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Would you not like to receive the Bryological Times sooner? Now that the IAB has its website, www.bryology.org, members who have paid their dues are able to download the Bryological Times from the IAB website.

In order to download the Bryological Times, please send a message with your email to inform our secretary-treasurer, Sandi Vitt (svitt@plant.siu.edu). She will provide you with a username password and you will then be contacted when the Bryological Times can be downloaded.

Naturally, those members of the IAB whose email addresses remain unknown in spite of the announcement in Bryonet and Bryo Times will not be able to profit from this new possibility!

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IAB



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OBITUARY

Riclef Grolle (1934 – 2004)

With the death of Riclef Grolle on 12 June 2004, we have lost one of the most eminent bryologists of our times. Riclef Grolle was born on 8. August 1934 in Oldenburg, Germany, but lived most of his life in Jena, where he studied biology and obtained a doctorate on a monograph of the liverwort genus *Leptoscyphus*. From 1959 until his retirement he held a position as a scientific assistant in the Herbarium of the university of Jena. Crippled by poliomyelitis since the age of 19, which had made him lame in his legs and partially in his arms, Riclef Grolle was allowed to work at home. Here he devoted himself fulltime to the study of hepatics, a group of plants of which the Herbarium of Jena was particularly rich due to the large collections of Theodor Herzog, Grolle's teacher in bryology.



In spite of his physical handicap, Riclef Grolle was able to pursue his scientific work with great vigour for almost half a century. He wrote more than 250 papers on species from all parts of the world and several important revisions and monographs (e.g. *Lepidolaenaceae*, *Nowellia*, *Jamesoniella*, *Adelanthus*, *Leptoscyphus*, various groups of *Lejeuneaceae*), and was the undisputed world authority on matters of liverwort nomenclature. His most important nomenclatural works include "Verzeichnis der Lebermoose Europas und benachbarter Gebiete" (1976, followed by checklists of Europe in 1983 and 2000) and "Nomina generica hepaticarum" (1983), providing correct names, citations, and typifications of the liverwort genera of the world and of the species of Europe. These publications have led to a level of nomenclatural stability that is probably unique among plants. His important publications also include those on fossils in amber, which demonstrate that many of the present-day genera of liverworts already existed by the early Tertiary and that some Asiatic genera (*Nipponolejeunea*, *Spruceanthus*) occurred during the Tertiary in Europe where they are now extinct. This phenomenon is not uncommon in

higher plants but was unknown in bryophytes. His work on fossils even includes the description of oil bodies in a 20 million years old specimen of *Bazzania*!

Riclef Grolle has travelled widely in Europe, accompanied by relatives or friends, to visit herbaria in search of rare types and literature or to take part in scientific congresses and fieldtrips. He even visited China in 1997 to attend the IAB congress in Beijing. Many of us have helped carry Riclef through rough terrain to show him localities of rare or endangered species. These events always aroused his great excitement. His small working room in Jena, in the mansion of his grandfather where everything was neatly arranged for him to be accessible by wheel chair, was a

hospitable place for visitors and a meeting point where the modern advances in hepaticology, but also matters of art, history, etc., were vividly discussed.

Riclef Grolle's knowledge of the liverworts was unsurpassed, his grasp of the species remarkable for somebody unable to study the species in the field. He was an extremely generous man, always willing to provide help with identification or give advice, and had a fine sense of humor. Many of us have benefited from his vast knowledge and his willingness to share this with others. He was the academic mentor of several hepaticologists of the younger generation, including Jiri Vana, Sinikka Piippo, David Long, Alfons Schäfer-Verwimp, Mai-Lin So and myself. His scientific work, which owned him an honorary doctorate of the university of Göttingen and the Hedwig medal of the IAB, has provided a solid and lasting basis for modern research on the liverworts.

Rob Gradstein

IAB-NEWS

IAB support for a Richard Spruce memorial in Ecuador

The IAB has donated 500 dollars to support the erection of a statue honoring the great bryologist Richard Spruce in the town of Baños, in the Andes of Ecuador. Richard Spruce lived and worked in Baños for a considerable time during his epic journey in South America. Today the town is a major tourist spot, receiving thousands of visitors who come to see the active volcano Tunguragua, enjoy the hot springs and waterfalls in the area, and admire the beauty of the lush tropical forests of the upper Pastaza valley. We are very pleased that the great scientific contributions of Richard Spruce to the bryology and natural history of this part of the world will be celebrated in such an appropriate way. The

statue consisting of a bronze bust and plinth will be placed in the central square opposite the town hall. A plaque associated with the statue will mention the names of the sponsors, which include the four patronizing organizations (British Bryological Society, International Association of Bryologists, Linnean Society, Missouri Botanical Garden) and several private donors. The unveiling of the statue by the Mayor of Baños, Mr. Hugo Pineda, will take place in early 2005.

Rob Gradstein

Bryological activities at the International Botanical Congress 2005 in Vienna, Austria

Every six years since its foundation 1969 at the 9th IBC in Seattle, the International Association of Bryologists (IAB) has held its biennial meetings in association with the International Botanical Congresses (IBC). Following this tradition the **XVI World Congress of the International Association of Bryologists** will be held at the XVII IBC, **18 - 23 July 2005**, at the Austria Center in **Vienna, Austria**. For further details on registration, fees, location, accommodation etc see <http://www.ibc2005.ac.at>, or contact by e-mail: office@ibc2005.ac.at.

The IAB is represented by the IAB business meeting, dinner, prizes and elections, an excursion (see below) and a scientific program. The following symposia are organised in the field of bryology:

New Developments in Cellular and Molecular Biology of Bryophytes

(Organizer: Ralf Reski)

Bryophytes, especially the moss *Physcomitrella patens*, are increasingly used as model systems to address basic botanical questions at the cellular and the molecular level. Based on *Physcomitrella*'s unique homologous recombination, several groups world wide have started to work with this moss and have gained significant new insights into cell and chloroplast division, gene regulation by light and hormones, and metabolic processes. Annual international meetings devoted to cellular and molecular biology of mosses ("Moss 2001" in Japan, "Moss 2002" in the UK, "Moss 2003" in the US, "Moss 2004" in Germany) reach around 100 scientists world wide. This proposed symposium at the IBC 2005 in Vienna will attract this community as well as botanists which have not worked with mosses before but want to inform themselves about the advantages of this system.

Keynote speaker: R. Reski

Scientific Disciplinary area:

DA 03 (Structure and Development including Functional Aspects)

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Ecophysiology of Bryophytes

(Organizer: Gerhard Zotz, Wolfgang Wanek)

Terrestrial plants have followed two principal strategies of adaptation to intermittent water supply with bryophytes tending towards poikilohydry and desiccation tolerance, vascular plants towards homoiohydric and desiccation avoidance. The study of the ecophysiology of bryophytes thus always provides insights into the functioning of vascular plants and has implications at a number of scales. Bryophytes are model systems for the study of stress-induced cellular response of plants, highlight evolutionary alternatives of plant functioning at the level of organs and individuals, and also strongly influence hydrological and biogeochemical cycles of entire ecosystems and landscapes from the arctic to the tropics. Progress made in the aspect of ecosystem functioning is particularly important in view of global climate change. The symposium will reflect the breadth of bryophyte ecophysiology. Aspects will include new insights in the molecular mechanisms of desiccation tolerance (in comparison to desiccation tolerant vascular plants), comparative studies in hormone physiology of bryophytes and vascular plants, other "classical" topics in

ecophysiology (e.g. the physiological basis of habitat selection) or the implications of global change on the role of bryophytes in selected ecosystems. Integration from the cell to the functional role in the ecosystem will make this symposium highly attractive not only to bryologists, but to many other attendants of the IBC interested in functional and evolutionary aspects of plants.

Keynote speaker: M. C. F. Proctor

Scientific Disciplinary area:

DA 06 (Plant-/Eco-Physiology, Biogeochemical Cycles)

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Bryophyte Phylogeny based on Molecular Evidence

(Organizer: Jonathan Shaw)

Identifying phylogenetic relationships among the bryophytes is fundamental to understanding land plant evolution. Tremendous progress has been made in the last five years to resolve the major lineages within mosses (Bryophyta), liverworts (Marchantiophyta), and hornworts (Anthocerotophyta), and this has been an international effort. With an increasing number of systematists adding to the effort, the IBC provides an opportunity to summarize results to date, and to focus future research toward critical issues. This symposium will address phylogenetic questions at systematic levels from relationships among the three "bryophyte" divisions, to genealogical patterns within widespread species. Topical areas for individual speakers include: 1. relationships among the bryophyte divisions, 2. hornwort phylogeny, 3. liverwort phylogeny, 4. moss phylogeny, 5. generic relationships within a selected family (to be determined), 6. phylogeography of widespread "bryophytes". These contributions will make the symposium of interest not only to bryologists, but to systematists and evolutionary biologists in general who follow developments toward resolving "the tree of life."

Keynote speaker: K. S. Renzaglia

Scientific Disciplinary area:

DA 04 (Botanical Diversity, Systematics)

Jonathan Shaw, Professor of Biology, Director of the Herbarium (DUKE), 139 Biological Sciences Bldg., Department of Biology, Duke University, Durham, North Carolina 27708

Population Dynamics of Bryophytes at the Local Scale (Organizer: Dale Vitt, Katherine Frego)

Little is known about why specific species of bryophytes occur in discrete patches at the local scale. This symposium will attempt through presentations from international researchers to include information on dispersal and establishment dynamics, environmental limiting factors, competition, and contributions from historical and stochastic events. Understanding the factors that control the local scale population distribution and structure are important in forestry management, rare species ecology, and in understanding patterning of plant diversity on the landscape scale. Identifying controlling factors of local scale distributions are key to management of natural resources throughout the globe and in bryophytes (and lichens) remains largely undetermined.

Keynote speaker: D. H. Vitt
Scientific Disciplinary area:
DA 05 (Population Biology)

Dale H. Vitt, Department of Plant Biology, Southern Illinois University, Carbondale, IL 62901-6509, , e-mail: dvitt@plant.siu.edu
Katherine Frego, Department of Biology and Nursing, University of New Brunswick, P.O. Box 5050, Saint John NB E2L 4L5, E-mail: FREGO@UNBSJ.CA

Bryological field trip "Mires and Bryophytes"

24-28 July 2005, guided by G. M. Steiner, H. G. Zechmeister, R. Krisai

Excursion to a wide range of wetlands inhabited by a interesting range of bryophyte species in the Central Alps of Austria (mainly in the area of Tamsweg, Styria). On the last day there will be a field trip to the Gollinger waterfall with some rare species in its surroundings (e.g. *Brotherella lorentziana*).

Dr. Wolfgang Wanek, local secretary of IAB at the IBC 2005
Prof. Dr. S. Robbert Gradstein, IAB president.

CONSERVATION NEWS

World-wide Status of Bryophyte Conservation - Results from a questionnaire

Tomas Hallingbäck, Swedish Species Information Centre, P O Box 7007, SE-75007 Uppsala, SWEDEN

The knowledge and conservation of bryophytes differs greatly in different parts of the world. Therefore the IAB standing committee for Endangered Bryophytes decided in 2003 to collect information of the current situation of the bryoflora in various geographical regions. A questionnaire was published in the newsletter Bryological Times in the beginning of 2003 and was also distributed to about 500 bryologists in the IAB user group Bryonet. In total representatives in 75 countries were targeted. The answers included 50 replies representing 42 countries. The result gives a useful overview of the current status of the global bryophyte flora. The questionnaire also gave new knowledge concerning bryophyte conservation measures: completed, ongoing as well as desirable and urgent future projects. The replies were in many cases similar to the old questionnaire from 1990 (Hallingbäck 1991).

Replies were received from the following countries: Argentina, Australia (Victoria), Austria, Belarus, Belgium, Brazil, Bulgaria, Canada (several states), China (several regions), Colombia, Costa Rica, Czech Republic, Egypt, Estonia, Finland, France, Germany (Niedersachsen & Hessen), Greece, Hungary, Italy, Japan, Kenya, Latvia, Luxembourg, Mexico, Nepal, Portugal, Romania, Russia (Murmansk), Serbia, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, The Netherlands, The Philippines, Turkey, Ukraine, United Kingdom, USA (several states).

Question 1. If a distinct decline of bryophytes occurs in your region, which Taxonomic (A) and Ecological (B) groups have decreased mostly?

Summary:

A. Taxonomic groups: The bryophytes that seem to be most threatened globally belong to the group hepatics. Other endangered groups are the families Meesiaceae, Splachnaceae and Sphagnaceae as well as members of the order Isobryales (Table 1).

B. Ecological (habitat and substrate) groups: Rainforests are the bryophyte rich biotopes currently undergoing the most extensive destruction, and the ecological groups declining most rapidly are epiphylls and epiphytes. Second to rainforests, wetlands seem to be declining most rapidly, especially peat bogs (ombrotrophic) and mesotrophic fens in lowlands. These are situated in boreal and temperate zones, both in the southern and northern hemisphere. Another severely declining ecological group are hepatics occurring on decaying logs in old-growth forest. Some countries in Western Europe particularly mention calcareous grassland and oligotrophic heath lands as being threatened (Table 1.).

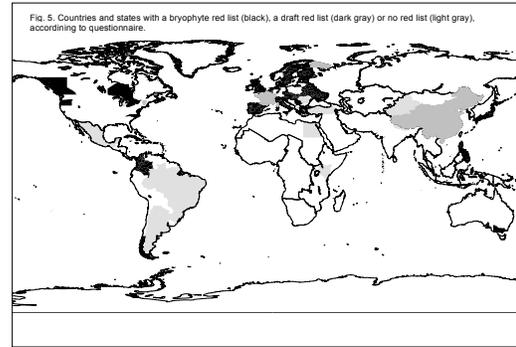
A. Taxonomic groups		B. Habitats		Substrates	
Hepaticae	15	Aquatic habitats	12%	Epiphyllic	11 %
Sphagnaceae	7	Flooded environments	6%	Epiphytic	47 %
Meesiaceae	6	Wetlands (excl. mires)	31%	Epixylic	16 %
Splachnaceae	4	Mires	16%	Epigeic	26 %
Amblystegiaceae	4	Forests (mostly old-growth forests)	21%		
Isobryales	3	Heaths and dry grasslands	6%		
Hookeriaceae	3	Arable land	3%		
Ortotrichaceae	1	Coastal humid dunes	3%		
Neckerales	1				

Table 1. Main taxonomic and ecological groups (habitats and substrates) targeted in a number of countries

Question 2. Do you have any "Red Lists" for bryophytes in your country or in the region where you have studied bryophytes?

Summary: 26 of the 42 countries report that they already have a more or less official Red List of bryophytes, and four additional countries have a draft list not yet officially sanctioned (see fig. 1).

Since some countries that actually have a Red List did not answer the questionnaire, the real number of national Red Lists is higher. The full bibliography of the national Red Lists and Red Data books can be ordered from the author.



Question 3. Do you know if anything (beside the above mentioned Red List) is published/reported about change in the bryophyte flora in the region you know best?

Summary: The answers referred to a variety of published and unpublished reports, most of the published ones are cited at the end of this chapter under "References". The knowledge in terms of literature about endangered bryophytes is apparently still very poor, but during recent years several new papers have been published.

Question 4. Are any of your best bryophyte sites threatened in your area of concern or have they recently been destroyed?

Summary: About 66% of the replies stated that some of the best bryophyte sites of the respective countries were being threatened by destruction. In some cases concrete examples were given. Ten percent of the replies state that it is not known whether the best sites are threatened and 24% of the replies state that the best bryophyte sites are not threatened.

Question 5. Is there any research on endangered bryophytes or are there environmental studies involving bryophytes in your country/region?

Summary: In 24 countries there are ongoing research activities, sometimes including monitoring of threatened species or habitats. Details on monitoring are mentioned in the replies (contact the author).

Question 6. Which are, in your opinion, probably the main causes for the decline of bryoflora in your region?

Summary: A variety of causes are mentioned and the most common are shown in the charts (Table 2). The main causes of the decline of the bryoflora differ between the geographical regions. Intensified forestry seems to be a frequent general threat. Another major cause of decline appears to be drainage of wetlands. In some northern countries air pollution, including Nitrogen deposition, probably causes severe problems. Intensified agriculture (including over-grazing) also seems to be a major threat in several countries as well as destruction of habitats and urbanization. Commercial harvesting of mosses is probably a real problem in Latin America and Turkey, as well as in India (personal experience). Forest fires are problematic in countries with seasonal drought like e.g., in the Mediterranean area. Fortunately scientific collecting of bryophytes seems to be a negligible threat to the bryoflora.

Air pollution and nitrogen deposition	12	Deforestation	6
Drainage of wetlands	12	Road and dam building	6
Intensive forestry	12	Global climate change	6
Intensive agriculture (incl. overgrazing)	11	Plantation of exotic trees	5
Habitat destruction	10	Human population growth	3
Urbanisation	9	Industrial development	2
Water pollution (incl. eutrophication)	8	Reduced mowing	2
Tourism & recreation	6	Harvesting of mosses	2
Mining	6	Excessive collecting	1
Road and dam building	6		

Table 2: Number of times that a cause is mentioned in the replies to the questionnaire.

Question 7. Are bryophytes in general or any bryophyte species protected by law in your country?

Summary: More than 50% answered that a selected number of species were protected by national legislation.

Question 8. Are bryophytes explicitly protected in nature reserves and/or protected areas in your country?

Summary: About 67% of the countries answered that bryophytes were explicitly protected in nature reserves and/or protected areas in the respective countries!

Question 9. Are some bryophyte species (regularly) inventoried and is restoration of threatened species monitored?

Summary: In some countries a regular monitoring network with sites all over the country is currently established. Monitoring of rare bryophytes in order to study the effects of harvest of bryophytes for the horticultural trade has started in one state within the US, and in another US state bryophytes have been monitored for several years in order to assess the impact of air pollution.

In Europe the status of the rare bryophyte species included in the Bern convention and the EU Habitat Directive must be carefully monitored. Monitoring of rare bryophytes started in 1994 as part of the project Natura 2000, and in some North European countries Woodland Key Habitat Inventories have also included monitoring programs for bryophytes.

In one country a proposal has been put forward to monitor the post-fire recovery of threatened species.

Several countries conduct occasional bryophyte surveys without a long-term plan. Some of them are, however, plan to start more regular monitoring. Other countries have already been doing so for quite some time, at least in theory, and while funding lasts!

The status of the bryophyte species listed in Appendix II of the European Directive Habitat should be monitored continuously, but in France for example, the protocols of evaluation are still under discussion.

Question 10. Which institutes, non-governmental organizations or individual experts are specifically involved in bryophyte protection in your region/country?

Summary: In most countries a variety of institutes, governmental and non-governmental, as well as botanical societies and individuals are involved in basic bryophyte conservation. The universities together with the national museums of natural history and in some countries also the botanical gardens play a key role in delivering basic data concerning bryophytes. Motivated people play a important role in bryophyte conservation, often through NGOs. The ministry of environment or the national agencies for nature protection often seem to provide funding for the projects, and private persons (often keen amateurs), national forest services, national park personnel members or bryological societies plan and conduct the conservation programs (the variety in types of organizations mentioned in the replies is very diverse, ranging from agencies for nature conservation, forest services, Landesamt für Ökologie, botanical gardens, and so on.)

Question 11. May we contact you to solicit further collaboration with our IUCN-SSC Bryophyte Species Group?

Summary: All answered: YES!

Acknowledgement: My warm thanks to all who answered the questionnaire for their valuable contributions! Thanks also to my colleague Anna Lejfelt-Sahlen who kindly help me with the English language and proofreading of the manuscript.

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MEETING REPORTS

Field meetings during the XV IAB World Congress, Jan 12-16, 2004, Mérida Venezuela

Reported by B.J. O'Shea & B.C. Tan

A field meeting was arranged for an afternoon during the conference, and after the conference two further official field meetings had been arranged. In addition several participants had arranged to make further collections for the Mérida herbarium (MERC) over the following four days. Only a limited number of identifications were available at the time of writing this account.

Thursday pm January 15, 2004. Monte Zerpa

Our first trip was to the nearby Monte Zerpa. We walked from the University experimental farm (initially in the company of a herd of cows, although the bryologists were soon outpaced) up an old walled track with a ditch to one side, which gave us an excellent introduction to some of the more common species of the area - although many of the 'common' species were new to most of us. The lane went gradually uphill to a piece of forest with many epiphytes, at an altitude of around 2000 m.

Epiphytes by the path: *Sematophyllum subpinnatum*, *S. adnatum* and *Fabronia ciliaris* var. *polycarpa*; ditch and wall at side of path: *Fissidens asplenioides*, *Entosthodon bonplandii*, *Rhynchostegium serrulatum* and *R. scariosum*; rocks by track in forest: *Kindbergia praelonga*; epiphytes in forest: *Bryum billardierei*, *Cryphaea patens*, *Neckera ehrenbergii*, *Prionodon densus*, *Phyllogonium fulgens* and (apparently new to Venezuela) *Regmatodon orthostegius*, *Pilotrichella flexilis*; on trees bases were *Hypopterygium tamarisci* and *Leucobryum martianum*; fallen branches yielded *Palamocladium leskeoides* and *Leptodontium viticulosoides*, and *Toloxis imponderosa* was on a bank by the path. *Sematophyllum swartzii*, *S. cuspidiferum* and *Mittenothamnium reptans* were also reported for the forest. Other genera noted were *Saccogyna*, *Syrrhopodon*, *Leucobryum*, *Grimmia*, *Calyptrochaeta*, *Cyclodictyon*, *Pterobryon*, *Pirella*, *Thuidium* and *Entodon*.

Saturday January 17, 2004. San Eusebio Cloud Forest Reserve. La Carbonera

Following our introduction on Thursday, there could have been no better follow-up than a trip to a piece of undisturbed montane podocarp cloud forest - the same piece of forest used by Yelitza León for her PhD studies. Because of this previous research we were able to be supplied with a full moss and liverwort list for the forest, which made our lives much easier, but also gave us the challenge of finding new taxa for the forest. The forest is privately owned by Universidad de los Andes de Mérida for the purpose of research projects, and we reached around 2400 m maximum altitude.

From the gated access point, a broad forest track took us through open mixed forest with the track gradually getting wetter and the cover more dense as we progressed into the forest. The track was covered with bryophytes and the tree trunk epiphytes became richer with hepatics such as *Bryopteris* and mosses mainly of the Pterobryaceae and Meteoriaceae, and particularly the handsome *Pilotrichella flexilis*. By lunchtime we reached the forest hut which heralded the start of the best part of the forest. Because of a partly collapsed 'bridge' (two tree trunks) over a river, we had the assistance of a rescue service, but as the diversity of bryophytes increased, so the pace slowed, so only a few went beyond this area, where people either descended into the stream and climbed the far bank, or a brave few walked over the remaining rather narrow tree trunk. It was beyond this area that Yelitza dangled from ropes to do her research into the forest canopy.

Main track, on the ground: *Breutelia tomentosa*, *Sphagnum limbatum* and *Thuidium tomentosum*; as epiphytes: *Leptodontium viticulosoides*, *Holomitrium sp.*, *Macromitrium guatemalensis*, *Phyllogonium viscosum*, *Prionodon lycopodioides*, *Adelothecium bogotense* and *Pilotrichella flexilis*; on asbestos roof of hut: *Streptopogon calymeres*; beyond the hut (from tree bark unless stated otherwise) *Calyptrochaeta nutans*, *Porotrichum mutabile*, *Trachyphium subfalcatum*, *Thamniopsis undata* (mistaken initially for a very crisped *Neckera*), *Leiomesa bartramioides* (on tree ferns), *Sematophyllum swartzii* and *Trichosteleum cf. cyparissoides*.

Sunday January 18, 2004. Paramó de Mucubaji and Laguna Negra

The weather was perfect for this visit to the paramó (puña), with beautiful clear skies and a dramatic view of the Sierra de Santo Domingo and the glacial moraines above Laguna Mucubaji, and the *Espeletia*-dominated vegetation. At an altitude of around 3500 m, we walked the few kilometres to Laguna Negra in about an hour, seeing a good selection of the paramó bryophytes, in particular around shaded or damp areas and by streams. *Hedwigidium integrifolium* was common on boulders in the area, and also seen were *Leptodontium longicaule* var. *microruncinatum* (bank of track), *Dicranum rigidum* (damp bank), *Lepyrodon tomentosus* (tree banch), *Caribaeohypnum polypterum* (branches and banks), *Catagonium brevicaudatum* (bank), the magnificent bronze-red *Rozea subjulacea* (*Polylepis* bark) and the bizarre *Rhacocarpaceae purpurascens* (rock face and clefts), looking much paler than African material. As we approached Laguna Negra we were treated to what must be one of the finest *Polylepis sericea* (Rosaceae) forests in the Andes, surrounding the lake and extending high up the hillside to Laguna Los Patos (see Tuesday trip). Some didn't move far from the small beach where we arrived at the lake, but others spread out in all directions, looking at both sides of the lake, and down the outflowing stream. The bark of *Polylepis* is ideal for epiphytes, but other habitats were

also productive: *Oreoweisia erosa* (rock crevice), *Bryoerythrophyllum campylocarpum* (on ground), *Sematophyllum cuspidiferum* (bark), *Neckera chilensis* (hanging from a shrub). Also seen were *Aongstroemia orientalis*, *Bryoerythrophyllum ferruginascens* and *Pleuridium cf. subulatum*. Both Yelitza León and Michelle Price had spent time doing research on *Polylepis* epiphytes and Michelle was quite sure this was the finest *Polylepis* forest she had seen in the Andes, most now being seriously affected by human impact.

The conference ended after the Sunday outing, but a number of people were keen to spend more time collecting, and with the assistance of Yelitza and her team, seven people spent the following three days active in the field. Although this did not form part of the conference, some areas not recently collected were being visited, and a number of interesting finds were made. Duplicates of all collections were donated to the herbarium at Merida.

Monday January 19, 2004. Pico el Aguila & St Isidro Cloud Forest, Barinas

Partly to see the dendroid high paramó *Espeletias*, and partly to see what delights were available at altitude, we ascended to just below 4000 m on Pico el Aguila. The area is very exposed to the sun, but there are many habitats and niches that bryophytes can occupy. Even away from the damp areas, bryophytes were found as a crust on the ground (*Zygodon pichinchensis*, *Didymodon australasiae*), epiphytic on the decaying old leaves on the stems of *Espeletia* (*Sytrichia andicola*), and on rock faces and in crevices. Where water was available from springs, quite lush bryophyte cover was present, in marshy areas and on the banks of the narrow streams.

We then moved on some distance over to the eastern side of the Andes at 1500 m, to St Isidro Cloud Forest, just over the state boundary into Barinas - although the primary aim was to see the famous 'Andean cock of the rock' (*Rupicola peruviana*) at a well known lek for this dramatic large orange and black bird. The birders amongst the group were also treated to a number of other rare and exotic species, but we also bryologised along a track running through the steeply sloping forest with streams, waterfalls and a bat cave.

The day was only spoiled by our vehicle (altitude sickness we were told), which could not get out of first gear on the hills (i.e half the journey there, and half the journey back), which gave us a 14 hour day.

Tuesday January 20, 2004. Mountains above Laguna Mucubaji.

The trip several days earlier to Mucubaji had whetted appetites, and the intention was to strike up the moraines above the lake and then to cut across a saddle to Laguna Los Patos, the lake above Laguna Negra we had visited previously. The day was perfect, and the seven of us marched off up the hill. The first stop was for a nose bleed caused by the altitude (3500-3900 m), but the next stop was at a bright green boggy area by the track, which had a most exciting assemblage of hepatics (as well as *Zygodon peruvianus*). Continuing up the well marked path, used as a pony track to take tourists to see the view of Laguna Los Patos and down to Laguna Negra, we had reached about 3850 m when we found the end of the pony trail. We split then into two groups, one group going higher in the hope of finding good ground amongst the rocks above, the other descending on a precipitous track into the forest, with the intention of getting into the *Polylepis* forest below Laguna

Los Patos. The former area proved more interesting, as the *Polylepis* forest was rather dry, and not as rich as the forest by Laguna Negra, although *Zygodon sordidus* was added to the list.

Wednesday January 21, 2004. La Culata.

La Culata is a national park at 3100-3300 m altitude, a deep river valley with scrubby, sub-paramó vegetation on the higher ground, but with richer, more moist vegetation near the river. Several conference participants as well as those on the conservation workshop had already visited this area, and typically, the conservation workshop participants had found so much of interest that they did not progress far up the valley, so our intention was to get further up the valley, and to concentrate on the area by the river. Despite the altitude, the sheltered valley provided to be quite rich in bryophytes, particularly near the rocky stream, often in a shallow gorge.

Rocks in and by the stream, and bank of stream: *Polytrichum juniperinum*, *Anomobryum plicatum*, *Aongstroemia julacea*, *Barbula indica*, *Bryoerythrophyllum jamesonii*, *Anoetangium aestivum*, *Rhabdoweisia fugax*, *Orthotrichum pycnophyllum*, *Hedwigidium integrifolium*, *Brachythecium plumosum*; branches hanging over the stream: *Neckera chilensis*, *Cryphaea ramosa*, *Porotrichum flacca*, *Entodon jamesonii*; epiphytic on an ericaceous tree: *Zygodon reinwardtii*; boulder in scrub: *Hedwigia ciliata* var. *ciliata*.

We would like to thank Yelitza and her team for organising the official trips, and choosing such exciting localities and also to advising on the unofficial trips. In addition they had the tedious job of arranging the despatch of the specimens to various points around the world. I would encourage everyone involved to submit the identifications and habitat and locality details of their collections to Yelitza as soon as possible, so a more comprehensive list can be produced. Identifications listed above provided by Yelitza León, Howard Matcham, Brian O'Shea and Ben Tan.

COUNTRY REPORTS

News from Australasia

Midwinter has come and gone, but planning for the 8th Australasian Bryological Workshop, to be held in Paluma, subtropical Queensland, from Saturday 25 June to Thursday 30 June, 2005, is well under way. Andi Cairns (andi.cairns@jcu.edu.au) is the local co-ordinator and she would welcome enquiries about attendance. The Workshop was recently advertised on BRYONET. As Andi has said, in the depths of winter, while the cold winds are howling in the south of the continent (not forgetting chilly Tasmania and snowy NZ!), come visit the tropics — North Queensland is paradise in June!

Planning is in its final stages for the forthcoming 20th John Child Bryological Workshop to be held in the Golden Bay area of the northern tip of the South Island of New Zealand, 28 October to 02 November, 2004. Peter Beveridge, from the Museum of New Zealand Te Papa, in Wellington, is organising the meeting. The Golden Bay area is botanically interesting and scenically attractive and these John Child Workshops have always been well-attended.

To accompany the public launch of the "Moss Flora of Macquarie Island", Rod Seppelt held an exhibition of his ink drawings of mosses. The exhibition formed part of Tasmania's Mid-Winter Festival. An accompanying display of mosses, featuring fresh material and electron micrographs

of structural features, brought to the general public the elfin world of these plant miniatures. Rod's illustrations and a lifetime of working with cryptogams also featured on national television. Finally, we have recognition that there is more to biodiversity than kangaroos, albatross and whale strandings!!

The Bryophyte Flora of Australia project grinds on, but the first volume of the Moss Flora should be completed in 2004. Patrick McCarthy, in Canberra, has been doing his best to bring this project to fruition and his hard work in recent years may be finally paying off. For that, the bryological community in Australia and, indeed, world wide, will be most grateful.

Karen Beckmann, in Melbourne, recently received a project grant to work with Rod Seppelt on *Riccia* for the Flora of Australia. There are many problematic taxa and, as Sarie Perold found out while working with *Riccia* in southern Africa, there will, no doubt, be new species to be described.

In New Zealand, Allan Fife is steadily working towards completion of his long-awaited revision of the Moss Flora of New Zealand. This is due for completion on 2007 and by then, Allan will be richly deserving of a good rest. But, since when has a bryologist retired!!

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

News from Spain

Only a few bryological papers are published in wide-audience journals such as *Science* or *Nature*, and it is even rarer to gain the journal cover. A multidisciplinary Spanish team commanded by the bryologist Dr. Jesús Muñoz (Real Jardín Botánico, Madrid) has achieved it in *Science* with the paper "Wind as a Long-Distance Dispersal Vehicle in the Southern Hemisphere" (*Science* 304: 1144-1147, 2004). The rest of the authors are Francisco Cabezas (Real Jardín Botánico, Madrid), Ángel Felicísimo (Universidad de Extremadura, Cáceres), Ana R. Burgaz (Universidad Complutense, Madrid) and Isabel

Martínez (Universidad Rey Juan Carlos, Madrid). They have demonstrated experimentally, using mosses, liverworts, lichens and ferns (1851 species in total), that these organisms may be dispersed through wind routes in the Southern Hemisphere. Thus, the floristic affinity of 27 localities is more related to wind circulation than to geographic distance between them. This is the first time that a research fully developed in Spain gains the *Science* cover.

Since January 2004, the bryologist Dr. Esther Fuertes-Lasala

(Universidad Complutense, Madrid) has been the Director of the botanical journal "Botanica Complutensis", which is edited by the Universidad Complutense. Original research papers in all aspects of plant science, mainly written in Spanish, English or French, are welcome in this journal. More info (tables of contents, abstracts, instructions for authors, etc.) may be obtained in <http://www.ucm.es/info/vegetal/revista/>.

Dr. Gisela Oliván Martínez (Universidad Complutense, Madrid) is on a postdoctoral research post databasing and digitising moss type specimens in the Natural History Museum at London. She began her stay on November 2003 for 14 months.

Javier Martínez-Abaigar, Universidad de La Rioja (Spain)
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News from Venezuela

Bryology group in Venezuela

Venezuela has been visited many times by bryologists from different parts of the world. However for many years there was not a local bryology group working in the Country. Currently we can say that a bryology group is established in the Venezuelan Andes.

Two professors constitute the Bryology Group (BG) of the Universidad de Los Andes at the Centro Jardín Botánico: Dr. Yelitza León and Lic. Ricardo Rico. Both teach Introductory Botany for the Biology Department as well as other botany courses such as Non Vascular Plant Systematics and Floristics.

In September the graduate program (Master) BOTANE (Botánica Taxonómica Neotropical) will start in the University and we will participate in the teaching of the program. Currently, Ricardo Rico is finishing his Doctorate degree in Hungary under the direction of Dr. Tamás Pócs.

The Bryophyte Herbarium

The BG is building a bryophyte herbarium and with the help of many colleagues from Europe and the USA our knowledge of tropical bryophytes is increasing.

We can say that we have the best reference collection of bryophytes in Venezuela. Many specimens have been sent by Dr. Steve Churchill and Dr. Bruce Allen from MO (encoded in TROPICOS) and others by Dr. Rob Gradstein (Exsiccata Neotropica) or have been collected in the country by Dr. Jan-Peter Frahm, Dr. Tamás Pócs.

This collection and our own is being documented electronically in a database.

Very soon as a result of being the organizers of the XV IAB World Congress when many specialists visited the country and collected for our herbarium we will have increased our collection with material collected and identified by Elena Reiner-Drewald, Lars Soderstron, David Long, Jeff Duckett, Edi Urmi, Brian O'Shea among others.

The Herbarium MERF is located also in the Universidad de Los Andes in the Pharmacy Faculty and there are also important collections from Dr. Dana Griffin III and many types of Dr. Rudolf Schuster.

Library resources

Having good library resources is not only important for our group and students but as we discussed in the Round Table "Resources for research and teaching in Latin America" held in the XV IAB World Congress in January, many students from other states in Venezuela or even in neighboring countries rely on the resources from the Universidad de Los Andes, Mérida being the best place for bryology in the country.

The Universidad de Los Andes has up to the year 2000 the best collection of bryology journals in Venezuela. The library has The Journal of the Hattori Botanical Laboratory (since 1947), Cryptogamie, Bryologie (1980), The Bryologists (since 1898), Lindbergia (since 1971).

The bryology lab has in addition The Journal of Bryology (since 1996) and Tropical Bryology (since 1992), Arctoa (since 1992). In addition we receive many reprints from colleagues and we have some book titles such as:

Index Muscorum, Index of mosses, Mosses of North America, The Moss Flora of Mexico, Moss flora of Central America, Prodomus Bryologicae Novo Granatensis, Guide to the Bryophytes of Tropical America, Musci Austro Americani, The mosses of Amazonian Ecuador, Bryophyte Bryology, Biologie der Moose, Introduction to Bryology, Latmoss. The Hepaticae and Anthocerotae of Brazil. However we lack important publications as Index Hepaticarum, the Hepaticae and Anthocerotae Flora of North America (we only have vol. I and II), the useful Advances in Bryology from The Hattori Botanical Lab and so many more titles...

Organization of Bryology events

The BG organized the International Tropical bryology course in 1996 with the participation of Dr. Tamás Pócs and Dr. Jan-Peter Frahm.

In January 2004 the XV IAB World congress was held in Mérida-Venezuela being organized by the BG.

Bryophyte Conservation

Since the group was established in 1995 we have had four students working on bryophytes. In addition an educational campaign started in 2003 to highlight the role of bryophytes as important members of the Andean ecosystems and to diminish the impact of bryophyte extraction every Christmas (bryophytes are used in Latin America as decoration for nativity scenes).

Currently we work in general on the bryophyte flora of the cloud forests and páramo; and more specifically in the revision of the Cryphaeaceae family for the Flora Neotropica, the revision of the genus *Riccardia* in Venezuela, the hepatics of Roraima Tepuy.

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The Hepaticae and Anthocerotae of Brazil / Hepáticas e antóceros do Brasil.

S. Robbert Gradstein and Denise Pinheiro da Costa (Illustrations by Aline Souza de Oliveira and M. Elena Reiner-Drehwald). *The Hepaticae and Anthocerotae of Brazil / Hepáticas e antóceros do Brasil*. xviii + [1]-318 pp., 105 figs. 7 tabs. *Memoirs of The New York Botanical Garden*, Volume 87. 3 October, 2003. [ISBN 0-89327-448-8] (hardcover). Price 54.00 US\$ (Postage US Orders: \$6.00 + 5% of Subtotal; Non-US Orders: \$7.00 + 6% of Subtotal). Available from The New York Botanical Garden Press, 200th Street and Southern Blvd., Bronx, NY 10458-5126, U.S.A. Fax: (718) 817-8842; Ph. (718) 817-8721
<<http://sciweb.nybg.org/science2/PressHome.asp>>

Kudos to the authors for this timely publication on a most fascinating group of plants. The surge of interest in the liverworts and hornworts in South America, especially during the past two decades, has suffered from the lack of a reference work treating all genera and at least the most common species. Finally, botanists working in Latin America have that singular source that can be used to identify these plants not only to genus, but in most cases, to species as well. The publication is a product of 30+ years of field study in South America by Rob Gradstein who has championed the liverwort flora and biodiversity of the Neotropics. His association with Denise Pinheiro da Costa and illustrators Aline Souza de Oliveira and Elena Reiner-Drehwald has led to the creation of this impressive book. The bilingual format, with text in both English and Portuguese, makes this reference available to a very wide audience.

Following the introduction is an illustrated section on the general features of liverworts and hornworts, sections on the phytogeography and hepatic diversity in Brazil and a page on how to collect and study liverworts and hornworts. Keys and generic descriptions comprise the bulk of the book along with brief taxon commentaries. Unfortunately, there are no species descriptions or diagnoses and in most instances, only habitat and distribution data are given. One must rely on the characters in the keys and the drawings to guide

identifications. An introductory key consists of a single couplet that separates liverworts from hornworts. The liverworts are first keyed to one of the five orders recognized by the authors. From there one uses a general key ending with reference to a family key or genus. The few keys that I worked through worked quite well. For example, to key the "leafy" thalloid genus *Fossombronia*, one easily gets to the Metzgeriales s.l. via the Jungermanniales s.l., or true leafy liverworts. For some genera, such as *Riccia*, a key is provided for all 29 species recognized in Brazil; for many genera, the keys are only for the most common species. There is a list of "further records" presented at the end of each genus treatment, just prior to a list of "excluded records". For example, only ten species of *Riccardia* are keyed and treated while 10 more are simply listed as further records. The treatment of all species will be the challenge in preparation of a second edition!

This work makes an excellent companion for the earlier "Guide to the Bryophytes of Tropical America" by Gradstein, Churchill, and Salazar-Allen (see review in BT110: 6-7. 2003). While there are many new illustrations in the Brazil book, it appears that most, if not all, of the liverwort/hornwort illustrations from the Tropical America book are reproduced here. It is unfortunate that the quality is not nearly as good. Line drawings are provided for about 600 of the estimated 700 plus species of the flora. For the most part, those illustrations provide sound, accurate identification aids but in passing, I did notice a discrepancy for one taxon. The text for *Symphogyna podophylla* correctly reads that it has toothed thallus margins but the illustrations show entire margins.

The book culminates with the usual glossary, bibliography and index. That it is affordable should make it generally available throughout Latin America. The stimulus this will provide for the study of hepatics and anthocerotates in Latin America will be incalculable.

Raymond Stotler

Database for literature relevant to Japanese bryophytes on CD-ROM

BRYOPHILE. 2002. Database for literature relevant to Japanese bryophytes. CD-ROM. KEY LAB Nakanoshima Co., Ltd., Osaka.

This database includes data of ca 15,000 titles relevant to Japanese bryophytes. It might be useful not only for professional and amateur scientists who are devoted to bryology with particular reference to Japan and its related regions but also for students who are just starting to study bryophytes. The project for constructing the database started by a group of bryologists at the IBC Berlin in 1985, under the guidance of Dr. Inoue. As the next milestone in the project we now make the database available to the public.

Each data block consists of six lines with the following data: the title; the author(s); the name of Journal with volume number (if present), pages, publication year; general category: Mosses (M), Hepatics (H), Anthocerotates (A) and bryophytes (B); and some key words. A sample of data is the following:

1236
A revision of Japanese species of *Lophocolea* Dum.
Inoue, H. 井上浩
J. Hattori Bot. Lab. 21: 214-230, 1959.
H
Taxonomy. Japan.

This database has been published in CD-ROM style, not as a book, in order to save cost. The face of the CD-ROM is printed with a photograph of *Monosolenium tenerum* Griff., a rare species, in Miyazaki Pref., Kyushu by J. Hasegawa. The database is presented as plain text files including alphabetical, Japanese phonetic letters and Chinese characters. Data required can be made available with programs such as text editor programs, word processors or some internet browsers that deal with Japanese codes: Shift-JIS and EUC.

Please address comments and questions concerning this database to the following address: Dr. Kenji Kato; Otsu-shi, Koyo-cho 12-6, Shiga 520-0224, Japan; e-mail: mokuren@mx.biwa.ne.jp

The database is ¥5000 + postage/packing; available from KEY LAB Nakanoshima Co., Ltd.; Nakanoshima 4-3-36, Kita-ku, Osaka 530-0005, Japan; Fax: +81-6-6445-7208; e-mail: keylabosa@aol.com

A trial version of the database is now available in the website of the Digital Natural Museum of Hiroshima University: the URL (or URI) is [http://www.digital-museum.hiroshima-](http://www.digital-museum.hiroshima-u.ac.jp/~museum/literature/)

[u.ac.jp/~museum/literature/](http://www.digital-museum.hiroshima-u.ac.jp/~museum/literature/) (you will need to have Japanese fonts and language processing software installed on your computer system).

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I would like to thank Prof. R. D. Seppelt for checking the text of this English version introduction of the database.

Hiroimi Tsubota, e-mail: chubo@hiroshima-u.ac.jp

Census Catalogue of Polish Mosses

Ochyra, R., Zarnowiec, J. & Bednarek-Ochyra, H. 2003: Census Catalogue of Polish Mosses. Biodiversity of Poland, Vol 3. 72 pp., soft cover, ISBN 83-85444-84-X. Publisher: Polish Academy of Sciences, Institute of Botany. Available from: Editorial Office, Institute of Botany, Polish Academy of Sciences, Lubicz 46, PL-31-512 Kraków, Poland; e-mail: ed-office@ib-pan.krakow.pl. Price 35.00 US\$ + handling and postage.

There are catalogues and Catalogues. The present one is a Catalogue, meaning its contents are much more valuable and critical than the title of the work would suggest. The organisation of the book is 1. Introduction, 2. Systematic arrangement of taxa, 3. Catalogue of taxon names with bibliographical data (subdivided into supraspecific and specific/intraspecific lists), 4. Excluded taxa, 5. Annotations (over 90 pages), 6. Synonyms, 7. Alphabetical list of Polish names of moss taxa, 8. Familial and subfamilial placement of moss genera, 9. Authors of moss names cited in the catalogue, 10. References, 11. Taxonomic and nomenclatural novelties and new synonymy, 12. Polish summary.

The title contains 700 species (incl. several subspecies and numerous varieties) 207 genera and 55 families. The Introduction outlines the rationale and purpose of the book, saying, for example: "...the present work is an attempt to meet the long felt need for a standard work on the nomenclature and distribution of Polish mosses". Here the authors also emphasize that they have paid great attention to the completeness of the work, meaning it should contain "everything" from accepted scientific and vernacular names, names ever used for Polish mosses, and their synonyms to correct orthography and author abbreviations – "Finally, for the first time, the Polish nomenclature of mosses has been reviewed and set in order". Are they just boasting? I don't think so!

"Polish nomenclature" refers of course also to the Polish moss names, but as for the scientific names, it is defined in an extremely wide sense, since the book proposes a myriad of

new combinations at various taxonomical levels in various families. It should be stressed that as far as I understand most, if not all, of the new combinations result from the authors' taxonomic studies rather than from purely nomenclatural reasons, and the taxonomic decisions are consistently defended and explained in the Annotations. The Grimmiaceae as understood by the authors should serve as an illuminating example of how taxonomically profound and geographically far-reaching the changes and concepts are. The subfamilies Grimmiodeae and Racomitriodeae are recognized for the Polish taxa. The former contains the genera *Coscinodon*, *Grimmia*, *Dryptodon*, *Orthogrimmia* (new genus, basionym *Grimmia* subg. *Orthogrimmia*), *Guembelia*, *Hydrogrimmia* and *Schistidium*. The latter subfamily has *Racomitrium*, *Niphotrichum* (new genus, basionym *Racomitrium* subg. *Niphotrichum*), *Codriophorus*, and *Bucklandiella*. Accordingly, the familiar species *Racomitrium canescens* is recognized as *Niphotrichum canescens*, *R. fasciculare* as *Codriophorus fascicularis*, and *R. microcarpon* and *R. heterostichum* respectively as *Bucklandiella microcarpa* and *B. heterosticha*. And this is just an example, many more of equal significance could be presented.

I have heard some colleagues refer to Rysiek Ochyra as a splitter. It is clear that in this book the generic and some other taxonomic concepts are narrower than many would accept to swallow and digest. The genus *Racomitrium*, for example, can without doubt be divided into morphologically fairly well-defined subgroups as the authors of this Catalogue do, but the question of course is, are the subgroups worthy of generic recognition? The taxonomic concepts of Ochyra and the co-workers will certainly be tested with DNA-data in the not-too-distant future. Meanwhile we have the pleasure and privilege of weighing the meal from "Ochyra's grindstone" – the fruits of this admirably meticulous work by one of the leading moss taxonomists of our days. This book, apart from being a very useful source of up-to-date literature references, certainly makes one carefully consider and think about one's own taxonomic judgments and their basis!

Johannes Enroth

Guia de Campo de los Liquenes, Musgos y Hepaticas

This new book on bryophytes and lichens is the Spanish translation and adaptation of the original German "Farbatlas Flechten und Moose" by Wirth & Duell (2000). This field guide has been published for the Iberian Peninsula as 101 bryophytes and 120 lichens, all Mediterranean species of dry areas have been added. In total, 226 bryophytes and 288 lichens are briefly described and commented to exclude possible confusions with related species; also information on distribution, life strategy, etc. is given and all have color photographs.

V. Wirth, R. Duell, X. Llimona, R. M. Ros & O. Werner. 2004. Guia de Campo de los Liquenes, Musgos y Hepaticas. Ediciones Omega, 589 pp., hard cover. 2004. Price: 59 euros. To order: visit the website of Ediciones Omega: <http://www.ediciones.omega.es>

Rosa María Ros, email. rmros@um.es

<http://www.um.es/dp-biologia-vegetal/lab-briologia/Principal.htm>

Bryological Newsletters: Bryologische Rundbriefe

Botanical Journals were originally some kind of newsletter. This includes the oldest botanical journal "Flora" as well as old journals such as "Botanische Zeitung" (Zeitung means newsletter), in which reports from travels and fieldtrips, field observations, literature reviews, announcement of exsiccatae or offers of microscopes were published. This includes also bryological journals such as the Bryologist, Cryptogamie Bryologie or the Transactions of the British Bryological Society. All these journals were designed for botanically interested field botanists. And all these journals made the way to scientific journals and left a gap for many decades. This gap was filled in the past by some kind of an explosion of bryological newsletters such as Meylania, Myrinia, Evansia, Australian Bryological Newsletter, Buxbaumia, Briolatina, Nowellia, Evansia, the Bulletin of the BBS, Muscillanea or on an international level, the Bryological Times.

In Germany, the Bryologische Rundbriefe was founded for that purpose in 1990. As in many other of these newsletters, desktop publishing made it possible to produce such newsletters at home at the computer without printer. The problem was only to copy, fold, wrap the pages and stamp and label the envelopes. As this cost money, a fee had to be charged requiring additional bookkeeping, mailing reminders etc. Besides, the first numbers were published after the German unification, and this newsletter should be one for the united Germany, but there was not yet a common currency. So the fees were collected in eastern Germany in East Mark, without knowing to which rate the East Mark was later changed for the West Mark.

The new German newsletters were copied from the Bryological Times in style. In my opinion, the idea of Stanley Greene to have such a newsletter and the style in which he edited it was absolutely a success. Thus the Bryological Times gave the bryologists internationally a common identity, which has never the case before. And why change this

concept if it was successful? So I hoped to cause the same effect amongst the bryologists from Germany, who had no contact before except maybe for one annual meeting of the BLAM, in which only part participated.

Twenty-three numbers were mailed to 180 addresses (the number went down later to 120) until 1999. Then I was no longer able to do the work and this project was handed over to the Bryologisch-Lichenologische Arbeitsgemeinschaft for continuation. The new editor, however, continued not a newsletter but a new bryological journal called "Bryologische Mitteilungen", but this journal was stopped after two issues.

In the meantime, the internet made it possible to mail or download electronic journals, and thus I re-animated the Bryologische Rundbriefe in 1999 as an electronic journal, probably the first in bryology. First issued irregularly, the numbers were later published monthly, and since that time, nos. 24-79 numbers were put in the internet. The latest issues can always be downloaded for free from www.bryologische-arbeitsgemeinschaft.de as pdf-file. All other previous numbers can be obtained on CD. So this was not only the first electronic bryological newsletter but also perhaps the first which could be obtained for free. Also, the ISSN number is kept also as an electronic journal. Meanwhile, also the Australian Bryological Newsletter is available on the internet, and maybe this will encourage bryologists to use this facility for more local newsletters, even in a more advanced style (e.g. with colour pictures) than in printed form. And if the IAB homepage develops to a gate for international bryology as the address suggests (bryology.org), this could also be a gate to the access of all local bryological information.

Jan-Peter Frahm

MEETINGS, CONFERENCES, WORKSHOPS

BRYOPHYLOGENY 2004 - Göttingen

Second International Symposium on Molecular Systematics of Bryophytes in Göttingen, Germany, 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 for *Bryophylogeny 2004* in Göttingen will run from Friday evening (Sept. 10) until Sunday afternoon (Sept. 12) and includes invited lectures and posters. All lectures will be held in the main lecture hall of the Albrecht von Haller Institute of Plant Sciences, Untere Karspüle 2, Göttingen (in the centre of the town, 7 minutes from the train station and a few minutes walk from the main shopping area).

Programme

Friday 10th September

16.00-19.00: Registration: Foyer, Albrecht von Haller Institute, and poster montage

19.00-21.00: Welcome party Orangerie, Old Botanical Garden

Saturday 11th September

08.00-09.00: Registration, Morning Coffee and Tea: Foyer, Albrecht von Haller Institute

09.00-12.00:

Mishler, B.: Opening talk.

Groth-Malonek, M., T. Rein, M. Polsakiewicz & V. Knoop: Bryophytes and other land plants: the mitochondrial perspective.

La Farge, C., H. S. Rai & S. W. Graham: Basal bryophyte relationships based on a large multigene plastid data set
Shaw, A. J., C. J. Cox & B. Goffinet: Toward a generic level phylogeny of the mosses.

13.30-18.00

Tsubota, H. & H. Deguchi: Molecular phylogenetic relationships of Jungermanniidae based on rbcL sequences, with special reference to *Mizutania riccardioides*.

He-Nygrén, X., A. Juslén, I. Ahonen, D. Glenný & S. Piippo: Evolutionary trends in liverworts, a phylogenetic approach based on multiple gene sequences and morphology.

Crandall-Stotler, B., L. Forrest & R. E. Stotler: Evolutionary trends in the Metzgeriidae

Schaumann, F.: Molecular phylogeny of Pallaviciniaceae.
Heinrichs, J., M. Lindner & H. Groth: Origin and subdivision of *Plagiochila* in tropical Africa.

Jankowiak, K. & Z. Szwejkowska-Kulińska: Organellar inheritance in mosses. Analysis of chloroplast tRNA^{lys}(UUU) gene encoding maturase protein within intron.

Frahm, J.-P. & D. Quandt: First evidence for bryophyte survival during the last glaciation in Central Europe.

19.00: Reception in the town hall, Marktplatz, followed by dinner in the "Ratskeller", Marktplatz

Sunday 12th September

09.00-12.00.

Goffinet, B., C. J. Cox & A. J. Shaw: What is the source of the incongruence between nuclear and cytoplasmic DNA inferences with regard to the relationships among basal arthroodontous mosses.

Newton, A. E.: Key innovation or adaptive radiation - why are the pleurocarps so diverse?

Hyvönen, J.: Phylogeny of Polytrichales reoptimized.

Ros, R. M. & O. Werner: Phylogenetic relationships of the Trichostomoideae (Pottiaceae, Musci) based on nrITS sequences.

Stech, M. & D. Wagner: Molecular relationships, biogeography, and evolution of Gondwanan *Campylopus* species.

Vanderpoorten, A. & B. Goffinet: Phylogenetic and phylogeographic relationships in the *Brachythecium velutinum* complex.

Registrations are expected by **15 June 2004** at the latest. The registration fee is 25 EURO, to be paid at the registration desk at the time of the congress. Registration can be made by writing to: jheinri@gwdg.de or to the organizers at the address given below. **Poster presentations** on the subject of the conference are welcome. **Accommodation** can be booked via the tourist office of the town of Göttingen: www.goettingen-tourismus.de/english/

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

The 8th Australasian Bryological Workshop

The 8th Australasian Bryological Workshop will be held at Paluma village, in tropical North Queensland, Australia, from Saturday 25th June to Thursday 30th June 2005.

The village of Paluma is situated near the summit of Mt Spec (1000 m altitude) on the Paluma Range north of Townsville, and is the most southerly point of the Wet Tropics World Heritage Area. It is accessed by 18 km of

sealed road that winds up the mountain from the coastal plain, through eucalypt forest and Casuarina woodland, to tropical rainforest at the top of the range.

Townsville has a major airport with connecting flights to and from Brisbane and Cairns. For more information, please contact Andi Cairns directly; Andi.cairns@jcu.edu.au

BRYO-ART

At the IAB-meeting in Merida this year, there was an exhibition of Bryoart. I had been asked, to send some of my colour graphics of bryophytes for this exhibition, but the parcel with the pictures got stuck somewhere on the way and came too late for the meeting.

Now some people have asked to see the pictures, and so I did a new site on my homepage, with the collection I had prepared for the Bryoart in Merida. If you are interested in the pictures, you can visit my homepage www.milueth.de/ and follow the link to the "Pictures of Bryophytes", where you will find the site "BRYOART..." or go directly there with <http://homepages.compuserve.de/milueth/Moose/BryoArt2003/bryoart.html>

Michael Lüth, Freiburg, Germany. Email: umweltplanung@milueth.de or www.milueth.de

MOSS 2004

MOSS 2004 will be held from September 12-15 in Freiburg, Germany and will bring together scientists who are interested in physiology, phylogeny and molecular biology of mosses. Furthermore, an international moss (*Physcomitrella*) genome sequencing initiative will be launched at that meeting.

Participants will be invited to contribute to a special issue on Moss Molecular Biology of the international journal *Plant Biology*. There are still some student travel grants available upon request. Freiburg is a beautiful small city near to the Black Forest. Besides science, we organize scenic tours and beautiful events. So, bring your family with you.

Deadline for submission of abstracts and early registration is June.1st. Please check www.plant-biotech.net/moss2004 to find out more and to register to this exciting conference.

Very much looking forward meeting you here in Freiburg.
Ralf Reski ralf.reski@biologie.uni-freiburg.de

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**We are looking for more country contacts!
Please contact the editor if you would like to be the next on the
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Thank you!**

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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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See page 15

Production: Geert Raeymaekers, Ecosystems LTD

UPCOMING MEETINGS

2004

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.

June 13-19: Dick Andrus will conduct a field-oriented course in Sphagnum at Eagle Hill, Maine (USA) See www.eaglehill.us as Advanced Sphagnum Field Course.

June 18: Bryological Working Group of the Societa Botanica Italiana: "Cytological, ecological and phytogeographical aspects of Bryophytes". Catania (Italy). Contact: Dr. Maria Privitera privitera@ambox.dipbot.unict.it

June 25 – 30: 8th Australasian Bryological Workshop, Paluma village, North Queensland, Australia. Contact: Andi.cairns@jcu.edu.au

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

September 10-12: Bryophylogeny 2004, second international 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

September 21-23: 5th European Bryophyte Conservation Conference (ECCB 5): Valencia (Spain). This is immediately after the 4th Planta Europa meeting. Contact: ECCB-meeting@uv.es,

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