansen.

Route: Copenhagen - Tórshavn (Streymoy Island) - Sørvaður (Vágar Island) - Copenhagen.

Dates: 16 July (morning) to 23 July (afternoon).

No. 50. The botany (vascular plants and bryophytes) of central Sardinia (Italy). - 5 days pre Congress.

Organizers: P.V. Arrigoni, B. Corrias and Carmela Cortini Pedrotti.

Route: Cagliari - Nuoro - Cagliari.

Dates: 11 July (evening) to 17 July (morning).

All offers of papers and registration for the excursions have to be sent to the Organizers, XIV International Botanical Congress, Königin-Luise-Strasse 6-8, D-1000 Berlin (West) 33, by the deadline of 30th June, 1986.

Recent Publications

- Bryologist*, 88(3): 169-284, 1985.
Bull. Brit. Bryol. Soc., No. 47: 1-32, 1986.
Bull. Bryol., No. 21. In: *Taxon*, 35(1): 189-194, 1986.
J. Hattori Bot. Lab., No. 59: 1-529, 1985.
Proc. Bryol. Soc. Jap., 4(4): 51-72, 1986.
Taxon, 35(1): 1-223, 1986.

Schofield, W.B., 1985. *Introduction to Bryology*. New York, Macmillan Publishing Company; London, Collier Macmillan Publishers. 431 pp. Hardcover. ISBN 0-02-949660-8. Price US\$45.00. [Issued August 1985].

This volume, from the pen of a well-known and experienced teacher of bryology, has been keenly awaited. The anticipation has been that it would fill a longstanding need - the provision of an introduction to the subject that was both authoritative and "meaty", but not so technical as to be comprehensible to only the most persistent! Time alone will tell if this is "the book", but certainly the first impressions are most encouraging.

A little over half the text is devoted to chapters on the morphology of the various groups at the level of sub-class or order. The treatment is a comparative assessment by topics rather than the old-fashioned "type" approach. For each group there is an attempt to view the plants in a broader perspective, whether against the fossil record, presumed evolutionary trends, the habitats occupied by species of the group, or in some other way. A selective list of further reading at the end of each chapter should enable the user to go deeper into the literature. A curious feature (to British and European bryologists) is the use of out-dated English names for the groups, e.g. "bug" mosses, large-spored mosses, scale mosses (in fact the major group of liverworts!) and other weird and wonderful appellations!

The latter part of the text is devoted to chapters on the history of bryology, cytology and genetics, chemistry, physiology, ecology and geography, and it ends up with a glossary, 10 appendices and an index. The appendices are a valuable addition and treat such practical matters as collecting techniques, methods of preparation for microscopic study, single culture methods, keys for distinguishing the various sub-classes and orders of bryophytes, and a list of manuals for determining bryophytes from all the major continental regions of the world.

Throughout the text the author's enthusiasm for his subject shows through. The presentation is clear and pleasing with a generous number of carefully-chosen and well-drawn illustrations of habit and structure, clear photomicrographs of cellular structure and contents (many from SEM preparations) and some photographs of bryophyte-rich habitats. Due to the good quality of the prose and the clarity of presentation and development of the various topics, it is to be hoped that beginners and experienced bryologists alike will find the book pleasurable and instructive in use.

Kis, Gabriella, 1985. *Mosses of tropical Africa. An annotated list with distributional data*. Vácrátót, Hungary, Institute of Ecology and Botany of the Hungarian Academy of Sciences, 170pp. [Issued November 1985.]

Available from the author or the library of the Institute of Ecology and Botany of the Hungarian Academy of Sciences, H-2163, Vácrátót, Hungary, in exchange for bryological publications or other botanical work of relevance to the Institute.

This publication is a synthesis of all available information on the taxonomy and distribution of the 1227 species of mosses known from southern and south-east tropical Africa i.e. from Angola, Zambia, Zimbabwe, Malawi, Mozambique, Tanzania, Uganda and Kenya. A table summarizes the numbers known from each country and from major collecting areas within each, and gives the names of the principal collectors, while another table presents the data on a systematic basis in the context of tropical Africa as a whole.

In the main body of the text the arrangement of genera follows Crosby and Magill (1978), a dictionary of mosses, with species listed in alphabetical order within. The records for each taxa are carefully localized and supported by references, many having brief annotations as to taxonomic status. There is a consolidated alphabetical list of synonyms, an extensive bibliography and an index to generic and family names.

This is a carefully prepared and well-presented work. If comparable assessments were available for other poorly-known parts of the world, it would go a long way towards providing a firm basis for discussing the diversity of floras and the likely distribution of their constituent taxa. The author is to be congratulated on the way such a large body of taxa has been so successfully presented.

Farr, Ellen R., J.A. Leussink & Gea Zijlstra (Eds.), 1986. *Index nominum genericorum (plantarum). Supplementum I. (Regnum Vegetabile, Vol. 113: 1-126.)*. Utrecht/Antwerp Bohn, Scheltema & Holkema; The Hague/Boston, dr.W.Junk, b.v.

This is the first Supplement to be published to ING, the original 3 volumes of which appeared in 1979 (Reviewed in *Bryol. Times* 2: 6, 1980). The format of the text is as before. The work has been produced from updated data in the ING computerized database, maintained in the Smithsonian Institution Washington. Future supplements are planned at 5-year intervals and users are encouraged to submit information to the editors.

Names listed in this Supplement fall into three general categories: (i) Names new to ING; (ii) Corrected names which are marked with an asterisk, i.e. entries in ING 1979 with substantial alterations; and (iii) Deleted names, also marked with an asterisk, with reasons for the deletion; i.e. entries accepted in ING 1979, but now deleted from the ING computer file. Coverage of hepatic names is said to be fairly complete to the end of 1981, and moss names to the end of 1983. The provisions of the Sydney Code have been taken into account in the preparations of this supplement.

Li, Zhi-hua, 1985. A revision of the Chinese species of *Fissidens* (Musci, Fissidentaceae). *Acta Bot. Fennica*, 129: 1-65. A treatment of the 52 taxa (47 species and 5 varieties) recognized from China with a key, illustrated descriptions, synonymy, citation of types, notes, habitat and distribution data.

DIARY

For explanation of acronyms, see *Bryol. Times*, 31: 7-8, 1985.

1986

May 10-11. VWGB. Field Meeting near Nandrin. Further details from H. Stieperaere, Nationale Plantentuin van België, Domein van Bouchout, B-1860, Meise, Belgium.

May 23-25. SBLS. Bryophyte Mapping Weekend, Porrentruy (NW Switzerland). Further information from Klaus Ammann, Syst.-Geo-Bot. Institut, Altenbergrain 21, CH-3013, Bern, Switzerland.

- June 20-22. SBSL. Annual Assembly, Elm (Canton Glarus, Northern Central Alps). Further information from Klaus Ammann, Syst.-Geo-Bot. Institut, Altenbergrain 21, CH-3013, Bern, Switzerland.
- July 20-30. DBLWG. Summer field camp nr. Champagnole, French Jura. Further information from: Han van Dobben, Mariaplaats 16, 3511 LJ Utrecht, The Netherlands.
- July 23-29. BBS. Summer field meeting (1st week), Fort William. Local Sec.: Mr. G.P. Rothero, Benmore Centre, By Dunoon, Argyll, Scotland.
- July 28- 2 Aug. NBS. Summer excursion - annual meeting, Frös-kog, Dalsland, SW Sweden. Organizer, T. Hallingbäck. Further information from Sven Fransen, Botaniska Institutionen, Carl Skottsbergsgata 22, 413 19, Göteborg, Sweden.
- July 30-5 Aug. BBS. Summer field meeting (2nd week), Gairloch, Wester Ross. Local Sec.: Mr. D.G. Long, Royal Botanic Garden, Edinburgh EH3 5LR. For details of both weeks, see Bull. BBS, 47.
- Aug. 2-4. BSJ. 15th Annual Meeting at Beppu, Oita-ken, with paper-reading sessions. Excursion to Shinyabakei Gorge, and photo contest. Further information from Mr. M. Ohtsuku, Minamitsuruta Shinden 790-17, Usa-shi, Oita-ken, 870 Japan.
- Aug. 10-14. ABLIS. Annual Meeting, University of Massachusetts, Amherst. Further details from the Program Chairman, Dr. William L. Culberson, Dept. of Botany, Duke University, Durham, North Carolina 27706 (Tel. 919-684-3715). For details of pre-meeting field excursion to places in southern Vermont, contact Dr. Cyrus B. McQueen, Dept. of Botany, University of Vermont, Burlington, Vermont 05405-0086 (Tel. 802-656-2930).
- Aug. 26-29/30. CEBWG. Leipzig, DDR.
- For preliminary announcement, see Bryol. Times, 34:8.
- Aug. 28-1 Sept. SBLS. Field Meeting. Fideriser Heuberge (Prättigau, Ct. Grison). Further information from Klaus Ammann, Syst.-Geo-Bot. Institut, Altenbergrain 21, CH-3013, Bern, Switzerland.
- Sept. 7. VWGB. Field trip to Lummen and Herk-de-Stad, Prov. of Limburg. Meet 09.30 hrs. at the church in Lummen.
- Sept. 12-14. BLAM. Field Meeting in Nordschwarzwald, BRD, based on Karlsruhe. Organizer and leader, Dr. G. Philippi, Erbprinzenstr. 13, 7500 Karlsruhe, B.R.D.
- Sept. 19-21. Eleventh annual LeRoy Andrews Foray. Peconic Dunes Camp of Suffolk County, Long Island, New York. Further information from Dr. W.R. Buck, New York Botanical Garden, Bronx, NY 10458-5126, U.S.A.
- Sept. 20-21. BBS. A.G.M. and paper-reading meeting. University of Leeds. Local Sec.: Prof. D.J. Cove, Dept. of Genetics, University of Leeds, Leeds LS2 9JT. For preliminary details, see Bull. BBS, 47.
- Oct. 3-5. 2nd Blomquist Bryological Foray, Tennessee. Staying at Pickett State, Rustic Park, Jamestown, Tennessee. Further details from Dave Smith, Dept. of Botany, University of Tennessee, Knoxville 37996, U.S.A.
- Oct. 4-5 or 11-12. SBLS. Taxonomic Workshop with Dr. J. Vána on *Jungermannia* and *Marsupella*. Zürich, Botanical Institute of the University. Further information from Klaus Ammann, Syst.-Geo-Bot. Institut, Altenbergrain 21, CH-3013, Bern, Switzerland.
- Oct. 5. VWGB. Field trip to Oosterzele-Balegem, Prov. of Oost-Vlaanderen. Meet 09.30 hrs. at the church in Oosterzele.
- Nov. 1-2. BBS. Taxonomic Workshop, University of Reading. Local Sec.: Dr. R.E. Longton, Dept. of Botany, The University, Reading RG6 2AS, Berkshire, England. For details, see Bull. BBS., 47.
- Nov. 9. VWGB. Field trip to Hoogaarden-Meldert, Prov. of Brabant. Meet 09.30 hrs. at the church in Hoogaarden.

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April 1-8. BBS. Springfield meeting, Penzance, Cornwall. Local Sec.: Mrs. J.A. Paton, Fair Rising, Wagg Lane, Probus, Truro, Cornwall TR2 4JU. For details see Bull. BBS, 47.

July 17-23. IAB. Mainz. Bryological Methods Workshop. For further information see Bryol. Times, 34:7.

July 24-1 Aug. XIVth IBC Berlin (West). Preceded by IAPT Nomenclature Session, July 20-24. For Second Circular, see this issue, page 8. Congress address: XIV IBC. Bot. Garden and Museum, Königin-Luise-Str. 6-8, D-1000, Berlin (West) 33, Germany.

July or Aug. BBS. Summer field meeting, Achill Island, Co. Mayo and Westport. Local Sec.: Dr. D.M. Synnott, National Botanic Gardens, Glasnevin, Dublin 9, Ireland. For preliminary notice see Bull. BBS, 46.

Sept. BBS. A.G.M. and paper-reading meeting, Wye College, Kent. Local Sec.: Dr. M.A.S. Burton, Paris House, East Malling, Maidstone, Kent ME19 6AU. For preliminary notice, see Bull. BBS, 47.

Nov. BBS. Taxonomic Workshop. University of Manchester. Local Sec.: Dr. S.R. Edwards, The Herbarium, Manchester Museum, The University, Manchester M13 9PL. For preliminary details see Bull. BBS, 47.

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June 6th. CEBWG Meeting, Liblice (Village near Mělník), Czechoslovakia. Further details will be announced later.

THE INTERNATIONAL ASSOCIATION OF BRYOLOGISTS published The Bryological Times every two months, the Bulletin of Bryology twice a year and the Advances in Bryology every two years. Material for the Bryological Times can be sent at any time, but submission dates for the Bulletin and the Advances should be discussed with the Editors, Dr. Diana G. Horton (University of Iowa) U.S.A. and Dr. Norton G. Miller (Albany) U.S.A. respectively. The Editors do not accept responsibility for the views of authors.

For details regarding members of the International Association of Bryologists (currently U.S. \$8.00 p.a.), write to the Honorary Secretary, Dr. S.R. Gradstein, Instituut voor Systematische Plantkunde, Heidelberglaan 2, 3584 CS Utrecht, The Netherlands.

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ITEMS FOR THE NEXT ISSUE to be with the Editor, Dr. S. W. Greene, Department of Botany, The University of Reading, London Road, Reading RG1 5AQ, Berkshire, England (Telex 847813 RULIB) by the 1st of July at the latest. Items for the regular columns should be sent direct to the column editors, whose names and addresses will be found in Bryol. Times, 31:9, 1985.