

February, 1988.

No. 45.

THE ARABIAN
PENINSULA
AN "EMPTY QUARTER"
IN BRYOLOGY?*

BY
WOLFGANG FREY & HARALD
KÜRSCHNER

From a bryological point of view, the Arabian Peninsula seemed to be an "Empty Quarter" (cf. also Herzog, 1926, p.276 "Nach meiner Auffassung bilden diese ariden Länder von der Sahara über Arabien nach Persien und Beldudschistan bryologisch verarmete Grenzräume des grossen mediterranen Florenreiches.."). Therefore it was not astonishing that, until the end of 1980, only a few mosses and liverworts had been reported from the Arabian Peninsula. The total number of species differed within the different countries but generally was very low (e.g. Kuwait 19 species, Oman 1 species, South Yemen 18 species, North Yemen 11 species, cf. Frey & Kürschner, 1982). Except for an incidental mention of *Funaria pulchella* by Townsend (1978), there have been no records of bryophytes from Saudi Arabia which makes up the main part of the Peninsula.

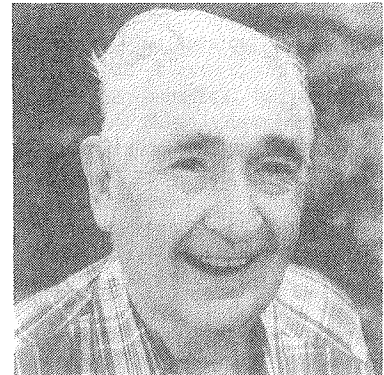
Since 1981, an intensive bryofloristic exploration of the Arabian Peninsula has been carried out, mainly by two working groups, one located at Edinburgh (D. G. Long and A. G. Miller working in the Yemen Arab Republic and Oman) and the other in Berlin (W. Frey and H. Kürschner working especially in Saudi Arabia and Oman, sponsored by the German

Research Society in connection with the Saudi Biological Society, the King Saud University Riyadh, the Saudi Arabian National Centre for Science and Technology, the National Commission for Wildlife Conservation and Development, and the Oman Natural History Museum). These intensive field studies and the resulting rich bryophyte collections, have brought to light up to now more than 200 taxa (Long, 1987; Frey & Kürschner, 1988), among them 6 new to science: *Crossidium asirensis* (Frey & Kürschner, 1984), *C. deserti*, *C. laxefilamentosum* (Frey & Kürschner, 1987, 1988), *Fissidens arabicus* (Pursell & Kürschner, 1987), *F. laxetexturatus* (Bruggeman-Nannenga, 1987), and *Riccia crenatodentata* (Volk, 1988).

An initial phytogeographical analysis of the bryoflora (Frey, 1986; Long, 1987; Frey & Kürschner, 1988) shows, that besides the cosmopolitan, northern and circum-Tethyan element a large stock of palaeotropical taxa (mainly of the Afrotropical element) exists in the southern and south-western parts of the Peninsula, reflecting the strong floristic connections to the East African mountain system. (Characteristic taxa are *Chonocolea* cf. *ruwenzorensis*, *Fabronia abyssinica*, *Frullania trinervis*, *Lejeunea aethiopica*, *Leucodon dracaenae* var. *schweinfurthii*, *Pleurochaete malacophylla*, *Racopilum capense*, etc. The more arid, interior parts are occupied by taxa which evolved from an old xeric element, the Xerothermic Pangaeic and circum-Tethyan element (Frey & Kürschner, 1988). The members of these elements show life strategies (xerohaloid and xeropotitoid life syndromes) which enable them to survive and evolve under extreme desert conditions.

WILLIAM CAMPBELL
STEERE
CELEBRATES 80TH BIRTHDAY

On Wednesday, November 4, 1987, the New York Botanical Garden sponsored a party in celebration of the 80th birthday of William Campbell Steere.



The party, held in the Enid A. Haupt Conservatory, attracted visitors from around the world. Although supposedly not beginning until 6.30 p.m., over half the guests had arrived by 6.15. The conservatory, most conveniently, was in the midst of its annual Kiku-Ka Ten, an exhibition of Japanese chrysanthemums. The evening began with two open-bars and hors d'oeuvres. Dr. Steere was provided with a sofa and chairs in a semi-secluded area to receive the arriving guests, one or two at a time. Since many of the guests had not seen Dr. Steere for some time, conversation flowed easily.

At about 7.30 Dr. James M. Hester, President of the New York Botanical Garden, acting as Master of Ceremonies, called the crowd of 140 to dinner. He then explained the evening's program and dinner began. During dinner, toasts were offered by Chris Webber, rector of the Steere's Church; John

*A contribution to the Floristic Exploration column edited by Drs. S. R. Gradstein and J. Váňa.

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(Continued on page 5.)

Activities of the Section
"Bryology" of the Scientific
Council of the Academy of
Sciences of the USSR

By

V. K. Mammatkulov
Translated by R. Fritsch

The Scientific Council held a meeting on 25th-30th May, 1987, at Syvtyvkar (Komi ASSR, Siberia) on the theme "Biological basis of rational use, transformation, and protection of the vegetable world", which included plenary and sectional sessions. Twenty bryologists of the USSR took part in the session of the Bryology Section.

The lectures given in this section concentrated not only on problems of systematics, ecology, phytogeography and floristics of the bryophytes of the USSR, but special attention was devoted to the training of bryologists. The compilation and publication of a comprehensive list of all bryophytes of the USSR, of keys for their determination, and of a special list of rare and nearly extinct species, to be incorporated into the "Red Books" of the USSR and of the Republics was discussed. During this session the remarkable success of Soviet bryologists in studying the flora of mosses and liverworts was also pointed out.

The section "Bryology" had its first working session at Leningrad in 1986 in honour of the 100th anniversary of the birth of Prof. Savicz-Lubitskaya. On that occasion 24 lectures were given by leading Soviet bryologists dealing with the balance of studies on the bryophyte floras of different regions of the USSR and with some other theoretical and practical aspects of bryology. The proceedings of that session are now (end of 1987) in print. The next session of the section "Bryology" will be held at Alma-Ata (Kazakhstan) in September, 1988.

In 1986, Soviet bryologists completed a great deal of work on all main themes, but, as in earlier years, most activities were devoted to floristic analyses. The

monograph of K. G. Kanchabeli (main ed.) and collaborators, Flora of spore plants of Georgia was published (text in Russian) containing floristic information on 517 species of mosses, 156 species of liverworts, and two species of hornworts found in that territory. The Conspectus of a moss flora of Azerbaijan, by L. B. Lyubarskaya (text in Russian) was deposited in the VINITI Institute. It contains the main ecological and floristic facts on 364 moss species. A monograph by S. V. Gudoshnikov A moss flora of the dark coniferous zones of the southern mountains of Siberia, and the problems of the origin of the 'mountainous taiga', was also edited in 1986. It gives an ecological-geographical characterisation of the mosses of that relic formation and also deals with the classification of the synusia of mosses, and with the problems of relic species.

Many Soviet bryologists contributed to the encyclopedia Bryolichenological research in the USSR (main editor: R. N. Shlyakov, with the text in Russian), the bryological part of which reflects the main directions of Soviet bryology. It contains material for a bryoflora of the Murmansk region, of the Ukrainian woodland Polesye, of the near-Wolga eminences, of the Ussuri protected area, of the northern Ural region, of the middle Don region, and of other parts of the USSR. It also deals with the question of endemism in the bryoflora of Middle Asia and includes some discussions on ecological and geographical details of several moss species of the USSR.

Two major publications on the bryophytes of the Tadshik SSR went to the printer last year. Both are in Russian, by U. K. Mammatkulov. One is the first volume of a Flora of spore plants of Tadshikistan. Bryophyta containing descriptions and tables keys for 162 species (Sphagnaceae - Grimmiaceae) while the other is an Analysis of the bryoflora of the Pamiro-Alai. The latter work deals with floristics, ecology, geography, karyology, and the evolution of the 320 moss species growing in one of the most interesting mountainous regions of Middle Asia. The fourth volume of that Flora, a continuation of the

part on mosses and also written by the same author, is ready for printing (end of 1987). A particular feature of it is the ample karyological information, (chromosome numbers, ploidy levels, and others) besides other information, on 158 species of Bryidae. These are important contributions to the study of the bryofloristics of the USSR.

The Conspectus of mosses of northern Yakutia has also gone to the printer. This work provides geographical and ecological characteristics of 322 bryophyte species, 40 of which belong to the group of bryophyte rarities of the USSR. A list of the 296 species of bryophytes of the Krym area was compiled by L. Ya. Partyka. A Moss flora of Ukraine, by A. Ya. Bachurina, and V. M. Melnichuk, also went to the printer. Broadly speaking, it presents not only taxonomical information on more than 500 species of Andreaeidae and Bryidae but also ecological, karyological and chorological data. Keys for the determination of the species are included.

The following are still in preparation: Key for Karelian mosses, by L. A. Volkova; a Key for Middle Asian and Kazakh bryophytes by U. K. Mammatkulov, and a Key for mosses of the southern Far East by L. V. Bardunov and V. Ya. Cherdantseva. Research is in progress on liverworts of the Tundra zone of the USSR, of the Primorye area and of the Komi ASSR. The bryophyte floras of protected areas of the Far East, Byelorussia, Tadshikistan, Siberia, the Caucasus and of other parts are being further investigated and inventories prepared. A catalogue of the bryophyte herbaria of the Soviet Union is currently being compiled to provide a basis for the construction of a guide to them.

Prof. Dr. U. K. Mammatkulov, USSR 734017 Dushanbe, Karamov St. 27, Institute of Botany of the Tadshik Academy of Sciences.

Dr. R. Fritsch, DDR 4325 Gatersleben, Corrensstrasse 3, Zentralinstitut für Genetik und Kulturpflanzenforschung, Akademie der Wissenschaften der DDR.

The Arabian Peninsula
(Continued from page 1.)

Examples of evolutionary centres in this region are shown by the genera *Crossidium* (8 taxa in the Arabian Peninsula with 3 endemics), *Targionia* (which can be distinguished into 4 morphotypes or ecotypes) and maybe *Riccia*.

Species of these genera together with other dry-adapted taxa form a characteristic *Tortula atrovirens* - *Crossidium squamiferum* synusium, (Frey & Kürschner, 1987), which occurs in the transition zone to extreme desert conditions (Run-al Khali, an-Nefud) of the Arabian Peninsula and can be used as an excellent indicator for natural vegetation conditions in arid environments (Frey, 1988).

Further, unexpected bryophyte communities are composed of epiphytes consisting mainly of *Orthotrichum diaphanum*, *Xanthoria parietina* and other lichens (on *Acacia origina*) and *Leptodon smithii*, *Leucodon dracaenae*, *Usnea articulata* (on *Juniperus excelsa*) of the western border mountains (Asir Mountains, Kürschner, 1984a). Besides these, epilithic communities of *Bartramia stricta*, *Pleurochaete squarrosa*, *Pseudoleskea leikipiae* and *Targionia* aff. *lorbeeriana* have been observed (Kürschner, 1984b). Both community types are strongly correlated with orographical (escarpment) and climatological (monsoon influence) features and at the moment are unique for the Arabian Peninsula.

These few examples show that, although species diversity is relatively low in comparison with other parts of the world, the Arabian Peninsula is no more an "Empty Quarter" from a bryological point of view. Due to the different geomorphological and climatic conditions, and the still unexplored north-western (northern Saudi Arabia) and southern (South Yemen) part of the Arabian Peninsula it can be expected that the number of species (including some new to science) will increase. More detailed studies on phenomena such as adaptation to

desert conditions, xerothaloid and xeropotoid life strategies, phytogeographical relationships and bryophyte communities and vegetation will enrich our still scanty knowledge of desert mosses.

We hope to close one great gap in our knowledge of the bryophyte flora of the Arabian Peninsula, i.e. of the Hejaz Mountains in Saudi Arabia, with a research journey in the spring of 1988, which will be sponsored by the National Commission for Wildlife Conservation and Development (NCWCD) of Saudi Arabia.

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[Note: The figures in square brackets [] after some references indicate their position in the series: Studies in Arabian bryophytes, Nos. 1-12.]

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NEWS FROM HELSINKI

The Editor has been informed that Pekka Isoviita, formerly one of the Junior Curators, has been appointed Head Curator of the Cryptogamic Herbarium, Botanical Museum, University of Helsinki (H). Until a new Junior Curator is appointed, Sinikka Piippo will continue to act in this position.

It also appears that a new Bryological Society has been established in 1987, viz. The Finnish Bryological Society (Chair Pekka Isoviita, Secretary Krister Karttunen). We wish it every success.

FLORISTIC

EXPLORATION COLUMN

One of the topics discussed fruitfully and successfully during the Taxonomic Workshop meeting in Geneva in 1979 was the "Extent of exploration" of the bryofloras of the world. During four sessions papers concerning the present state of bryofloristic exploration of relatively large areas were presented and discussed. In order to continue the presentation of new information about the current state of exploration of smaller areas (countries, parts of large countries, large geographic units, etc.), it is intended to establish a new column in the Bryological Times.

The need for such a column was expressed earlier by Dr. S. W. Greene in an editorial in this newsletter (Bryological Times, 31:1): "the aim of such a column would be to keep readers abreast of significant developments in the different continents".

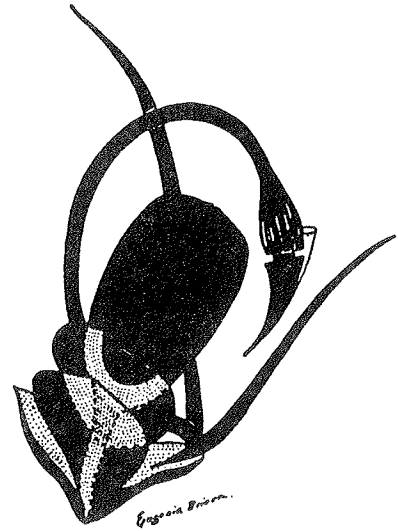
The undersigned have agreed to be editors of such a column. It is our intention to publish in it brief articles devoted to the state of bryological survey in various parts of the world, which should

highlight what needs doing and where. The articles would summarize briefly what has been achieved, with references, and emphasize what additional information is needed - in short point to gaps in existing knowledge. Such a column might also become a good source of information for phytogeographic considerations.

We are now soliciting contributions for this column. We wish to encourage short reviews concerning areas in which you are working or with which you are familiar. For style we may refer to articles published in other columns of recent issues of the Bryological Times. The inclusion of an illustration(s), showing some of the features of floristic exploration of the area discussed, should be very appropriate. The manuscripts, written preferably in English (but German, French or Spanish are also acceptable), should be sent directly to one of the column editors.

Jiří Vána, Department of Botany, Charles University, Benátská 2, CS-128 01 Praha 2, Czechoslovakia.

S. Rob Gradstein, Institute of Systematic Botany, State University of Utrecht, Heidelberglaan 2, P.O. Box 80.102, 3508 TC Utrecht, The Netherlands.



1st SIMPOSIO LATINOAMERICANO DE BRIOLOGIA

Informacion General

El I Simposio Latinoamericano de Briología se celebrará en Bogotá-Colombia, en Octubre 18-23 de 1988.

Est Simposio reunirá a los Briólogos Latinoamericanos y demás interesados en el área para discutir y dar a conocer a la Comunidad Científica en general el estado del conocimiento en Briófitas.

Participantes

Podrán participar todas aquellas personas interesadas en la Briología Latinoamericana. Idioma Español-Inglés.

Programa Científico

Este programa incluirá conferencias magistrales y sesiones de trabajos libres en las siguientes áreas:

1. Sistemática
2. Ecología
3. Florística
4. Fitogeografía

Excursiones

Se programarán excursiones pre y pos-simposio cuyo costo, duración y lugar se darán a conocer en la segunda circular.

Further information from: Jaime Aguirre C., Universidad Nacional de Colombia, Instituto de Ciencias Naturales, Museo de Historia Natural, Apartado Aéreo 7495, Bogotá, D.E.-Colombia.

NEW CURATOR AT E

DAVID G. LONG took over the duties of Curator of the Herbarium at the Royal Botanic Garden, Edinburgh on 1st February 1988. The previous Curator, Mr. Ian C. Hedge, has stepped down after 20 years of service in that capacity in order to devote more time to floristic and monographic studies on SW Asiatic plant groups. Mr. Long, who will continue work on the Flora of Bhutan and maintain his research interests in bryophytes, will be responsible for all matters relating to the collections of all groups of phanerogams and cryptogams. Jennifer M. Lamond (Mrs. Woods) has been designated Associate Curator and, in addition to her research on Umbelliferae, will carry out some curatorial duties. J. McNeill, Regius Keeper, Royal Botanic Garden, Edinburgh EH3 5LR.

FIELDTRIP IN BOLIVIA

OCTOBER, 1988

The Herbario Nacional de BOLIVIA would like to have a preliminary response to possible interest in a 2-4 day bryophyte excursion in Bolivia for participants in the 1st Bryology Symposium for Latin America and other interested botanists, to take place somewhat before or after the symposium. The fieldtrip would be led by Marko Lewis in the Cord. de Quimsa Cruz, Bolivia, and cover some of Herzog's classic localities (high altitude), humid and super humid puna, ceja de montana and other forest habitats during two to four days. If 3 or 4 bryologists are interested we will plan accordingly. Please write to Marko Lewis, Herbario Nacional de Bolivia, Casilla 20127, La Paz, Bolivia about your interest.

William Campbell Steere's Birthday
(Continued from p.1)

Armstrong, a board member of the Brooklyn Botanic Garden; Joe Coulombe, one of Bill Steere's sons-in-law; William A. Weber, bryologist from Colorado; and Will Steere, III, a grandson.

Between the main course and the dessert, the scheduled speakers gave their presentations. Thomas J. Hubbard, Vice Chairman and head of the science committee of the Garden's Board of Managers, began and talked of Bill Steere's administrative accomplishments at the Garden. He was followed by George E. Lindsay, Director Emeritus of the California Academy of Sciences, who reminisced about Bill's days at Stanford. Dr. H. Edward Kennedy, President of both BIOSIS and AIBS, spoke of Bill's involvement in the dissemination of scientific information and of Biological Abstracts in particular. Lewis E. Anderson, Professor Emeritus of Duke University and long-time friend of Bill, spoke of Bill's career as a bryologist. As Anderson emphasized, it is impossible to summarize Bill's work in only five minutes, but he did point to Bill's publication of over 500 articles and books. John Reed, Vice President for Education and Director of the Library at the Garden, spoke on behalf of the Garden's staff. Alice Steere Coulombe, one of Bill and Dorothy's children, talked as a representative of the Steere family, many of whom were present at the festivities. As Alice pointed out, the whole bryological community is part of the Steere extended family.

William R. Buck then presented the gifts to Bill Steere. These included the guest book from the party, a framed greeting signed by the Garden staff, a presentation album of letters and cards sent by bryologists and other friends unable to attend the party, and a Festschrift Volume, Bryostephane Steereana, of 68 articles and 778 pages of bryological papers dedicated to Bill Steere. The title of the Festschrift refers to a wreath (of mosses), worn about the head, given to a victor in Roman days. Extra covers of the volume, with a colour photograph of Bill Steere on the

front, were printed and used as programs for the party. Finally, Bill Steere himself offered his thanks and reflections on the occasion of becoming an octogenarian. The evening then ended with a round of "Happy Birthday to You" and the traditional cake and ice cream.

Many of the bryologists who came to the party either arrived early or stayed afterward to use the herbarium at New York. Among bryological attendees were Bruce Allen, Lewis Anderson, Dick Andrus, Dominick Basile, Guy Brassard, Ella Campbell, Steve Churchill, Marshall Crosby, Howard Crum, Patricia Eckel, Diana Horton, Hirosh Inoue, Catherine LaFarge-England, Gary Smith Merrill, Norton Miller, Brent Mishler, Gert Mogensen, Barbara Murray, Ron Pursell, Paul Redfearn, Bill Reese, Inés Sastre-De Jesús, Rudy Schuster, Nancy Slack, Lloyd Stark, Benito Tan, Barbara Thiers, Bill Weber, Hank Webster, P. C. Wu and Richard Zander.

Other botanical visitors included William R. Anderson, Enrique Ferero, Richard Howard, George Lindsay, David Murray, Herb and Florence Wagner, and Tom Zanoni. Also in attendance were many New York staff members and Steere family and friends.

Although scheduled to end at 9.00 p.m., most guests left about 10.30.

William R. Buck, New York Botanical Garden, Bronx, New York.

I. A. B. Greetings
to
Dr. W. C. Steere

On behalf of the officers and members of the IAB, and with great personal pleasure, I send you hearty congratulations on attaining the nomenclaturally important status of *Octogenarian bryologist*. Following the lead you gave as first President of the IAB, all members are still striving to build bridges of friendship and co-operation between bryologists of different nations, different cultures and different kinds of government with, I believe, some measure of success. Thank you for showing us the way.
Stanley Greene. President IAB.

Personalia

DRS. JAIME AQUIRRE C. has been appointed Chief of research at the Unit of Botany of The Instituto de Ciencias Naturales, Apartado Aéreo 7495, Bogotá, D.E., Colombia.

CATHERINE LAFARGE-ENGLAND, Department of Botany, University of Alberta, Edmonton, Alberta T6G 2E9, has recently completed an MSc entitled "The contemporary and subfossil moss assemblages of a high arctic upland, southern Piper Pass, northern Ellesmere Island, N.W.T." At present she is starting a PhD on a worldwide revision of *Leucoloma*, Dicranales under the supervision of Dr. Dale Vitt. Any recent collections of the genus would be greatly appreciated.

DR. MICHAEL VAN SLAGEREN has moved to ICARDA, P.O. Box 5466, Aleppo, Syria for a period of 3 years from 1st January 1988.

Membership of IAB

The following list for the period 1st June 1987 - 30th November 1987, updates those already published. The last list appeared in Bryol. Times, 44:2.

NEW MEMBERS

- Butterfass, Theodor. Botanisches Institut der Universität, Postfach 11 19 32, D-6000 Frankfurt/M.11 Germany, B.R.D.
- Chopra, R. N. Dept. of Botany, University of Delhi, Delhi 110 007, India.
- Felix, Hans R. Bündtenstr. 20, 4419 Lupsingen, Switzerland.
- Junk, Peter. Schoppen 54, B-4470 Amel, Belgien.
- Marle, E. J. van. van Hogendorpstr. 24, 3135 CD Vlaardingien, Netherlands.
- Menon, M. K. C. Kirori Mal College, Delhi 110 007, India.
- Poschlod, Peter. Geobotanik, D-8050 Freising 12, Germany, B.R.D.
- Rochefort, Line. Dept. of Botany, University of Alberta, Edmonton, Alta, Canada T6G 2E9.
- Rodriguez-Oubina, Juan. Dept. de Biología Vegetal, Fac. de Farmacia, Santiago La Coruna, Spain. (Continued on p.6)

Fourth Annual Blomquist Bryological Foray

30 Sept. - 2 Oct. 1988

Cloudland Canyon State Park,
Georgia.

The 1987 Blomquist Foray, held at Fontana Village in western North Carolina, was well-attended and highly enjoyable. The opportunity to observe and collect bryophytes in minimally disturbed and virgin forests was both satisfying and instructive. The informal conversations and discussions along the trail and through the evening added to the productivity of the weekend. The 1988 Foray is expected to provide a similar occasion for field observation and collection of bryophytes and communication among bryologists. Amateurs, professionals, students and their families are all welcome.

The foray this year will be held in the northwestern corner of Georgia. This part of the state lies in the Valley and Ridge Province of the Appalachian Highlands and is characterized by sheer-sided sandstone mountains and rolling valleys with floors of limestone. Cloudland Canyon (elev 1890'), on the western face of Lookout Mountain, is a deep gorge cut through Paleozoic sandstones rich in fossils. The rim rock has weathered into picturesque formations, and the one thousand foot elevational difference from the Park to the bottom of the gorge provides sweeping vistas of the countryside. Saturday morning, Oct. 1st, we will follow the Waterfall and West Rim Loop Trails in Cloudland Canyon through hemlock-hardwood forests. Saturday afternoon will be spent in The Pocket of nearby Pigeon Mountain. Streams eroding into the sandstone of the western side of the mountain carved out a canyon with a floor of limestone that supports a rich diversity of hardwood trees. Sunday morning, October 2nd, we will travel east to visit the cedar glades of nearby Catoosa County. The cedar glades are north-south trending outcrops of limestone and are considered disjunct from the limestone glades of Middle Tennessee. The flora of

BT Supplement

The editors of the computer column have been so active and enthusiastic in providing a number of excellent articles that there was a real danger of these columns being swamped by such matters!

So the Editor consulted the President (a personal approach) and then held a joint discussion with the Secretary (voice to voice, long distance) about the idea of issuing a Supplement as the best solution to the problem. Thus the idea of Special Topic Supplements was born.

The Computer Column will continue normally and if it, or any of the other columns, needs extra space in the future, the case for other Special Topic Supplements can be considered. For reference purposes the accompanying supplement to this issue may be cited as *Bryol. Times*, 45(Suppl.):1-14, 1988.

The Editor.

Computer Column

For the software library of the IAB, we would like to include the programs DECORANA and TWINSpan. Colleagues who have one of these programs or both available in MS-DOS format are kindly requested to provide a copy by sending it to Dr. J.-P. Frahm, Universität Duisburg, Fachbereich 6, Botanik, Postfach 101629, D 4100 Duisburg, F.R.G.

For a survey of online connections to databanks for bryological purposes (especially hosts for bibliographic databases) to be published in the Computer Column of the *Bryological Times*, I would be glad to receive any information such as the name of the host, name of the database, address, phone number, telenet number for access by modem conditions, etc.

J.-P. Frahm, Universität Duisburg, FB 6, Botanik, Postfach 1015629, D-4100 Duisburg, F.R.G.

SIXTH MIDWESTERN BRYOLOGICAL FORAY Black River Falls, Wisconsin 16-18 September 1988

The Sixth Midwestern Bryological Foray will be held at Black River Falls, Wisconsin, located on an ancient glacial lake bed adjacent to the unglaciated Driftless Area of southwestern Wisconsin. Nearby are Black River State Forest and extensive peatlands, the center of the state's cranberry and peat moss industries. We will collect the rich bryophyte flora in deciduous and coniferous forests, wetlands, and on limestone and sandstone. Motel accommodation will include a meeting room and all meals.

For more information, contact: John A. Christy, Bryological Foray, Botany Section, Milwaukee Public Museum, 800 West Wells Street, Milwaukee, WI 53233. The glades of Catoosa County include four endemic vascular plant species. To reserve a place on the foray, please contact Ann Stoneburner or Robert Wyatt, Dept. of Botany, University of Georgia, Athens, GA 30602, USA.

Membership of I.A.B.

(Continued from p.5)

Sarla, ?. Dept. of Botany, University of Delhi, Delhi 110 007, India.

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Thompson, Jean Fiona. Bolus Herbarium, University of Cape Town, Private Bag, Rondebosch 7700, South Africa.

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(Continued on p.7)

Recent Publications

- Australas. Bryol. News*, 17: 1-9, 1987.
- Briolatina*, 13: 1-8, 1987.
- Bryologist*, 20(1): 1-76, 1987; 20(2): 77-199, 1987; 20(3): 201-282, 1987.
- Cryp. Bryol. Lichén.*, 8(4): 291-388, 1987; 2(1): 1-93, 1988.
- Evansia*, 4(3): 33-48, 1987.
- Herzogia*, 7(3-4): 313-684, 1987.
- L. Bryol.*, 14(4): 625-825, 1987.
- L. Hattori Bot. Lab.*, 63: 1-498, 1987.
- Lindbergia*, 13(1-2): 1-104, 1987.
- Proc. Bryol. Soc. Jap.*, 4(9): 137-154, 1987.
- Taxon*, 36(4): 705-868, 1987.

DESIDERATA

Miss Irene Bisang, Systematisch-Geobotanisches Institut, Altenberrain 21, CH-3013 Bern, Switzerland, is working on a thesis on selected species within the genus *Lophozia* s.l. at the University of Berne (Switzerland) and would be glad to receive living material of *Lophozia incisa*, *L. opacifolia*, *L. laxa* (= *L. marchica*) and *L. capitata* from all parts of the world for culture experiments.

Membership of I.A.B.
(Continued from p.6)

- Meenks, J. L. D. Agricultural University, Dept. of Botany and Plant Physiology, 2103 Gödöllo, Hongarije.
- Rohrer, Joseph R. Dept. of Biology, University of Wisconsin, Eau Claire, WI 54702-4004, U.S.A.
- Schaefer-Verwimp, I. & A. Rua Frederico Guarinon 520-11, 05713 Sao Paulo, Brasil.

DELETIONS

- Kindermans, P. J.; Libbey, Alice; Renner, Suzanne; Wigginton, M.J.

INTERNATIONAL SYMPOSIUM ON BRYOPHYTE ECOLOGY, Edinburgh, July, 1988.

The paper by J. H. Dickson, announced as part of the programme of the above meeting in *Bryol. Times*, 44: 3, 1987, has been replaced by one on "Terrestrial and aquatic bryophytes as monitors of environmental contaminants" by Dr. M. A. S. Burton of the Monitoring and Assessment Research Centre, King's College, University of London. R. E. Longton, Programme Secretary.

DEATHS

Mr. George G. Geyman on the 12th January, 1988, in Wanstead, England. Mr. Geyman was Membership Secretary of the British Bryological Society for a number of years.

Mrs. Pat Whitehouse, on the 11th February, 1988, in Cambridge, England.

STOP PRESS!

Sept. 23-25. The 1988 Andrews Foray, U.S.A. Pocono Environmental Education Centre (PEEC), Dingman's Ferry, PA. Contact Dr. Richard Andrus, Dept. of Biological Sciences, SUNY Binghamton, Binghamton, NY 13901, U.S.A.

DIARY

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

1988

April 6-13. BBS. Spring Field Meeting, Cirencester. Local Sec.: Miss K. A. Hearn, The National Trust, Spitalgate Lane, Cirencester, Gloucestershire GL7 2DE, U.K.

June 1-8. Tropical bryological work-shop. Puerto Rico. Organized by Inés Sastre-De Jesús and S. Rob Gradstien primarily to acquaint temperate bryologists with tropical bryophytes. Registration and information available from: Dra. Inés Sastre-De Jesús, Dpto. de Biología, Universidad Católica, Ponce, Puerto Rico 00731.

July 19-23. Joint BBS - British Ecological Society Meeting, Edinburgh. International Symposium on bryophyte ecology. For outline programme see *Bryol. Times*, 44:3. Local Sec.: Dr. P. J. Lightowlers, Institute of Terrestrial Ecology, Bush Estate, Penicuik, Midlothian, Scotland EH26 0QB.

July 23-30. BBS. Summer field Meeting, Aigas Field Centre,

Beauly, Invernesshire. Local Sec.: Dr. P. J. Lightowlers. Participants at the BBS ecological symposium (see July 19-23) will be most welcome.

Aug. 5-7. BSJ. 17th Annual Meeting, Sanda City, ca. 25km N. of Kobe City, with paper-reading sessions and field study. Further information from Dr. N. Kitagawa, Biological Laboratory, Nara University of Education, Takabatake-cho, Nara 630, Japan.

Aug. 7-12. NBS Annual Meeting and Excursions, Kitee, Pajarinhovi Travel Centre, Finland. Further details from Dr. Matti Haapasaari, Kuopio Museum of Natural History, Myhkyrinkatu 22, 70100 Kuopio, Finland.

Aug. 7-11. ABLS Annual Meeting in conjunction with AIBS meeting, University of California, Davis, U.S.A.

Aug. 13-14. ABLS Field trip to Mendicino County, California, through redwood forests, coastal bluffs, pine forests and oak woodlands. Further details from Brent D. Mishler,

(Continued over.)

DIARY (cont.)

- Dept. of Botany, Duke University, Durham, N.C.27706, U.S.A.
- Aug. 28-2 Sept. BLAM. Virgen (Osttirol). Leaders: J. Poelt (Graz) & G. Gärtner (Innsbruck). Further information from Doz. Dr. G. Gärtner, Institut für Botanik, Sternwartestr. 15, A-6020 Innsbruck, Austria.
- Aug. 31-2 Sept. Phytochemical Society of Europe. Saarbrücken. International Symposium on the chemistry and chemical taxonomy of bryophytes. Further information from Prof. H. D. Zinsmeister or Dr. R. Mues, Fachrichtung Botanik der Universität der Saarlandes, D-6600 Saarbrücken 11, B.R.D. (See *Bryol. Times*, 43:11).
- Sept. Alma-Ata, Kazakhstan. Meeting of the Bryology Section of the Scientific Council of the Academy of Sciences of the USSR. Information from Dr. V. K. Mamatkulov, Institute of Botany, Academy of Sciences, Tadzhiq S.S.R., Karamova St. 27, Dushambe, Tadzhiq SSR. 734017, USSR.
- Sept. 4-10 AETFAT Congress, Hamburg, F.R.D. Symposium on African bryology and lichenology. See preliminary notice in *Bryol. Times*, 44:3.
- Sept. 12. 6th CEBWG Meeting, Liblice (Village near Melnik) Czechoslovakia. For preliminary announcement of this 4-5 day meeting, see *Bryol. Times*, 40:10.
- Sept. 16-18. 6th Midwestern bryological foray. Black River Falls, Wisconsin U.S.A. See this issue, p. 6. Further information from Dr. John A. Christy, Bryological Foray, Botany Section, Milwaukee Public Museum, 800 West Wells St., Milwaukee, WI53233, U.S.A.
- Sept. 17-18. BBS. A.G.M. and paper reading meeting, Liverpool, Local Sec.: Dr. J. Edmonson, Merseyside, County Museums, William Brown St., Liverpool L3 8EN, U.K.
- Sept. 30-2 Oct. 4th Annual Blomquist Bryological Foray, Georgia, U.S.A. Based at Cloudland Canyon State Park, Dade Co., in the northwestern corner of Georgia. See this issue p.6. Application forms and further information from the organizers: Ann Stoneburner or Robert Wyatt, Department of Botany, University of Georgia, Athens GA 30602 USA.
- Oct. 18-23. SLAB Bogotá, Colombia. 1st Simposio Latinoamericano de Briologia. See this issue p.4. Further information from Prof. Jaime Aquirre C., I Simposio Latinoamericano de Briologia, Apartado Aéreo 7495, Bogotá, D.E., Colombia.
- Oct. 29-2 Nov. 4th WGMBE Meeting, Mont-Rigi, Belgium. Further information from Prof. Dr. R. Schumacker, Université de Liège, Station Scientifique des Hauts-Fagnes, B-4898 Waimes, Belgium.
- Nov. B.B.S. Bryological Workshop, Bristol. Local Sec.: Dr. D. H. Brown, Dept. of Botany, The University, Bristol, BS8 1UG.
- Nov. 26. VWGB. Joint meeting with Royal Belgian Botanical Society. Further information from L. Smets, A. Van Dijkstraat 13, 2300 Turnhout, Belgium.

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Feb. or March. BBS. Special overseas spring meeting, The Algarve. Local Sec.: Mr. A. R. Perry, Dept. of Botany, National Museum of Wales, Cardiff, CFI 3NP.

April. BBS. Spring field meeting, Salisbury. Local Secs.: Mrs V. Williams, Two Bridges, Lyburn Road, Hamptworth, Salisbury, Wilts., SP5 2DB, and Mr. R. C. Stern, Botany Bay, Main Road, Fishbourne, Chichester, West Sussex, PO18 8AX.

July or Aug. BBS. Summer field meeting, Aberystwyth. Local Sec.: Mr. A. Orange, Dept. of Botany National Museum of Wales, Cathays Park, Cardiff, CFI 3NP.

Aug. 6-10. ABLs Annual Meeting in conjunction with AIBS Meeting, Univ. of Toronto, Canada.

Sept. BBS. A.G.M. and paper-reading meeting, Lincolnshire. Local Sec.: Dr. M. R. D. Seaward, Postgraduate School of Studies in Environmental Science, The University, Bradford, BD7 1DP.

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July. 1-7. IV International Congress on systematic and Evolutionary Biology. Maryland, University of Maryland, College Park, U.S.A.

Aug. 12-18. Helsinki, Symposium on SE Asian bryophytes. See preliminary announcement in *Bryol. Times*, 41:4.

THE INTERNATIONAL ASSOCIATION OF BRYOLOGISTS publishes *The Bryological Times* every two months, the *Bulletin of Bryology* twice a year, and the *Advances in Bryology* irregularly. 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 the authors.

For details regarding membership of the international Association of Bryologists (currently U.S. \$8.00 p.a.), write to the Honorary Secretary, Dr. Dale H. Vitt, Department of Botany, University of Alberta, Edmonton, Alberta, Canada, T6G 2E9.

THE BRYOLOGICAL TIMES is published in Reading (U.K.) and distributed from Beijing (China), Eger (Hungary), Reading (U.K.), St. Louis (U.S.A.), Tokyo (Japan) and Utrecht (The Netherlands). All correspondence concerning mailing to: Rob Kruijt, Institute of Systematic Botany, Heidelberglaan 2, 3584 CS Utrecht, The Netherlands.

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 March, 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.