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 Association of Bryologists*



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Tracing a hornwort-consuming beast

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As usually in autumn, we collected plants of *Anthoceros agrestis* Paton and *Phaeoceros carolinianus* (Michx.) Prosk. in a number of arable fields in the surroundings of Bern, Switzerland, to provide material for student courses. The hornworts were divided into three portions which were placed, on their original substrate, into small flat pots. These were put on moist paper in plastic vessels and covered with a transparent foil. Two of the jars stayed in Switzerland and one was brought to Sweden. All collections were kept in a window under natural light conditions, the former at about 10 to 15 °C, the latter at room temperature. At intervals of a few days, the pots were checked and soil and paper moistened if necessary by adding a few drops of water. This technique for cultivating hornworts has been proved to be successful in earlier experiments: they increased in size, developed sporophytes and some populations of both taxa survived several years under the conditions described

(Bisang 1995). Therefore, it was very surprising and unexpected to realise at one of the usual controls that all hornworts had disappeared! In one of the vessels in Switzerland and in that transported to Sweden, not the slightest trace of a thallus or a capsule could be detected. The third part of the collection, however, still grew well and sporophyte maturation continued.

It has been observed before in the field that hornworts can decay rather fast after dying. However, it usually takes more than just a few days and remains of sporophytes or of *Nostoc* colonies can often be discovered on the soil surface. What had thus happened in the culture vessels? Drought? Presumably not, since the soil was still moist in both pots after the disappearance of the hornworts. Sabotage? This seems also very unlikely - whoever would weed hornworts? A careful examination of the pots brought the potential robber to light. In the soil of both cultures where the hornworts had vanished a larva was

found. The larvae are about 1.5 cm long and of a dirty-grey, rather unspecific (not to say boring) appearance but have a characteristically looking rear end and could therefore be recognised as crane-fly larvae of the genus *Tipula* (family Tipulidae of the order Diptera). The rear end appears like a grimace due to two breathing pores and six club-like processes. Larvae of crane-flies (daddy-long-legs) live on living or dead plant material, depending on the species, and may occur in the soil in large numbers. It was interesting to notice that hornworts have apparently been the selected diet since plants of *Bryum* sp. in one of the collections maintained in Switzerland, and a few phanerogam seedlings growing in the pot kept in Sweden remained untouched.

Earlier field experiments have revealed that slugs may feed on hornworts, especially on green sporophytes (Bisang, unpubl. data). This corresponds with previous reports in the lit-

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erature on snails grazing immature bryophyte capsules (see, for example, Davidson & Longton 1987, Davidson et al. 1989). However, the observation that bryophyte gametophytes are eaten by invertebrates is quite unusual.

We conclude that the crane-fly (*Tipula*) larvae have most probably eaten up the living plants of *Anthoceros agrestis* and *Phaeoceros carolinianus*, both gametophytes and sporophytes; and we would enjoy to hear if any of the readers has made similar observations.

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Davidson A.J., J.B. Harborne & R.E. Longton 1989. Identification of hydroxycinnamic and phenolic acids in *Mnium hornum* and *Brachythecium rutabulum* and their possible role in the protection against herbivory. *Journ. Hattori Bot. Lab.* 67: 415-422.

Biographies of German Bryologists

In the past, German bryologists were numerous compared with other countries. The dictionary of German bryologists (Frahm 1995) lists several hundred professionals, amateurs and bryophyte collectors. Many of them became very famous, e.g. Dillenius was one of the most important prelinnean bryologists. Hedwig obtained with his opus „Species Muscorum“ the starting point for the nomenclature of mosses. Hofmeister unravelled the life cycle of bryophytes. Bruch, Schimper und Gumbel wrote the *Bryologia Europaea*, the first European bryoflora. Gottsche, Lindenberg and Stephani were the most famous hepaticologists of their era. Warnstorf published the only conspectus of the *Sphagnum* species of the world. Max Fleischer had important impact on moss systematics, which was followed until recently, Herzog developed the bryogeography. Other famous German bryologists were, amongst others, Schwägrihen, Bridel, Funck, Nees von Esenbeck, Lehmann, Hornschuch,

Hampe, Carl Müller, Limpricht, Mönkemeyer and Roth. A great part of bryophyte taxa was described by Germans, especially in the last century. Many German bryologists were active only on a local scale but considerably enhanced the knowledge the bryology of Germany. Many were only plant collectors such as Crüger, Deppe, Drege, Ecklon, Fendler and many others, who are commemorated in many species names. However, beside their scientific publications little is known about these persons, their life and their personalities. There were many tragedies and many had difficult lives, but these are generally not known. Who knows, for instance, that Geheeb died mentally disturbed, that Nees had to leave Bonn University because he had an affair with the wife of the rector and was finally fired from his position because he was a communist and died as a poor man, or that the specialization of Karl Müller in hepaticology went back to his time at high school, when he decided with his classmate Theodor Herzog to share bryology between them. Many died without an obituary because they were not professionals but private scientists or because of war times, where journals were not published. The dictionary of German bryologists gives as many details as could be extracted from the available sources, however, in German. Therefore I was asked to translate the biographies of some of the more well known bryologists in a series which shall be continued.

Jan-Peter Frahm, Botanisches Institut, Meckenheimer Allee 170, 53115 Bonn, Germany.

New addresses

A correction from the last issue is necessary. The new address of Prof. S. Rob Gradstein is: Systematisch-Geobotanisches Institut, University of Göttingen, Untere Karspüle 2, D.37073 Göttingen, Germany, Tel. (0)551-392229, Fax. (0)551-392329

GRADUATE ASSISTANTSHIPS IN BRYOLOGY

Under the sponsorship of the National Science Foundation PEET program, graduate assistantships (Ph.D. or M.S.) are available at Southern Illinois University-Carbondale, for students interested in the biology and systematics of liverworts. Each graduate assistant will be mentored by Dr. Raymond Stotler and Dr. Barbara Crandall-Stotler as a participant in a world-wide monographic study of the phylogenetically pivotal, cosmopolitan simple thalloid liverwort suborder Fossombroniineae. Each participant in the project will gain field experience and learn standard taxonomic methods as well as statistical methods for analyzing variation patterns, culture techniques, SEM, computerized image capturing and analysis, starch gel electrophoresis, DNA sequencing protocols, and data networking via World Wide Web. The Plant

Biology Department offers a selection of more than 40 graduate courses, including three in bryology, taught by 18 full time faculty. In addition, doctoral student participants in the project will have the opportunity to spend one semester of their studies at the University of California at Berkeley, where they will participate in a course in phylogenetics, under the supervision of Dr. Brent Mishler. Each assistantship provides a monthly stipend, complete tuition and partial payment of fees for the duration of graduate study. For application information and materials, contact: Dr. Raymond Stotler, Department of Plant Biology, Mail Code 6509 Southern Illinois University, Carbondale, IL 62901-6509. PH (618)-536-2331; FAX (618)-453-3441; e-mail stotler@qm.c-plant.siu.edu.

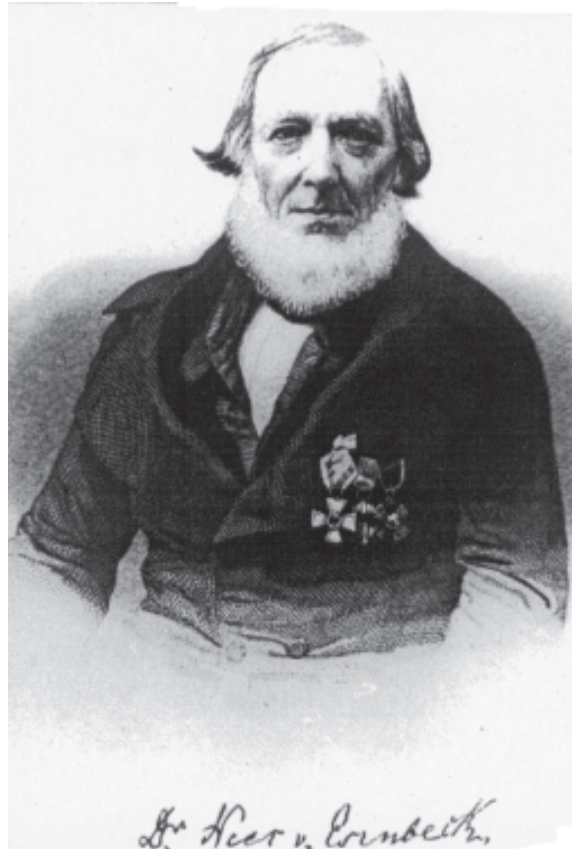
Assistantships commence Aug 1996.

1. Nees von Esenbeck, Christian Gottfried Daniel (1776-1858)

*Jan-Peter Frahm, Botanisches Institut,
Meckenheimer Allee 170, 53115 Bonn,
Germany.*

Nees was born in the castle Reichenbach south of Frankfurt, where his father was an administrator. His name „von Esenbeck“ suggested a noble origin, but this is not so. Probably he was the illegitimate child of a duke and his mother was married to the administrator. He studied medicine in Jena, where he attended lectures of the philosopher Fichte, who also propagated the ideas of the French revolution. This influenced much of his political opinions. After his medical examination, he became a physician in Sickershausen in Frankonia in 1802. At that time he met Funck, who lived nearby. It can be assumed that Funck introduced him to bryology. Owing to his important publications on freshwater algae and on the systematics of fungi, he was appointed in 1817 as professor for botany, first at the University of Erlangen and one year later at the University of Bonn, which was just founded by the Prussian king Friedrich Wilhelm after the liberation of the Rhineland from French occupation. The reason to invite Nees to Bonn was a political one: In Erlangen, Nees was president of the „Leopoldina“ a bavarian natural history society, and with Nees, the presidentship came to Prussia: Within an extremely short time, Nees established a botanical garden around the Poppelsdorf castle, in which the botanical institute was housed, and where he also lived. In the first year, 4500 species were planted there. At that time, professors were in part paid by goods (e.g. cereals) and at Bonn University they had the privilege to have a cow on the meadows of the castle.

During his time at Bonn university, Nees was extremely active. According to Index Kewensis, he described about 6800 species of flowering plants (Linné described about 14000 species during his full lifetime). But he had also many other activities. For example, he was mesmerist, a medical discipline founded by the French physician Mesmer believing in the influence of magnetic fields on the human body, and Nees published a paper on the „magnetic sleep“. This „nonsense“, as it was later called, cost him much his scientific reputation. He also wrote publications on natural philosophy. Goethe was his personal friend, to whom he dedicated the genus *Goethea*, and each year, he celebrated Goethe's birthday with a party on an island in the Rhine south of Bonn. A hundred and fifty unpublished letters written to Goethe are known. Nees was married, however, he got divorced when he had an affair with the wife of the Rector of the University. As this was not tolerated in the catholic Rhineland, Nees had to leave Bonn University. He was exchanged against Treviranus, professor of botany at the



University of Breslau, which was situated at the other end of the Prussian kingdom, 1000 kilometers from Bonn. His mistress followed him to Breslau, but started another affair with a colleague of Nees. Then Nees married the 18 year old daughter of a weaver and had several children with her.

Most of his bryological publications were written in Breslau. He described several hundred bryophyte species, the majority of which were liverworts. Most of the species he described were from overseas. For instance, he received the brazilian liverworts from Martius for description. With Martius, he corresponded in Portuguese. It is told that Nees spoke and wrote most of the mayor European languages. With age, he got also politically engaged. He knew Marx, was a follower of his ideas and thus was one of the first communists. In 1848, at 72 years, he became a member of the Prussian parliament and was actively engaged in the improvement of the social conditions of the weavers in Silesia. This kind of political activity was, however, not tolerated in the Prussian state, and thus he lost his position and not only this but also his pension. So he died in a small chamber under extremely poor conditions and received a poor funeral, unnoticed anymore by the scientific world. But thousands of weavers followed his coffin....

The text was kindly corrected by Dr. Min Chua-Petiot.

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News from the Bryology Lab., Kumaon University

Forwarded by: Dr. Giribala Pant and associates, Bryology Lab.,
Department of Botany, D. S. B. College, Kumaon University, Naini Tal
263002, U. P., India

Change of position: Dr. S. D. Tewari has moved from a position as Research Scientist at a Department of Science & Technology (D.S.T.) Project, to a position as Pool Officer at the Council of Scientific and Industrial Research (C.S.I.R.), Government of India. Dr. Tewari is now working with the project "Exploration of the high altitude (above timberline) bryophytes of Kumaon Himalaya".

Grants: D.S.T. Government of India supported the project "Studies on the taxonomy and ecology of Kumaon Himalayan Bryophytes", during the period December 1991—December 1994 (Giribala Pant).

D.S.T., Science and Engineering Research Council (SERC). Lecture grant for delivering lectures in five Indian universities / colleges (Giribala Pant).

Planned field trips: Sunderhunga, Namik and Pindari Glaciers in Kumaon Himalaya (2000-4000 m a.s.l.) (S. D. Tewari).

Book published: Tewari, S. D. & Pant, G. 1994. Bryophytes of Kumaon Himalaya. 240 pp. Bishen Singh Mahendra Pal Singh, DehraDun, India.

Papers published: Pant, G., Tewari, S. D. & Joshi, S. 1993. Vanishing greenery in Kumaon Himalaya: Observations on bryoflora. *Geophytology* 23(2): 253-257. (The Palaeobotanical Society, Lucknow, India).

Tewari, S. D., Pant, G., Joshi, S. & Airi, S. K. 1994. High altitude (above timber-line) bryoflora of Kumaon Himalaya. In Pangtey, Y. P. S. & Rawal, R. S. (eds.) *High Altitude of the Himalaya*, pp. 263-280. Gyanodaya, Naini Tal, U. P., India.

Bischler, H., Boisselier-Dubayle, M. C. & Pant, G. 1994. On *Aitchisoniella* Kash. (Marchantiales). *Cryptogamie Bryol. Lichenol.* 15: 103-110.

Farooqui, P. & Pant, G. 1994. An experimental "moss garden" in Nainital. *Curr. Sci.* 67(1): 5-6.

Some Reminiscences of Olle Mårtensson

The announcement of the death of Olle Mårtensson (Bryol. Times, October 1995) came as a distinct shock. As an old and cherished field companion I always felt he was indestructible! He was nearly unique in his field knowledge of not only Scandinavian mosses but also hepatics. And he had a fabulous memory regarding where he had found them. In the summer of 1972 he was kind enough to accompany me and my wife to the Torneträsk area and we spent two weeks with him, mostly in the field. I well recall that, having never seen *Scapania kaurinii* in the field, he led me up a steep rocky slope in the mountains south of Torneträsk Lake, moving with a speed that had to be seen to be believed. It was a day with intermittent clouds and mist; bending down to collect for a moment, I found on turning erect and looking up the slope he had disappeared in the fog. We found each other after half an hour; I never again let him out of my sight! But, fog or no fog, we found the *Scapania*.

He was a delightful companion in both field and laboratory, and he will be sorely missed. Among other cherished memories is a trip we took, by train, to Narvik - where he purchased a huge quantity of herring - leading to a discussion of the taxonomic differences (and quality) of Norwegian vs. other Scandinavian herring! On this trip far north in Sweden we also managed to collect *Cryptocolea imbricata* which, as far as I know, has not again been collected in Europe, although the Russians have a number of Siberian stations. Olle had a sharp eye, a good taxonomic "instinct", a delightful personality, lacking in cant - and the mind and broad interests of the scholar. I mourn his passing.

Rudolf M. Schuster

BRYONET is running

Ecology Column: Send contributions to the column editor: Janice M. Glime, Department of Biological Sciences, Michigan Technological University, Houghton, Michigan 49931.

If you want to subscribe, SEND MAIL TO majordomo@mtu.edu WITH NO SUBJECT, IN THE MESSAGE WRITE: subscribe bryonet-1, NOTE that it is the letter l as in liverwort and not the number one.

Bryonet has been moved from Jan-Peter Frahm as manager to myself and is now seated in Houghton at Michigan Technological University. As of this writing it has about 170 subscribers and is growing. Its primary purpose is for ecological discussions and sharing of

information among bryologists, teachers, and ecologists, but discussions of systematics and other ecological topics are welcome. I hope it will become a useful resource for teachers and ecologists, in particular, who do not have ready access to the literature of bryology. Since so much of our bryophyte ecological and physiological literature is imbedded in papers dealing primarily with other topics, it takes a lifetime to accumulate the references and knowledge that permit you to answer questions efficiently. I hope we can now make that knowledge resource available to those who study bryophytes only occasionally and to help out our beginners, be they amateur, student, or professional. [JG]

News from Helsinki

ORGANIZATION

Several changes in the organization of Botanical Museum (see *Bryological Times* 55, 1990) and Department of Botany of the University of Helsinki have taken place. The old Department of Botany does not exist any more. Due to the reorganization of biological departments, Department of Botany was divided into two parts which were reorganized so that the Laboratory of Plant Physiology (Professor Liisa Simola) became a part of Department of Biosciences. The Laboratory of Plant Systematics and Ecology (Professor Timo Koponen), with the corresponding zoological laboratory, the Laboratory of Hydrobiology, and Laboratory of Environmental Biology form the new Department of Ecology and Systematics. Most of the bryologists (Timo Koponen, Dr. Ahti Mäkinen, Dr. Pekka Pakarinen, Lic. Sanna Laaka, M.Sci. Viivi Virtanen) continue to be affiliated to the Division of Systematic Biology of the new Department.

NEW HEAD CURATOR

Professor Pekka Isoviita retired from his position as the Head Curator of the Cryptogamic Herbarium on August 31st, 1994. The position was declared open and 5 persons applied. Dr. Sinikka Piippo was elected and nominated from October 1st, 1995.

OTHER PERSONNEL

Dr. Johannes Enroth was nominated as a Docent Lecturer of Botany on June 2nd, 1995. He is now acting as the Senior Curator of the Cryptogamic Herbarium. He is the Editor in Chief of *Annales Botanici Fennici*.

Dr. Jaakko Hyvönen, Docent Lecturer of the Department, was elected as the Professor of Botany of Turku University and nominated to the position by the President of Finland beginning October 1st, 1995. Professor Hyvönen will begin his new career on January 1st, 1996, after the tenure of the scholarship of Senior Scientists he now enjoys will terminate.

Dr. Aune Koponen is now the Inten-

dent of the Botanical Garden and has rather little time to devote to the study of bryophytes. Timo Koponen, in addition to his professorship, is the Director of the same garden.

Dr. Jette Lewinsky-Haapasaari was nominated as a Docent Lecturer of the Department in May, this year. She works at the Museum of Natural History in Kuopio.

After the retirement of Professor Rauno Ruuhijärvi, a well-known peatland ecologist, his position is now held by Professor Pekka Pakarinen. The position was opened and 15 scientists sent their applications.

VISITORS

It would be most desirable that the bryologists from EU member countries, and Norway and Iceland would use the possibility to visit Helsinki through our "Large Scale Facility" program (see *Bryological Times* 79, 1994, or request the information from Johannes Enroth). Although 6 scientists have used this ideal possibility (we pay everything, travel, lodging and daily allowances!) to visit Helsinki, we would be pleased to see more visitors. The program continues still for 3 years, so please, send your application! Drs. Ida Bruggeman-Nannenga, Rob Gradstein and Esther Fuertes already used this facility. Dr. Hiroyuki Akiyama was in Helsinki in September, and we are looking forward for seeing Alexey Potemkin from St. Petersburg to visit here before the end of the year.

STUDENTS

He Xiao-Lan from Beijing Institute of Botany, Academia Sinica, continues her studies for Ph.D. degree. Her thesis will be monographic studies of the genus *Pycnolejeunea*. Other postgraduate students in bryology are Lic. Sanna Laaka (population biology of hepatics, especially *Lophozia*) and M.Sci. Viivi Virtanen (Bartramiaceae of SW Asia; a joint project with Timo Koponen). Mrs. Marjo Urbanski just completed her thesis for Master's degree. It deals with the epiphytic flora and vegetation of

Tanzanian montane rain forests. Several other students have begun their studies with bryology as their major topic.

RESEARCH AND PUBLICATIONS

The major research topics are the bryophyte floras of Western Melanesia, China and Finland. Since the latest report of the Huon series (*Bryological Times* 76, 1993) the following parts have been published:

55. Vitt, D. H., Koponen, T. & Norris, D. H. 1995: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LV. *Desmotheca*, *Groutiella*, *Macrocoma* and *Macromitrium* (Orthotrichaceae, Musci). - *Acta Bot. Fennica* 154: 1-94.
56. Pócs, T., Piippo, S. & Mizutani, M. 1995: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LVI. Preliminary contributions on Lejeuneaceae (Hepaticae) 2. - *Ann. Bot. Fennica* 32: 259-268.
(Ups! we hope to fill this gap one day)
65. Pócs, T., Mizutani, M., and Piippo, S. 1994: Bryophyte flora of the Huon Peninsula, Papua New Guinea. LXV. Preliminary contributions to Lejeuneaceae (Hepaticae) 1. - *Ann. Bot. Fennici* 31: 179-190.

Two manuscripts, dealing with the genera *Philonotis* by T. Koponen and Dan Norris and *Hypnodendron* by Norris and Koponen, have been submitted to the editor. Timo Koponen currently has a sabbatical leave and he continues revising Asiatic, Pacific and Australian *Philonotis* and Brachytheciaceae of New Guinea. Sinikka Piippo is dealing with Lejeuneaceae and *Bazzania* and Johannes Enroth with Neckeraceae and Australasian Cryphaeaceae.

The long term project for writing the bryophyte flora of Finland in Finnish got a major push when the first volume "Suomen vesisammalkasvio" (Aquatic bryophytes of Finland) was published as the 3rd volume of the journal "Bryobrothera" (this will be reviewed in the *Bryological Times*).

Timo Koponen

International Bryological Conference Tropical Bryophytes: Biology, Diversity and Conservation Mexico City - August 7-12, 1995

Thirty-eight bryologists from 18 different countries met in Mexico City for the biennial meeting of the INTERNATIONAL ASSOCIATION OF BRYOLOGISTS. This was jointly sponsored by Instituto de Biología, National University of Mexico and hosted by Claudio Delgadillo M., with the assistance of Daniel Tejero, Angeles Cárdenas, Raquel Galván and Clementina Equihua. The Conference consisted of three sections, namely, studies on the biology of tropical bryophytes, a workshop on endangered bryophytes, and two field trips. The city, museums, ballet, ruins and other attractions were visited independently.

STUDIES ON TROPICAL BRYOPHYTES

On Monday, August 7, the meeting was formally inaugurated by Dr. Héctor Hernández Macías, newly appointed Director of Instituto de Biología, followed by a lecture on "Rare or common: How bryophytes exist", by Dale H. Vitt. The afternoon session dealt with papers on the phylogeny and taxonomy of bryophytes. Barbara Crandall-Stotler, Allison Withey, Raymond Tangney and Yelitza León spoke on the Subclass Metzgeriidae, the moss family Spiridentaceae, the Lembophyllaceae, and the genus *Cryphaea*, respectively. Following the coffee break, Timo Koponen, Raymond Stotler and Efraín de Luna referred to studies in *Philonotis*, *Pellia x appalachiana* and the Hedwigiaceae. Royce Longton introduced research by Ahamad Damanhuri and himself on the taxonomy of the moss genus *Taxithelium*.

Thursday, August 10, was used to hear the remaining presentations on various aspects of tropical bryology. Barbara Crandall-Stotler and her students, Brent Beilschmidt, Yuki Kobiyama and James Thompson discussed their results on anatomy and ontogeny of gametophytic and sporophytic struc-

tures of *Bazzania*, *Conocephalum* and *Phaeoceros*. Dana Bergstrom and Craig Tweedie referred to collaborative ecological studies on epiphytic bryophytes; research on bryophyte diversity in tropical America and in SE Asia was presented by Noris Salazar and Sinikka Piippo, respectively, while Angela Newton referred to species composition in forest and pasture trees in Costa Rica. Spore dispersal in *Monoclea* was introduced by María Teresa Moyá; Steven P. Churchill, on behalf of Edgar Linares and Angela Gómez, spoke on the moss flora of Colombia; Noris Salazar described a guide citing bryophytes along a trail in a national park in Panama. The session was concluded by Jan-Peter Frahm's discussion of diversity, life strategies, origins and distribution of tropical inselberg bryophytes and a talk by Clementina Equihua on a bryofloristic comparison between an old field and a rain forest.

WORKSHOP ON ENDANGERED BRYOPHYTES

Tomas Hallingbäck, in collaboration with S. Rob Gradstein, organized this workshop. Following the opening remarks of IAB's president Timo Koponen, Tomas introduced the concepts of endangered species and conservation in bryophytes, and provided additional talks on the Red List criteria and on an Action Plan for bryophytes. There were several contributions on diversity and conservation: Richard H. Zander focused on the Pottiaceae; Jirí Váňa on the Jungermanniineae of the world; Tamás Pócs on epiphyllous liverworts; Benito Tan (and Zen Iwatsuki), Steven P. Churchill, Claudio Delgadillo, W.B. Schofield (read by B. Tan) and Brian O'Shea discussed the subject with reference to hot spots of mosses in Asia, to the Andean moss flora, the moss flora of Mexico, North America, and to en-

demism in sub-Saharan Africa, respectively. The session was complemented with presentations by Lars Hedenäs on the selection of species for conservation; Patricia Geissler on *Marchesinia*; Celina Matteri on *Skottsbergia paradoxica*; Nick Hodgetts on threatened bryophytes in Europe; and Lars Söderström on island endemism and threatened bryophytes. At the end, there was an open discussion on what an Action Plan should include.

FIELD TRIPS

Because of continuous personal interactions, the field trips to nearby areas were most enjoyable. On Wednesday, August 9, the group headed for Lagunas de Zempoala - on the limit between the states of Mexico and Morelos in central Mexico - where we visited an *Abies religiosa* forest. Although the organizers had prepared a preliminary list of species, with the taxonomists in attendance, many interesting finds were positively identified. Hopefully, if identifications are supplied to the author, he will be able to provide a formal list of taxa for the area. *Bryoerythrophyllum andersonianum*, *Daltonia gracilis* and *Metzgeria scyphigera* are among the species kindly supplied by Benito Tan and Tamás Pócs.

I cannot avoid to report the disappearance of Benito Tan in this area. His interest in mosses took him away long after the scheduled departure time; true, he was not the only one, but he was the most conspicuous for his absence which resulted in having the group eat lunch by the roadside. Then, we went to Barranca de Mexicapa. This is a small canyon whoseslopes are covered by Pine, oak and mesophyllous forests. The flora is a mixture of tropical and temperate elements which are well represented among the bryophytes. *Cryphaea*

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patens, *Drepanolejeunea axillaris* and *Frullania arecae* are among the bryophytes recognized by participants.

The highlight of the field trip occurred some time before reaching the Barranca. Due to a landslide that prevented the bus from taking it to its destination, the group had to hike most of the five kilometers that separated it from the selected area. Sinikka Piippo was recognized as a dedicated hiker while the other members of the party were taken in successive trips on and in a pick-up truck. The return trip was made on the back of a truck that took most of the participants, who endured a chilly afternoon in the rain with the highest of spirits!

On Friday 11, following the long Thursday session the group went to Nevado de Toluca. The road took us from the bottom of the Valley of Toluca (c. 2200 m a.s.l.) to the crater (more than 4000 m elevation) where the sight of two lakes added to the beauty of the distant valleys, as seen from the upper slopes of the volcano. We then moved downward for a visit to the *Pinus hartwegii* forest. From the bryological perspective, this area is still yielding interesting findings; at least two records new to Mexico were obtained during our visit. After a late lunch we drove to Ixtapan de la Sal, a small resort town south of Nevado de Toluca from which we started the following day toward Barranca de Malinaltenango.

Barranca de Malinaltenango is a 200-250 m deep canyon at the town of the same name. Its slopes are covered by a fairly well preserved tropical deciduous forest dominated by species of *Bursera*, *Heliocarpus* and *Guazuma*. It seems that, with the exception of the preliminary collections for the Conference field guide, the first local bryofloristic gatherings were made during this field trip. We have received reports of *Curvimeia*, *Cyathodium*, *Erpodium*, *Fissidens*, *Globulinella* and *Plagiochasma*, among the bryophytes collected there. The group moved diligently and was soon at the bottom of the canyon among *Taxodium* trees and on an old colonial

Flora Neotropica, bryophytes: progress report for 1995

NEW MONOGRAPHS OFFERED IN 1995

Mosses

Family Cryphaeaceae (5 genera, including *Cryphaea*, *Dendrocryphaea*, *Dendropogonella*, *Schoenobryum* and *Sphaerotheciella*). Estimated number of species: 55. By H. Akiyama, Museum of Nature, Hyogo Division of Phylogenetics, 6-chome, Yayoi-goaka, Sanda, Hyogo 669-13, Japan.

Family Leucodontaceae (4 genera, including *Felipponea*, *Forsstroemia*, *Leucodon* and *Pseudocryphaea*). Estimated number of species: 11. By H. Akiyama, Museum of Nature, Hyogo Division of Phylogenetics, 6-chome, Yayoi-goaka, Sanda, Hyogo 669-13, Japan.

Hepatics

Genus *Cyclolejeunea* (Lejeuneaceae). Estimated number of species: 6-7. By A. Lücking, Abteilung Spezielle Botanik, Universität Ulm, 89069 Ulm, Germany.

Prof. Dr. S. R. Gradstein, Systematisch-Geobotanisches Institut, University of Göttingen, Untere Karaspüle 2, 73073 Göttingen, Germany

CRYPTOGAMICA HELVETICA

formerly

Beiträge zur Kryptogamenflora der Schweiz
Matériaux pour la flore cryptogamique suisse

Contributi per lo studio della flora crittogama svizzera

Volume 18 entitled «Conservation of bryophytes in Europe - Means and Measures» contains 19 contributions from the Symposium held in Zürich in 1994. Consequently the range of topics in *Cryptogamica Helvetica* has expanded, with this volume being the first to include questions focusing on conservation. Along with basic scientific knowledge on the conservation of bryophytes, this volume contains proposals for the implementation of results within conservation programs, taking into consideration psychological, juridical and political aspects. Most contributions are written in English with summaries in German.

Difficulties in developing public awareness for the survival of less spec-

taular organisms and the realization of conservation plans including such organisms are topics of concern to all biologists, exceeding by far the field of bryologists.

First published nearly a hundred years ago as «Beiträge zur Kryptogamenflora der Schweiz», *Cryptogamica Helvetica* today continues the tradition of presenting monographs on various cryptogams of Central Europe. It is edited by a committee of the Swiss Academy of Natural Sciences. Future volumes will appear more frequently and treat various topics in phycology, mycology, lichenology, bryology and pteridology.

Order your issue now and subscribe for future volumes of *Cryptogamica Helvetica*. Back issues are also available upon request.

bridge from which it returned to Malinaltenango for lunch, the comfort of the bus and the return trip to Mexico City.

These were the last formal activities of the Conference. After a week of discussions, of formal and informal gatherings, it is not easy to see visitors go. One is tempted to say: **Hasta la vista,**

amigos! hoping to retain them a while longer, but it has to be a "see you in China" if one expects to cross the ocean for a forthcoming IAB meeting.

Claudio Delgadillo M., Instituto de Biología, UNAM, Apartado Postal 70-233, 04510 México, D.F., MEXICO.

New editors of the Bryological Times

Lars Hedenäs will resign as an editor of the Bryological Times after three years of excellent work. I guess that all IAB members will join me in a big THANK YOU to him for this period.

Henrik Weibull, Uppsala, will step up to an ordinary editor and he will mostly be responsible for receiving material and, if needed, typing it in. We therefore ask you to primarily send contributions to him.

In addition, Terry Hedderson, Reading, will join us as editor. He will also proof read the whole issue.

I will continue to put the contributions together into printable pages.

There is no immediate policy change from our side. However, there has been a noticeable decrease in number of contributions the last year so we have not been able to produce 6 issues per year. We are especially lacking somewhat longer contributions about bryology to build an issue around. We will therefore see what we can do to stop this trend.

The addresses to the editors are:

Lars Söderström

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New publications

Bednarek-Ochyra, H. 1995. *Rodzay Racomitrium* (Musci, Grimmiaceae) w Polsce: taksonomia, ekologia i fitogeografia. [The genus *Racomitrium* (Musci, Grimmiaceae) in Poland: taxonomy, ecology and phytogeography]. *Fragmenta Floristica et Geobotanica, Series Polonica* 2: 3-307, with 77 text figures. ISSN 1233-0132. Available from: Ryszard Ochyra, Botanical Institute, Polish Academy of Sciences, Lubicz 46, 31-512 Kraków, Poland. Price not stated.

In the present treatment, the genus *Racomitrium* is revised for Poland. After an outline of the history of the genus, important characters are treated, and distribution patterns and relationships of the genus are discussed. An overview of the entire genus is presented, where it is divided into four subgenera, *Niphotrichum* (*subgen. nov.*), *Racomitrium*, *Cataracta* and *Ellipticodryptodon*. Within the subgenera, a large number of sections and subsections are recognised, the majority of them described as new. Thirteen species, one subspecies and one form are considered to occur in Poland, compared with the eight recognised earlier. Each species is thoroughly described, including at least two, usually excellent, full-page illustrations. For each species one distribution map for the entire range of the species, and one map for its Polish distribution are also provided.

For us non-Polish speaking people, it is a pity that the revision is written in Polish, but the long summary in English, more than twenty pages, together with the ample illustrations (with captions in English as well as Polish) should make the work available also to

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those that do not understand Polish. Most important to the general user is perhaps that the keys to the species, and the diagnostic characters for their recognition are given also in English. I believe that at least people in Europe will find this work useful, and it should certainly be present in a more complete bryological library. [L.H.]

Koponen, T., Karttunen, K. & Piippo, S. 1995. *Suomen vesisammalkasvio* [Aquatic bryophytes of Finland] *Bryobrothera* 3: 1-83. 44 text figures. (In Finnish with English summary). ISBN 951-96475-2-X, ISSN 1235-3949. Distributor: Bookstore Tiedekirja, Kirkkokatu 14, FIN-00170 Helsinki, Finland. Price: FIM 190.00 + postage.

The present guide to the aquatic bryophytes in Finland includes all species which are found in water during most of the year in the country. For Finland this means 57 bryophyte species which are found in either still or running water, attached to the substrate or freely floating. Because the book is in Finnish, most readers outside Finland will find the illustrations of the species and the distribution maps to be of most interest. Forty-eight of the species are illustrated and distribution maps for Finland are provided for 52 species.

The illustrations are generally of a high quality and the details relevant for a certain identification are mostly included for the figured species. This is something that also non-Finnish speaking bryologists will profit from. The only thing that is slightly disturbing in the figures is that the fonts used for the lengths of the scales could have been nicer. The distribution maps show clearly how widespread many species are in the north, species that are rare or absent in Central and Western Europe. Evident examples are *Warnstorfia trichophylla* and *Calliergon megalophyllum*, of which the latter has also disappeared from many of its more southern localities, probably due to too high nutrient loads. It is a pity that the guide was not written in English, so that a wider audience could enjoy it fully. [L.H.]

Bryology revival at the University of Kentucky, Lexington KY.

After my retirement here I have been given a special room to try to make a comeback to Bryology. My whole bryological library and all my reprints and bryological manuscripts are housed here. Some people may remember me as the first Editor of *Buxbaumia* and the collector of 20,000-25,000 specimens of Mosses and Hepatics in Malesia. Anybody interested to share in the further identification of these collections, mainly housed at BO, L, and more recently at MO, please Fax a message to me or send me an E-Mail (see below).

Most of my 1995 collections, to be deposited at MO, BO and at the Sabah Parks Herbarium, were made in Indonesian New Guinea and in Sabah, Borneo, and a few near Hongkong, most lowlands. I am trying to make this project part of the Biodiversity Studies sponsored by the Worldbank and the Missouri Botanical Garden Herbarium.

*Willem Meijer, Emeritus Prof. of
Biology, Morgan Bldg 101. Postcode
40506, USA; Fax 606 257 17 17;
E:mail WMeijer@ukcc.uky.edu*

Kinabalu Guide again available

The "Mosses and Liverworts of Mount Kinabalu" by J.-P. Frahm, W. Frey, H. Kürschner and M. Menzel were difficult to purchase for a long time and seemed recently to be out of stock. According to an information provided by Tamás Pócs, Nature History Book service Ltd (2-3 Wills Road, Totnes, Devon TQ9 5XN, UK) offers this booklet (91 pages, 79 col. photographs) now for a price of 9.95 BP. Orders may be send by fax (+44-1803-865280) or e-mail (nhbs@nhbs.co.uk).

Jan-Peter Frahm

D I A R Y *Continued*

August 2-4. ABLS Foray. Field trip on the Olympic Peninsula and central Cascades. For more information please contact: Katie Glew, Botany Dept. Univ. of Washington, e-mail: kglew@u.washington.edu phone: 206-685-2428 (lab), 206-725-0433 (home) fax: 206-684-1728 or Judy Harpel, Botany Dept. Univ. of British Columbia, e-mail: harpel@clark.edu phone: 604-822-3344 (lab), 360-254-6671 (home and work)

August 4-8. ABLS meeting in conjunction with the Bryological Section of BSA at the AIBS meeting in Seattle, ashington. Further information from Brent Mishler, University and Jepson Herbaria, 1001 Valley Life Science Building, Univ of California, Berkely, CA 94720-2465.

August 5-8. To celebrate the 100th anniversary of the British Bryological Society, a symposium entitled 'Innovations in bryophyte research' will be taking place at the University of Glasgow. Contributions are being invited. Local Secretary: Dr J.H. Dickson, Department of Botany, The University, Glasgow, G12 8QQ. Tel.: 0141 339 8855, Fax: 0141 330 4447.

August 9-16. Bryophyte course: "Mosses and Liverworts". Tutor: Dr. Martha Newton, Preston Montford Field Centre, Montford Bridge, Schrewsbury, SY4 1DX. Offering individual guidance at all levels. Details from the Warden, Ms. S. Townsend.

August 10-17. The BBS summer field meeting in Ballachulish, Argyll, Scotland. Local Secretary: Gordon Rothero, Stronlonag, Glenmassan, by Dunoon, Argyll, PA23 8RA. Tel.: 01369 706281

August 16-23. Bryophyte course: "Mosses and Liverworts of the Lake District". Tutor: Dr. Martha Newton, Blencathra Field Centre, Threlkeld, Keswick, Cumbria, CA12 4BR.. Offering individual guidance at all levels. Details from the Warden, Dr. R. Lucas.

August 17-24. BBS summer field meeting in Braemar, Kincardine & Deeside, Scotland. Local Secretary: Dr. Noel Pritchard, Foresters' Cottage, Durris, Kincardine, AB31 3BD. Tel.: 01330 811215.

August 21-25. Field work at Champex, Valais (Central Alps). Information: P. Geissler, Conservatoire et jardin botaniques, C. P. 60, CH-1292 Chambésy/Genève. FAX 41-22-738 45 97. email: geissler@cjb.unige.ch

August 27-29. The Linnean Society of London is holding a conference in Belfast, Northern Ireland on 'Systematics and Biological Collectors'. Further information from Cathrine R. Tyrie, Department of Botany, Ulster Museum, Belfast BT9 5AB, N. Ireland. Phone 01232 381251. Email: crt@belumreg.demon.co.uk.

September 1-6. Course: "Woodland Bryophytes". Tutor: Dr. Martha Newton, Rhyd-y-creuau, Drapers' Field Centre, Bets-y-coed, Gwynedd, LL24 OHB. Offering individual guidance at all levels. Details from the Warden, Mr. K. Iball.

October 20-22. BBS Annual General Meeting and Symposium Meeting at Ness Botanic Garden, Wirral. Local Secretary: Dr. Hugh McAllister, Ness Botanic Gardens, The University of Liverpool, Environmental & Horticultural Research Station, Ness, Neston, Wirral, Cheshire, L64 4AY. Tel.: 0151 3530123.

October 8-12. International Symposium of Botanic Systematics and Plant Geography, Herbarium Haussmecht, Jena, Germany.

October 14-17. The ninth Bryological-lichenological days of the Czech bryologists in Jihlava town. Send the applications to RNDr. Ivan Novotn, Department of Botany, Moravian Muzeum, Preslova 1, CZ-602 00 Brno, Czech Republic. E-mail mzm@mzm.anet.cz.

The Bryological Times is a newsletter published bimonthly for the *International Association of Bryologists*. Items for publication are to be sent to the Editors (preferably HW), **except** for those for the regular columns, which may go **direct** to the column editors

Deadlines for material to the *Bryol. Times* will be January 15, March 15, May 15, July 15, September 15 and November 15 with the publication shortly afterwards. Shorter notes may be accepted later if there is still space.

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Column Editors

J.-P. Frahm & B. O'Shea (computer techniques); J. M. Glime (ecology); T. Hallingbäck & E. Urmi (conservation); A. R. Perry (news from the herbaria); T. Pócs (tropical bryology); M. L. Sargent (techniques); J. Vána & W. R. Buck (floristics and phytogeography); D. H. Vitt (diary, best book buys, taxonomy).

The Bryological Times, founded in 1980 by Stanley Wilson Greene (1928-1989), is distributed from Beijing (China), Canberra (Australia), Edmonton (Canada), Eger (Hungary), Geneva (Switzerland), Hiroshima (Japan), Moscow (Russia), Praha (Czech Republic), St. Louis (USA) and Trondheim (Norway).

Production

Lars Söderström, Trondheim

For details regarding membership of to *International Association of Bryologists* (currently US \$ 11.- per year) write to Dale H. Vitt, Department of Botany, University of Alberta, Edmonton, Alberta, Canada TG6 2E9.

DIARY

Send contributions to:

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1996

March 15-17. Bryophyte course: "Introduction to Mosses and Liverworts". Tutor: Dr. Martha Newton, Rhyd-y-creuau, Drapers' Field Centre, Bets-y-coed, Gwynedd, LL24 OHB. Especially for beginners, but others are welcome too. Details from the Warden, Mr. J. Ellis.

April 10-16. BBS spring field meeting in Dolgellau, Gwynedd. Local Secretaries: Tim Blackstock & Marcus Yeo, Countryside Council for Wales, Plas Penrhos, Penrhos Road, Bangor, Gwynedd, LL57 2LQ. Tel.: 01248 370444.

April 11-14. Spring excursion of the Bryologisch-Lichenologische Arbeitsgemeinschaft für Mitteleuropa (BLAM): Nahe Valley near Idar-Oberstein (Rhineland-Palatinate, Germany). Further information: Steffen Caspari, Im Falkenbösch 46, D-66606 St. Wendel.

April 26-28. Bryophyte course: Sphagnum Weekend. Tutor: Dr. Martha Newton, Rhyd-y-creuau, Drapers' Field Centre, Bets-y-coed, Gwynedd, LL24 OHB. A chance to learn how to recognize most of the British species in the field, and to study them alongside keys. Details from the Warden, Mr. J. Ellis.

May 22-29. Bryophyte course: "Mosses and Liverworts". Tutor: Dr. Martha Newton, Oriellon Field Centre, Pembroke, Dyfed, SA71 5EZ. Offering individual guidance at all levels. Details from the Warden, Dr. R. G. Crump.

June 7-9. Annual assembly with paper reading meeting and excursions: Wägital, Schwyz (northern Prealps). Information: P. Geissler, Conservatoire et jardin botaniques, C. P. 60, CH-1292 Chambésy/Genève. FAX 41-22-738 45 97. email: geissler@cjb.unige.ch

July 11-13. Second International *Sphagnum* Field Trip and Symposium in New Jersey, New York and Quebec. Further information from Dr. Line Rochefort, Phytologie, FSAA, Université Laval, Québec, Canada, G1K 7P4, fax (418) 656-7856 or e-mail LROC@vml.ulaval.ca.

July 13-14. Fourth Annual Canadian Peatland Restoration Workshop at Université Laval, Québec, Canada. Further information from Dr. Line Rochefort (address above).

July 25-28. International Symposium of Plant Character and Diversity of East Asia. Location: Kunming Institute of Botany, Academia Sinica, Kunming 650204, China

July 26-August 2. Bryophyte course: "Mosses and Liverworts". Tutor: Dr. Martha Newton, Malham Tarn Field Centre, Settle, North Yorkshire, BD24 9PU. Offering individual guidance at all levels. Details from the Warden, Mr. K. Iball.

July 31 - August 5. Summer excursion and annual assembly of the Bryologisch-Lichenologische Arbeitsgemeinschaft für Mitteleuropa: Stubai Alpen (Tyrol, Austria). Further information: Paul Hofmann, Unterer Stadtplatz 8a, A-6060 Hall in Tirol.

August 1-2. Workshop on Conservation of Bryophytes in Europe, Reading, U.K. Topics: 1) Revisions of Red Data Books of Europe and the application of the new IUCN categories. 2) Floristic investigations of Europe: the status of knowledge and identification of areas where more work is needed. Enquires and pre-registration to Royce E. Longton, Department of Botany, University of Reading, Whiteknights, RG6 2AS Reading, U.K. Fax. +44 1 734 753 676.