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ASSOCIATION OF  
BRYOLOGISTS**

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## **SEAMEO BIOTROP OFFERED THE FIRST REGIONAL TRAINING COURSE ON BIODIVERSITY AND CONSERVATION OF BRYOPHYTES AND LICHENS IN TROPICAL SOUTHEAST ASIA**

*see page 4*

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## **GRADUATE ASSISTANTSHIPS IN BRYOLOGY AND POSTDOCTORAL FELLOWSHIP IN PLANT MO- LECULAR SYSTEMATICS**

**AT SOUTHERN ILLINOIS UNIVERSTY, CARBONDALE, USA**

*see page 5*

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## **FUNDS AVAILABLE FOR SHORT VISITS TO THE SWEDISH MUSEUM OF NATURAL HISTORY**

*see page 3*

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## **NEWS FROM THE BRYOLOGICAL SOCIETY OF JAPAN**

*see page 3*

Dear All,  
Thanks.

As this is the last issue of the Bryological Times that I will edit, I must take the opportunity to thank all of you for good cooperation over the years.

I have been involved in BT since 1993. Between 1993 and 1996, Lars Hedenäs was the editor and I had the role of technical editor. Since then I have been both editor and technical editor.

It has been a nice time with a lot of contact with bryologists around the world. I appreciate all the help and contributions that I have received. I especially wish to thank the column and regional editors, as well as my assistant editors, Henrik Weibull and Terry Hedderson.

A new editor will be appointed by the council at the IAB meeting in Lucknow, India. Until then, please send contributions to me. I will forward everything.

*Lars Söderström  
editor emeritus*

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

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**De Sloover, J. L.: Les Muscinées des quatre premières centuries (1728–1733) de J. C. Buxbaum. – Presses de Universitaires de Namur, 2001. Softcover, 140 pp., illustrated. ISBN 2-87037-338-4.**

**Schkuhr, C.: Deutschlands kryptogamische Gewächse. Zweyter Theil. Oder vier und zwanzigste Pflanzenklasse, enthält die deutschen Moose. Facsimile, introduction by J. L. De Sloover. – Presses de Universitaires de Namur, 2000. Softcover, 171 pp., illustrated. ISBN 2-87037-328-7.**

**Both books available from: Presses Universitaires de Namur, Rempart de la Vierge 8, B–5000 Namur, Belgium; fax + 32 81 72 49 12, e-mail pun@fundp.ac.be**

Dr. Jean Louis De Sloover continues to make available rare, classical bryological treatments by European authors. The previously published books cover such authors as Dillenius, Dodoens, Vaillant and Swartz, and the most recent contributions are "republications" of works by the Dutch bryologist J. C. Buxbaum (1693–1730) and the German Christian Schkuhr (1741–1811).

The Schkuhr-book is a facsimile of a treatment originally published in 1810 and 1811, and of its supplement published by E. Fleischer in 1847. According to Stafleu's and Cowan's Taxonomic Literature, copies of Schkuhr's book are present only in four places: Helsinki, Missouri Botanical Garden, New York Botanical Garden, and at a herbarium with code USDA (I did not find this in Index Herbariorum). De Sloover has written an introduction, and also added footnotes on each page providing the currently used names of the taxa treated on that page. The 82 text-pages of the 1810 & 1811 publication are followed by beautifully reproduced colour-plates – originally coloured copper engravings – of the mosses. An index to the names is appended.

The Buxbaum-book is a compilation of the original author's series *Plantarum minus cognitarum*, in which he dealt with bryophytes in five parts ("*Centuria*"). It contains black-and-white copies of the original plates, and often De Sloover has copied each figure in a plate separately and added Buxbaum's description of the taxon below the figure. The original page numbers are given above each figure. Quite a few species are represented in more than one figure, and in such cases De Sloover also cites the other figures of the species. Some plates are also displayed as fine coloured copies at the end of the book.

These old and rare books are of considerable historical interest and Jean Louis De Sloover must be thanked for making them available to bryologists of our days.

Johannes Enroth

**Cortini Pedrotti, C.: Flora dei muschi d'Italia. Sphagnopsida, Andreaeopsida, Bryopsida (I parte). 817 pp. Softcover. ISBN 88-7287-250-2. Antonio Delfino Editore 2001. Available from the publisher, e-mail: [adelfi@pronet.it](mailto:adelfi@pronet.it), <http://www.antoniodelfinoeditore.com>.**

A hepatic flora of Italy was published almost 70 years ago (Zodda 1934), but so far there have been only check-lists of the mosses, the most recent one being Cortini Pedrotti (2001). Thus the present volume by Carmela Cortini Pedrotti is a more than welcome contribution.

The book, entirely in Italian, treats *Sphagnum* (24 species),

Andreaeopsida (eight species of *Andreaea*), and about 580 acrocarpous species of Bryopsida in 33 families. Most of the species are illustrated in 270 plates of line drawings and the specific treatments contain descriptions of gametophyte and sporophyte, major synonymy, time of "fruiting", as well as notes on the ecology, frequency in Italy, and often some additional remarks to facilitate identification. The etymology of many names is also given. There is also a generally good glossary. The origin of the vaginula is, however, explained wrongly ("... *che deriva dalla base dell'archegonio...*"), as it is in so many other moss floras. The sharp-sighted Warnstorf (1904; quoted by Enroth 1994) elaborated its origin correctly, but curiously enough his observations have often been overlooked.

I find the descriptions and illustrations quite adequate and in that respect the book serves its purpose well. What is lacking is a list of examined specimens of each taxon and, more regretfully, distributions of the taxa in Italy and / or world-wide. In the introduction the author refers to her 2001 check-list; I have not seen it, but understand that information on distribution is given in it. In my opinion, however, details of distributions are very essential in national floras, and they should have been included also in this book – it could have been done without too much additional work and would have been very reader-friendly.

Despite these inadequacies Cortini Pedrotti fills a (huge) gap in European bryological literature in a generally satisfactory manner, especially after publication of the second part in the (near?) future.

Johannes Enroth

## References

- Cortini Pedrotti, C. 2001: New check-list of the mosses of Italy. – *Fl. Medit.* 11: 23–107.  
Enroth, J. 1994: A taxonomic monograph of the genus *Pinnatella* (Neckeraceae, Bryopsida). – *Acta Bot. Fennica* 151: 1–90.  
Zodda, J. 1934: Flora italica cryptogama. Pars IV: Bryophyta, Hepaticae. – L. Cappelli, Rocca S. Casciano.  
Warnstorf, C. 1904–1906: Laubmoose. – In: *Kryptogamenflora der Mark Brandenburg und angrenzender Gebiete*, 2. Gebrüder Borntraeger, Leipzig.

**Crum, H.: Structural Diversity of Bryophytes. Hardback. 379 pp. Published by The University of Michigan Herbarium, Ann Arbor, 2001. ISBN 0-9620733-4-2.**

Hum... yet another textbook on bryophytes... why? That was indeed my first reaction when I learned about this book. However, my doubts about the purpose and usefulness of it were rapidly dispelled upon my receiving the book and beginning to study it. In fact, this is not strictly a textbook; as the author says in the Foreword, it is "intended for reference rather than leisure reading or use as a textbook".

First Crum presents a "Proposal for a Reordered Taxonomy of Bryophytes". He recognizes five divisions: Bryophyta (with the classes Bryopsida and Andreaeopsida), Takakiophyta (accommodating the two species of *Takakia*), Sphagnophyta (a new division with the orders Sphagnales and Ambuchananiales), Hepatophyta (with the classes Marchantiopsida and Jungermanniopsida), and Anthocerotophyta. The following chapter "Bryophytes – Structural Basis for Phylogenetic Speculation" is a highly readable, lengthy and versatile treatment of bryophyte structure, biology and evolution. The point of view is that of a traditional taxonomist, but Crum also considers recent advances

Continued on page 3

*Continued from page 2*

in molecular taxonomy and their bearing on bryotaxonomy. I like the style in this chapter: the author doesn't just offer a list of facts to be digested but rather ponders in many places and makes the reader ponder too. It seems there is a subtitle missing on p. 34, because the paragraph "Development of sporophytes" that starts on p. 32 continues directly on p. 34 with a description of spore germination.

The bulk of the book consists of treatments of the various bryophyte groups. Crum goes much more in detail here than, for example, Schofield in his *Introduction to Bryology*. The amply illustrated, in-depth treatments of the groups serve very well as reference indeed, as the author wished. The illustrations, taken from numerous sources, are placed after the text for each of the groups treated. This is perhaps a bit cumbersome, because often one has to leaf through dozens of pages to find the illustration. In general, this part of the book is logically arranged, but there are some small inconsistencies in the titles and subtitles and their hierarchy.

The term merophyte is used here and there in the text, but is lacking from the Subject Index. In the glossary it is described as "a block of cells derived by early divisions of segments cut off by the apical cell". I think this description is bit deficient and inaccurate; bryophytes, just as higher plants, are modular organisms and merophyte is the module. The merophyte of hepatics is not exactly the same thing as the merophyte of mosses.

I am really glad that Crum, in his own words "decided on retirement to organize [his] lecture notes rather than throw them out". Now we all can enjoy his organized lecture notes in the form if this

## NEWS FROM THE BRYOLOGICAL SOCIETY OF JAPAN

The Bryological Society of Japan (BSJ) elected new officers for January 2002 - December 2003, at the general meeting in Oita, 3-5 August, 2001.

President: H. Kanda (National Institute of Polar Research).

Secretary: N. Nishimura (Okayama University of Sciences).

Treasurer: M. Tanabe (Hiraoka Environmental Science Laboratory)

Auditor: H. Deguchi (Hiroshima University).

Editor: M. Higuchi (National Science Museum)

Associate Editors: T. Furuki (Natural History Museum and Institute, Chiba), J. Hasegawa (Minami-Kyushu University),

Incidentally, the secretary of BSJ has moved from Hiroshima University to Okayama University of Sciences. All communications should be addressed to The Secretary: Bryological Society of Japan, Hiruzen Branch, Research Institute of Natural Sciences, Okayama University of Sciences, Kawakami-son, Maniwa-gun, Okayama-ken 717-0602, Japan (e-mail: nishimura@rins.ous.ac.jp).

The 31st Annual Meeting of the society will be held at Komatsu-shi, Ishikawa Pref., 25-27 July, 1998. The events include a paper reading session, a poster session, a society banquet, a business meeting, and an excursion to moss gardens. All inquiries about the meeting should be addressed to Dr. H. Deguchi, Department of Biological Science, Faculty of Science, Hiroshima Univ., 1-3-1 Kagamiyama, Higashi-hiroshima-shi, Hiroshima-ken, 739-8526, Japan (e-mail: hdeguch@hiroshima-u.ac.jp). J. Hasegawa, Biological Lab., College of Horticulture, Minami-Kyushu Univ., Takanabecho, Miyazaki 884-0001, Japan

## FUNDS AVAILABLE FOR SHORT VISITS TO THE SWEDISH MUSEUM OF NATURAL HISTORY (NATURHISTORISKA RIKSMUSEET, NRM)

The funds are made available through the European Commission's programme for "Improving the Human Research Potential and the Socio-economic Knowledge Base" (IHP). The grant is entitled "Access to Naturhistoriska Riksmuseet - High Latitude" (HIGH LAT). It enables us to meet travel and accommodation costs for scientists wishing to use our collections and/or other research facilities. The HIGH LAT programme began November 1<sup>st</sup> 2001 and will run for 28 months. Applications for financial support for a visit to NRM are hereby invited. There are a number of terms and conditions associated with this opportunity, as outlined below. If you are interested in applying for support, or are uncertain of your eligibility, please visit our website (<http://www.nrm.se/highlat/>) or contact the project management ([highlat@nrm.se](mailto:highlat@nrm.se)).

1) A formal application must be made. Please read the Application Guidelines (<http://www.nrm.se/highlat/applguide.html>) before

completing the Application Form (<http://www.nrm.se/highlat/application.html>). The first **deadline** for submission of applications is **February 15, 2002. The next call will be in mid 2002.**

2) To be eligible you must conduct your research in an EU Member State or Associated State (<http://www.nrm.se/highlat/condition.html>). Research teams working in Sweden are not eligible for support under the HIGH LAT programme.

3) Priority will be given to scientists who have not previously used our facilities and who are working in regions of the EU where few such research infrastructures exist.

We hope that many of you will see this as an opportunity to visit the Swedish Museum of Natural History, utilising collections and other facilities that have not previously been available to you.

# SEAMEO BIOTROP (INDONESIA) OFFERED THE FIRST REGIONAL TRAINING COURSE ON BIODIVERSITY AND CONSERVATION OF BRYOPHYTES AND LICHENS IN TROPICAL SOUTHEAST ASIA

*Reported by B. C. Tan and S. R. Gradstein*

The first regional training course on the biodiversity and conservation of bryophytes and lichens in tropical Southeast Asia was successfully conducted at the SEAMEO BIOTROP headquarter in Bogor, Indonesia, from September 25 to October 4, 2001. Twelve participants representing five ASEAN countries, namely Indonesia, Malaysia, Singapore, Thailand and the Philippines, attended the course. Two accepted participants, one each from Vietnam and Myanmar, failed to attend the program. The background of the 12 participants was diverse, with 10 teaching in universities, one from a research institute, and one working in a Nature Reserve Park. The invited lecturers included Prof. Dr. S. Rob Gradstein from the University of Göttingen in Germany, Prof. Haji Mohamed from the University of Malaya in Kuala Lumpur, Dr. Benito C. Tan from the National University of Singapore, Dr. Harrie J. Sipman from the Free University and the Berlin-Dahlem Botanical Museum and Gardens in Germany, and two Indonesian professors - Drs. Lisdar I. Sudirman and Dr. Gayuh Rahayu - from the Institut Pertanian Bogor or IPB (Bogor Agricultural University).

The workshop was first conceived and proposed by Dr. Sri S. Tjitrosoedirdjo, Director of the BIOTROP Herbarium (BIOT), to achieve three goals, namely (1) to enhance the taxonomic capacity of young researchers in cryptogamic plant biology in the region, (2) to develop a strong regional interest in the diversity, economic importance and conservation of bryophytes and lichens, and (3) to encourage the establishment of a network of people studying bryophytes and lichens in SE Asia. To attain these goals, the course program was designed to include lectures, laboratory practicals, and two collecting trips – a half day visit to Bogor Botanical Gardens to see the common lowland bryophytes and lichens, and a weekend travel to the nearby Cibodas Botanical Gardens and Ciberreum waterfalls in the Mt Gede-Mt Pangerango National Park to observe the rich cryptogams found in montane mossy forest. All in all, the training course provided a total of 13 hours of lectures and 60 hours of practical laboratory work. Because of the large number of specimens collected during the two field trips, many students stayed up late at night identifying the specimens under the close supervision of the lecturers. As a last practicum, each student was asked to undertake a small research project investigating the diversity of one chosen group of cryptogams introduced in the training course. Finally, the students were asked to answer a short assessment questionnaire about the course offering, learning experience, and also the teaching performance, before the graduation.

The wide range of topics covered in the lectures encompassed the morphology, classification, ecology, reproductive biology, physiology, biogeography, Wallace's Line, economic importance, herbarium techniques and conservation of bryophytes and lichens. Being novices in the study of bryophytes and lichens, many students, at the start, had difficulty understanding the botanical terms

used in describing the features of various bryophytes and lichens. Quickly, they overcame the scientific language barrier and learned to use the reference books and dichotomous keys provided to identify the specimens to genera, and some even to species. At the final evaluation exam when the students were asked to name the most beautiful bryophyte and lichen that they had seen during the course, a great majority chose *Rhodobryum* for the bryophytes and *Usnea* for the lichens.

The climax of the training course, no doubt, fell on the last day when the students presented the results of their independent project study. The participants presented their research data using a variety of improvised media, which included the specimens collected, black and white transparencies, originally prepared hand-outs with illustrations, and the use of a TV screen hooked onto the compound light microscope to show the characters seen from the actual specimen under focus.

At the end of the morning presentation, Dr. Imelda Stuckle, deputy director of the BIOTROP Program, addressed the group on behalf of the BIOTROP director, Prof. Dr. Sitanala Arsyad, and formally closed the training course. She revealed the good news that the incumbent Governing Board of BIOTROP, which happened to convene in Bogor at about the same time, had agreed in principle to provide financial support for a second training course on bryophytes and lichens in 2003, with the possibility of holding others in 2005 and 2007. A group or class photo was taken thereafter to immortalize the pleasant memories and warm camaraderie that developed and bonded the group together for ten solid learning days.

The entire training course was very well run and managed by Dr. Sri and her very efficient supporting staff at BIOTROP, namely Mr. Mohamad Amad, Mr. Imam Mawardi and Mrs. Indrawati Azron. Throughout the course, the student participants and lecturers were fed very well with three sumptuous regular meals, plus two tasty snacks during the morning and afternoon coffee or tea breaks. Those students who worked late into the midnight hour were served again with hot coffee or tea in the laboratory. Indeed, one of the students wrote in his evaluation responses that the food provided was just too much! Thanks to the generosity of Dr. M.L. So of Hong Kong Baptist University, every student participant received as a gift the two volumes of her colored pictorial flora entitled "Mosses and Liverworts of Hong Kong". When the participants finally departed to go home, each was seen carrying a heavy shoulder bag filled with large piles of lecture notes, copies of identification keys, drawings of bryophytes and lichens, and scientific reprints distributed by the various lecturers during the course.

This first training course on the diversity and conservation of two little known groups of terrestrial organisms, the bryophytes

*Continued on page 5*

*Continued from page 4*

and lichens, in a SE Asian country like Indonesia is truly very timely and necessary. Considering the serious loss of rain forests in the region in the recent past and subsequent threats of extinction of many forest plants, this training course could not have come at a more fortuitous time. Its aim to prepare the local botanists and public officials to better appreciate and protect the diversity of these two groups of cryptogams in situ is commendable. With so many large and small islands forming a string of archipelagos, tropical Southeast Asian countries need many more specialists in these two groups of cryptogams, in order to win the race against time in documenting, if not protecting, the great local diversity before the species are lost to extinction forever.

The Indonesian SEAMEO BIOTROP in Bogor is to be congratulated and thanked for providing the money and manpower to carry out this training course. The DAAD office in Germany is acknowledged for the financial support given to Prof. Gradstein and Dr. Sipman, which enabled them to fly to Indonesia to help teach the course.

## GRADUATE ASSISTANTSHIPS IN BRYOLOGY

*Dept of Plant Biology, Southern Illinois University  
Carbondale, IL 62901-6509*

Graduate assistantships are available at Southern Illinois University-Carbondale for bright, motivated students interested in studying the biology and systematics of liverworts, as participants of an NSF-funded PEET (= Partnership for Enhancing Expertise in Taxonomy) project. Under the mentoring of Dr. Barbara Crandall-Stotler and Dr. Raymond Stotler, student theses and/or dissertations will focus on monographic and phylogenetic studies of the pivotal simple thalloid taxa of the Pallaviciniineae and Pelliineae. The project may provide opportunities for field work in North America, Latin America and New Zealand, as well as participation in national and international conferences and workshops. Degrees are offered through the Department of Plant Biology and typically require 2 years of study for an M.S. or 4 years for a Ph. D. The Department offers a selection of more than 40 graduate courses and has excellent laboratory facilities. A detailed description of the department may be found at [http://www.science.siu.edu/plant\\_biology/index.html](http://www.science.siu.edu/plant_biology/index.html).

The project provides training in standard taxonomic methods, including nomenclature and herbarium curation, as well as extensive involvement in modern approaches of systematics, such as morphometric methods for analyzing variation patterns, tissue culture techniques, SEM and/or TEM, starch gel electrophoresis and DNA sequencing methods. The application of computer technology to data gathering and dissemination is also integral to student training. This includes, but is notn image-capturing systems, database development and various formats of electronic data analysis and presentation via the World Wide Web.

Each assistantship provides a monthly stipend and complete tuition for the duration of graduate study. To obtain further information regarding application procedures, please contact:

*Dr. Barbara Crandall-Stotler, Dept of Plant Biol, Mail Code 6509, Southern Illinois Univ, Carbondale, IL 62901, Ph (618)-536-2331, Fax (618)-453-3441; email: crandall@plant.siu.edu*

## CAO TONG MOVED TO SHANGHAI

Cao Tong, councilor of IAB and Regional editor of the Bryological Times, has moved to the Department of Biology, Shanghai Normal University from the Institute of Applied Ecology, Academia Sinica, Shenyang since September 2001. Shanghai, the largest city in China, is his hometown. Cao Tong will continue his studies on bryology at the University as full professor. Also, as a visiting professor and supervisor of Ph. D. students, Cao will be back to Shenyang every year and do some research at the Institute of Applied Ecology. His new address is: Cao Tong, Department of Biology, College of Life and Environmental Science, Shanghai Normal University, No. 100 Kiulin Rd., Shanghai 200234, Fax: 86 21 54643335 or 64322142 E-mail: CT1946@263.net.

Dr. Yujing, who was a Ph. D. student of Cao Tong, is also working at the Department of Biology, Shanghai Normal University, since receiving her Ph D from the Institute of Applied Ecology in Shenyang in June of this year. Her Ph D thesis is Studies on moss spores of China; Morphology and Ultrastructure, Systematics and Evolution, Ecological Adaptation. Dr. Yu will also continue her bryological studies.

*Cao Tong*

## POSTDOCTORAL FELLOWSHIP IN PLANT MOLECULAR SYSTEMATICS

*Dept of Plant Biol, Southern Illinois Univ, Carbondale, IL*

A postdoctoral fellowship is available, beginning March 1, 2002 to participate in studies of the molecular evolution and systematic relationships of simple thalloid liverworts as part of an NSF funded PEET project. The goals of the project are to circumscribe the 17 genera of the suborders Pelliineae and Pallaviciniineae using a combination of morphological and molecular characters, to assess patterns of genetic variability in cosmopolitan taxa, and to resolve the phylogenetic relationships among the genera of simple thalloid hepatics and the other major groups of liverworts. Qualifications include a Ph.D. in plant biology, with a strong research background in molecular systematics and familiarity with DNA sequencing techniques. Duties of the position are to oversee the collection and analysis of molecular data, to assist in the training of students in molecular techniques and to work effectively as a member of a research team. As a member of this PEET team, the postdoc will be both a trainer and a trainee, who will gain valuable knowledge about the biology of one of the earliest groups of land plants. Additional information about the project and its research team can be found at <http://bryophytes.plant.siu.edu>.

Interested applicants should send a curriculum vitae, a brief statement of research background and the names of two references to Dr. Barbara Crandall-Stotler Department of Plant Biology, Mail Code 6509, Southern Illinois University, Carbondale, IL 62901-6509; e-mail: crandall@plant.siu.edu. his nametologue; indicated i06. The review of applications will begin December 1, 2001 and will continue until the position is filled.

# SPRING OUTING, BOTANICAL EXCURSION, FORAY, RETREAT, AND ESCAPE TO THE ENVIRONMENT!

\*\*\*\* SO BE FREE 7 \*\*\*\*

March 23 - 26, 2002

Mendocino and Lake Counties in northern California  
Centered at the Hopland Research and Extension Center

## SO BE FREE

Founded in 1996, SO BE FREE is a series of West Coast forays started by the Bryolab at UC Berkeley, but open to all botanists. The main focus is on bryophytes, but we also encourage experts on macroalgae, mushrooms, lichens, ferns, and flowering plants to come along. We welcome specialists as well as generalists, or amateurs who are interested in an overview. It is held each spring, associated with Spring Break at universities. This distinguishes it from the eastern bryological forays (the Andrews and the Blomquist Forays) which are held in the fall. This allows the occasional easterner, desperate as they often are to see plants and blue sky in the spring, a chance to attend.

The usual tradition is to have a four-day, three-night schedule with communal cooking and eating, in inexpensive and remote biological field stations. Evening slide shows and informal talks are presented as well as keying sessions with microscopes. In addition to seeing interesting wild areas and learning new plants, important goals for SO BE FREE include keeping west coast bryologists (and friends) in touch with each other and teaching beginners.

For a glimpse of the past six outings, consult the SO BE FREE web site: <http://ucjeps.herb.berkeley.edu/bryolab/trips/sobefree.html>

## LOCATION THIS YEAR

The Hopland Research and Extension Center (HREC; see [http://danrec.ucdavis.edu/hopland/home\\_page.html](http://danrec.ucdavis.edu/hopland/home_page.html)) is the University of California's principal field research facility for agriculture and natural resources in the North Coast region. Located 40 miles inland from the Pacific Ocean in the rugged Mayacmas Mountains of southeastern Mendocino County, the 5,358 acre center is topographically and biologically diverse. Elevations range from 500 to 3,000 feet. The soils are predominately fractured sandstones and shales or glaucophane schist with related metamorphic rocks of the Franciscan Formation. Serpentine outcrops are common. The principal vegetation types include annual grassland, mixed oak woodland, hardwood forest, and chaparral, which support 675 vascular plant species, 56 mosses, 5 liverworts, and 60 lichen species.

Typical of the interior North Coast Ranges, the natural vegetation reflects a mediterranean climate of hot dry summers and cool wet winters, with an average annual rainfall of 38 in. Oaks and other hardwoods are common overstory species of the lower el-

evation woodlands and include blue oak (*Quercus douglasii*), black oak (*Q. kelloggii*), valley oak (*Q. lobata*), Oregon oak (*Q. garryana*), coast live oak (*Q. agrifolia*), Shreve oak (*Q. parvula* var. *shrevei*), California bay (*Umbellularia californica*), Pacific madrone (*Arbutus menziesii*), and California buckeye (*Aesculus californicus*). Grasslands and the understory of open oak woodland and savanna are dominated by non-native annual grasses such as slender wild oat (*Avena barbata*), big quaking grass (*Briza maxima*), hedgehog dogtail (*Cynosurus echinatus*), and barbed goatgrass (*Aegilops triuncialis*). Chaparral scrub consisting of chamise (*Adenostoma fasciculatum*), *Arctostaphylos* spp., *Ceanothus* spp., and *Quercus* spp., along with patches of closed cone pine (*Pinus attenuata*) are common above 2,200 feet. Douglas fir (*Pseudotsuga menziesii*), California nutmeg (*Torreya californica*), and canyon live oak (*Quercus chrysolepis*) form dense shaded canopies on steep north and east facing slopes. Numerous seasonal creeks, sag ponds, vernal pools and springs provide a diversity of wetland habitats and plant communities.

Prior to the University's purchase of the property in 1951 the area was used as a sheep range. Today, a research flock is still maintained and ranges over 2/3 of the Center. Livestock are excluded from approximately 1,100 acres in designated "biological areas," research pastures, and steep, wooded terrain outside of fenced pasture boundaries.

## TENTATIVE SCHEDULE

Saturday 3/23 we will gather at the Hopland Research and Extension Center by 4:00pm for a brief look around the field station and dinner (detailed directions about how to get there will be sent out to registrants). After dinner we will have an orientation lecture about the region by local bryologists Dave Toren and Kerry Heise.

Sunday and Monday will be taken up by all-day field trips, followed by microscope sessions. One full day we will go to the Mendocino coast, seeing redwood forest, deep canyons, and the famous Mendocino pygmy forest -- which grows on old, raised, beach-terrace podsols with underlying hardpan on a series of Pleistocene marine terraces. Each terrace is about 100,000 years older than the next below. The evolution of soils on this "ecological staircase", has provided a foundation for studies of vegetational succession over a period of 500,000 years, and biotic responses to a steep gradient of soil fertility, which supports nor-

*Continued on page 7*

# THESES IN 6 BRYOLOGY

ed. Bill Buck

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

**Ilkiu-Borges, Anna Luiza. 2000. Lejeuneaceae (Hepaticae) da Estação Científica Ferreira Penna, Caxiuanã, município de Melgaço, Pará. Dissertação de Mestrado em Agronomia, Faculdade de Ciências Agrárias do Pará, Belém, Pará, Brazil. xiii + 251 pp. In Portuguese with English abstract. Current address of author:**

This master's thesis is a survey of the Lejeuneaceae at a scientific station in Caxiuanã National Forest in north-central Pará. A total of 59 taxa (57 spp. and 2 vars.) were discovered, in 32 genera. Of these 15 were new to the state of Pará, and seven are new to Brazil (*Aphanolejeunea gracilis*, *A. winkleri*, *Harpalejeunea stricta*, *Leptolejeunea tridentata*, *Microlejeunea acutifolia* and *Prionolejeunea aemula*—and *Aphanolejeunea contractiloba* new for South America). Keys, descriptions, and illustrations are provided for the taxa.

*Continued from page 6*

mal coastal vegetation on lower younger terraces, but becomes impoverished in nutrients to produce a climax pygmy vegetation on the uppermost terrace.

The other full day we will go to drier interior habitats in Lake County, led by Dave Toren. Stops will include Anderson Springs, a former hot spring resort with sulfur hot springs. Here grow *Ditrichum ambiguum*, *Ditrichum schimperi*, *Pohlia nutans*, and the rare *Mielichhoferia elongata*. The hepatics *Cephaloziella turneri* and *Jungermannia* sp. are also found here. If time allows, a couple of quick stops will be made along Highway 175 in the Cobb Mountain area to see the aquatics *Hygrohypnum bestii* and *Platyhypnidium riparioides*. Then a trek is planned in Boggs Mountain State Forest to see *Andreaea heinemannii* and the rare *Grimmia mariniana* growing on volcanic boulders. On the way back to Hopland, we will stop at Manning Creek about 4 miles west of Lakeport on Highway 175. This is an area of rolling hills, oak woodland with California Juniper, chaparral, a creek, and rock outcrops, together supporting a very rich bryophyte flora. Species of Grimmiaceae and Pottiaceae are numerous here and *Encalypta vulgaris*, *Entosthodon californicus*, and *Bartramia stricta* should be found. *Didymodon norrisii* is also found in abundance here (with sporophytes!) along with such rarities as *Bryoerythrophyllum columbianum* and *Pseudocrossidium obtusulum*.

In the evenings we will have slide shows about bryophytes and current research efforts of the participants (so plan on bringing a few slides to illustrate your current interests!). Tuesday we will explore the HREC itself for the morning, breaking up as a group after lunch.

## LODGING AND FOOD

Kitchen and lab facilities as well as bunkhouse-style beds at the Center will be available (tents can be pitched as well). We will

**Laaka-Lindberg, Sanna. 2000. Ecology of asexual reproduction in hepatics. Academic dissertation, University of Helsinki, Helsinki, Finland. 28 pp. + bound reprints (see below). Published as Publications in Botany from the University of Helsinki No. 29. Also available at: <http://ethesis.helsinki.fi/julkaisut/mat/ekolo/vk/laaka-lindberg/>. In English. Current address of author: University of Helsinki Lammi Biological Station, FIN-16900 Lammi, Finland.**

This doctoral dissertation begins with an extensive summary, and is followed by five bound reprints or manuscripts submitted for publication: Laaka-Lindberg, S., T. A. J. Hedderon & R. E. Longton. 2000. Rarity and reproductive characters in the British hepatic flora. *Lindbergia* 25: 75-81; Laaka-Lindberg, S. 1999. Asexual reproduction in a population of *Lophozia silvicola* Buch in central Norway. *Plant Ecology* 141: 137-144; Laaka-Lindberg, S. 2000. Substrate preference and reproduction in *Lophozia silvicola* (Hepaticopsida) in southern Finland. *Annales Botanici Fennici* 37: 85-93; Laaka-Lindberg, S. 2001. Biomass allocation to sexual and asexual reproduction in a leafy hepatic *Lophozia silvicola* Buch. *Journal of Bryology* 23: 3-8; Laaka-Lindberg, S. & M. Heino. 2000. Clonal dynamics and evolution of dormancy in the leafy hepatic *Lophozia silvicola*. Submitted. The research centered around *Lophozia silvicola*. It was found that, unlike in mosses, asexual propagation in hepatics is not directly correlated to either sexuality or to rarity. The results support the hypothesis that asexual reproduction functions on a local level in the maintenance and dynamics of populations.

shop for groceries on the way there and cook communally. Cost for food will be approximately \$30 total, for dinner Saturday through lunch Tuesday. Housing in the bunkhouse will be \$7.50 per night; tenting is free.

There are motels nearby if you can't handle the rustic life, but you'll have to make your own arrangements (for some suggestions see: [http://danrrec.ucdavis.edu/hopland/facilities\\_housing.html#hotels\\_motels](http://danrrec.ucdavis.edu/hopland/facilities_housing.html#hotels_motels)). Lodging in Hopland (8 minutes from HREC) consists of two inns, a little on the pricey side (\$85-\$120/nite), but nice. Cheaper lodging is available in Ukiah (30 minutes away). There's also a good brewery in Hopland!

## RESERVATIONS

Please inform Brent Mishler of your firm intent to attend the foray, by February 1st, 2002, at: [bmishler@socrates.berkeley.edu](mailto:bmishler@socrates.berkeley.edu), or by telephone 510-642-6810. Please include your mailing address and phone number, and note any special restrictions you might have on diet.

A more detailed mailing with directions, what to bring, etc., will be sent only to those who register with me.

Brent D. Mishler

# Diary

The diary is open for all bryological events. Please send information, preferably by email, to the editor.

## Courses

none announced

## Meetings

### 2002

**January 23-30.** IAB Meeting in Lucknow, India.

**March 23-26.** SO BE FREE 7. Contact B. Mischler (see. p. 6)

**August 13-23.** Third International Symposium on the Biology of *Sphagnum*, Uppsala—Trondheim. Information från Håkan Rydin, Dep of Plant Ecol, Evol Biol Centre, Uppsala Univ, Villavägen 14, SE-752 36 Uppsala, Sweden tel: +46 18 471 2854, fax: +46 18 55 34 19, e-mail address: hakan.rydin@ebc.uu.se.

**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 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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### Contents

Literature column .....	2
Funds available at the Swedish Museum of Natural History .....	3
News from the Bryological Society of Japan .....	3
SEAMEO BIOTROP regional training course on biodiversity and conservation .....	4
Graduate Assistenship in Bryology .....	5
Cao Tong Moved to Shanghai .....	5
Postdoctoral Fellowship in Plant Molecular Systematics .....	5
SO BE FREE 7 .....	6
Theses in Bryology 6 .....	7