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Editorial

This is the last newsletter of this year and I would like to thank all those who contributed to the 4 newsletters that appeared in 2003.

Keep your bryological antennae active and collect and send your contributions, literature reviews, conservation news, research news etc to the column editors, so that this newsletter will promote networking and bryological research.

In the next newsletter of March 2004, I intend to provide you an inside view of the IAB world Congress that will take place in Merida, Venezuela. I hope this conference will be an excellent opportunity to meet your colleagues and to discuss new frontiers in bryological research and bryophyte conservation. I wish you all the best in 2004!

Geert Raeymaekers

email: Geert.Raeymaekers@ecosystems.be

IAB



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The **International Association of Bryologists (IAB)** is an organisation open for all interested in bryophytes. For membership, contact Sandi Vitt, Department of Plant Biology, Southern Illinois Univ., Carbondale, IL 62901-6509, USA (svitt@plant.siu.edu). Visit also our web site at <http://www.devonian.ualberta.ca/iab/>. The Bryological Times is issued 4 times per year.

OBITUARY

Hyoji Suzuki, 1915-2003

Dr. Hoji Suzuki, Professor Emeritus of Hiroshima University, passed away on 10 May 2003. He was an authority on bryophytes, especially on Sphagnum, and on vegetation ecology of the mires, wetlands, forests and other habitats in Japan. He was born in Shirakawa, Fukushima Pref., NE Japan, on 13 April 1914, and graduated from the Faculty of Science, Hiroshima University in 1937. He received his Ph.D. degree from Hiroshima University, under the guidance of Prof. Y. Horikawa, for taxonomic studies on the Japanese members of Sphagnum Sect. Subsecunda. Under the difficult circumstances of, and just after, World War 2, he investigated most mires and bogs in Japan, and analyzed the relationships between the morphological variation and ecology of Sphagnum. In addition to his accumulated field experience, his line drawings and distribution maps of Japanese species of Sphagnum were highly distinguished. In 1981, he distributed

exsiccata of 42 taxa of Sphagnum entitled Sphagnotheca Japonica.

Professor Suzuki lectured on plant taxonomy and ecology at Hiroshima University from 1914-1968. He also held important posts in many professional and scientific societies in Japan: Councillor of the Botanical Society of Japan (1969-72, 1975-78), Chief Secretary of the Ecological Society of Japan (1970-84), the Hikobia Botanical Society (1974-91) of which he was one of the founders, and President of the Bryological Society of Japan (1981-83).

In deep mourning, we thank an eminent botanist and revered teacher: Professor Hyoji Suzuki.

Tarow Seki

Prof. Emer. Hiroshima University, Hiroshima, Japan

Willem Meyer

Dr. Willem Meijer, Emeritus Prof. of Biology at the University of Kentucky, died of heart failure on October 22 at Lexington's St. Joseph Hospital-East. A native of Amsterdam, Holland, Dr. Meijer specialized in tropical botany, especially in Malaysia and Indonesia, as well as the local flora of Kentucky. He held associate positions with the Missouri Botanical Garden and the National Herbarium of the Netherlands. In 1968 he began his teaching and research career in Kentucky where his influence on a generation of Kentucky biologists, other students, and everyone he encountered is unmistakable. He



helped to form the Kentucky Native Plant Society and led many field trips for wildflower enthusiasts across Kentucky on its behalf. Wherever he found himself, he never ceased being an ardent, outspoken advocate for appreciating, understanding, and conserving the local plants, wildlife, and natural environment. He is survived by a daughter, Frederica, in Amsterdam, a son, Johan, and two granddaughters in Portland, Oregon, and a son, George, and two grandsons in Copenhagen, Denmark, as well as countless friends, colleagues, former students, and innocent bystanders around the world. A memorial gathering to celebrate his legacy to the earth and its inhabitants was organized on 29 October at a memorial gathering at the UK-Lexington Arboretum Visitor Center.

Source: Bryonet

TRAINING COURSE REPORT

The second regional training course on biodiversity and conservation of bryophytes and lichens in Tropical southeast Asia offered by SEAMEO-BIOTROP of Indonesia

B. C. Tan, S. R. Gradstein and H. J. Sipman

The second regional training course on the biodiversity and conservation of bryophytes and lichens in tropical Southeast Asia took place Sept. 3 - 12 this year at the BIOTROP headquarter in Bogor, Indonesia. This followed two long years of preparation (for report of first training course see BRYOLOGICAL TIMES 105: 4-5. 2002).

This second training program was attended by 16 participants representing six ASEAN countries, namely Indonesia (9 persons), Malaysia (1), Singapore (2), Thailand (2), Vietnam (1) and the Philippines (1). The 16 participants came from diverse backgrounds and included postgraduate students, school teachers, university professors, government workers, nature/forest park rangers and research assistants, who, together, formed an active group in spite of their differences in age, culture and religion. Truly, the entire group overcame quickly their language barrier to work amicably together over a ten day period in learning about the diversity of bryophytes and lichens both inside the classroom and laboratory, and also in conducting the field research project at Mt Gede National Park. In the end, a strong bonding of friendship and camaraderie has blossomed among the participants and the teachers too, foretelling a bright future of close cooperation and collaboration in the study of the regional bryophyte and lichen floras.

Due to budget restraints, the invited lecturers on the second training course included 4 foreign members, namely, Dr. S. Rob Gradstein from Göttingen University in Germany, Huub van Melick from the Netherlands, Dr. Ben C. Tan from the National University of Singapore, Dr. Harrie J. Sipman from the Free University and the Berlin-Dahlem Botanical Museum and Gardens in Germany, and two Indonesians - Dr. Lisdar I. Sudirman from the Institut Pertanian Bogor or IPB (Bogor Agricultural University) and Dr. Harrie Wiriadinata from Herbarium Bogoriense. Because of the increasing interest in the monitoring of endangered bryophytes and lichens in the region, Dr. Tomas Hallingbäck of the Swedish Agricultural University in Uppsala, who also heads the Committee on Endangered Bryophytes of IUCN and IAB, was specially invited to give a lecture on the application of current IUCN rules in categorizing bryophytes into the various groups of endangered species.

As in the first training course conducted in September, 2001, the topics of lectures in the second training course covered a wide range. These started with the morphology, ecology and economic importance of hepatics, hornworts and mosses, and ended with presentations on the morphology, chemistry, taxonomy and uses of lichens. Additional topics included a lecture on Malesian bryogeography. This was followed by an animated

presentation, prepared by Prof. R. Hall at the Department of Geology, Royal Holloway College, University of London, showing plate tectonics of SE Asian island blocks. At the request of the students, Drs. Gradstein and Sipman gave a demonstration on the techniques and principles involved in the collection and preparation of herbarium specimens of bryophytes and lichens for research and deposition.



Fig.1. Identification of specimens by the student participants.

The details of the workshop timetable were carefully planned and efficiently executed by Dr. Sri S. Tjitrosoedirdjo and her assistants at BIOTROP. It was indeed a difficult and challenging task to put together a course program that included lectures, laboratory practicals, and two collecting trips – a half day visit to Bogor Botanical Gardens to see the common lowland bryophytes and lichens, and a weekend trip to the splendid Cibodas Botanical Gardens and Ciberreum waterfalls at Mt Gede National Park to observe the bryophytes and lichens found in high elevation mossy forests. Although the original timetable was modified a number of times due to

unforeseen circumstances, the implementation still went off smoothly because of the flexibility and resourcefulness of Dr. Tjitrosoedirdjo.

The weather was fair during the two field trips. Those who had not previously visited Mt. Gede National Park, the famous type locality of many tropical bryophyte species, were stunned by the rich bryophyte flora and the well-preserved montane forests of this Javanese volcano located in the middle of one of the most densely populated regions in Asia. For 10 solid days, the student participants and lecturers were sumptuously treated to fine Indonesian fare by the hosting institute, BIOTROP.

Towards the end of the training program, the students worked in groups to undertake a small research project dealing with a group of bryophytes or lichens of their choice. Examples of project titles are – “A checklist of collected specimens of macrolichens from Cibodas Botanical Gardens”, “A preliminary survey of the lichen diversity in Bogor Botanical Garden in West Java”, “A study of thalloid liverworts of Cibodas Botanical Garden”, “A study of Lejeuneaceae of Cibodas in West Java”, “A comparison of the biodiversity of moss genera between Cibodas Botanical Garden and the nearby forest in Mt Gede National Park”, and “The biodiversity of Fissidens in the Cibodas Botanical Garden and the nearby forest in Mt Gede National Park.”

All the students were seen working very hard day and night just days before the oral presentation which was held in the morning of the last day of the training program. The final presentations went very well, even though this was the first time many students presented a paper in English.. Good use was made of the electronic media and some students enriched their presentations with pictures of lichens and bryophytes obtained from the INTERNET. Great excitement was generated by the presentation of Mr. Heri Sujadmiko from Djokjakarta, who had included a lovely native song about a man named “Lumut” (also the local word for bryophyte) being wooed by many women at the end of his talk on the thalloid liverworts of Cibodas.

Finally, the students were asked to complete a short assessment of the course before their graduation. One of the questions asked in the assessment survey was - what is the most beautiful bryophyte that they saw during the training course. Unanimously the students choose *Rhodobryum giganteum*, the same “winner” as in the first training course!!

Thanks to the generosity of Dr. M.L. So of Hong Kong Baptist University, every student received as a gift in the mail the two volumes of her coloured pictorial flora entitled “Mosses and Liverworts of Hong Kong”. Additionally, several students also received a complimentary copy of a newly published handbook entitled “A guide to the common liverworts and hornworts of Singapore” prepared by Dr. S. Piippo et al. (2002).

The second training course, like the previous one, was a great success. The program was opened and closed by Dr. Imelda Stuckle, the deputy director of the BIOTROP Program. An announcement was made that the third training course will be held at BIOTROP again in 2005. At the suggestion of Prof. Gradstein, in order to keep in touch with each others, an internet discussion group of SE Asian workers/students on bryophytes and lichens will be constituted by Dr. B.C. Tan from his website based at the National University of Singapore. Initially, all student participants at the first and second training courses will be recruited to become members of this new regional electronic discussion group. Subsequently, other members of IAB or any botanists who are interested in SE Asian bryophytes and lichens will be welcome to join the net discussion group.

The SEAMEO-BIOTROP in Indonesia, Conservation Training Resource Centre (CTRC), the DAAD office in Germany, the Swedish Agricultural University and the National University of Singapore are acknowledged for the financial support given to the teaching staff and the participating students of the second training course.

Fig. 2. Group picture of participants in the workshop in Bogor (Rob Gradstein, Tomas Hallingbäck, Harrie Sipman and Ben Tan not shown, they were busy collecting). Seated in the front row the fourth person from the right with a dark coloured cap is the workshop organizer Sri S. Tjitrosoedirdjo .



COUNTRY REPORT

Bryology in Turkey

Adnan Erdag and Mesut Kirmaci, Adnan Menderes University Faculty of Arts & Sciences Department of Biology, Aydın, Turkey

Bryological Regions in Turkey

Turkey's transitional position between the Arabian peninsula, southwest Asia and the Balkans provides contrasting geographical, geological and climatic features that are the main reason for its rich phanerogamic flora. Floristically, there are three important regions: Euro-Siberian (the coastal belt from northwest to northeast), Mediterranean (the belt along the west to south east shores) and Irano-Turanian (the inland area towards east Anatolia). The eastern, northeastern and central parts of the country have a higher altitude than the western parts. Mountain ranges run latitudinally as a result of tectonic relationships between the Anatolian and Arabian peninsula. These tectonic activities have formed high-mountain series (e.g. the Taurus mts) as well as deep valleys, important microhabitats covering most of the country except central Anatolia, which is normally a plateau.

An updated bryophyte checklist is in press

The last check list of Turkish bryophytes were published 15 years ago and 799 taxa of Bryophytes were recorded (Cetin, 1988 a-b). A new version of the Turkish bryophyte checklist includes 721 taxa of Bryopsida, 165 taxa of Hepaticopsida and 3 taxa of Anthocerotopsida (Kürschner & Erdag, 2003 in press).

Past and present bryological activities in Turkey

Bryological research in Turkey can be divided historically into four main periods: (1) from the late 19th century to ca 1964 with European scientists studying the Turkish bryoflora, (2) the period between 1967 and 1974 during which European and Turkish bryologists co-operated (K. Walther and E. Leblebici, 1969), (3) a period with little research between 1975 to 1985 and (4) the period since 1985, during which bryology became an academic subject in Turkish universities.

Erkuter Leblebici from Ege University (Izmir) was the first Turkish botanist to study bryophytes. He published two studies, one with Kurt Walther, mainly on West-Anatolian bryophytes. At Ege University (EGE), Dr. Leblebici, now retired from the Ege University's Botanical Garden, established the first bryological herbarium with about 1500 specimens. Presently, and on the basis of Index

Herbariorum, there are 28 herbaria in Turkey and most of these are part of state universities. However, these herbaria harbour mainly flowering plants due to the enormous flowering plant diversity of Turkey, and hold far fewer bryophyte specimens. We assume that the total bryophyte specimens held in all Turkish herbaria is not more than 30 000.

Bryology as a research area of botanical sciences in Turkish universities has a very short historical background. Barbaros Cetin was awarded the first bryological MSc degree in 1985, followed by a PhD degree in 1988 at Ankara University. Presently, at least four Turkish universities have a post-graduate bryology program (Ankara University, Ege University, Adnan Menderes University, Cukurova university etc.) and no fewer than 15 botanists are studying Turkish bryophytes (see Table 1).

Notes on bryological revisions, bryo-floristical and bryo-ecological research.

Ongoing revisions:

The single revisional study of Turkish bryophytes focused on the *Hedwigia ciliata* complex in Turkey (Erdag et al. 2003). There is therefore a lack of revisional bryophyte investigations of Turkish bryophytes and this applies at all taxonomical levels (families, genera or species complexes). Such studies are much needed, and contributions (especially from mediterranean countries) from other bryologists will be highly welcomed. Acrocarpous xerophytes may be a plentiful source of interesting records and taxonomical comments because this group of bryophytes is dominant in the Turkish flora due to the country's climate.

Ongoing bryo-floristical research:

Bryologically explored areas of the country are very limited and generally concentrated on the west (Ege sector) and north shores (Karadeniz sector) of the country. It would be important to explore transition zones between Mediterranean and Irano-Turanian, Mediterranean and Euro-Siberian, Euro-Siberian and Irano-Turanian floristic regions including the Taurus mountains, Anatolian diagonale, east Anatolian mountains and north Anatolian mountains

Bryologists	e-mail address	Study field	Part of Turkey
Dr. Ahmet YAYINTAŞ	Yayintasahmet@hotmail.com	Mosses	Nigde, Central Anatolia
Dr. Barbaros ÇETİN	bccetin@science.ankara.edu.tr	Bryophytes	Ankara, Central Anatolia
Dr. İsa GÖKLER	isa.gokler@deu.edu.tr	Liverworts	Izmir, West Anatolia
Dr. Adnan ERDAĞ	aerdag@adu.edu.tr	Bryophytes	Aydın, West Anatolia
Dr. Turan ÖZDEMİR		Mosses	Giresun, North east Anatolia
Dr. Özlem (TONGUÇ)	Yayintasozlem@hotmail.com	Mosses	Nigde, Central Anatolia
Dr. Şule AYDIN	Suleaydin@hotmail.com	Bryo-cytotaxonomy	Izmir, West Anatolia
Dr. Güray UYAR	guray8@yahoo.com	Bryophytes	Zonguldak, North west Anatolia
Mesut KIRMACI	mkirmaci@adu.edu.tr	Bryophytes	Aydın, West Anatolia
Hatice ÖZENOĞLU	hatice_ozenoglu@hotmail.com	Liverworts	Izmir, West Anatolia
Tamer KEÇELİ	tkeceli@science.ankara.edu.tr	Mosses	Ankara, Central Anatolia
Recep KARA	recepkara@cu.edu.tr	Bryocology	Adana, South Anatolia
Tülay EZER	tezer@cu.edu.tr	Bryocology	Adana, South Anatolia
Evrin DEMİR	medemir@adu.edu.tr	Biology of mosses	Aydın, West Anatolia

There are two main massif formations in Turkey - the Menderes and the Bitlis massifs. The Menderes massif is well explored and results are about to be published by the senior author. Bitlis massif (south east of Turkey) is still a white area of the Turkish bryological map. This metamorphic rock formation has unique features not shared with other areas that are generally composed of calcareous or, in a few localities, basaltic rocks.

Recent bryological collections in Turkey have resulted in a number of interesting new records. For example, *Stegonia latifolia* var. *pilifera* is well known as an arctic – alpine bipolar montane species of cold areas (Erdag et al., 2001). This species was collected from western Anatolia on siliceous rocks under arid conditions at an altitude of 700 m. Additionally, *Orthotrichum sprucei* was collected as an epiphyte on the arcto-tertiary relict *Liquidambar orientalis*

(Erdag & Kurschner, 2000) and *O. rivulare*, another hygrophytic member of the family Orthotrichaceae, was recorded as a new addition to southwest Asia from riverine forests of west Anatolia (Erdag & Kurschner, 2003). These new additions to the bryoflora of Turkey reflect the country's enormous phytodiversity potential. Therefore, bryology in Turkey should be developed rapidly in terms of number of bryologists.

Ecological Studies:

Studies of Turkish bryo-vegetation were summarized by Kurschner & Parolly (1999) but all of the studies mentioned in that paper had been performed in the west of the country and remaining parts are in need of exploration.



Fig. 1. Map of Turkey showing location of bryological collections (dots) and bryologically explored areas (squares).

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LITERATURE COLUMN

Editor: Johannes Enroth

BOOK REVIEWS

Manual of Tropical Bryology

Frahm, J.-P.: *Manual of Tropical Bryology*. *Tropical Bryology* 23: 1–196. 2003. (Advertised in *Bryological Times* 110: 10.)

Jan-Peter Frahm has taught in courses on tropical bryology several times, and the present book is in fact an edited and complemented collection of course handouts that have developed over the years. In addition to Frahm, it contains contributions from Brian O'Shea, Tamás Pócs, Timo Koponen, Sinikka Piippo, Pengcheng Rao, Yin-Ming Fang, and the undersigned.

The main chapters are: 1. Introduction, 2. Diversity of bryophytes in the tropics, 3. Origin and age of tropical bryophytes, 4. Morphological adaptations to tropical rain forest environments, 5. Ecology of tropical bryophytes, 6. Ecophysiology, 7. Bryosociology, 8. Phytogeography, 9. Bioindication, 10. Conservation. These are followed by an Appendix mainly dealing with research methodology in the field as well as in the lab or herbarium, an extensive Bibliography, and a "Research needs and priorities" list.

Each of the main chapters is at least adequate in contents, given that this book is mainly intended to be used in courses. As a whole, the book provides a nice combination of "theoretical" knowledge (e.g. ecophysiology, morphological adaptations, altitudinal zonation) and practical methods or skills (e.g. collecting bryophytes in the tropics, herbarium management, methods of taxonomic revision). Having taught in two tropical bryology courses, I can easily appreciate how useful an aid this book will be in practice.

The text on cladistics is perhaps somewhat outdated, as is the list of cladistic programs. The author expresses some doubts here: "A serious problem and a funny exercise is to

"feed" different cladistic programs with the same data. The results will not at all be comparable!". Appendix V (Vegetation analysis) focuses heavily on the Braun-Blanquet method, which quite a few vegetation scientists in fact do not think very highly of.

The book would have benefited from some final polishing and finishing touches before printing. There are numerous typos that could have been corrected with little effort. The text in some figures is in German, which will be awkward if none of the teachers in a course know that language. On p. 76, the "hard to explain" global distribution of *Scopelophila cataractae* is given as "occurrence in Japan, Java, Bolivia, Mexico, scattered localities in N America". In fact, the species is much more widely distributed in subtropical-tropical Asia (cf. Koponen & Norris 1989). I appreciate, however, that Frahm is aware that there are some shortcomings in this work; in the Preface he says: "But only those who do nothing make also no mistakes except for the mistake to do nothing". That is certainly true, and I am not making the mistake of not being convinced that this book is a valuable contribution and will be used in many courses on the important topic of Tropical Bryology.

Johannes Enroth

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Guide to the Plants of Central French Guiana: Part 3. Mosses.

Buck, W. R.: Guide to the Plants of Central French Guiana: Part 3. Mosses. Mem. New York Bot. Garden 76(3): 1-167 + 145 illustrations. The New York Botanical Garden Press, 2003. ISBN 0-89327-447-X (hardcover). Price: US\$ 38.00 + postage. Orders to: The New York Botanical Garden Press, 200th Street & Kazimiroff Boulevard, Bronx, New York 10458-5126 USA; fax (718) 817-8842, e-mail nybgpress@nybg.org, web www.nybg.org

This florula is based primarily on the author's moss collections in a single 133,600 hectare tract of land in Central French Guiana. However, since the terrain is variable, with tropical lowland rain forest as well as mountains, the number of species reported is reasonably high: over 150 in 62 genera and 22 families. The book is a complementary volume to two vascular plant floras from the same area (Mori et al. 1997, 2002).

In the Introduction Buck briefly describes the background of the book and his collecting trips to French Guiana. He says he is "confident that this florula contains most of the mosses that occur in central French Guiana", which no doubt is true. The most species-rich genus is *Fissidens* with 21 taxa. The Calymperaceae are also well-represented, especially in ridges above the lowest areas where Hookeriales mosses are particularly diverse.

The taxonomic treatment begins with a key to the families. Genera and species are treated in alphabetical order, a good practise in a book whose main aim is to aid in identification of specimens. Families, genera and species are described in detail and the species are illustrated in line drawings, some of which are originals but most from previously published works. The specific descriptions also state whether the species is rare, uncommon, somewhat common or common, based on the number of collections.

The nomenclatural novelties in this book include *Fissidens weirii* var. *bistratosus*, the new combinations *Porotrichum stipitatum* and *Orthostichella versicolor*, and the new species *Macromitrium xenizon*, *Sematophyllum allinckxiorum*, *S. squarrosus* and *Vesicularia eligiana*.

Some observations on the taxonomy. The family Leucobryaceae is recognized without any comment, although few bryologists these days think of it as a natural entity. Here it contains the genera *Leucobryum*, *Leucophanes* and *Octoblepharum*. They do not have much else in common except the typical whitish color and thus habit caused by dead leaf cells. It should have been said that the family is not a natural taxon but merely a convenient assemblage for identification. In the

Neckeraceae Buck does not recognize *Porothamnium* but includes it in *Porotrichum*. I think this is justified – there are no consistent or adequate differences to keep the two separate. although I previously thought there was. *Porotrichum usagarum* is newly reported for the Neotropics. The literature citation here (De Sloover 1983) is somewhat inaccurate, since De Sloover used the name *P. molliculum* for the taxon and, as his distribution map shows, it is not "known from throughout much of sub-Saharan Africa" as Buck states. The name *P. molliculum* was synonymized with *P. usagarum* by Enroth & Hodgetts (1996).

This book is another welcome contribution to tropical bryology in the solid, guaranteed and unmistakable style of Bill Buck. More books like it should be published and urgently, but far too few of the far too few remaining professional bryologists can concentrate on flora projects, which are very time-consuming and yet do not gain much scientific merit or recognition for the researcher. This particular project was supported by the National Geographic Society – I thank them sincerely on behalf of all bryologists!

Johannes Enroth References

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Mori, S. A. et al. 2002: Guide to the vascular plants of Central French Guiana: Part 2. Dicotyledons. Mem. New York Bot. Garden 76(2): i-viii, 1-776 + color pls. 1-128.

Mosses of Lithuania

Jukoniene Iona: Mosses of Lithuania. Vilnius, 2003. 402pp., 163 illustrations, hard covers. In Lithuanian, conclusions in English. Advertised price: 30 Euro + 8 Euro postage and packing. The payments can be made by cheque. Available from: Institute of Botany, Zaliuju ezeru 49, LT-2021. Vilnius, Lithuania.

Lithuania, like other Baltic states, has a great diversity of mosses as a result of its climate, geology, topography and wide range of wetland habitats. In particular, the calcareous substrates (limestone and dolomite outcrops) contribute to high density and diversity in the moss flora. However, the Lithuanian moss flora is under considerably threat as a result of changes in land use and global change.

Bryological inventory and research dates back a long time in Lithuania and the first data date back to the 18th Century. The first checklist of Lithuanian mosses was by A. Minkevicius (1931, 1935) who listed 223 moss species.

This Flora is the result of a 20-year research effort (1982 – 2002) during which the author examined circa 15.000 herbarium specimens of Lithuanian mosses (Sphagnidae and Bryidae) and the present Flora recognises 335 species, a number which is slightly lower than the both other Baltic States: 388 species in Latvia (Abolina, 2001) and 409 species in Estonia (Ingerpuu et al. 1988).

This work starts with a short historical survey of muscological research in Lithuania, followed by a general description of moss morphology and anatomy, reproduction and life cycle, geographical distribution, ecology, protection, methods of gathering and the arrangement of herbaria.

It provides a key to the 35 Sphagna species and a separate key to the other moss genera.

Each species is described in great detail, distinctive characters of related species have been indicated and information on ecology and distribution in Lithuania are provided. Regions where rare species have been gathered are noted and collectors indicated. Very valuable are the perfect original drawings by Mindaugas Ryla, which illustrate the habit (entire plant) as well as microscopic characters (the scale is always indicated). The Flora is completed with a list of scientific names and also of Lithuanian names, of which most appear for the first time in this book. Finally, another 36 species that can be expected to occur in Lithuania have been included in the list. For the species whose names have been changed recently, synonyms have been given.

The scientific value of the book is great. It is an up-to-date and well-researched book. It will be as useful for different specialists as for students. To our mind the information on species occurrence, the distribution of various species and other like issues could be of interest to the bryologists in other parts of the world.

Austra Abolina, Latvian Forestry Research Institute "Silava", Rigas Str. 111, Salaspils LV-2169, Latvia. (Text adapted by G. Raeymaekers).

NEW PUBLICATIONS

Red list of bryophytes of the G.D. of Luxembourg

WERNER Jean – Liste rouge des bryophytes du Luxembourg - Mesures de conservation et perspectives. *Ferrantia* 2003, 35: 1-71, 15 fig., 11 tabl. Author: 32, rue Michel Rodange, L-7248 Bereldange (Luxembourg); editor: Musée National d'Histoire naturelle de Luxembourg, 25 rue Münster, L-2160 Luxembourg; Price: 10 € (ferrantia@mnhn.lu)

Abstract - Red List of the Bryophytes of Luxembourg – Conservation measures and perspectives

A first entirely revised update of the Red List of the Bryophytes of Luxembourg (published in 1987) is submitted. It is based on IUCN categories and criteria and takes into account recent taxonomic and floristic research, notably fieldwork and bryophyte mapping. The introduction stresses the rapid changes of our vegetation, the difficulties of drafting a red list of bryophytes in a small

country and recent international developments in conservation science. Some difficulties arise from bryophyte ecology and life strategies, as well as their insufficiently known distribution. Four new species are added to the check-list (*Riccia subbifurca*, *Grimmia dissimulata*, *Orthotrichum patens*, *Ulota macrospora*), one is deleted (*Schistidium confertum*).

316 out of 587 taxa (53,8 %) are considered to be not threatened (lc), 63 taxa are near threatened (nt) (10,8 %), whereas 198 taxa (33,7 %) are "red listed": 8 are extinct

(EX), 61 taxa are critically endangered (CR) or have vanished recently (EV); 52 are endangered (EN) and 77 are vulnerable (VU). A short comparison is made with the previous red list and with other recent red lists in Europe. Luxembourg is in an intermediate position on a European level. The Red List is broken down into 19 ecological groups; acid and calcareous mires - as well as sites of exposed mud and wet sands - host the highest proportion of

threatened species. Twenty-three examples of assessment are given in detail. Most bryological "hot spots" are located in the Petite-Suisse sandstone area. A comment on bryophyte conservation policy and legislation closes the paper.

See also *Cryptogamie*, Bryologie 3/2003, 24: 283.

The Hepaticae and Anthocerotae of Brazil

S. Robbert Gradstein and Denise Pinheiro da Costa. The Hepaticae and Anthocerotae of Brazil. Memoirs of The New York Botanical Garden Volume 87, 0-89327-448-8 (Hardcover), 316 pages. \$54.00

This long-awaited title treats ca. 600 species of hepatics and anthocerotae in Brazil. All genera are described. Species are keyed out and distribution and ecology given for each. At least one species for every genus is illustrated, and in larger genera considerably more are illustrated. This is the first complete treatment of hepatics for any South America country, and the largest one at that.

Shipping and handling: USA \$6.00 + 5% of subtotal; outside USA \$7.00 + 6% of subtotal. Prepayment required, U.S. currency only check drawn on a U.S. bank, American Express, MasterCard, Visa

Send all Orders to: THE NEW YORK BOTANICAL GARDEN PRESS, 200th Street & Kazimiroff Boulevard, Bronx, New York 10458-5126 USA. Phone: (718) 817-8721; FAX (718) 817-8842. Visit the website: www.nybg.org

Moss Flora of the Middle European Russia. Vol. 1. Sphagnaceae–Hedwigiaceae

Ignatov, M. S. & Ignatova, E. A.: Moss Flora of the Middle European Russia. Vol. 1. Sphagnaceae–Hedwigiaceae. (In Russian.) KMK Scientific Press Ltd., Moscow, 2003. (Arctoa Vol 11, Suppl. 1). 608 pp., hardback. ISBN 5-87317-104-1.

Quotation from p. 2: "First volume of [this Flora] includes 364 species and 5 varieties of mosses, occurring in the middle part of the European Russia (North and Caucasus are not included, whereas most part of Ural is included). Each species is characterized in respect of its morphology, ecology and distribution, and is illustrated based on collections from the area. Peristome structure is shown in SEM pictures for each family."

Since this book is in Russian, I cannot provide a review of it. What I can say, however, is that it is clearly based on

meticulous work by professional bryologists. The line drawings as well as SEM-micrographs are first-class. Rarely have I been so sorry about my poor knowledge of Russian; however, I understand that the identification keys will, in some form, later be published in English. I am really looking forward to seeing them.

Johannes Enroth

For ordering information please contact Michael Ignatov arctoa@eignatova.home.bio.msu.ru

RESEARCH NEWS

Post-doctoral Fellowships at Victoria University of Wellington, New Zealand.

Victoria University is a leading New Zealand University situated in Wellington, the capital city. We seek two excellent post-doctoral fellows to join our young and vigorous School of Biological Sciences (www.sbs.science.vuw.ac.nz/) in the fields of angiosperm and moss evolution and molecular ecology. 1. Plant Molecular Ecology. The research will involve application of molecular techniques to the study of rapid species radiations that have taken place in New Zealand from immigrant ancestors in the last few million

years. The roles of immigrant selection, adaptive radiation, diploid hybrid speciation, allopatry, and diverse habitats will be examined using molecular phylogenetic techniques. The fellow will work with Professor Phil Garnock-Jones in collaboration with Associate Professor Peter Lockhart (Allan Wilson Centre for Research Excellence, Massey University, Palmerston North) and botanists at the Museum of New Zealand Te Papa Tongarewa. Applicants must have a PhD in systematic or evolutionary biology and should have a strong background in plant molecular systematics.

2. Evolution of separate and combined sexes in mosses. The fellow will work with Professor Phil Garnock-Jones and Dr Linley Jesson on a Marsden Funded project that will use mosses as a novel system to extend and test the generality of models that examine the evolution of separate and combined sexes. Applicants must have a PhD in plant ecology, systematics, or evolutionary biology and should have a strong background in one or more of molecular

systematics, experimental and theoretical plant reproductive biology, evolutionary modeling, and bryophyte ecology and evolution.

For further information and to express interest, please contact: Professor Phil Garnock-Jones, School of Biological Sciences, Victoria University of Wellington, PO Box 600, Wellington, New Zealand, Phone +64 4 463 6085, phil.garnock-jones@vuw.ac.nz.

Molecular phylogenetic relationships within the Ditrichaceae

From 1999 to 2002, I was a student at Kochi University, Shikoku, southern Japan. My first botanical supervisor, Dr. Matsui was there. My first bryological work focussed on phylogenetic relationships among species of the genus *Ditrichum*. I had never paid attention to such minute mosses, that show diverse morphology under the microscope, until Dr. Matsui brought me to the fascinating world of Bryophytes. Since graduating from Kochi University, I have been conducting advanced research under the supervision of Prof. Deguchi in the graduate school of Hiroshima University.

The objective of my present research is focussed on molecular phylogenetic relationships within the Ditrichaceae. Some molecular phylogenetic work relevant to haplolepidous mosses has been carried out (e.g. La Farge et al. 2000). La Farge et al. (2000) also suggest that increased taxon sampling within the Ditrichaceae should improve the phylogenetic assessments of the family,

although current data indicate that the group is polyphyletic. My research would contribute to clarifying the taxonomic positions of the species previously discussed and their taxonomic treatment, especially cleistocarpous members.

Since my knowledge of the Ditrichaceae is very limited, any information and suggestions are very appreciated. Dried fresh materials without soil (when soil is present the Plant Protection Station stops importation), particularly of genera unknown from Japan, e.g., *Astomiopsis*, *Cheilothela* and *Melophyllum*, would be very appreciated.

Hiroyuki Sato

Address: Department of Biological Science, Graduate School of Science, Hiroshima University, 1-3-1 Kagamiyama, Higashi-hiroshima-shi, Hiroshima-ken 739-8526, Japan. E-mail: stpn@hiroshima-u.ac.jp

WEB NEWS

Genera of the Pottiaceae: Mosses of Harsh Environments.

An electronic version of Genera of the Pottiaceae: Mosses of Harsh Environments is now available at: <http://mobot.mobot.org/W3T/Search/pottiaceae/welcome.html>

This Web site was created by Bob Magill, Director of Research at the Missouri Botanical Garden,

and html coder extraordinaire. I appreciate Bob's persistence and attention to detail. The Web version was done with the kind permission of the Buffalo Museum of Science.

R. Zander, richard.zander@mobot.org

Checklist of mosses of sub-Saharan Africa

I am in the process of producing a new version of this checklist. The last was 4 years ago, but still free to download from the website:

<http://www.oshea.demon.co.uk/tbr/> by selecting the 'TBR Reports' option. If anyone who has used the previous version has any comments, error reports, additions etc., I would be very grateful to receive them. There were a good number of corrections to make, but no doubt there are still more errors to find. I hope to get the new version out during mid-late November 2003, so please let me have any

comments or information as soon as possible.

Please send your comments to brian@oshea.demon.co.uk

When the checklist is available I will provide the information via BRYONET and it will continue to be free to download in PDF or DOC format, or to purchase as a printed copy.

Brian O'Shea: e-mail: brian@oshea.demon.co.uk

DE CANDOLLE PRIZE

De Candolle Prize in Botany

Please find below the second announcement for the Augustin-Pyramus de Candolle Prize in Botany. Entries to be sent to: Augustin-Pyramus de Candolle Prize, Conservatoire et Jardin botaniques de la Ville de Genève, Case postale 60, CH-1292 Chambésy/GE, Switzerland or email prix-candolle.cjb@ville-ge.ch with enquiries.

The Geneva - Société de Physique et d'Histoire naturelle - (SPHN) is pleased to announce that in 2004 it will award a prize in Botany called: AUGUSTIN-PYRAMUS DE CANDOLLE PRIZE, which will recognize 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 December 31 2001.

It is expected that the monograph should be a complete coverage of the group considered, i.e. description of external characters (morphology), a scheme of distribution of subordinate units, and an up-to-date, complete bibliography. Critical synonymy, keys for identification, description of anatomical, caryological, molecular and physiological details, as far as they can be used to distinguish the sub-groups in accordance with the international rules of nomenclature, will also constitute

important elements for evaluation. Partial treatment, i.e. monograph of a sub-family, a tribe, a sub-genus or a section, provided that the group is defined clearly with respect to its neighbours and presented as a system of hierarchical units, would be acceptable.

The prize is open to authors of any nationality or domicile. The text may be written in Latin, French, German, English, Italian, Spanish or Portuguese. A summary restricted to a maximum of 4000 words must be provided in French or English. Two copies of the manuscripts, along with 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.

The reward is CHF 5000. - and cannot be shared. The reward may be reduced, or not be offered, if the received works are insufficient or do not fulfil the criteria of this notice. The successful monograph remains the property of the author; a copy will be kept at the SPHN.

For any other information, please contact: prix-candolle.cjb@ville-ge.ch

NEWS FROM BRYOLOGICAL JOURNALS

Herzogia: call for papers

HERZOGIA is the scientific journal of BLAM, the 'Bryologisch-Lichenologische Arbeitsgemeinschaft für Mitteleuropa' (www.blam-ev.de). It publishes articles on systematics, ecology and biogeography of bryophytes and lichens of interest to European bryologists and lichenologists. After a period of irregular publication, HERZOGIA is now issued once per year. The last volume (16) appeared in July this year, and the next (17) is scheduled for the middle of 2004. We herewith invite readers to submit manuscripts within the above-mentioned scope of HERZOGIA. Manuscripts, written in English,

German or French, should be sent to the editor, Dr. Regine Stordeur, Martin-Luther-Universität, Institut für Geobotanik, Neuwerk 21, D-06108 Halle (stordeur@botanik.uni-halle.de). The deadline for submission of manuscripts is 30th November, with the distribution of the journal occurring the following summer. Please check <http://home.t-online.de/home/blam-ev/herzogia.htm> for the guidelines to authors.

For subscription to HERZOGIA or purchase of previous issues, please contact Dr. Felix Schumm (schumm@compuserve.com).

Lindbergia: change of editor-in-chief

As many of you may know LINDBERGIA is an international bryological journal issued by the Nordic Bryological Society and the Dutch Bryological and Lichenological Society.

Heinjo During, Utrecht University, The Netherlands, is now withdrawing after more than ten years as editor-in-chief for LINDBERGIA. He is replaced by Sigurd M. Sastad, Museum of Natural History and Archaeology, NTNU, Trondheim, Norway.

Subject editors will be Heinjo During, Kjell I. Flatberg, NTNU, Trondheim, Norway, Terry A. Hedderson, University of Cape Town, South Africa, Bengt Gunnar Jonsson, Mid Sweden University, Sundsvall, Sweden, Nicholas McLetchie, University of Kentucky, Lexington KY, USA.

More information regarding the journal and its contents can be found at:

<http://www.oikos.ekol.lu.se/lindbergia.jrnl.html>

As reported in *The Bryological Times* (99: 17. 1999), the International Association of Bryologists has decided to begin a repository of bryological theses. These theses will be housed in the Library of The New York Botanical Garden. They will be available via interlibrary loan. The NYBG Library online catalog (CATALPA) may be viewed at: <http://www.nybg.org/bsci/libr/Catalog.html>. As theses arrive, bibliographic data and a brief synopsis will be published in this column (see examples below). Bryological theses for any degree, covering any aspect of bryology in any language, will be included. Please send theses to Bill Buck at the address above. Please refer to the preliminary notice (cited above) for information on financial assistance from IAB for reproduction of theses.

Bergamini, Ariel. 2001. Species diversity of bryophytes in montane calcareous wetlands: Effects of environmental variables and influence of vascular plants. Doctoral dissertation, Mathematisch-naturwissenschaftlichen Fakultät der Universität Zürich, Switzerland. 101 pp. In English with German summary. Address of author: Sporeneggasse 2, CH-8200 Schaffhausen, Switzerland. E-mail: ariel.bergamini@bluewin.ch

Species diversity is protected by law in Switzerland, but some species are still threatened by various practices associated with agriculture. This doctoral dissertation examines bryophyte diversity in montane calcareous fens as a way to determine which bryophytes are present so as to have baseline data. Additionally, the effects of the vascular plant layer on bryophyte performance were measured. Bryophyte species richness and communities were examined in 36 montane calcareous fens in Switzerland. Diversity was determined by species density, species richness and beta-diversity. Species richness was found to be higher in grazed sites than in sites that were mown, but no differences were noted in species density. It was determined that to preserve bryophyte diversity in montane wet meadows, it was crucial to have extensive grazing by cattle. However, increased vascular plant biomass decreased the species richness and favorability of bryophytes. Fertilization decreased bryophyte diversity. Apparently, this effect was not due to a negative impact of the fertilizer on the bryophytes directly, but rather it was due to the subsequent increase of vascular plant biomass. Portions of this dissertation were published in *Flora* 196: 180-193 (2001); *Journal of Ecology* 89: 920-929 (2001); and *Journal of Bryology* 23: 331-339 (2001).

Buczowska, Katarzyna. 1999. Plastyczność morfologiczno-anatomiczna a problem gatunku u mszaków, na przykładzie pary krytycznych gatunków rodzaju *Calypogeia* Raddi: *C. neesiana* i *C. integristipula*. Doctoral thesis, Uniwersytetu im. Adama Mickiewicza, Poznań, Poland. 178 pp. + 2 pp. synonymy + 11 Tabs. on 46 pp. + 1 fig. on 3 pp. In Polish. Address of author: Department of Genetics, Institute for Experimental Biology, Faculty of Biology, Adam Mickiewicz University, ul. Międzychodzka 5, PL-60-371 Poznań, Poland. E-mail: androsac@main.amu.edu.pl.

This doctoral dissertation, whose title translates as Morphological-anatomical plasticity and the species problem in bryophytes, as evidenced by the critical species pair in *Calypogeia*: *C. neesiana* and *C. integristipula*, is a biometrical study of *Calypogeia* in Poland. The main purpose of the study was to resolve the taxonomic status of the critical species pair. All biometrically studied samples were previously identified using isoenzymes. Some of the

samples were subsequently grown in a greenhouse, with their variability checked after one year. It was determined that all taxa of *Calypogeia* occurring in Poland are morphologically distinct and that these morphological characters correlate with the isoenzyme data and oil body types. The best diagnostic characters found included the depth of the sinus in the underleaves, the relative length of the underleaf decurrency, the width of cells of the rhizoidal initial field in the underleaves, the leaf length, the width of the marginal cells in the dorsal part of the leaf, the number of cells in the mid-line of the underleaf, and the width of the stem. The two critical species could be consistently separated in Polish material.

Gabriel, Rosalina Maria de Almeida. 1994. Briófitos da Ilha Terceira (Açores): Ecologia, distribuição e vulnerabilidade de espécies seleccionadas. Master's thesis, Departamento de Ciências Agrárias, Universidade dos Açores, Angra do Heroísmo, Portugal. [vii] 212 pp. + 5 appendices [unpaginated] on 40 pp. In Portuguese. Address of author: Departamento de Ciências Agrárias, Universidade dos Açores, 9700 Angra do Heroísmo, Portugal. E-mail: rgabriel@angra.uac.pt.

This master's thesis examines the ecology, distribution, and conservation status of 31 species of hepatics (including one anthocerot) and 27 species of mosses from the island of Terceira in the Azore archipelago. The island, of volcanic origin and estimated to be about 2 million years old, has a mild, oceanic climate although it is about the same latitude as New York. Of the 416 threatened bryophytes documented for Europe, 58 are known from Terceira. These are the taxa treated here. The conservation status of the taxa between mainland Europe and Macaronesia is often different. Each taxon is evaluated locally, and "hotspots" within the island are documented.

Gabriel, Rosalina Maria de Almeida. 1994. Briófitos de pastagem – algumas noções de ecologia. Master's thesis, Departamento de Ciências Agrárias, Universidade dos Açores, Angra do Heroísmo, Portugal. [95 pp. + 5 appendices [unpaginated] on 38 pp. In Portuguese. Address of author: Departamento de Ciências Agrárias, Universidade dos Açores, 9700 Angra do Heroísmo, Portugal. E-mail: rgabriel@angra.uac.pt.

This master's thesis (submitted with the one above), deals with the bryophytes found in the grasslands of the Azores. The appendices include keys to these genera. This portion of the thesis also includes a section on introductory bryology. It was found that bryophyte diversity in semi-natural grasslands was considerably higher than in man-made pastures.

Gabriel, Rosalina Maria de Almeida. 2000. **Ecophysiology of Azorean forest bryophytes. Ph.D. thesis, Department of Biology, Imperial College of Science, Technology and Medicine, Silwood Park, England. 308 pp. In English with Portuguese abstract. Address of author: Departamento de Ciências Agrárias, Universidade dos Açores, 9700 Angra do Heroísmo, Portugal. E-mail: rgabriel@angra.uac.pt.**

This doctoral thesis describes the bryophyte communities and related their occurrence to specific features of the native forest environment in Terceira Island, Azores. Six forest stands were studied and their cryptogamic flora inventoried using randomized quadrats. Included in the survey were one anthocerot, 65 hepatics, 41 mosses, and 16 lichens. Multivariate analysis showed the importance of water availability and pH of the substrate as a reliable indicator of forest bryophyte communities. Growth rate of seven species was measured, and all were found to have similar growth patterns and were strongly related to microclimatic temperature.

Hassel, Kristian. 2003. **Life history characteristics and genetic variation in an expanding species, *Pogonatum dentatum*. Ph.D. thesis, Norwegian University of Science and Technology, Trondheim, Norway. 17 pp. + 5 manuscripts (see below for details). In English. Address of author: Department of Biology, Norwegian University of Science and Technology, N-7491 Trondheim, Norway. E-mail: kristian.hassel@bio.ntnu.no.**

This doctoral thesis examines the life history of *Pogonatum dentatum*, especially its ability to reproduce. It seems to be dependent on the continuous creation of bare soil because the diaspores seem to survive only for a short time in the diaspore bank. Disturbance is required to maintain the habitat, and in newly disturbed sites dispersal is more important than the diaspore bank. In mountainous areas, the disturbance is frequent enough to result in stable populations. However, with the relatively recent disturbance in more lowland forests by the forestry industry, the species must rely on dispersal to move into the continuously exposed new habitats. Mountain and lowland populations are genetically very similar. The five manuscripts, some of which have been submitted, are: Hassel, K., B. Pedersen & L. Söderström: Age and size at maturity in two contrasting areas in the expanding bryophyte *Pogonatum dentatum* (14 pp.); Hassel, K., B. Pedersen & L. Söderström: Reproductive investment and the relation between number and size of spores in the expanding bryophyte *Pogonatum dentatum* (14 pp.); Hassel, K., B. Pedersen & L. Söderström: Changes in life history traits in an expanding species, phenotypic plasticity or genetic differentiation: a reciprocal transplantation experiment with *Pogonatum dentatum* (15 pp.); Hassel, K. & U. Gunnarsson: The use of inter simple sequence repeats (ISSR) in bryophyte population studies (10 pp.); Hassel, K. & S. M. Såstad: Genetic variation and structure in the expanding bryophyte *Pogonatum dentatum* in its area of origin and a recently colonised area (10 pp.).

Nordbakken, Jørn-Frode. 2003. **Boreal bogs - vegetation dynamics and the threat of nitrogen deposition. Ph.D. thesis, University of Oslo, Norway. 27 pp. + 4 reprints (see below for details). In English. Address of author: University of Oslo, Botanical Museum, Sarsgate 1, N-**

0562 Oslo, Norway. E-mail: j.f.nordbakken@toyen.uio.no.

The major goal of this doctoral thesis is to contribute to the understanding of the dynamics of bogs, specifically in respect to plant population and vegetation change in regard to the nitrogen source of different bog plants and the processes by which N deposition affects N uptake in them. Of the four studies which comprise this thesis, four are observational and one is experimental, and all take place in southeastern Norway. Vascular plants, bryophytes and lichens were studied. The project showed that fine-scale temporal and spatial changes take place in boreal bog vegetation. The changes are partly a result of changes in the environment, especially short-term climatic fluctuations, and part a result of internal long-term dynamics among the bog species. Because atmospherically supplied N is immobilized in the upper part of the peat profile, N concentrations increase much more rapidly upon N treatment in *Sphagnum* spp., other bryophytes, and *Drosera* spp. than in other vascular plants and lichens. Atmospheric N reaches other vascular plants via root uptake from degrading *Sphagnum*. This study indicates that bog ecosystems are close to, but not fully, N-saturated and that the addition of N to the system is likely to disturb the balance of N and C cycles in the bog ecosystem. Also included in the thesis are copies of four articles: Nordbakken, J.-F. 2000. Persistence of boreal bog vegetation. *J. Veg. Sci.* 11: 269-276; Nordbakken, J.-F. 2001. Fine-scale five-year vegetation change in boreal bog vegetation. *J. Veg. Sci.* 12: 771-778; Nordbakken, J.-F., K. Rydgren & R. H. Økland. Submitted. Demography and population dynamics of *Drosera anglica* and *D. rotundifolia* on a boreal bog [19 pp.]; Nordbakken, J.-F., M. Ohlson & P. Högberg. Submitted. Plant uptake of recently deposited N in a boreal bog [12 pp.].

Pedersen, Niklas. 2002. **Phylogeny and taxonomy of the acrocarpous moss family Bryaceae with emphasis on the genus *Bryum* Hedw. Ph.D. thesis, Stockholm University, Sweden. 23 pp. + 4 reprints (see below for details). In English. Address of author: Botaniska Institutionen, Stockholms Universitet, SE-106 91 Stockholm, Sweden. E-mail: niklas.pedersen@botan.su.se**

This doctoral thesis examines the phylogeny of the Bryaceae using morphological characters and chloroplast DNA sequence data. The Bryaceae itself, as well as *Brachymerium*, *Bryum* and *Rhodobryum* are shown to be not monophyletic. Parts of *Brachymerium* are shown to be most closely related to *Rhodobryum* and some species of *Bryum*. *Brachymerium* sect. *Dicranobryum* is part of a clade also containing *Acidodontium*, *Anomobryum*, *Bryum* p.p., *Haplodontium* and *Plagiobryum*. *Plagiobryum* along with some sections of *Bryum* deserves generic recognition. Similarly, *Bryum alpinum* and *B. coronatum* also appear to be a separate clade worthy of generic rank. Also included in the thesis are copies of four articles: Pedersen, N. 2000. A cladistic overview of the Bryaceae (Musci) based on morphological and anatomical data and with emphasis on the genus *Bryum*. *J. Bryol.* 22: 193-206; Pedersen, N. & L. Hedenäs. In press. Phylogenetic relationships between *Bryum* and supposedly closely related genera. *J. Bryol.*, 24 p.p.; Pedersen, N., C. J. Cox & L. Hedenäs. In press. Phylogeny of the moss family Bryaceae inferred from chloroplast DNA sequences and morphology. *Syst. Bot.*, 28 p.p.; Pedersen, N. & L. Hedenäs. In press. Phylogenetic

LATEST CONFERENCE NEWS

BRYOPHYLOGENY 2004: Second International Symposium on Molecular Systematics of Bryophytes, Göttingen, 10-12 September 2004

Following the successful first symposium on molecular systematics of bryophytes in St. Louis in 2003, a follow-up has been scheduled to take place in Göttingen, Germany, 10-12 September 2004. The program of Bryophylogeny 2004 in Göttingen will run from Friday evening (Sept. 10) until Sunday afternoon (Sept. 12) and includes invited talks by a.o. Jan-Peter Frahm, Wolfgang Frey, Bernard Goffinet, Jochen Heinrichs, Jaakko Hyvönen, Volker Knoop, Angela Newton, Rosa Ros and Olaf Werner, Jonathan Shaw, Michael Stech, Zofia Szwejkowska-Kulinska, Hiromi Tsubota and Hironori Deguchi, and Alain Vanderpoorten. The papers of this symposium will be published in a special issue of the journal *Taxon*.

Bryophylogeny 2004 in Göttingen is directly followed by the Moss 2004 conference on the molecular biology and physiology of *Physcomitrella patens* and other model bryophytes in Freiburg, Germany, 12-15 September 2004 (organizer Ralph Reski, www.plant-biotech.net/moss2004),

and is preceded by the BBS conference on pleurocarpous mosses in Cardiff, U.K., 6-8 September 2004, organized by Angela Newton and Ray Tagney. So get your calendars!

All those interested in the fastly evolving and fascinating field of bryophyte phylogeny research are cordially invited to participate in Bryophylogeny 2004 in Göttingen. Registrations are expected by 15. June 2004 at the latest; the registration fee is 25 EURO. Registration can be made by writing to the organizers at the below address (jheinri@gwdg.de). Accommodation can be booked via the tourist office of the town of Göttingen, www.goettingen-tourismus.de/english/ Further details on Bryophylogeny 2004 can be found on the website of the symposium (www.gwdg.de/~sysbot), or by contacting the organizers.

S.Rob Gradstein, Jochen Heinrichs and Rosemary Wilson
jheinri@gwdg.de
www.gwdg.de/~sysbot

Pre-IAB Conference Workshop of the IUCN – SSC Bryophyte Specialist Group Preliminary Programme 10-11 January 2004

Endangered Bryophytes Regionally and Globally

Tomas Hallingbäck The Global IUCN Red List of Bryophytes
Lars Söderström - Rarity in Lophoziaaceae
Nancy G. Slack - Quality indices and other methods currently in use for evaluating rare bryophytes and bryophyte habitats in need of protection; progress in several states of the U.S.
Geert Raemaekers - Bryophyte conservation in Europe: what can we learn from the Implementation of the Habitats Directive?
Cecília Sérgio - The ecology, biology, conservation and geographical prediction of the rare liverwort *Cryptothallus mirabilis*
Anna Luiza Ilkiu-Borges - Reviewing the Prionolejeunea in Brazil
Wynne Miles - Some rare bryophytes of *Quercus garryana* ecosystems in southwest Canada.

Educational programs and its importance to bryology and Conservation

Ben Tan - The training of para-taxonomists in bryophyte biodiversity conservation work in the Philippines.

Yelitza León V. & Maria Silvina Ussher M. - Educational program directed to the preservation of Venezuelan Andean Bryophytes

Bryophytes as indicators of changes in habitat and impact of forest fragmentation on bryophyte vegetation

Edi Urmi - Retrospective monitoring for bryophyte conservation - Two centuries of population history in Switzerland
Uwe Drehwald - Biomonitoring of disturbance in Neotropical rainforest
César Garcia - The characterization of *Quercus* epiphytes community in Portugal.

Research and scientific collaboration among bryologists for the study of bryophytes

Claudio Delgadillo - Understanding and protecting bryophyte diversity: The Latin American Dilemma.
Tomas Hallingbäck - Current Status of Bryophyte Conservation worldwide - results from a Questionnaire
Source: Tomas Hallingbäck

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.

Editors

Geert Raeymaekers, Ecosystems LTD, Generaal Wahislaan 21, B-1030 Brussels, Belgium. FAX + 32 2 646 84 66 or E-mail: Geert.Raeymaekers@ecosystems.be

Terry Hedderson, Botany Department, University of Cape Town, Private Bag, 7701 Rondebosch, South Africa. FAX: + 27 021 650 4041. E-mail: thedders@egs.uct.ac.za

Regional Editors

N-America: René Belland, Devonian Botanical Garden, University of Alberta, Edmonton, AB T6G 2E1, Canada . E-mail: rene.belland@ualberta.ca

Latin-America: Inès Sastre-De Jesus, Dept. of Biology, University of Puerto Rico, P.O. Box 5000, Mayaguez, Puerto Rico; 00681-5000.

E-mail: I_sastre@rumac.upr.clu.edu

C & E Asia: Cao Tong, College of Life and Environmental Science, Shanghai Teachers University, Shanghai 200234; Email: CT1946@263.net.cn

SE Asia: Benito Tan, Department of Biological Sciences, National University of Singapore, Singapore 119260 Email: dbsbct@nus.edu.sg

Australia and Oceania: Rod Seppelt, Australian Antarctic Division, Kingston, Tasmania 7050 Australia. E-mail: Rod.Seppelt@aad.gov.au

Column Editors

Conservation Column: Tomas Hallingback, Swedish Species Information Centre, Swedish University of Agricultural Sciences, P.O. Box 7007, SE-750 07 Uppsala, Sweden, Fax: +46 18 67 34 80. E-mail: Tomas.Hallingback@ArtData.slu.se

Literature Column: Johannes Enroth, Dept. Ecol. & System., P.O. Box 7, FIN-0014 University of Helsinki, Finland, Fax: + 358 9 191 8656. E-mail: Johannes.enroth@helsinki.fi

Theses in Bryology: William R. Buck, Institute of Systematic Botany, NY Botanical Garden, Bronx, NY 10458-5126, U.S.A. E-mail: bbuck@nybg.org

Tropical Bryology Column: Tamás Pócs, Eszterházy Teacher's College, Dept. of Botany, Eger, Pf. 43, H—3301, Hungary. E-mail: colura@ektf.hu

Production:

Geert Raeymaekers, Ecosystems LTD, Brussels

UPCOMING MEETINGS

2004

January 12-17. IAB World Conference on Bryology and Conservaton Workshop. Merida, Venezuela.

March 1 – 6: Sixth Tropical African Bryology Training Course, the Department of Botany, University of Nairobi, Kenya. A field trip of 5 days to the Taita hills will be organised. Guest tutor: Prof. Tamas Pócs. For details, e-mail : petiot@wananchi.com

March 20-23 Be So Free Excursion, University of California Hastings Reserve, in Carmel Valley organized by Ken Kellman and Brent Mishler. More information, contact B.Mishler, E-mail: bmishler@socrates.berkeley.edu, lodging reservartion, see <http://www.carmelvalleycalifornia.co>

April 22 – 27: First Annual Howard Crum Bryophyte **Workshop**. Providing a forum for amateur bryologists to interact with professionals and advance their study of mosses and liverworts. Delaware Water Gap National Recreation Area. Please contact Mary Lincoln at lincolmary@earthlink.net

July 31 – August 5: The 2004 ABLs meeting, Snowbird, Utah. The meeting will include field trips for bryologists and lichenologists. For suggestions for symposia, workshops, and field trips, please contact Nancy Slack (email: slackn@sage.edu) and include "Snowbird" in subject line.

September 6-8: Conference on the Systematics of Pleurocarpus Mosses of the British Bryological Society in Cardiff, U.K. Organizers: Angela Newton and Ray Tagney, email: angn@nhm.ac.uk

September 10-12: Bryophylogeny 2004, second internal symposium on Molecular Systematics of Bryophytes, Göttingen, Germany. For information see www.gwdg.de/~sysbot, or contact the organizers: Rob Gradstein, Jochen Heinrichs and Rosemary Wilson, email: jheinri@gwdg.de

September 12-15: Moss 2004 conference on the Molecular Biology and Physiology of Physcomitrella patens and other model bryophytes in Freiburg, Germany. Organizer Ralph Reski, www.plant-biotech.net/moss2004

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 place 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.u