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**Editor Note**

Many of you may have thought that *The Bryological Times* disappeared or that the new editor ran away. I am writing to let you all know that neither is the case. In fact, I want to apologize for appearing to fall off of the planet. This is not an excuse, but just my way of letting you know what occurred.

Around Thanksgiving (November) I started to show signs of an upper respiratory infection that became severe by Christmas. However, it turned out that what I really had was a lesson in science! I started to develop whooping cough and that turned into pneumonia. Whooping cough’s vaccination has become ineffective in the US and people in their 30s and 40s should be re-vaccinated for this childhood disease. The result of my bout pushed me behind getting ready for my new semester, which continued through our Spring Break. I will do my best to ensure my health does not hinder another issue.

Happy New Year to all!

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**Tips, Tools, and Techniques: Standardizing Focus Increments for Image Stacking Photomicrography**

By David Wagner

Stacking software has become widely used for making confocal images in photomicrography. Confocal images exhibit thin sections which are sharply focused in all parts. Objects such as bryophyte shoots photographed in reflected light have a three dimensional aspect. They can be very beautiful.

The software works best if photos are taken in evenly graduated, overlapping focal planes. When the overlap is optimal, about 25%, neither too many nor too few pictures need be taken. Precise, expensive, equipment is available that performs this process automatically. Obtaining excellent results by careful manual focusing is easily managed. I have installed a handmade metering dial on my microscope that has served well in this regard.

(Figure 1) Draw a circle on a card and divide it into 10 degree segments using a protractor. Pencil in the radii for each segment. There is nothing special about 10 degrees; it is simply convenient and easy to see for this process.

(Figure 2) Cut out the center of this dial at a diameter that will fit around the fine focus knob on one side of the microscope.

(Figure 3) Trim the card and tape it to the microscope so that the fine focus knob is centered in the middle of the dial. Attach a needle to the center of the knob, so that it reaches to the edge of the dial. I have used artist's putty and a piece of black binding tie comes with power cords. Plastiline modeling clay and a toothpick would work about as well.

(Figure 4) Mount a mirror in such a way that the needle and dial are visible from your working position. This may not be necessary for all workers, but I like to be able to monitor the view through the microscope, adjusting focus with one hand while taking photographs with the camera's remote shutter release in the other hand.

(continued on p. 10)

Distributor: Finnish-Chinese Botanical Foundation, Mailantie 109, FI-08800 Lohja, Finland; e-mail: timkop@dnainternet.net. Price € 40,00 + postage.

Twenty years have gone by from issues 1-2 of this journal to the current volume. Many bryologists may not have even heard of this journal. I was not aware of it either until a few months ago. Nonetheless, the current issue contains a set of very interesting papers. This issue is titled the ‘Dr. Ming-Jou Lai Memorial Volume.’ Most if not all of the papers in this issue were solicited by the editors (much like would be done for a Festschrift). It is my understanding that this journal will now appear in considerably more frequent intervals so papers addressing Asian bryology have another publishing venue to consider. Contact the editors Sinikka Piippo (sinikka.piippo@helsinki.fi) or Timo Koponen (timkop@dnainternet.net) for specifics. This journal format and size resembles Annales Botanici Fennici & Bryobrothera so it is the same size as most bryological journals being published today. All of the papers are written in English.

This issue of Acta Bryolichenologica Asiatica has the various papers arranged into four broad sections. The first section contains four papers offering a detailed account of the life and activities of Taiwan botanist, bryologist, and lichenologist Dr. Ming-Jou Lai (1949-2007). I found this entire section fascinating and it greatly broadened my understanding and awareness of the collaboration and financial support that was offered to Mainland Chinese scientists through personal efforts and funding supplied directly by Dr. Lai at a time when it was politically difficult to do so. This section concludes with an extensive annotated bibliography of Dr. Lai’s publication record.

Part two of this issue deals with various bryophyte taxonomy, systematics and nomenclature. There are 10 papers in this section with the majority of them addressing taxa occurring in China although new bryophyte records for the Philippines and French Comoros are also provided. Anyone with research interests in China and Asia in general will definitely need to have access to this issue. There is a paper of the Neckeraeaceae of China and a new key for Southeast Asian Philonotis is provided, as well as a new key for Chinese Ulota. In addition, a new species, Philonotis lizangii T. J. Kop. is described and illustrated. Species new for China include Neckera bhutanensis, N. denigricans, N. pusilla, Plaubelia involuta, Syntrichia amphidiacea and Ulota perbreviseta. The concluding paper in this section addresses spore counts obtained from 24 selected Asian taxa. I was amazed by some of the spore numbers ‘counted’ within a single capsule.

The third section of this issue has three papers on the continuing efforts toward documenting the bryoflora of Hunan Province (parts 13-15 in this ongoing series) and one paper on Hunan lichens. Part 13 addresses the Pterobryaceae, part 14 describes Philonotis lizangii T. Kop., and part 15 covers the genera Asterella, Fossombronia, Isotachis, Jubula and Metzgeria. The lichen paper is an account of the genus Peltigera in Hunan.

The fourth and final section with a single entry is the treatment of the genus Spiridens as fascicle ‘72’ of the Bryophyte Flora of the Huon Peninsula, Papua New Guinea. This volume concludes with an Index and nomenclatural novelties.

It is great to see another cryptogamic publishing venue available with a focus on Asian taxa. I look forward to the next issue of Acta Bryolichenologica Asiatica.

Jim Shevock
California Academy of Sciences
jshevock@calacademy.org
Moss 2011: September 11th to 16th

The registration and abstract submission deadline for MOSS 2011 will start April 1, 2011. The homepage has been updated with some details.

Most important, MOSS 2011 is offering a limited number of conference participation fellowships to help offset costs for several individuals. Please refer to the information under "Registration and Accommodation" on the website.

The application deadline is March 15th.

The homepage for the MOSS 2011 meeting in Black Forest can be reached at: [http://planthe.de/MOSS2011/index.html](http://planthe.de/MOSS2011/index.html)

Looking forward to seeing you in Black Forest in September!

Crum Bryophyte Workshop: September 22-27

The Crum Bryophyte Workshop will be held this year in Water-town, New York, on September 22-27, 2011. Typically about half of each day is spent in the field and the rest of the day and into the evening at microscopes. Most participants bring their own microscopes.

The field sites this year are the alvar regions of western New York. These limestone flats are very interesting. We met last year in the alvar region of the Bruce Peninsula and it was thought it would be interesting for the group to see the variation in alvar habitats.

If you are interested in attending, please send a short message to Bill Buck ([bbuck@nybg.org](mailto:bbuck@nybg.org)) and so you will be on future mailings once a hotel, etc. are decided upon.

Calling all Bryologists and Lichenologists in Alberta

Are you interested in being a part of Canadian Bryology?

I would like to set up an interest group for people that work with or are interested in bryophytes and lichens. The idea would be to bring together amateurs and experts, organize field meetings and workshops, and provide a support network for anyone interested in lower plants. People from neighboring provinces would be most welcome. If you would like to participate please contact me directly at [pwhitehead@capeecology.ca](mailto:pwhitehead@capeecology.ca) . I look forward to hearing from you. For more information see [http://www.capeecology.ca/bryophytes/bryophytes.html](http://www.capeecology.ca/bryophytes/bryophytes.html)
International Botanical Congress: Bryology

IBC2011, 18th International Botanical Congress, Melbourne, 23-30 July 2011

The International Botanical Congress will be held in Melbourne next year. As on previous occasions, the International Association of Bryologists’ (IAB) meeting will be held in conjunction with the IBC. A local organizing committee for the IAB part of the conference, consisting of Paddy Dalton, Christine Cargill, Allan Fife, Pina Milne, Helen Jolley and Niels Klazenga was established about three years ago, shortly after the IAB conference in Kuala Lumpur. In the last year or so we have been busy strong-arming people into organizing symposia, arranging the IAB dinner and other things.

The following symposia will be held at the IBC under the auspices of IAB:

- Genomics and bioinformatics of bryophytes
- Hornworts: evolution, biology and biodiversity
- Fine-scale phylogenetics and biogeography in mosses
- The 'Bryophyte Tree of Life (BryoToL)': towards a bryophyte phylogeny group (BPG)
- Liverwort phylogeny and evolution: a window into early land plant diversification

Three more symposia that must have bryophyte papers were found on the list of accepted symposia.

- Marchantia as a Model for Evolutionary and Developmental Biology
- Developmental genetics and cell biology of Marchantia polymorpha
- Fungal symbioses in crypto-gamic land plants

We have arranged for an IAB dinner on Thursday 28 July at University House, University of Melbourne, a short distance to the north of the conference venue.

Preceding the conference will be the week-long nomenclature session where decisions will be made on proposals for amendments to the International Code of Botanical Nomenclature (ICBN). We will have a Melbourne Code.

After the congress there will be several post-conference field trips. Some of the local organizing committee members will be on selected field trips, so there will be some local bryophyte expertise.

The accommodation listed on the IBC website is cheaper than it was in Vienna six years ago, and so is the registration fee.

The congress will be held during the southern hemisphere winter, which in Melbourne can be anything from glorious to cold, wet and miserable. It being Melbourne, we’ll probably have a bit of everything.

We hope to see many of you in Melbourne next year. Feel free to contact our designated contact person, Helen Jolley (helen.jolley@rbg.vic.gov.au), or any other committee member, if you have any queries.

C. Cassimans

Siège social: 37, rue Cimetière d’Honneur, BE - 5660 MARIEMBOURG / Belgique
Bryological News From Spain

The 18th Symposium of Cryptogamic Botany (SCB) will be held in the wonderful city of Barcelona from the 13th to the 16th of July 2011, almost immediately before the 18th International Botanical Congress (Melbourne, 23-30 July). SCBs constitute one of the most traditional botanical events in Spain, given that it is being celebrated since 1972. The Honorary President and General Secretary of the 18th SCB are, respectively, the lichenologists Xavier Llimona and Antonio Gomez-Bolea. This will be the second time Barcelona is hosting this event, since the 3rd Symposium was also held there in 1981. Registration on line is now available at the Symposium website (http://www.ub.edu/sbcn2011/index.html), with reduced fee until the 15th of April. Updated information will be constantly provided through this website. Physicists, mycologists, lichenologists, pteridologists and of course bryologists, all over the world, are welcome to the 18th SCB. In the last SCB, that was held in Tomar (Portugal) in 2009, 168 crypto-gamists participated and 4 international plenary conferences and 166 communications were presented, 48 of which had a bryological content. This is a sign of the good health of cryptogamy in general, and bryology in particular, in Spain and Portugal, and it may anticipate the success of the next 18th SCB.

The Volume IV of the Project “Flora Briofítica Ibérica” (Iberian Bryophyte Flora) has been published in 2010. It includes the Orders Funariales, Splachnales, Schistostegales, Bryales and Timmiales, and can be purchased for 50 € from the Project web page (http://www.florabriofiticaiberica.com/volumenes.html), either by credit card or bank transfer. A real bargain! Quality standards remain high and thus the two coordinators (Juan Guerra and Rosa Cros), volume editors (coordinators plus Montse Brugués and Maria Jesús Cano), authors of the different genera, reviewers, illustrators and sponsors (with special reference to the Universidad de Murcia) are to be greatly congratulated.

The Project “Flora Briofítica Ibérica” is being financed by the Spanish Ministry of Science and Innovation.

In the last General Assembly of the Sociedad Española de Briología - Spanish Bryological Society (SEB), held at the 17th Symposium of Cryptogamic Botany (Tomar, Portugal, September 2009), Javier Martínez-Abaigar and Encarnación Núñez-Olivera (Universidad de La Rioja) were elected, respectively, as new president and secretary. Thus, Felisa Puche (Universidad de Valencia) and Juana Maria González-Mancebo (Universidad de La Laguna, Canary Islands) completed their terms. The rest of the Board members are Belén Albertos (Vicepresident, Universidad de Valencia), Isabel Álvaro (Treasurer, Universidad de Barcelona), and Rosa Maria Cros (Universidad Autónoma de Barcelona) and Juan Antonio Jiménez (Universidad de Murcia) as Members. SEB has good health since it has reached 130 members, many of them from abroad countries. In addition, in 2010 the issues 34/35 of the SEB’s Bulletin have been published. If you want to be a member of the SEB, please go to our subscription web page (http://www.uam.es/informacion/assocaciones/SEB/suscripciones.html). The annual fee is 30 € for ordinary members, 12 € for students and 50 € for institutions.

Two new 3-year bryological research projects have recently been financed by the Spanish Ministry of Science and Innovation. Maria Jesús Cano (Universidad de Murcia) and her colleagues will carry out the study “Taxonomic study of the family Pot- tiaeae in South America. Phase III”. It must be highlighted that Steven Churchill will collaborate in this Project. Ricardo Garilleti (Universidad de Valencia) and his colleagues will develop the study “Taxonomic, systematic and biogeographic analysis of the genus Ulota Mohr (Ortohtrichaceae, Bryopsida) in the Holartic”. In addition, Dr. Garilleti is also leading a team of 20 Iberian bryologists with the objective of elaborating the “Atlas and Red List of the threatened Bryological Flora of Spain”. This new effort in the research on bryophyte conservation in Spain results strategic for the development of Spanish and Iberian bryology. This project is being financed by the Spanish Ministry of Environment.

The bryological group of the Universidad Autónoma de Barcelona (Montse Brugués, Rosa Cros, Elena Ruiz and Anna Barrón) is implementing a web page on the bryophyte cartography of the Iberian Peninsula and Balearic Islands (http://briofits.iec.cat). The bryological group of the Universidad Complutense de Madrid (Esther Fuertes, Gisela Olíván and Carolina León) has also elaborated a web page (http://linneo.bio.ucm.es/plantas_criptogamas/index.html) including their most important and recent bryological activities, among which the Project “Bog conservation in the Isla Grande de Chiloé-Chile: a mitigation alternative against climate change and a business opportunity for small scale farmers” stands out. This Project is financed by the Spanish Agency for International Cooperation and Development (AECID).

Javier Martínez-Abaigar, Universidad de La Rioja (Spain)
javier.martinez@unirioja.es
2011  Lichenology, Bryology, and Mycology Seminars at the Humboldt Institute on the coast of Maine!

May 22-28  Lichens and Lichen Ecology  by David Richardson and Mark Seaward
May 29-Jun 4  Crustose Lichens: Identification Using Morphology, Anatomy, and Simple Chemistry by Irwin M. Brodo
Jun 5-11  Bryophytes and Bryophyte Ecology  by Nancy G. Slack
Jun 12-18  The Lichen Genera Rhizocarpon, Fuscidea, Porpidia, and Other Lecideoid Lichens  by Alan Fryday
Jul 17-23  Lichens and Gravestones  by Judy Jacob and Michaela Schmull
Jul 31-Aug 6  Mushroom Identification for new Mycophiles; Foraging for Edible and Medicinal Mushrooms  by Greg Marley
Aug 21-27  The Genus Bryum and Bryaceae: Systematics and Biogeography of North American Species  by John R Spence
Sep 11-17  Mushrooms and Other Fungi  by Rosalind Lowen and Dianna Smith

Descriptions of seminars may be found at http://www.eaglehill.us/programs/nhs/nhs-calendar.shtml
Information on lodging options, meals, and costs may be found at http://www.eaglehill.us/programs/general/application-info.shtml

There is an online application form at http://www.eaglehill.us/programs/general/application-web.shtml

Syllabi are available for these and many other fine natural history training seminars on diverse topics.

For more information, please contact the Humboldt Institute, PO Box 9, Steuben, ME 04680-0009.
207-546-2821. Fax 207-546-3042
E-mail - office@eaglehill.us
Online general information may be found at http://www.eaglehill.us

NATURAL HISTORY SEMINARS

In support of field biologists, modern field naturalists, and students of the natural history sciences, Eagle Hill offers specialty seminars and workshops at different ecological scales for those who are interested in understanding, addressing, and solving complex ecological questions. Seminars topics range from watershed level subjects, and subjects in classical ecology, to highly specialized seminars in advanced biology, taxonomy, and ecological restoration. Eagle Hill has long been recognized as offering hard-to-find seminars and workshops which provide important opportunities for training and meeting others who are likewise dedicated to the study of the natural history sciences.

Eagle Hill field seminars are of special interest because they focus on the natural history of one of North America’s most spectacular and pristine natural areas, the coast of eastern Maine from Acadia National Park to Petit Manan National Wildlife Refuge and beyond. Most seminars combine field studies with follow-up lab studies and a review of the literature. Additional information is provided in lectures, slide presentations, and discussions. Seminars are primarily taught for people who already have a reasonable background in a seminar program or in related subjects, or who are keenly interested in learning about a new subject. Prior discussions of personal study objectives are welcome.
Bryophyte Identification Workshop: Liverworts, Hornworts, and Mosses

July 18—22, 2011

Highlands Biological Station, Highlands, NC

Instructor: Dr. Paul G. Davison (University of North Alabama)

http://www.wcu.edu/hbs/currentycourses.htm

The Highlands area harbors an incredible diversity and abundance of bryophytes and is the perfect setting for an identification workshop. The workshop aims to give participants an in-depth appreciation for this often overlooked group of plants. Our focus will be learning the skills needed to make identifications to species. In addition to morphology and ecology, the workshop will cover conservation concerns for regional species. Field trips will emphasize field recognition of many species. Methods of collecting, herbarium preservation, and laboratory dissection will be practiced. Taxonomic keying will rely on microscopic characters. Participants will build a personal herbarium of reference specimens. This workshop is suitable for naturalists and professionals.

Prerequisites: field botany, plant taxonomy, or permission of the instructor. Click here for course description and syllabus.

About the Highlands Biological Station

The Highlands Biological Station is a year-round biological field station located on a high plateau in the southern Appalachian Mountains of southwestern North Carolina. Its principal mission is to promote research and education in biodiversity studies (ecology, systematics, evolution, and conservation), with special emphasis on the diverse flora and fauna of the region. Founded in 1927 through the combined efforts of prominent local residents and a group of biologists from leading universities in the Southeast, HBS built its first laboratory in 1930.

For more than 80 years, the mission of the Highlands Biological Station has been to foster education and research focused on the rich natural heritage of the Highlands Plateau, while preserving and celebrating the integrity of the "biological crown of the southern Appalachian Mountains."

Free IAB-membership for students

This is just a reminder that students can join the International Association of Bryologists (IAB) free for one year. Full information is on the website http://www.bryology.org/ under the How to Join button. The new treasurer is Jim Shevock. Send your information to:

Jim Shevock, Research Associate & Fellow, California Academy of Sciences, Botany, 55 Music Concourse Dr., Golden Gate Park, San Francisco, California 94118 USA or email him at jshevock@calacademy.org
Book Review: The Peat mosses of south-western Germany and surrounding areas


Over the last decades, we have noticed an increase in the number of Sphagnum guides (such as e.g. Bouman 2002, Daniels and Eddy 1990, Flatberg 1994, McQueen 1990) and this guide to the peat mosses of South-western Germany and surrounding areas is a new addition to help bryologists with the identification and understanding of this unique genus.

This book relies for its information much upon the moss flora of Baden-Württemberg (Nebel and Philippi, 2005) of which Adam Hölzer was also the author of the Sphagnum part. However this new publication includes more species, more illustrations and far more information on the ecology and habitat of the peat mosses.

The guide covers a total of 37 species, including a number of species that are not covered in the moss flora of Baden-Württemberg as they do not in this part of South-western Germany, such as S. strictum and S. pylaesii (both oceanic species), *S. molle* (occurs in neighbouring Alsace), *S. subfulvum* (in neighbouring Switzerland), *S. lindbergii* (Harz (D), Austria, Checkia), and *S. pulchrum* (Lower Saxony, Nordrhein Westphalia). The inclusion of these species makes this publication useful for a German-speaking public that want to know more about peat mosses of Europe (excluding the typical northern and eastern European species).

The introductory part provides a short review of the history of Sphagnology, a thorough discussion of the ecology (including a new approach to assess the ecological optimum of the Sphagnum species), some information of the sub-fossil occurrence and of the use of peat mosses.

The keys to the sections and species are bilingual (German/English) and are primarily based upon microscopic characters. A key based upon macroscopic characters has not been included, which, I think is a missed opportunity. However, many of the relevant macroscopic characters are presented in the description of the species; additionally, the illustrations (colour photographs of the plant habit, black/white of the microscopic characters are very informative and nicely laid out in the figures. For each species, morphology, ecology and distribution are well described, including a dot map of the recent distribution (> 2000) of the species in SW-Germany. In a final chapter, the author provides an assessment of the ecological significance of South-western Germany for peat mosses.

Bryology has significantly advanced over the last decades. I still do remember the difficulties I had to identify my first peat mosses with Wim Margadant and Heinjo Dur´ing’s preliminary field guide, without illustrations…. Since then, a better understanding of macroscopic features (see eg Flatberg 1994) and high-quality colour illustrations have greatly facilitated the identification of these plants. In this guide, Kurt and Helga Rasbach are to be acknowledged for the many outstanding colour pictures.

This new publication should, without doubt, be an important reference for those interested in peat mosses in this area and should be a valid addition to botanical and natural history libraries. To order, visit the website www.weissdorn-verlag.de or contact weissdorn-verlag@t-online.de.

Literature:


Geert Raeymaekers, Brussels
Email: Geert.Raeymaekers@skynet.be
Time for Payment of IAB membership dues for calendar years 2010 & 2011

IAB remains a very loose confederation of bryologists scattered around the globe, and this in part has made tracking membership dues over time a bit elusive. Historically, many members have paid their dues through a ‘regional coordinator’ where funds generally remained in the country of origin. Needless to say, it is a daunting task as your Treasurer to prepare a report on the financial status of the IAB. Our records management as a society is in need of major improvement to comply with standard financial record keeping. In addition, banking regulations here in the USA where the IAB account resides have become considerably more complicated.

In an effort to begin a transition into a more systematic reporting and data collection of membership dues, the IAB Council initiated in mid 2010 the option for members to pay membership dues via paypal. This service to our members is basically available worldwide. The benefits to using paypal are many but primarily it is a service that is free to the user and paypal currently can accommodate payment in over 33 currencies into U.S. dollars. NO CONVERSION FEES! IAB, however, pays a small service fee on each transaction received. We added a link directly from the IAB homepage [www.bryology.org] that can either accommodate a yearly membership or payment for those who also subscribe to Arctoa. This introductory period on our website with paypal was something the IAB Council wanted to try out, and based on its use to date I’d say that it has been quite successful. We hope to expand the options on the homepage for using paypal in the future to include contributions to various functions and programs of the IAB and to build-up the endowment. You can use either your checking account or a credit card with paypal. It is safe, quick, efficient, and free. You will, however, need to initially create a paypal account to actually move currencies. Once your account is established you can use it in many ways. I personally use paypal for many of my bryological journal subscriptions and other purchases either from domestic and international sources. You can also use paypal directly at their website www.paypal.com. Payment to the IAB account is made via jshevock@calacademy.org. You can add payment in any amount through this website and it allows you to provide a narrative on how the funds are to be applied to the IAB.

Some members have attempted to pay for IAB services by various international checks but these are becoming impossible to actually cash in the United States. Such checks that state there are funds in an account in U.S. dollars cannot be cashed or access to these funds is denied thereby the IAB is also hit with a bank charge and does not receive payment either. So the IAB can no longer accept international checks. These checks are also likely to be expensive to members to generate with their bank so again, using paypal eliminates these bank fees to our members. However, IAB can still accept personal checks from members residing in the USA from a U.S. bank. Some members prefer to submit payment in cash (U.S. dollars only, no Euros or other currencies). Although this is acceptable, it does have some risk. So if you choose to pay by cash ensure that the bills cannot be seen through the envelope. As Treasurer, all cash payments sent to me in 2010 have arrived safely.

As a society we hope to be able to do more of our business and contact you our members through electronic means. Whenever you have a change in your email address or prefer to update your records, please send an email to the Treasurer so we can update your files. This will also ensure that you receive notices when the next issue of The Bryological Times is available and when we change the passwords on the website. You can also email me if you are unsure on the status of your membership. Many members pay for multiple years so it is easy to forget when the membership is again due.

As your Treasurer, I want to thank you in advance for your patience and understanding as I learn this role and my efforts to make the IAB more accountable for its financial resources. Without accurate financial data it is nearly impossible to the IAB Council to develop a budget, plan for our symposia meetings, and other services and ensure the IAB is a financially stable institution.

Jim Shevock, IAB Treasurer

ATTENTION All Bryological Societies...

IAB would like to keep up with all of the Bryological Societies that exist. Please help report your information in The Bryological Times by supplying the editors with a contact for your society. Column space is available and we would love to showcase what your group is doing. Report local meetings, field trips, grants and awards, etc. If you have a BT contact, please have them communicate with DB Poli at poli@roanoke.edu to ensure all contact information is up-to-date. We look forward to hearing from you! Thank you!
Nordic Bryological Society Annual Excursion and Meeting

The Annual Excursion and Meeting of the Nordic Bryological Society will be held on Öland in Sweden, June 2-5, 2011. Öland is the second largest Swedish island and the smallest of the traditional provinces of Sweden. It is located in the Baltic Sea just off the coast of Småland. The island is separated from the mainland by the Kalmar Strait and connected to it by the 6 km Öland Bridge.

Öland is famous for its alvar, a very large area of limestone pavement. This challenging habitat supports a community of many rare mosses and lichens. The southern temperate group of species dominates the flora. However, also some alpine relict species from the glacial age are among the flora palette of the alvar. A wide variety of wild flowers, some endemics, are found on the limestone pavement ecosystem. Some of the bryophytes found include species like the mosses: Brachythecium tommasinii, Encalypta mutica, Encalypta obovatifolia, Entosthodon muhlenbergii, Grimmia tergestina, Plascteurhynchium striatulum, Protobryum bryoides, Pseudocrossidium obtusulum, Pterygoneurum ovatum, Rhodobryum ontariense, Seligeria oelandica, S. pusilla, Syntrichia montana and Tortella rigens. Also some rare liverworts are found like: Athalamia hyalina, Mannia pilosa, Porella baueri, Riccia ciliifera, R. gothica, R. oelandica and R. warnstorffii.

Beside alvar ground we will have time to visit a deciduous and coniferous forest typical for the island as well as wetlands.

We have at the moment reserved accommodations for twenty persons at the scientific field station “Station Linné” (www.portentillalvaret.se <http://www.portentillalvaret.se>), which is situated close to the largest alvar area.

Cost lodging: 120 SEK/night. Breakfast, lunch package & dinner *not* included.

Crister Albinsson & Tomas Hallingbäck

For preliminary registration and further information please contact: tomas.hallingback@slu.se

Bryophyte identification at Pittsburg State University, Kansas

Stephen Timme will be offering an introductory identification of bryophytes targeting the general public or novice. The class will meet on two day, Saturday and Sunday, April 2nd and 3rd. It is designed to provide the participant basic characteristics and techniques for identification of some of the more common species found in the prairie, oak/hickory forests and rock outcrops in the central U.S. This workshop will be topped off with a trip to observe bryophytes in the field.

It will be held in the botany lab on the Pittsburg State University campus. Participants will receive personally written keys to common species and other materials. Techniques will include the proper use of the microscope, free-hand sections, terminology, and making semi-permanent mounts. The workshop is free.

Contact person:
Dr. Stephen L. Timme
T. M.Sperry Herbarium
Department of Biology
Pittsburg State University
Pittsburg, KANSAS 66762-7552
417-658-5473
botanydoctor@hotmail.com
Tools, Tips, and Techniques (continued from page 2)

For any particular object, I first determine how many turns around the dial are necessary for a complete series of images. I focus on the top of the object, note where the needle is on the dial, and then focus down to the lowest focal plane I want to capture. For most slide mounted objects I find the needle makes between one and three complete revolutions around the dial as I focus from top to bottom focal planes.

Experimentation is necessary to use this system effectively. I have found that with my Nikon Eclipse E200 microscope and a Nikon Coolpix camera, focus levels that work well are:

- 4X objective: 6 increments of the dial per image.
- 10 X objective: 2 increments of the dial per image.
- 40X objective: 0.5 increments, or even better is to take three images per increment. (Oil-bodies in liverwort cells come into and out of focus with very slight touches of the fine focus knob.)

Practice makes for consistent results. These guidelines provide about 25% overlap, which Helicon Focus, the program I currently use, seems comfortable with. Maximum resolution settings on the camera helps the stacking program to work optimally. Once the object is properly staged, I simply keep an eye on the dial and my ear on the shutter sounds. I turn the knob for the pre-determined number of increments with my left hand on the fine focus knob, then activate the shutter release with right hand, turn the focus to the next stop, push the shutter release, etc., until I have completed the number of revolutions of the needle on the dial to make a complete set of images from top focus to bottom focus.

It is normal to work with ten to thirty images for slide preparations of bryophyte subjects. Digital photography allows the safety of overshooting the mark at both beginning and end of a confocal run. Useful images are exported to the stacking program. A stacked image is prepared for final presentation in PhotoShop or other favored image management software. Some examples of photomicrographs using this process are here:

http://web.mac.com/davidwagner/Site/Rare_Liverworts.html
Wagner’s Spring Break: A spring class

by David Wagner

This spring I will be offering an intermediate bryology class during Spring Break on the University of Oregon campus. The class will meet Monday-Wednesday, March 21-23. This workshop is designed to help folks with a prior general introduction to bryophytes to kick their level of competence up a notch or two. I expect participants will have had one or more introductory classes/ workshops, who are able to readily recognize the differences between liverworts, hornworts, and mosses, and are able to identify at least a dozen or more of the most common bryophyte species in their locale.

The objective of this workshop will be a fairly intensive practice using the contemporary keys pertinent to our area. Focus will be on navigating the California Moss keys by Dan Norris and Jim Shevock, the California liverwort keys by Bill Doyle and Ray Stotler, and the first volume of the Bryophyte Flora of North America (it is possible that the second volume will be out by the time of the workshop). I will also give strong attention to Elva Lawton’s moss keys and Wilf Schofield’s keys to PNW liverworts. As usual, I will provide participants with the most current draft of my "Guide to the Liverworts of Oregon” as well as a goodly selection of helpful, mostly unpublished material. Participants will receive a thorough review of online resources and the most useful current literature from other parts of the world, too.

I will instruct participants in the lab techniques needed to observe the features used in keying and supervise practice of these techniques. We will have the use of a classroom with microscopes for all students. Most of our time will be spent in the teaching lab, with an afternoon excursion on the first day for field experience. Time will be available for participants who bring personal collections to work on them under expert supervision.

This will be an intensive three day course. Tuition is $300. If you or anybody you know might be interested in this intermediate class, please contact me directly.

Bryophytes as Art: Peggy Edwards

Peggy Edwards is a freelance natural science illustrator who was born and raised on the Central Coast of California. She earned a Bachelor of Science degree in Environmental Studies from the University of California, Berkeley, and a graduate degree in Science Illustration from the University of California, Santa Cruz and now spends her time teaching and illustrating for clients such as the Nature Conservancy, Calaveras Big Trees State Park, The Yosemite Association, The Sierra Club, the California Department of Fish and Game, and various botanical field guide authors.

If you are interested in Peggy’s work, contact her at pegedwards@sierranatureprints.com for more information!
The Netherlands about to barcode the entire Dutch bryophyte flora

The Netherlands Centre for Biodiversity Naturalis (section National Herbarium of the Netherlands), Leiden University, gets help from volunteers of the Dutch Bryological and Lichenological Society (BLWG) to collect, on average, three specimens of each of the 500-600 bryophyte species presently listed for the Netherlands. Over 1500 freshly collected plants and recent herbarium specimens will be used to generate DNA barcodes in the recently established barcoding lab of NCB Naturalis. The chloroplast trnL-F, nuclear ribosomal ITS, and, where necessary, another variable non-coding chloroplast region will be evaluated as barcoding markers. Thirty volunteers, who make field trips regularly for the national bryophyte mapping scheme, collect the specimens from diverse locations across the Netherlands. This joint effort is also expected to result in novel data concerning species distributions and threat status to update the Dutch bryophyte flora. The collecting work started in December 2010 and is coordinated by Laurens Sparrius and Henk Siebel (BLWG) and NHN bryologists Michael Stech and Hans Kruijer. The reservation application on the BLWG website www.blwg.nl/dna shows taxon names involved and figures on the progress of the collection. The complete set of barcodes is scheduled to be available by the end of 2011. If successful, this way of collecting vast amounts of specimens by volunteers will be continued for other species groups as well.

Information: Michael Stech (stech@nhn.leidenuniv.nl), Laurens Sparrius (sparrius@blwg.nl)

Country Contacts Help:  Speak up for your part of the World

IAB and the Bryological Times is asking all of you to take on a leadership role to help all bryologists! Help us learn what the world’s bryologists are doing by helping to communicate your country’s news to DorothyBelle Poli at poli@roanoke.edu. DB is looking to learn which countries are still not represented on our back page and then would like to find people to help with those bryological “holes.” Volunteer to help fill-in the world! If your country is not listed on our list, please DorothyBelle know. If you would be interested in being your country’s contact or would like to find a replacement, again, please contact DorothyBelle today!

My-Plant.org - A new social network

Check out the latest way to communicate with the plant community : My-Plant.org. This is a facebook-like social network that has been designed and implemented by the iPlant Collaboration. Signing up is FREE and connects you to people with similar plant interests because you pick the families you want to hear about.
As reported in a previous issue of The Bryological Times (99: 17, 1999), the International Association of Bryologists has decided to begin a repository of bryological theses. These theses are being housed in the Library of The New York Botanical Garden. They are available via interlibrary loan. The NYBG Library online catalog (CATALPA) may be viewed at: http://opac.nybg.org/screens/opacmenu.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. The current IAB Treasurer is Jim Shevock (jshevock@calacademy.org).


For this master’s thesis, the author grew six rare mosses (*Tayloria rudolphiana*, *Bryum versicolor*, *Tetraplodon urceolatus*, *Fissidens grandifrons*, *Pottia heimii* and *Ulota rehmannii*) and one hepatic (*Riccia breidleri*) in *in vitro* culture. This was the first time that any of these species had been cultured under *in vitro* conditions. They were grown to establish the protocols necessary to create and maintain live collections of each species *in vitro* as a method of *ex situ* conservation, in an attempt to understand their species biology and to ascertain the reasons for their rarity in the wild. Some of the taxa did not establish on the media and ultimately *Tayloria rudolphiana* became the focus of the study. *In vitro* culturing proved to be a good method which allowed the close study of all the species which regenerated in culture and for those that did not regenerate, which culture conditions are unsuitable for those species. It specifically allowed the observation of brood cells for the first time in *T. rudolphiana*. It was also established that growth is not a factor in the rarity of *T. rudolphiana* because it grew abundantly on a variety of media and that it is therefore not an obligate nitrophile. It is not wind-dispersed as stated in the literature, but most likely insect-dispersed due to the characteristics of its capsules and sticky spores. Its rarity is probably a result of its specific habitat requirements and its poor dispersal capability.


In this master’s investigation, the moss flora of Çal (MANISA) mountain was studied. A total of 130 moss specimens were collected and identified, resulting in 52 taxa belonging to 13 families and 26 genera. The Pottiaceae and Orthotrichaceae (especially *Tortula* and *Orthotrichum*, respectively) were the most common taxa. Eight taxa are newly reported from grid square B6.


This doctoral thesis has two components. The first is a floristic study of the mosses of Muğla and its environment carried out in 1993–1995. This is near a thermic power station. This resulted in a report of 137 taxa belonging to 57 genera in 21 families. The most speciose families (in order) were Pottiaceae, Bryaceae, Brachytheciaceae, Dicranaceae and Hypnaceae. Of these, 13 are new species records for Turkey, and 83 are new records for grid square C11. Also studied was the deposition level of heavy metals in the mosses to determine the pollution emitted by the power station. The metals Pb, Cu, Ni, Cd and Zn were measured. The accumulation of these heavy metals varied by taxon and acrocarps and pleurocarps were shown to accumulate these in different quantities.
Bryophyte atlas of Schleswig-Holstein and Hamburg (Germany)

Inspired by the link to the nice liverwort atlas of Romania (thank you Sorin!), I would also like to point to the pdf of an own bryophyte atlas (two federal states of northern Germany), which has been freely available on the publisher’s homepage (LANU Schleswig-Holstein) since the date of publication:


Since this location could not easily be found and did not have a fixed URL, I have now posted an additional copy of this voluminous book at:

http://www.biologie.uni-hamburg.de/bzf/fbha063/ JD096.pdf

Due to numerous colour photographs and colour maps, the book has 130 MB - thus you need a fast internet connection for download. Unfortunately, the text is in German apart from an English abstract.

Jürgen Dengler

Dear Colleague,

The bryological department of the Centre Marie-Victorin in Vierves-sur- Virion (C.M.V./ Research and Education Centre for Nature conservation associated with the University of Gembloux, Belgium) successfully organised his first International bryological meeting in 2005.

The meetings that took place in 2007 and 2009 were more successful because nearly 20 participants came to our Nature Park Virion-Hermeton and were seduced by the proposed program.

Most of them suggested to renew this initiative in 2011 and promised to massively diffuse the information in order to get a larger participation.

The bryological department invites you to participate to the Fourth International Bryological Meeting from 7th to 11th June 2011, which will be held in a nice place to stay, namely the Centre Marie-Victorin.

The program remains appreciably the same as the three previous editions.

We don’t impose any particular theme for the various communications that you would make. These should not exceed 10 minutes and, afterwards 5 minutes questions and answers.

Besides, you can still benefit from a lot of advantages mentioned on your inscription form and of various services from the staff of the Centre Marie-Victorin during work time. Some have to be paid (telephone, fax, internet,...), other are free of charge (consultation in the library, laboratory use, etc).

The lodging cost in the Gîte pour l’Environnement (Vierves’ old station) is 175 € all inclusive or 195 € with the publication of the rules.

If you prefer to stay in « The Coup de Coeur », cost will be 210 € all inclusive or 230 € with the publication of the rules.

Please find in attachment all information concerning the lodging, your inscription form to be quickly sent back and the temporary program (Titles of the communications to be mentioned).

We would like to register your formal inscription before the 1st March 2011 at the latest, knowing we need the participation of at least 20 people.

The Parc naturel Virion-Hermeton will be in charge of the publication of the rules of the International Bryological Meeting, available between October and December 2011. We look forward to seeing you again in June 2011. We thank you in advance to diffuse our announcement.

Kind bryological regards

Camille Cassimans  
Secretary

Philippe De Zuttere  
Promoter

Léon Woué  
President of the C.N.B.

ATTENTION :
- end of the enrollments the 01/03/2011
Relative information to the lodging

For the lodging and the meal, we confided the logistics to the Cercles des Naturalistes de Belgique a.s.b.l. to Vierves-sur-Viroin. It is near the old railroad station of the village of Vierves, completely restored and modernized -Gîte des Jeunes pour l’Environnement- as well as the building -Coup de Coeur-.

You will find a restaurant with a specialized kitchen staff, an audience of 92, a TV-room, the nature-shop, a botanical garden, a garden for medicinal plants, a -hyménoptères- course, a land for sport....

All rooms have central heating, sinks (hot and cold water), toilets and showers on the same floor.
We have following rooms at the -Gîte des Jeunes pour l’Environnement- :
- 6 rooms with 2 beds of a person (superposed )
- 10 rooms with 4 beds of a person (superposed by 2)
- 2 rooms with 3 beds of a person (superposed by 2 or 3 )

We have also 5 rooms -large comfort-, (toilet, shower, sink,) in the building -Coup de Coeur- and this for a supplement of 15 € by night and by person.

The rooms are distributed in two adjoining buildings having each the same level of comfort. We shall try the most rational manner for distribution of the rooms, but if you wish to share the room with one particular participant, please let us know in advance.

We shall do our best to satisfy your demand.

Hoping to see you in Belgium.

Best regards.

Léon Woué and Philippe De Zuttere

ADDRESS : Rue de la Chapelle, 1 - BE 5670 Vierves-sur-Viroin BELGIQUE
Participation sheet to complete and to send back to the above address

Name and first names: ................................................................. male / female

Complete address: ..............................................................................................................................................

Institution: ..........................................................................................................................................................

Mobile: ................................................. E-mail: ..........................................................

Telephone: 00 / ................................................. Fax: 00/..........................

Ø doesn't want to participate to the bryological meetings for the following reason(s): ...........................................

Ø takes part to the bryological meetings in Vierves-sur-Viroin (Belgium) in June 2011 and chooses:

* I will arrive the Ø June 07, 2011 at the end of day Ø June 08, 2011 early in the morning

* I participate to

Ø the totality of the symposium with meals and lodging
Ø the totality of the symposium with lunch only
Ø the totality of the symposium with lunch and evening meal (without lodging)
Ø I wish a large comfort room in the «Coup de Coeur»

Total price without publication : 175 € Total price WITH publication : 195 €

4 nights in the “Coup de Coeur” : 210 € or WITH publication : 230 €

* I intend to do a communication of 10 minutes maximum with following theme : .................................................................

* this communication will be done in Ø French Ø English

* I will provide the text of my intervention (in Word for PC)

Ø 1 month in advance Ø 2 months in advance Ø 3 months in advance in language ..................

* I request to use the technical system :

Ø slides projection 24x36 (right basket - 50 views) Ø overhead projector
Ø panel-supports for my posters Ø VHS video recorder with (standard PAL) projection on big screen
Ø spotlight numeric LCD (I bring my portable PC!) Ø other (please describe - according to our possibilities): ..................

* for the meals I am Ø meat eater Ø vegetarian Ø without pork Ø other (to specify)

........................................................................................................................................................................

* Ø I am non-smoking Ø I am a smoker but will respect the interdiction to smoke in the buildings (including rooms).

* I intend to pay my involvement to the bryological meetings

Ø by bank transfer to the account 652-8062445-81 with name «Cellule Bryophytes Viroinval»

IBAN: BE36.6528.0624.4581 BIC: HBKABE22

Ø by VISA card on arrival Ø cash on arrival

* Ø I will have a vehicle Ø I won't have a vehicle

* Ø I leave the symposium at the end (10/06) Ø I leave the following day (11/06)

* Various wishes (to be specified): ..............................................................................................................................

........................................................................................................................................................................

Date: ........................................ Signature: .......................................................
Alien (Introduced) bryophytes:
In lists and studies of introduced or alien species, bryophytes are rarely mentioned. Several recent and ongoing projects in Australia have been looking at the status of several alien mosses. One of these studies involved international collaboration with Ben Carter, a student of Jim Shevock at the University of California Berkeley, examining the status of Scleropodium australiae, a Tasmanian endemic taxon described by Lars Hedénas. Ben has been revising the genus Scleropodium, an otherwise northern hemisphere taxon. Scleropodium australiae had previously only been known from its type collection. Following a request from Jim Shevock, Rod Seppelt relocated the moss near and was able to provide fresh material for study. A detailed morphological and molecular genetic study undertaken by Ben has demonstrated that while the Tasmanian moss is a Scleropodium species, it is morphologically and molecularly identical to European S. touretii. Ben’s study is now in press in the Bryologist. As a follow-up to this study, Rod Seppelt, with Lyn Cave and Ben Carter, have examined the distribution of S. touretii (now known from a second site near to the original locality) and Pseudoscleropodium purum, a more widespread and apparently spreading taxon with which it was originally compared. This work is also in press in the Tasmanian Museum journal Kannunah, volume 4, to be published in February 2011. Coincidentally, Pina Milne and Helen Jolley have been studying the use of herbarium records in documenting the occurrence and changing distribution of Pseudoscleropodium in Victoria and this work has recently been published (Victorian Naturalist 127(4): 150).

Australasian Bryological Newsletter:
After some 18 years in the position, Paddy Dalton is relinquishing the editorship of the Australasian Bryological Newsletter. His successor is David Meagher, at the University of Melbourne, and in keeping with modern trends future issues of the Newsletter will appear in electronic format only as a downloadable pdf file. The Newsletter has come a long way since Helen Ramsay first saw the need for a means of keeping Australasian Bryologists in touch and encouraging them in their work and, with assistance from Patricia Selkirk, began the Newsletter in October 1979. For the present time the Newsletter is available on-line at (http://www.utas.edu.au/docs/plant_science/abn/index.htm).

John Child Workshop in New Zealand:
Some 40 participants including Matts Wedin from Sweden, Jim Shevock from California, and five from Australia, gathered recently in Dunedin, New Zealand, for the 25th John Child Bryological Workshop. These Workshops are always well-attended and have, over the years, covered many fascinating, scenic, and bryologically interesting parts of New Zealand.

Australian and New Zealand Moss Floras:
The second volume of the Australian Moss Flora is (hopefully) to appear towards the end of 2011 – unfortunately, after the International Botanical Congress in Melbourne in July 2011.

Allan Fife is very actively continuing his monumental revision of the New Zealand Moss Flora, delayed only very slightly by the earthquake that struck Christchurch and the multitude of aftershocks, some quite decent earthquakes in their own right. Jessica Beever has almost completed her revision of the Pottiaceae for the New Zealand Flora, although she keeps discovering new or additional taxa.
Need a Calendar? How about one that features Moss?!

Mountain Moss Enterprises is pleased to announce the opening of our online Moss Shop at www.mountainmoss.com. Bryophytes may be purchased from our nursery for all types of sustainable landscape projects – moss lawns, green roofs, living walls and moss feature gardens. In the specialty gifts section, you'll find moss-as-art creations, terraria, t-shirts and more. Make this year special by planning your activities with our 2011 Calendar - Bryophytes (Mosses) of Western North Carolina.

From close-up shots of individual bryophyte types to innovative interpretations of eco-friendly mosses in gardens, each month offers a new and dramatic image. For instance, March features thousands of Funaria hygrometrica mosses in sporophytic stage emerging from the charred wood of a fire. In contrast, April illustrates the beauty of Dicranum scoparium nestled in a moss-as-art log with Spring azaleas providing a framework. The elegance of a single Cladonia cristatella seemed appropriate for February.

Calendar is printed on high-quality card stock. Spiral-bound, 8.5x11. US holidays are indicated. All original photographs by Annie Martin. Cost: $22.50 US plus shipping.

Order your own 2011 Bryophyte Calendar now to delight in this magical world of mosses.

Go Green With Moss!
Mossin’ Annie

Bryophytes (Mosses)
of Western North Carolina

2011 Calendar

SPACE FOR HIRE

Don’t let this space be ignored! Drop us a note and let us know what your part of the world is doing. ALL things bryological are wanted. Keep us posted on your latest grants, projects, or who is in your lab. Send us the latest news from your local societies. Announce a website or a new book. Send us a review of a new book.

In other words...let us know about anything that is exciting to you (about bryophytes, of course) because we want to know about it.

Got an idea for The Bryological Times? Email DorothyBelle a to see what she says...your editor loves having submissions from all of you. Contact her at poli@roanoke.edu today!

FREE SPACE WANTS YOUR BRYOLOGY INFORMATION!
Computers and Bryophytes: Look Here

North American bryological and lichenological herbaria databased and searchable online through the existing consortia (http://symbiota.org/nalichens/) and http://symbiota.org/bryophytes/ (http://symbiota.org/bryophytes/, which is just starting)

Province of Québec “Ministère du développement durable, de l'environnement et des Parcs” of an atlas of the rare bryophytes of Québec. This represents Québec’s first effort to identify bryophyte species requiring protection. As a next step, these rare species will be added to the provincial list of threatened or vulnerable plant species, under Québec’s Threatened or Vulnerable Species Act.

The document is available in PDF format at: http://www.cdpnq.gouv.qc.ca/pdf/bryophytes-rares-2010.pdf


Trying to maintain an up-to-date classification of mosses (http://www.eeb.uconn.edu/people/goffinet/Classificationmosses.html).

We continue to appreciate if authors of new supraspecific taxa would send a link or better a pdf of their paper, so that it can be added!

Early Land Plants Today: Taxonomy, systematics and nomenclature of Gymnomitriaceae JIRI VANA, LARS SODERSTRÖM, ANDERS HAGBORG, MATT VON KONRAT & JOHN J. ENGEL

This is available with free open access at: http://www.mapress.com/phytotaxa/content/2010/f/pt00011p080.pdf

In the UK a methodology for monitoring the condition of important bryophyte features within protected areas: ‘Common Standards Monitoring Guidance for Bryophytes and Lichens’ exists, it can be downloaded from: http://www.jncc.gov.uk/pdf/CSM_bryosLichens.pdf.


Subscribing to Bryonet-L

Send an email message to sympa@mtu.edu with the subscribe request in the subject.

Subject: subscribe bryonet-L
Leslie Jones

To subscribe:
Substitute your own name for the example name of Leslie Jones shown above. This list will require the approval of the list owner. Once you are approved for the list you will receive a confirmation email.

To Unsubscribe (either of two ways):
Using the email address you wish to take off the list, send an email message to sympa@mtu.edu with the unsubscribe request in the subject.

Subject: unsubscribe bryonet-L

Contact the list owner to be removed from the list.

To: bryonet-L-owner@mtu.edu

Include a message with your name and the email address you wish to unsubscribe. If you wish to change email addresses, you can do it in the same message.
The International Association of Bryologists (IAB) is an organization open for all interested in bryophytes. For membership contact Jim Shevock at jshevock@calacademy.org. Visit the IAB website: http://bryology.org for further information or to pay using PayPal.

The Bryological Times was founded in 1980 by S. W. Greene (1928-1989) as a newsletter published for the IAB. Items for publication in The Bryological Times are to be sent to the Editors, Regional Editors, or to the Column Editors. The newsletter is issued 3 to 4 times per year.

Who to Contact in Your Part of the World: Country Contacts

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<thead>
<tr>
<th>Country</th>
<th>Name</th>
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<tr>
<td>Austria</td>
<td>Harald Zechmeister</td>
<td><a href="mailto:harald.zechmeister@univie.ac.at">harald.zechmeister@univie.ac.at</a></td>
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<td>Canada</td>
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