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Bryologists

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COME TO THE IAB WORLD CONGRESS ON BRYOLOGY !

In January 2004, the next IAB world Congress will take place in Merida, Venezuela. Register, this is another unique event to

- meet your colleagues;
- discuss new frontiers in bryological research;
- strengthen the future of our association;
- explore the páramo and other vegetations of Venezuela;

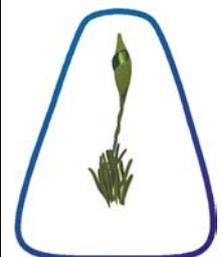
Visit the conference web-site: <http://www.ciens.ula.ve/~bryomeri/>

See pages 8 and 15 for more information!

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IAB



ISSN 0253-4738

The Mosses of Norfolk Island.

Streimann, H.: The Mosses of Norfolk Island. 178 pp., illustrated. Softcover. Flora of Australia Supplementary Series number 16, Australian Biological Resources Study, Canberra 2002. ISBN 0-642-56821-9.

This book, by the late Heinar Streimann, begins with an introduction that provides the geographical and climatological setting of the Norfolk Island group, reviews bryological activity there, and describes the habitats, diversity and biogeographical affinities of the moss flora. The floristic and taxonomic account is based mainly on Streimann's own collections, but specimens were also borrowed from several herbaria

The moss flora of the Norfolk Island group, consisting of three main islands situated between New Zealand and New Caledonia, comprises 69 species in 37 genera and 23 families, mainly with tropical or subtropical affinities. The strongest floristic links appear to be with Australia and New Zealand. Norfolk Island has one endemic species, *Calomnion lillianae* and the adjacent Philip Island also has one, *Splachnobryum crassinervium*. Families with the greatest numbers of species include Bryaceae (10 spp.), Dicranaceae (8), and Fissidentaceae (13). Rather surprisingly, Polytrichaceae, Grimmiaceae and Calymperaceae are not represented at all in the island group. Overall, the flora is somewhat "weedy".

The taxonomic treatment begins with a key to the genera. The taxa are treated in alphabetical order. The species are described in detail and also "synoptically". Descriptions are followed by observations on ecology and distribution, and by

notes, the latter often providing distinctions from related species. Importantly for a scientific flora, the specimens examined are consistently cited. The species are illustrated by very nice line drawings and their distribution in the island group is mapped. Habits of thirty species are also displayed in colour photographs of good quality.

Philonotis is represented by three species, of which only *P. tenuis* is named and the two others are unidentified in the book. I showed the illustrations to Timo Koponen, who has studied the genus quite a lot, and he almost immediately said they represent *P. runcinata* and *P. hastata* – this demonstrates how good the illustrations are!

I really like this book. Although not a critical regional revision, it is scientifically exact and detailed and yet manages to popularize or at least "semi-popularize" the mosses to the interested layman. I raise a toast to the memory of my friend Heinar Streimann.

Available from: Australian Biological Resources Study, GPO Box 787, Canberra, ACT 2601, Australia; e-mail abrsweb@ea.gov.au, fax (02) 6250 9448.

Johannes Enroth: Johannes.Enroth@helsinki.fi

Catalogue of Australian Mosses.

Streimann, H. & Klazenga, N.: Catalogue of Australian Mosses. – Flora of Australia Supplementary Series Number 17 (2002). 259 pp. Soft cover, ISBN 0-642-56825-1.

The first catalogue of Australian mosses was published 14 years ago (Streimann & Curnow 1989). Since then, numerous large-scale revisions and monographs as well as smaller floristic and taxonomic publications have contributed vastly to knowledge of the Australian moss flora, so publication of this new Catalogue was certainly warranted and one greets it with great pleasure.

The structure of the present Catalogue is somewhat different from the first one. While the latter presented separate "subcatalogues" for continental Australia, Norfolk Island and the other territories, the present catalogue lists in alphabetical order all taxa known from the whole region. I rather prefer this new structure, since it is clearer and more coherent. Another difference in favour of the present volume is that it also provides the systematic arrangement followed, citing the recognized classes, orders, and families and also listing the genera placed in each family.

The catalogue itself runs to almost 180 pages and lists 1074 accepted species and infraspecific taxa. The synonymy, if any, used for Australian specimens and its sources are given for each accepted name. After the catalogue there are the following lists: Taxa of uncertain status; Taxa known from Australia only from a subspecies or variety other than the type subspecies or variety; Taxa of doubtful occurrence in Australia; Excluded taxa; Invalid names. These are followed by an extensive and apparently exhaustive bibliography and an index of synonyms. Everything else makes a lot of sense and is necessary but I am not quite sure what the purpose of the list "Taxa known from Australia only from a subspecies etc." is. Why not simply give the subspecific or varietal names in the main catalogue under the relevant specific epithet?

Many nomina nuda are given as synonyms of validly published names; e.g., *Cryphaea viridissima* nom. nud. is given as a synonym of *Cyptodon muelleri*. Picky as I am, I cannot help pointing out that since nomina nuda have no types and thus no nomenclatural or taxonomic substance, they cannot really be synonyms.

This book is a most welcome addition to the library of any serious bryologist. Catalogues like these are in fact much more than just catalogues; as Wilf Schofield said in the Foreword of the Streimann & Curnow catalogue: "One main contribution [of such catalogues] is to reveal the rich heritage of mosses in Australia and the importance that areas be protected that may contain mosses still unrecorded or poorly understood for the country". Australia is a vast

country and there surely are numerous mosses still unrecorded or poorly understood, but the present catalogue is a big step forward in this understanding.

Available from: Australian Biological Resources Study, GPO Box 787, Canberra ACT 2601, Australia; fax (02) 6250 9448; e-mail abrsweb@ca.gov.au

Reference

Streimann, H. & Curnow, J. 1989: Catalogue of Mosses of Australia and its External Territories. Australian Flora and Fauna Series 10: 1–479.

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Moss Flora of China. Volumes 2 and 6

The Moss Flora of China -project (English Version) is doing well. The first volume appeared in 1999 and was reviewed by me in the Bryological Times 99. Now we have already three volumes, or almost 800 pages.

Li, X.-J., Crosby, M. R. & He, S. (eds.): Moss Flora of China, English Version. Vol. 2. Fissidentaceae–Ptychomitriaceae. 283 pp. Hard cover. Science Press (Beijing, New York) & Missouri Botanical Garden (St. Louis), 2001. ISBN 0-915279-89-4.

This volume treats the families Fissidentaceae (Z.-H. Li & Z. Iwatsuki), Schistostegaceae (T. Cao), Calymperaceae (B.-J. Lin & W. Reese), Encalyptaceae (Cao, C. Gao & D. Horton), Pottiaceae (X.-J. Li, S. He & Z. Iwatsuki), and Ptychomitriaceae (Cao, C. Gao & D. Vitt). Altogether 255 specific and infraspecific taxa are treated, and the bulk of the book is taken up by Pottiaceae (36 genera, 139 species) and Fissidentaceae (52 species). New nomenclature (two new combinations in *Didymodon* and one, at varietal level, in *Fissidens*) is in bold in the Index to Latin Names. The two novelties in *Didymodon* are also mentioned in the Introduction, but the one in *Fissidens* is not.

The Chinese Fissidentaceae were revised by Li (1985), and it seems he did very good work, because the differences between that paper and the present volume are small: few species have been added and equally few names synonymized and of course the key has been revised accordingly. Under the generic description it is said that there are 49 species in China, but actually 52 are recognized and treated.

Schistostega pennata is in this volume reported as new to China, a nice generic addition.

Wu, P.-C., Crosby, M. R. & He, S. (eds.): Moss Flora of China, English Version. Vol. 6. Hookeriaceae–Thuidiaceae. 221 pp. Hard cover. Science Press (Beijing,

New York) & Missouri Botanical Garden (St. Louis), 2002. ISBN 0-930723-12-1.

Volume 6 treats the families Hookeriaceae (B.-J. Lin & B. Tan), Symphyodontaceae (S. He & B.-J. Lin), Leucomiaceae (J. Yu & Z.-H. Li), Hypopterygiaceae (Yu, Z.-H. Li & P.-C. Wu), Theliaceae and Fabroniaceae (Gao & X. Fu), Leskeaceae (Cao, J. Sun & Gao), Anomodontaceae (Wu, Yu & M.-Z. Wang), and Thuidiaceae (Wu, Wang & B.-G. Zhong). This volume contains no new nomenclature.

The Hypopterygiaceae have recently been monographed (Kruijer 2002). In the Flora, the family description of the Hypopterygiaceae is accompanied by the remark "Kruijer (2002) appeared too late to be taken into consideration for our treatment". This is unfortunate, since there are major differences between these two works. The Flora recognizes the genus *Cyathophorella* with eight Chinese species. Kruijer, however, includes *Cyathophorella* in *Cyathophorum* and according to his treatment only two species should be recognized for China: *Cyathophorum adiantum* (syn. *C. tonkinense*, *Cyathophorella subspinosa*, ?*C. taiwaniana*), and *C. hookerianum* (syn. *C. burkillii*, *C. intermedium*, *C. kyusyuensis*). The correct name for the species treated as *Dendrocyathophorum paradoxum* is, according to Kruijer, *D. decolyi*. He also reports it only from Sichuan and Taiwan and "according to Tan et al. (1994) also found in Guizhou". According to the Flora, it is known from Sichuan (including "Chongqing", which is given as if it was a province), Taiwan, Xizang, and Yunnan. Naturally there are similar discrepancies in the treatments of *Hypopterygium* and *Lopidium*, and it is clear than if you identify Chinese specimens of Hypopterygiaceae, you should use Kruijer's monograph instead of this Flora. *Okamuraea* is placed in the Leskeaceae. The family placement is discussed and some other concepts presented. There is a lapse in the discussion: Brotherus (1907) indeed placed the genus in the Brachytheciaceae, but certainly not in the Isobryales!

The Chinese species of *Thuidium*, *Haplocladium* and *Claopodium* of the Thuidiaceae were revised by Fang & Koponen (2001); the paper by Touw (2001) is also very relevant here. While the Flora recognizes the genus *Cyrtohypnum*, Touw includes it in *Pelekium* and Fang & Koponen treat the taxon – or rather, assemblage – as it was originally described, i.e. *Thuidium* subg. *Micro-Thuidium*. The Flora treats 11 species of *Thuidium*, but Fang & Koponen recognize 17 species for China. The latter authors recognize *T. philibertii*, but the Flora, based on the opinion of Touw and before him Watanabe (see refs. in Touw's paper), treats it as a synonym of *T. assimile*. *Thuidium delicatulum* also seems to be poorly defined from this complex – calls for some DNA-work!

Despite the differences of taxonomic opinions – only some of which are indicated in this review – in the various treatments, the English Moss Flora of China is worth its weight in gold and an indispensable source of information

for anyone working with Chinese mosses, which I have the pleasure and privilege of doing. I am really looking forward to the forthcoming volumes.

References

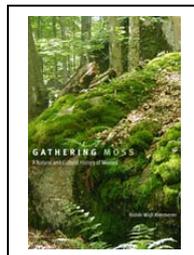
- Fang, Y.-M. & Koponen, T. 2001: A revision of *Thuidium*, *Haplocladium*, and *Claopodium* (Musci, Thuidiaceae) in China. – *Bryobrothera* 6: 1-81.
- Kruijer, H. 2002: Hypopterygiaceae of the world. – *Blumea Suppl.* 13: 1-388.
- Li, Z.-H. 1985: A revision of the Chinese species of *Fissidens* (Musci, Fissidentaceae). – *Acta Bot. Fennica* 129: 1-65.
- Touw, A. 2001: A taxonomic revision of the Thuidiaceae (Musci) of tropical Asia, the Western Pacific, and Hawaii. – *J. Hattori Bot. Lab.* 91: 1-136.

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Gathering Moss. A Natural and Cultural History of Mosses.

Robin Wall Kimmerer. Gathering Moss. A Natural and Cultural History of Mosses. March 2003. 6 x 9 inches. 176 pages. Line drawings. Index ISBN 0-87071-499-6. Paperback, \$17.95.

"Something I took for granted suddenly has come alive, because I have been given its story. After reading this book, I took a magnifying glass outside and pored over tree trunks. I have seen Robin Kimmerer's miniature landscape for myself. Yet, this is so much more than a book about mosses. This is a Native American woman speaking. This is a mother's story. This is science revealed through the human psyche. Robin Kimmerer is a scientist who combines empiricism with all other forms of knowing. Hers is a spectacularly different view of the world, and her true voice needs to be heard" wrote Janisse Ray, author of *Ecology of a Cracker Childhood* and *Wild Card Quilt: Taking a Chance on Home*.



Robin Wall Kimmerer is an Associate Professor in the Faculty of Environmental and Forest Biology at the State University of New York College of Environmental Science and Forestry. She has published numerous articles on the biology and ecology of mosses, as well as articles on traditional Native American knowledge of the natural world. *Gathering Moss* is her first book. This book not only is a delightful story, but it presents the life and adaptations of mosses in a factual way that can introduce the non-bryologist, whether student or layman, to this typically neglected group.

Ordering and more information available at:
<http://oregonstate.edu/dept/press/GatheringMoss.html>

Source: Bryonet

Methods in Bryological Research

The Bryological Society of Japan recently published "Methods in Bryological Research" (124 pp, in Japanese) for the commemoration of its 30th anniversary. It includes the following 12 topics: collecting, making and keeping specimens, morphological observation, illustration, photography, chromosome observation, starch gel electrophoresis, DNA analysis, chemical analysis, educational use, ecological observation, and fundamental literature.

Distributed free for the BSJ members, otherwise 3000 yen + handling fee, contact to the treasure, T. Matsui; e-mail: matsuito@cc.kochi-u.ac.jp.

Masanobu Higuchi, National Science Museum, Japan.
E-mail: higuchi@kahaku.go.jp

COURSE ANNOUNCEMENT

Second Regional Training Course in Indonesia on the Biodiversity and Conservation of Bryophytes and Lichens, Bogor, 2-12 September 2003

Following the successful first training course on bryophytes and lichens in Indonesia in 2001 (see Tan & Gradstein, *Bryological Times* 105: 4-5. 2002), SEAMEO-BIOTROP headquarters in Bogor, Indonesia, is hosting a second bryophyte and lichen course on 2-12 September 2003. The organizer is Dr. Sri S. Tjitrosoedirdjo, Bogor (address: see below); teachers include a.o. Benito Tan (mosses), Rob Gradstein (hepatics), and Harrie Sipman and Lisdar Sudirman (lichens). The program includes lectures on morphology, systematics, ecology, reproductive biology, biogeography and conservation of tropical bryophytes of lichens, especially those of SE Asia, and practicals in identification. Two fieldtrips will be held, one to the Bogor

Botanical Garden and a longer, 3-day trip to the Cibodas Botanical Gardens and Ciberreum waterfalls in the famous Mt Gede-Mt. Pangerango National Park in West Java. The course is meant especially for individuals from ASEAN countries. Persons from non-ASEAN countries may participate (space permitting!) at a fee of US \$ 750 for tuition, housing, meals and excursion costs.

For further information please write to the organizer, Dr. Sri Tjitrodoedirdjo, SEAMEO BIOTROP, P.O.Box 116, Bogor, Indonesia, email: sukisman@indo.net.id

MEETING REPORT

Bryology at the 8th Latin American Botanical Congress

The VIII Latin American Botanical Congress was celebrated October 13-18 2002 in Cartagena de Indias, Colombia. Enrique Forero, the congress president, and a cooperative team of supporters were excellent hosts. They worked hard to make us feel at home and safe in Cartagena's charming colonial environment. Four bryological activities, a plenary lecture, a symposium, a poster exhibition and competition and the Latin American Bryological Society (SLB) general meeting, were held during this congress.

Plenary lecture

S. R. Gradstein gave one of the seven plenary lectures at the congress. In his presentation, titled "Biodiversity studies in the tropical rain forests using bryophytes" he talked about species diversity, composition and abundance in different types of rain forest and along altitudinal gradients. He suggested that the variation observed is due to environmental factors, especially humidity. Data now available from the canopy of these forests have shown a higher species diversity than originally thought. He also talked about how some of this diversity is disappearing due to anthropogenic activity, and proposed that these changes should be the subject of more detailed ecological and systematic studies.

Symposium

Under the heading "Latin American Bryology in the 20th Century" the VI Latin American Bryological Symposium was held including three lectures. **Claudio Delgadillo** talked about "Bryo-geography in Latin America: a historical perspective" and proposed a classification system for the bryogeographical zones in the region. He called for collaboration between the people working on floristic inventories and those studying bryogeography. **Deneb García Ávila**, from the Institute of Ecology and Systematics, Xalapa, Mexico presented some aspects of her doctoral dissertation, "A phylogenetic analysis of the Thuidiaceae." She also included some methodological comments and an explanation of how the activities of a systematist are interconnected. The last talk was given by **Inés Sastre-De Jesús** from the Mayagüez Campus of the University of Puerto Rico; and she lectured on "Bryophyte ecology in Latin America: from floristic assumption to ecological practice." She classified published papers according to the methodology used and concluded that floristic methods were used to draw ecological conclusions in many cases, ecogeography has dominated the field and there were few papers with random sampling.

Posters

On the same day of the symposium, 20 posters were exhibited, of which 16 were by students. Students participated in a competition for the three best posters,

organized by the Caribbean Botanical Network coordinated by Inés Sastre and sponsored by the University of Puerto Rico Atlantea Project. This competition had two objectives: to promote student participation and to initiate them in peer-group revision. Students used an evaluation sheet with very specific criteria to judge their peers' posters. **Nayda Mery Flores** from the University of Panama obtained the first place with a poster entitled "Corticolous communities of mosses in the Cerro Hoya National Park." In second place were **Aída Vasco** and **Raquel Cobos** from the National University of Colombia with their project, "Hepatics from the Chocó Department, Colombia." There was a tie for third place between **María S. Ussher** (Andes University, Venezuela) and **Eliana Narváez** and **Javier Jerez** (University of Puerto Rico, Mayagüez). Ussher presented the poster, "Terricolous mosses from the La Montaña transect in the Aguada National Park, Sierra Nevada, Mérida, Venezuela." Narvaez and Jerez exhibited the poster, "Variation of moss species composition on trees at Añangu, Amazonian lowland forest, Napo, Ecuador." The

poster competition generated a lot of enthusiasm among the students, their mentors and the general public. The symposium and poster competition were very well attended—with close to a hundred people this surpassed the organizers' expectations.

General meeting of the Sociedad Latinoamericana de Briología

During this meeting a reorganization of the society took place and the following members were elected: Claudio Delgadillo (Editor of *Briolatina*), Ángeles Cárdenas (Treasurer), Oscar Orrego (Web Master) and Inés Sastre (President). The assembly voted for publishing *Briolatina*—the society news bulletin—in electronic format as part of the web page and to use the latter to improve communication among members of the SLB. Visit the page at www.briolat.org.

Ines Sastre: E-mail: inesdj@caribe.net

APPLIED BRYOLOGY

Bryophytes witness in a homicide investigation

A man disappeared in September 2001. Later his body was discovered in a forest in southern Finland. Three suspects were arrested, but no human blood or other key evidence was found during the police investigation. However, small pieces of plant material, which turned out to be bryophytes, were found on their shoes and clothes, and in their car. We were asked by the Central Bureau of Criminal Investigation of Finland to examine the material and to determine whether those bryophyte species occur at the crime site, and if they did, whether DNA could be extracted and matched with bryophyte samples collected from that area.

The bryophyte species were identified as *Brachythecium albicans* (Hedw.) Br. (Brachytheciaceae), *Calliergonella lindbergii* (Mitt.) Hedenäs (Amblystegiaceae) and *Ceratodon purpureus* (Hedw.) Brid. (Ditrichaceae). When visiting the crime scene, we found colonies of all three species near the place where the body had been lying. We then conducted DNA fingerprinting analyses for *B. albicans* and *C. lindbergii*, which were expected to reproduce mainly clonally and express simpler patterns of genetic variation than the presumably more commonly sexual *C. purpureus*, and included samples found on the suspects and samples collected from the crime scene and other locations in Finland. Since we did not have previous genetic information of the species and the schedule of the investigation was tight, we used methods that do not require species-specific primers. The method found suitable involved amplification

by PCR with arbitrary 10-base primers (RAPD) and with 17- or 18-base simple sequence repeat primers (SSR). Based on the genetic analyses, we concluded that *B. albicans* found on the suspects is likely to have originated from the crime scene, and the sample of *C. lindbergii* may also have originated from the same site.

The results of our study, involving the use of DNA fingerprinting of clonal plants in combination with phylogenetic and vegetation studies, were presented to the court as evidence in March 2002. The trial was first postponed due to psychiatric tests on the suspects ordered by the court. Finally in December 2002 the trial was concluded and all three murder suspects were found guilty. The moss evidence was used as a significant part of the evidence.

We describe our investigation in a greater detail in a research article "DNA Fingerprinting of Mosses", which will appear in the July 2003 issue of the *Journal of Forensic Sciences*.

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WEB-NEWS

List of all known bryological journals

There is a list on the British Bryological Society web site of all known bryological journals, which I have just attempted to bring up to date. The list is divided into 3 categories: bryological journals, journals with bryological content (usually with bryology in each issue), and extinct bryological journals (giving dates). Go to: <http://www.britishbryologicalsociety.org.uk/> and then take the link on the home page to 'International bryology' and then 'Bryological journals'.

Brian O'Shea would be very grateful for any comments, additions and corrections.

Contact: brian@oshea.demon.co.uk (141 Fawnbrake Avenue, London SE24 OBG, UK)

Guy Brassard already replied that Bryomania (an "Irregular Journal for the Irrelevant") should be moved to the extinct category. It went through 9 issues from 1980 to 1987. Also, Nova Bryomania is (was) NOT a continuation of Bryomania, but an entirely separate initiative that, according to his information had only two issues.

Source: Bryonet

Finnish dissertations on the web

Johannes Enroth announced that the following dissertations are available on the web. In case you are interested in the Bartramiaceae and do not yet have Viivi Virtanen's treatment of it, just go to:

<http://ethesis.helsinki.fi/julkaisut/mat/ekolo/vk/virtanen/taxonomi.pdf>

But if you are interested in Cryphaea instead and do not yet have Pengcheng Rao's revision, the page is:

<http://ethesis.helsinki.fi/julkaisut/mat/ekolo/vk/rao/monograp.pdf>

If these are a bore and ecology of asexual reproduction in hepatics is your thing, then check out Sanna Laaka-Lindberg's dissertation at: <http://ethesis.helsinki.fi/julkaisut/mat/ekolo/vk/laaka-lindberg/ecologyo.pdf>

Source: Johannes Enroth / BRYONET

New web sites for 2 bryological societies: Latin America and Finland

The Latin American Bryological Society

The Latin American Bryological Society has a new web site. There is general information on the Society and BRIOLATINA, its bulletin, is now on-line. See <http://www.briolat.org>

Source: Bryonet

The Finnish Bryological Society.

The new web site of Finnish Bryological Society is <http://pro.tsv.fi/sammalseura>

The Society has also a new address: Finnish Bryological Society, P.O.Box 7, 00014 University of Helsinki, Finland.

Internet journal "Archive for Bryology"

As announced at the end of the last year, an Internet journal "Archive for Bryology" has been established on our webpage (www.bryologie.uni-bonn.de). It will provide unpublished contributions to bryology such as field reports. So far, two contributions are available (A guide to bryological excursions in Germany and a local paper to the bryophyte flora of northern Greece. All files are in pdf-format. Other contributions are welcome.

In addition, a new picture CD is available with 600 photographs of neotropical bryophyte species in jpg-format, arranged by families. The pictures can freely be used for all

non-commercial purposes such as slide shows, Powerpoint-presentations or posters. The CD can be ordered for 10 Euro/US\$.

I forgot to mention that you will find the Archive on our webpage under "Zeitschriften" viz. "Journals" (in the English version after clicking the British flag). As you will see, the Archive has an ISSN number, so all issues of the Archive are validly published.

Jan-Peter Frahm, E-mail: Frahm@uni-bonn.de

THE CANDOLLE PRIZE

The "Société de Physique et d'Histoire naturelle" (SPHN) of Geneva is pleased to announce that in 2004 it will award a prize in botany, called the AUGUSTIN-PYRAMUS DE CANDOLLE PRIZE. This prize recognises the author or co-authors of the best monograph on a genus or family of plants. Monographs to be considered should be recently produced and may either be unpublished or published after 31 December 2001.

Two copies of the manuscripts, along with the author's curriculum vitae, must be submitted to the following address

before March 31, 2004: Augustin-Pyramus de Candolle Prize, Conservatoire et Jardin botaniques de la Ville de Genève, Case postale 60, CH-1292 Chambésy/GE, Switzerland.

See website of Conservatoire et Jardin Botaniques, Geneva : <http://www.cjb.unige.ch/> for more details.

Source: Michelle Price: Michelle.Price@cjb.ville-ge.ch

CONSERVATION COLUMN

Editor: Tomas Hallingbäck

The IAB IUCN-Species Survival Commission for Bryophytes questionnaire

It has been estimated that between 280 and 1120 species of bryophytes will become extinct worldwide before the year 2020 (Bisang & Hedenäs 2000). Most of these extinctions are caused by man and the rate of extinction is increasing. There are many well-known reasons why we should stop this process.

Bryophytes often do not receive appropriate attention in conservation programmes and therefore bryologists should act promptly and energetically to counteract the worldwide exploitation and decline of important bryophyte areas!

We have already started initiatives within IAB and IUCN by the publishing of a Bryophyte Action Plan. However, we need to continue and increase our efforts. In order to have a good baseline for a discussion at the next IAB World Congress (Merida Venezuela, January 2004), we urge you to

provide us updated information on the status of bryophytes in your country or region.

As we depend upon your know-how, please fill in the attached questionnaire. May we ask you to answer the questions as comprehensively as possible and to return the questionnaire before the 1st of June to Dr. Tomas Hallingback.

The 50 persons who answer first will receive a FREE COPY if the Bryophyte Action Plan!

Thank you very much for your cooperation.

Tomas Hallingback.
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FAX: +46 18 673480, or

**IUCN-Species Survival Commission for Bryophytes
Workshop on Bryophyte Conservation
Merida (Venezuela) 10-11 January 2004**

The results from the IUCN-SSC questionnaire will be presented at this workshop

Please, fill in the attached questionnaire and mail it to Dr. T. Hallingback at the address mentioned above.

**The questionnaire can also be downloaded from the web-page:
<http://www.artdata.slu.se/guest/SSCBryo/SSCBryo.html>**

Conservation status of *Stephensoniella brevipedunculata* Kashyap in India

Mohd. Tanwir and A. Langer

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Stephensoniella brevipedunculata Kashyap (Exormothecaceae) is a monotypic Indian liverwort, endemic to Western Himalaya. It was instituted by Kashyap in 1914 when he initially collected it from Mussorrie. He later collected the species from various other localities in the Western Himalaya, including Simla, Kulu and Dulchi Pass, between an altitude of 2,000 to 2,400 m (Kashyap 1929). Kanwal (1977) reported it to occur commonly in various habitats of Nainital. Udar and Srivastava (1983) included this taxon in their list of rare hepatics. During the same year, Pant (1983) enumerated nine hepatics, including *Stephensoniella brevipedunculata*, which she suggested to have disappeared from Kumaon Himalaya, including Nainital. She attributed this disappearance to the loss of its natural habitat on account of landslides, and drastic topographic changes due to rapidly increasing urbanization. She subsequently placed it under her list of "Threatened Indian Hepatics" (Pant and Tiwari 1995). Udar and Srivastava (1983) in an attempt to assess reasons for the disappearance of this prestigious liverwort, undertook studies on its reproductive biology. They held that - (1) propagation largely achieved through tubers; (2) paucity of male plants; and (3) spatial segregation of male and female plants in natural populations – are responsible for its threatened status. The first global red list of bryophytes was compiled by Tan et al. in 1994, which included 50 species (24 mosses, 25 liverworts and 1 hornwort). Subsequently, they recommended that another 41 taxa, including *Stephensoniella brevipedunculata*, be included in this list, thereby raising the number of most endangered bryophyte species worldwide to 91 (Geissler et al. 1997).

We have recently collected thalli of *Stephensoniella brevipedunculata* from Nurpur in the Poonch district of the Jammu region (Northwest Himalaya) of Jammu & Kashmir state. So far, there has been no record of this species from J & K, or any other parts of the country west of Himachal Pradesh. Details of the biology of this species are now being worked out by us at the University of Jammu.

A description of this uncommon thalloid liverwort is provided hereby:

Thalli medium sized (0.4-0.9 cm x 0.2-0.4 cm), yellowish green, ribbon shaped, rarely dichotomously branched,

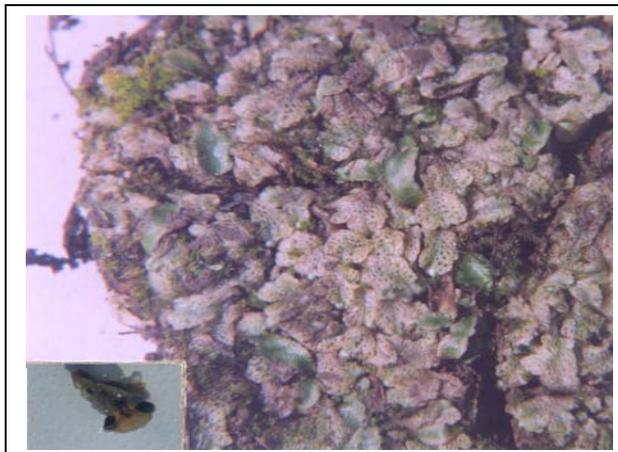
growing in small, irregular patches of 200-300 plants. Female plants bearing sporophytes with healthy spores and also male plants have been collected. (See figure).

The Nurpur populations were collected from July to September of 2002 from moist soil, as well as soil-covered rock (soil pH 6.2), partially exposed to sunlight at altitudes of 2100 and 2250 m. The populations grow in association with *Asterella angusta* and *Plagiochasma appendiculatum*. So far, only two collections (MT 498 and MT 559) have been made, the specimens of which have been deposited in the herbarium of Department of Botany, University of Jammu.

Acknowledgements: The authors are grateful to the Head, Department of Botany, University of Jammu, Jammu, for the facilities provided in this preliminary report. One of us (MT) wishes to thank the University of Jammu for financial assistance in connection with the present study.

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The first season of a British and Irish 3-year survey of bryophytes of arable land underway

There is a widespread belief, even amongst bryologists, that arable land is not the most exciting element of the British and Irish bryoflora, but they are wrong. Finding *Anthoceros*, or *Sphaerocarpos*, is always a buzz for a bryologist in Britain, and recently we found the rare *Didymodon tomaculosus* in Shropshire, a long way from its other known sites. Arable land has been very much neglected in the past, but the British Bryological Society is now embarking on a 3-year project to plug the gap in our knowledge. The late Harold Whitehouse, who did so much to raise the profile of arable bryophytes, was the inspiration for the project, but it is also imperative that we have data on the status of the species in the field, where they are, the crops they are associated with and optimum management. The area of arable land under various agri-environment schemes is increasing annually, and we must be in a position to target and advise so bryophytes receive maximum benefit. A pilot survey in 2001 evolved into a national survey in autumn 2002. We held a weekend workshop to launch the survey and introduce amateur and professional bryologists to the methodology and how to complete the customised recording cards. The survey comprises two elements; a random component that requires surveyors to visit specific 2km

squares, and a free choice component where surveyors can visit arable fields anywhere. We propose to include a diverse range of crop types, management regimes, conventional and organic, and different soil types. To motivate those who normally would not think of recording in arable fields we have produced a survey pack that contains details of methodology and a mini-identification guide with photos. (Figs 1 and 2)

There is also a dedicated web site:

www.jonathan.sleath@btinternet.co.uk/SBAL/intro.htm

This web site explains the background to the survey, progress and news. We already have some records from across the Irish channel, but with fewer bryologists in Ireland coverage will inevitably be less than in Wales, Scotland or England. We even have a few continental Europeans willing to do some recording which will provide fascinating insights into how that flora compares to the one here.

Ron Porley, English Nature, Foxhold House, Crookham Common, Thatcham, UK

E- mail: ron.porley@english-nature.org.uk

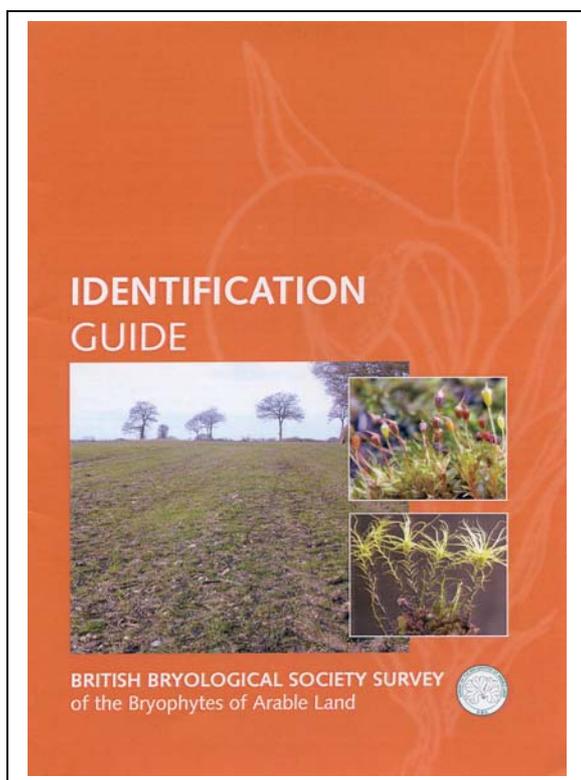


Fig. 1. Cover Identification Guide

Fig. 2: Data Form “BBS Survey of bryophytes of arable land”

COUNTRY REPORTS

News from Australasia

Rod Seppelt and Jessica Beever report.

Australia has been in the grip of a very severe drought for a number of years. The country is full of hard luck stories but to give some idea of the trials and tribulations of life on the land, one area of western Queensland was finally declared a drought affected region one day, only to be declared a disaster region the very next day after the skies opened up and they received something like 100mm of rain in a few hours. Time will tell what the extremes of drought, followed by severe dust storms (visible from space satellites as the dust cloud stretched over more than 2000km north to south and some hundreds of kilometers east to west), followed by severe flash flooding. Ah yes, it is tough when you have a tenuous hold on your substrate via a few short rhizoids. The prediction from Australia is that the bryologists in New Zealand should be on the lookout for ephemeral oddities that they usually will not find in the land of the long white cloud. Huge areas of south eastern Australia have also been burnt out in very extensive and long-lasting bush fires. The extent of the impact on the bryophytes and the scale of recovery is yet to be assessed. However, the Australian bush is tough and resilient,

Update on the Flora of Australia moss volumes

News from Canberra is that editing is proceeding as anticipated and, assuming that CSIRO Publishing are cooperative and that the flow of copy, maps and illustrations can be successfully managed, Flora of Australia Vol. 51 (Mosses 1) will be published in the second half of 2003.

Personalia

Alison Downing has recently retired from the Biology School at Macquarie University in Sydney, where she has been a Senior Laboratory technician for many years. Alison completed an M.Sc degree several years ago, working on karst system bryophytes. Her interest in and work with bryophytes is continuing unabated, and mostly uninterrupted, in her retirement and she has now been appointed a Senior Research Fellow at Macquarie University in addition to being the herbarium curator. Of significance is the recognition of her contribution to the University over many years by the naming of the Herbarium at Macquarie University as the Downing Herbarium.

News from the Auckland Herbarium (AK)

Working part-time since June 2001 **John Braggins** has been accessioning his personal liverwort collection

(c.10,000 specimens) into AK. The work is funded by a grant from the NZ Lottery Grants Board (Environment & Heritage). To date, 3000 specimens of John's herbarium have been databased, bringing the total bryophytes currently held at AK to: 9,000 hepatics and 21,000 mosses. This total includes 12,000 bryophytes recently donated by the Auckland University herbarium (AKU).

John Child Bryophyte Workshop, Auckland, New Zealand

This year the annual John Child Bryophyte Workshop is being organised from Auckland. It will take place in the Hunua Ranges, a forest-covered range of hills 50 km to the south east of the city, from 11th to 16th September, 2003. The Hunua Ranges rise from sea level to 688 m and are a water catchment area for Auckland City. Original forests are of podocarp/broadleaf, with some kauri (*Agathis australis*), and small areas dominated by hard beech (*Nothofagus truncata*). There are also areas of second-growth forest dominated by *Kunzea ericoides* (*Myrtaceae*). Conspicuous moss families are Hypnodendraceae, Hypopterygiaceae, Hookeriaceae, and Fissidentaceae. Field trips will be organised to a variety of habitats - including wetlands on the Hauraki Plains which lie to the south of the Hunua Ranges, and collecting permits will be arranged for participants.

The John Child Workshops always draw a good muster of both professionals and amateurs. Microscopes are set up in a temporary lab, and informal talks from participants on matters bryological are encouraged. Power-point presentations are catered for. Accommodation is bunk-house style, with the possibility of participants with their own transport staying off site, in more up-market quarters. The organising committee for this John Child Workshop consists of myself and botanists based at the Auckland Museum (Herbarium AK), Ewen Cameron (Curator) John Braggins (specialist in hepatics) and Mei Nee Lee (technician).

For more information email Meineel@akmuseum.org.nz

If possible, try to combine this workshop with the **150th Anniversary Celebration Conference of the National Herbarium of Victoria in Melbourne, Australia** (29th Sept to 3rd October) and the **7th Australasian Bryophyte Workshop**, at Mt Baw Baw, Victoria (4th - 9th October). For these events in Australia, contact Pina Milne (E-mail: Pina.Milne@rbg.viv.gov.au) or Niels Klazenga (E-mail: Niels.Klazenga@rbg.vic.gov.au)

New Threat to Bryophytes

A recent threat to bryophytes in New Zealand is the growing popularity of the sport of canyoning. This sport consists of walking down steep streams, swimming and jumping off rock ledges into pools, watersliding, abseiling, and climbing in and around waterfalls. Two commercial companies are now licensed to take guided parties canyoning in streams in indigenous forest on reserve land in the Waitakere Ranges, west of Auckland City. They wish to increase their numbers to 900 and 1,800 people per year. Unfortunately, this activity is not good for the aquatic and riparian bryophytes. An opportunity has been taken to oppose continuation and expansion of these licences, as the

applications have been publicly advertised by the Auckland Regional Council who administer the reserve land. Our submissions are based on the presence of a type locality (not an easy concept to explain to the Recreation Officer) in one of the streams. This is for *Fissidens rigidulus* var. *pseudistrictus*. In addition two aquatic mosses which are listed by the Department of Conservation as 'nationally endangered' are known from streams in the Waitakere Ranges. These are *Fissidens integerrimus* and *Fissidens strictus*. I would be interested to know of cases elsewhere in the world where the impact of canyoning on the bryofloras of streams has been considered.

Rod Seppelt: E-mail: Rod.Seppelt@aad.gov.au

Latest news from Helsinki

The previous reports from Helsinki are Koponen (1976, 1987, 1996) and Koponen & Isoviita (1996).

Organization

The organization of the teaching and research facilities in botany continues as reported previously (Koponen 1996). The major change is, however, that in February 2002 the Department of Systematic Biology moved from the old Botany building to the Viikki Campus ca. 4 km N of the city center. The cryptogamic herbarium of the Natural History Museum continues to be deposited in Arabian yritystalo, which actually is a building planned for business companies. A plan existed according to which the bryophyte herbarium might have been buried underground below the zoological museum. After a rather heavy fight against the university authorities this idiotic plan was abolished. The old Botany building in the city center, surrounded by the Botanical Garden, is now under preparation and will house, hopefully in the near future, all herbaria including bryophyte collections.

Personnel

Dr. Jaakko Hyvönen is the Professor of cryptogam systematics and Professor Sinikka Piippo continues to serve as the Head Curator of the Cryptogamic herbarium. Just now she is on sabbatical leave and Dr. Xiaolan He-Nygren is acting in that vacancy. M.Sci Sanna Huttunen is an Assistant curator, but she has a scholarship and is now replaced by Dr. Viivi Virtanen. Professor Timo Koponen retired on 31st of January 2002 at the age of 63. Dr. Johannes Enroth is now acting in that vacancy until the office is filled. He has a permanent vacancy in the Department as a university lecturer. Dr. Aune Koponen also retired from her office of the intendent of the Botanical Garden.

Visitors

The visitors during 1995-2000 were too numerous to be listed in detail. The Department of Systematic Biology, the lichen and bryophyte collections, and libraries were elected as a Large Scale Facility by the European Community (EU)

(see Bryol. Times 79: 7; 91: 2; 96: 9). This resulted a continuous flow of visitors. Moreover, courses such as "Monitoring atmospheric pollution and deposition using mosses and lichens", "Taxonomy and ecology of peatland and aquatic bryophytes" (Hassel 1998), and "Tropical bryology" (Kungu 1998, Cairns 2000) drew international groups of teachers and students to Helsinki.

Research

During the period 1995-2001 several bryological thesis for the Ph.D. degree were presented in the Division of Systematic Biology. He Xiao-Lan (1999) got ready her monograph on the genus *Pycnolejeunea* (see Buck 2000a). Her opponent was Professor Tamas Pócs. Viivi Virtanen (2000) defended her studies on Bartramiaceae (see Buck 2000b). The opponent was Dr. Angela Newton. Sanna Laaka-Lindberg 's (2000) opponent was Professor Lars S"derstr"m and the topic of her studies was the ecology of asexual production in hepatics (see Buck 2002). The last dissertation with which I was officially involved as the custodian took place on December 21, 2001. Pengchen Rao (2001) defended his monograph of *Cryphaea*. The opponent was Dr. Michael Ignatov.

In addition to monographic, phytogeographical (Piippo 1992, Piippo & Koponen 1997), and ecological topics, basic floristic research in two areas, Western Melanesia and China, has been carried out. The parts of the Huon Peninsula series published after the previous report (Koponen 1996) are:

57. Koponen, T. & Norris, D. H. 1996: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LVII. *Fleischerobryum* and *Philonotis* (Bartramiaceae, Musci). - Acta Bot. Fennica 156: 1-21.
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62. Ignatov, M. S., Koponen, T. & Norris, D. N. 1999: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXII. *Brachytheciaceae* (Musci), excluding *Homalothecium* and *Palamocladium*. - *Acta Bot. Fennica* 165: 23-72.
63. Ignatov, M. S. 1999: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXIII. On the pseudoparaphyllia in *Brachytheciaceae* and *Meteoriaceae* (Musci). - *Acta Bot. Fennica* 165: 73-83.
64. Pócs, T. & Piippo, S. 1999: *Aphanolejeunea* (Lejeuneaceae, Hepaticae). - *Acta Bot. Fennica* 165: 85-102.
- (We did it! See *Bryological Times* 86:5)
65. Pócs, T., Mizutani, M., and Piippo, S. 1994: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXV. Preliminary contributions to *Lejeuneaceae* (Hepaticae) 1. - *Ann. Bot. Fennici* 31: 179-190.
66. Norris, D. H., Koponen, T. & Piippo, S. 1999: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXVI. *Meesiaceae* (Musci), with lists of boreal to temperate disjunct species, bipolar species, and widely spread species in New Guinea. - *Ann. Bot. Fennici* 36: 257-263, 269.
67. Norris, D. H. & Koponen, T. 1999: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXVII. *Amphidium* (*Rhabdoweisiaceae*, Musci). - *Ann. Bot. Fennici* 36: 265-269.
68. Gradstein, S. R., He, X.-L. Piippo, S. & Mizutani, M. 2002: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXVIII. *Lejeuneaceae* subfamily *Ptychanthoideae* (Hepaticae). - *Acta Bot. Fennica* 174: 1-87.

Bryoflora of Hunan Province of China

Our group has made many excursions to China. A new project began in 1997 when the Forestry Department of Hunan province asked Timo Koponen to visit there to study the bryophytes. Seven bryologists from Helsinki, Timo Koponen, Johannes Enroth, Xiaolan He-Nyngren, Sanna Huttunen, Sinikka Piippo, Pengcheng Rao, and Viivi Virtanen made 5 excursions to Hunan and collected ca. 15000 specimens. Our aim is to write revisions of the Hunanese bryoflora using the method applied in our studies on the New Guinea bryoflora. The two first papers have been published (Koponen et al. 2000, Potemkin 2000) and the manuscripts are ready or nearly completed for such groups as *Brachytheciaceae*, *Diplophyllaceae*, *Gymnomitriaceae*, *Jungermanniaceae*, *Pterobryaceae*, and *Scapaniaceae*.

Finnish Bryological Society

Professor Sinikka Piippo has been chairperson of the Society since 2002. Dr. Viivi Virtanen is the secretary, and prof. emer. Timo Koponen is the treasurer. The society continues to publish "*Bryobrothera*" and "*Bryobrotherella*". In 2001 two papers were published in "*Bryobrothera*" (Fang & Koponen 2001, Rao 2001) and vol. 5 of "*Bryobrotherella*" included an article listing V. F. Brotherus' collection of letters (Koponen & Piippo 2002).

Personal

After retiring Aune Koponen and I moved to the countryside 80 km W of Helsinki. We are living in a loghouse with sauna and combined livingroom and kitchen. We continue our botanical research and writing in a neighbouring two-storied brick house housing our library and other working facilities such as microscopes and internet connection. From our window over the lake we can see the roof of our summer cottage, which is a perfect place to house in summertime visiting bryologists -- or two lively grandchildren.

I wish to express my sincere gratitude to those foreign colleagues who, by sending letters to the chancellor and rector of the Helsinki University, contributed to abandonment of the plan to hide the bryophyte herbarium underground

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FIN-08800 KIRKNIEMI

REQUESTS

Sporophytes of *Trichocolea tomentella*

Have you ever seen sporophytes in the leafy hepatic *Trichocolea tomentella*?

We are investigating genetic diversity of *T. tomentella* (Ehrh.) Dumort. (Trichocoleaceae) over a wide geographical range. For instance, we compare the level of genetic variation between small and large populations, and the level of genetic differentiation among populations. Moreover, we would like to compare the genetic structure of the sexually and vegetatively reproducing populations. However, this has turned out to be very problematic, since sexually reproducing shoots of *T. tomentella* seem to be very rare, or are there any at all?

At the moment, our investigation involves 17 populations, which are located in Finland, Lithuania and the UK. We have conducted DNA fingerprinting studies for samples collected only in presumably vegetatively reproducing populations, and we have found no signs of sexual reproduction. We have detected mainly sterile shoots in Finland (few females in one population) and Lithuania (few

males in one population), whereas in the UK females were as common as steriles, but no males were detected.

We visited a locality in North Wales where *T. tomentella* with sporophytes had been found in 1975 but, unfortunately, the species had disappeared there. In spite of hard searching and inquiring we are not aware of other populations with previous or present occurrence of sporophytes. Thus, we are still looking for persons who might know of one or more existing populations of *T. tomentella* where the sporophytes have been seen or collected during the past 50 years. If found, we would like to receive samples from that population.

For more information about our project 'Population biology of bryophytes', please visit our web pages <http://www.helsinki.fi/~korpelai/Bryophyta>.

Please contact us by e-mail or by normal post: Maria Pohjamo, Department of Applied Biology
P.O.Box 27, 00014 University of Helsinki, Finland. E-mail: maria.pohjamo@helsinki.fi

Other requests

Books and reprints

The Bryology Section of the Philippine National Herbarium seeks donations of books and reprints on bryology for students and others researchers visiting the National Museum for research and technical assistance. We would appreciate it very much. If you have books you'd like to

donate, please contact Lourdes Valerio-Alvarez, alvarezlv12@yahoo.com. (Bryology Section, Botany Division, National Museum, P. Burgos St., Manila, Philippines)

Post-doctoral position sought

Ajit Pratap Singh obtained his doctoral degree with the dissertation "Studies on Liverworts (Bryophyta) of Khasi and Jaintia Hills: Meghalaya". This work includes 59 genera and 247 species, of which 166 species are new to the

investigated region and 23 are new records for the Indian subcontinent. Additionally, 11 species are new to science. Taxonomic description of each taxon is supported with line drawing illustrations, photographic plates, distribution

maps and discussion on variability, environment, ecology and phylogenetic relationships. Apart from the Ph.D. thesis, publication of these newly described species in journals is in progress.

Dr. Singh's present work concerns the study of circa 1600 specimens he collected during subsequent collection trips to Eastern Himalaya. Apart from the above, he is presently preparing the "Assessment of rare and threatened Liverworts and Hornworts (Bryophyta) of Garo Hills, Meghalaya," focusing on conservation strategies.

***Bryopteris* for molecular investigation**

Rob Gradstein would very much like to receive material of the genus *Bryopteris* for molecular-taxonomic study. The material may be air-dried but should preferably not be more than 5 years old. Only a small amount of material is needed, 5-6 individuals of one population would be

Furthermore, to prepare floristic account of bryophytes and sort out the taxonomic problems of some complex groups (Frullaniaceae, Plagiochilaceae and Lejeuneaceae), Dr. Singh is now looking for an opportunity to supplement this taxonomical research by training in molecular taxonomy.

Please contact Dr. Ajit Pratap Singh, National Botanical Research Institute, Lucknow (India).
Email: ajitpsingh2000@yahoo.com or
ajitpsingh2000@rediffmail.com

sufficient. It is important that the specimens are more or less clean (without soil, algae or other contaminants) Rob Gradstein is gladly willing to reimburse the mailing costs or send bryophyte specimens in return.

E-mail: sgradst@gwdg.de

IAB-NEWS

IAB WORLD CONFERENCE

The organizational committee of the IAB World Congress to be held in Mérida-Venezuela 12-16 January 2004 will keep you informed about the latest development of our meeting via Bryonet. Very soon we will have all information in Spanish also. Please remember to check our

web page:

<http://www.ciens.ula.ve/~bryomeri/>

We hope to see you in Mérida 2004!. Dr. Yelitza León, Centro Jardín Botánico Facultad de Ciencias, Mérida-Venezuela.

PRELIMINARY PROGRAMME:

12 – 16 January: Conference

Session 1: Molecular Phylogenetics
Session 2: Molecular Evolution
Session 3: Taxonomy and Evolution
Session 4: Cell Biology and Physiology
Session 5: Function and Morphology
Session 6: Molecular Bryogeography
Session 7: Ecology

17 – 18 January: Post-conference field trips

- High Montane Rain Forest and Paramos of Sierra Nevada
- Paramos and Polylepis Forests around Laguna Negra

The Stanley Greene Research Awards

The Stanley Greene Research Awards, given , provide funds for travel in order to increase research capabilities and develop new international linkages. Send application by e-mail to Dale Vitt, chair of committee, e-mail address: dvitt@plant.siu.edu. Please include: a brief statement of

your travel objectives, the dates of travel, and why this travel is important for your research. Travel to international meetings is eligible in this program. Application deadline: May 1, 2003. Travel must be completed between July 1, 2003 and January 1, 2005.

The Bryological Times, founded in 1980 by S.W. Greene (1928-1989) is a newsletter published for the *International Association of Bryologists*. Items for publication in The Bryological Times are to be sent to the Editors or Regional Editors, except for those for the regular columns, which may go direct to the column editors.

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UPCOMING MEETINGS

2003

May 16 – 17. BRYOLOCH (Swiss Association of Bryology and Lichenology). Annual Meeting in Lugano and excursion to Monte San Giorgio. Information www.bryolich.ch

July 7-14: Summer field Meeting of the British Bryological Society: Kindrogan, Perthshire. Contact the local secretary, Martin Robinson: e-mail: mcr@dalreoch.fsnet.co.uk.

July 26-31: Annual meeting of the American Bryological and Lichenological Society. Information: <http://www.botany2003.org>.

May 16 – 17. BRYOLOCH (Swiss Association of Bryology and Lichenology). Annual Meeting in Lugano and excursion to Monte San Giorgio. Information www.bryolich.ch

July 31 – Aug. 04. BLAM (Bryol.-Lichenol. Society Central-Europe) excursion, Bovec (Slovenia). Information: <http://home.t-online.de/home/blam-ev/veranst>.

August 17-23. Fourth International Symbiosis Society Congress. Saint-Mary's University, Halifax, Nova Scotia, Canada. Contact: D. Richardson: david.Richardson@stmarys.ca Website; <http://people.bu.edu/dzook/>

September 29 - October 3: ASBS Conference '150 years'. The annual conference of the Australian Systematic Botany Society (ASBS), Melbourne to celebrate at the National Herbarium of Victoria. Special session on bryophyte systematics on 3 October. Further information: www.anbg.gov.au/asba

Sept. 05 – 07. BBS Annual General Meeting and Symposium. Queen Mary, University of London. Info: <http://193.62.154.38:bbs.htm>

Sept. 25 – 27: 1st Austrian Bryological Workshop. Information: www.pph.univie.ac.at/bryo/tagung or contact harald.Zechmeister@univie.ac.at

October 4 – 8: VIIth Australasian Bryophyte Workshop. Associated with the ASBS conference (see above), this workshop will be held at Mt Baw Baw, approximately 2.5 hours drive from Melbourne.

2004

January 12-17. IAB World Conference on Bryology and Conservaton Workshop. Merida, Venezuela. See page 15 of this newsletter!

2005

July 18 – 23: Bryology at the 2005 International Botanical Congress in Vienna. In 2005 the International Association of Bryologists will meet at the XVII International Botanical Congress, which takes places 18-23 July 2005 in Vienna. For information,, contact Wolfgang Wanek. wolfgang.wanek@univie.ac.at.

2007

IAB meeting in Kuala Lumpur, Malaysia. Contact the local organizers: Dr. Haji Mohamed and Dr. Amru N. Boyce, Fac. of Science, University of Malaysia, Kuala Lumpur 50603, email: haji@biology.um.edu