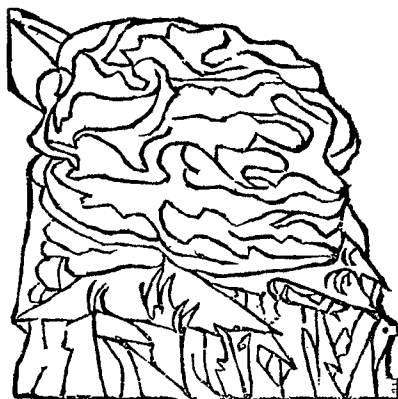


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The opinions expressed in the Newsletter are not necessarily those held by the International
Association for Lichenology

INTERNATIONAL ASSOCIATION FOR LICHENOLOGY

The International Association for Lichenology (I.A.L.) promotes the study and conservation of lichens. It organizes symposia, field trips, and distributes a biannual newsletter. There is a listserver which enables on-line discussion of topics of interest. Webpages devoted to lichenology are also maintained by members of the Association. People wishing to renew their membership in or become members of I.A.L. are requested to send their subscription (\$20 for the biennium 1997-1998, \$40 through 2000) to the Treasurers.

The **International Lichenological Newsletter** is the official publication of I.A.L. It is issued twice a year (July and December) in English. The Newsletter is also available on the Internet. The Newsletter is divided into five main sections: 1) **Association news**: official information concerning the Association, such as minutes of Council meetings, proposals of Constitutional changes, new members, changes of addresses, etc. 2) **News**: information about lichenologists, institutional projects, herbaria, requests of collaboration, announcements of meetings, book reviews, etc. 3) **Reports**: reports of past activities, short lectures, obituaries, short historical novelties, etc. 4) **Review**: presentation of recent progress in particular fields of lichenology with optional discussion. When the material exceeds the available space, the Editor will prepare a summary, on prior agreement with the contributors. 5) **Lichenology on-line**: information on Web sites devoted to Lichens. Any information intended for publication should reach the Editor on or before 15 May and 15 October for inclusion in the July and December issues, respectively.

IAL affairs are directed by an Executive Council elected during the last General Meeting. Council members elected at the IAL 4 Symposium (Barcelona, Spain, 2000) are listed below, and will serve until 2004.

I.A.L. EXECUTIVE COUNCIL 2000-2004

President: Pier Luigi Nimis, Dipartimento di Biologia, Università di Trieste, Via Giorgieri 10, I-34127 Trieste, Italy.

Vice President: Irwin Brodo, Canadian Museum of Nature, P.O. Box 3443, Station D, Ottawa, ON K1P 6P4, Canada.

Secretary: Leopoldo Sancho, Departamento de Biología Vegetal II, Facultad de Farmacia, Universidad Complutense, E-28040 Madrid, Spain.

Treasurer: François Lutzoni, Center for Evolutionary and Environmental Biology, Dept. of Botany, The Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605, USA.

Assistant Treasurer: Christoph Scheidegger, Swiss Federal Institute for Forest, Snow and Landscape Research, CH-8903 Birmensdorf, Switzerland.

Editor: Martin Grube, Institute of Botany, Karl-Franzens-University Graz, Holteigasse 6, A-8010 Graz, Austria.

Members-at-Large: Jack Elix, Department of Chemistry, Australian National University, Canberra ACT 0200, Australia – Rosmarie Honegger, University of Zürich, Institute of Plant Biology, Zollikerstr. 107, CH - 8008 Zürich, Switzerland – Gintaras Kantvilas, Tasmanian Herbarium, University of Tasmania, PO Box 252-04, Hobart 7001, Tasmania.

ASSOCIATION NEWS

IAL Council Meeting (Barcelona, 5 September 2000)

The session's opening was at 4.15 pm – Attendants present: M. Jahns (President, Member of the Constitution Committee), D. Fahselt (Vice-President), E. Farkas (Treasurer), F. Lutzoni (Assistant Treasurer), P.L. Nimis (Editor), D. Triebel (Secretary), X. Llimona (Member-at-large, Secretary of IAL4), P. de Priest (Member-at-large), G. Kantvilas (Member-at-large), S. Ott (Member-at-large), T. Randlane (Member-at-large), L. Sancho (Member-at-large).

The agenda was proposed and accepted. The President stated that he would ask members for donations in addition to their membership fees at the general meeting. Donors will be given a receipt in addition to that for their membership fees. The Treasurer delivered a short report about the current financial status of the IAL. The schedule and topics of the General Meeting were discussed. Some minor changes were suggested, i.e., presentation and voting of the site for IAL5 Symposium in 2004 was placed directly after the voting for the Constitution. Sieglinde Ott withdrew her candidacy for Secretary and Tiina Randlane pointed out that she would stay as candidate for a Member-at-large if the proposal to hold the next IAL5 Symposium and General Meeting in Tartu should fail. (If Tartu is chosen she would automatically be an officer of the next Council.) The importance of ratifying the new constitution in the General Meeting was emphasized. Furthermore the necessity for the Nominations Committee, Advisory Board and limiting the number of members-at-large to three was presented by the President and the Editor. At the General Meeting, Mats Wedin will deliver the report of the Constitution Committee and Christoph Scheidegger the report of the Conservation Committee. It was agreed that the vote for the new constitution would be by a showing of hands but voting for the venue for IAL5 as well as the new Council would be by preprinted ballots. Presuming the new constitution is accepted, it will be effective immediately. Finally, editorial standards for the publication of IAL4 contributions in *Bibliotheca Lichenologica* were discussed. Two editors should be responsible for organizing this special volume: Mireia Giral, Thorsten Lumbsch and Sieglinde Ott were suggested for this task. The President closed the session at 6.15 p.m.

IAL General Meeting (Barcelona, 6 September 2000)

The session's opening was at 6.00 pm – Council Officers present: M. Jahns (President, Member of the Constitution Committee), D. Fahselt (Vice-President), E. Farkas (Treasurer), F. Lutzoni (Assistant Treasurer), P.L. Nimis (Editor), D. Triebel (Secretary), X. Llimona (Member-at-large, Secretary of IAL4), P. de Priest (Member-at-large), G. Kantvilas (Member-at-large), S. Ott (Member-at-large), T. Randlane (Member-at-large), L. Sancho (Member-at-large). IAL members attending: about 150.

The President recollected the General Meeting four years ago in Salzburg noting that the IAL had become a relatively large association which, therefore, needed a more structured organization for the General Meetings. For this reason, election ballots were introduced for the first time. The agenda was presented. T. Ahti the addition of a discussion on organization of excursions by the IAL (see below). The "Report of the

Conservation Committee" and "Presentation of the proposals for the site of IAL5; voting" were interchanged for organizational reasons. The Agenda was then accepted.

The President stated that the IAL currently has limited special tasks. Most projects (i.e., excursions, congresses) are organized by local lichenological societies. This situation had a major influence on the discussion of the new constitution over the past four years. The main task of the IAL is to improve communication between lichenologists that is presently successfully accomplished by the IAL Newsletter and the online discussion forum within the lichens-l listserver. The IAL Conservation Committee has an important function linking the IAL with international institutions of nature conservation. The President emphasized that, in future, the IAL should have more financial possibilities to support members of poorer countries and especially students to attend meetings and excursions. To meet the costs of such a program the President called for donations at the meeting and started by giving a personal donation. A list circulated during this general meeting. The result of this appeal will be published in the next volume of the ILN.

The Secretary reported that the IAL has more than 500 current members (22 of them institutional) from more than 60 countries. The association itself is a Scientific member of IABMS (International Association of Botanical and Mycological Societies) and of IUBS (International Union of Biological Sciences). The secretary participated in the meeting of the Board of IABMS at IBC16 in St Louis, USA. The main topics were a decision on the site of the XVII International Botanical Congress and the election of Chairman and Secretary. The IAL council suggested Ingvar Kärnefelt and Christoph Scheidegger as candidates for officers of the next Executive Committee of the IUBS. IAL is also an institutional member of IMA (International Mycological Association). Pier Luigi Nimis is currently a member of the Executive Committee of the IMA.

After the IAL3 congress in Salzburg 1996, there were three informal or council meetings of the IAL. One informal meeting was held in Jerusalem, August 1998 (16 IAL members present), one council meeting in St Louis, August 1999 (7 members present), one council meeting in Venice, May 2000 (8 members present). The minutes were published in ILN 31(2), 1998, ILN 32(2), 1999 and ILN 33(1), 2000.

The Treasurer delivered the financial report which was slightly modified from the report published in ILN 33(1), 2000.

Mats Wedin (Member of the Constitution Committee) delivered the Report of the Constitution Committee and presented the final proposal for a new constitution, as published in ILN 33(1), 2000. Mats Wedin briefly discussed several important new elements of the proposal - the number of Council officers, the composition of the Council and the introduction of a Nomination Committee and of an Advisory Board. David Hawksworth noted that the Constitution should include the President and Secretary automatically be representatives to the IUBS. Josef Hafellner suggested to change §7 for allowing voting by mail. The proposal was discussed and then voted on by a show of hands; the proposal was defeated. The wording of Article 10 was discussed; a proposal to delete the last two sentences of the Article failed. The new Constitution was accepted unanimously and its immediate adoption approved.

Tiina Randlane briefly repeated the proposal that IAL5 be convened in Tartu (Estonia) in 2004; see ILN 33(1), 2000. She stated that a vote for this proposal would strongly support the East European lichenological community as Tartu would organize the symposium in cooperation with Russian and Ukrainian lichenologists. Tom Nash III apologized the late candidature of Tempe (Arizona, U.S.A.) as he had been in Europe for

the year and had been unable to discuss the proposal with his associates in a timely manner. He pointed out that until now all IAL meetings took place in Europe. Therefore it might be appropriate to hold the next one in North America. The University of Arizona would organize the meeting together with the University of Mexico. A number of excursions to certain regions of Arizona, Mexico and Baja California were possible but as yet undefined. In 2004, at least parts of the Lichen Flora of the Sonoran Region will be published and this flora will be useful for lichenological field trips there. The best season for the symposium in Arizona would be spring (Easter time). The venue for IAL5 was put to the vote; Tartu-86, Tempe-51, one abstention.

Christoph Scheidegger delivered the Conservation Committee report. The committee is called "The International Committee for the Conservation of lichens" (ICCL) and it is associated with IUCN constituting the Lichens Group. Christoph Scheidegger is Chairman, Cliff Smith Vice Chairman and Pat Wolseley Secretary with about 25 persons as members representing almost every region in the world. The principal activities over the last four years were intervention in the protection of *Erioderma pedicellatum* and two workshops on lichen conservation. The main future activities will be to work on the IUCN-Red list (co-ordinator Cliff Smith; with Christoph Scheidegger) and on the Conservation Action Plan (co-ordinator Christoph Scheidegger; with Cliff Smith and Pat Wolseley).

The President introduced the nominees for Council Officers 2000-2004 noting that the list was already published in ILN 33(1), 2000. He amended the list as follows: S. Ott has withdrawn her candidacy and T. Randlane as the Organizing Secretary of IAL5 was automatically an Officer of the next Council and, therefore, no longer a candidate for Member-at-Large. The ballots were cast and counted. The results were announced at the end of the meeting, published at the notice board next day and officially announced at the Closing Session: Pier Luigi Nimis -- President, Irwin Brodo -- Vice-President, Leopoldo Sancho -- Secretary, Francois Lutzoni -- Treasurer, Christoph Scheidegger -- Assistant Treasurer, Martin Grube -- Editor and John A. Elix, Rosmarie Honegger and Gintaras Kantvilas -- Members-at-large. Robert Egan -- Auditor, Helmut Mayrhofer -- Vice-Auditor. Peter Crittenden, Helmut Mayrhofer and Bruce McCune were elected to form the Nominating Committee. Because of the late time, it was decided to adjourn the General Meeting and reconvene it just before the start of the IAL dinner when the remaining agenda topics - "Presentation of the Acharius Medals" and "Awarding of the Mason Hale Award" - would be presented.

Teuvo Ahti suggested that the IAL should organize additional field meetings before the next congress 2004. He offered his cooperation to organize one in Sri Lanka or one in Canada (New Foundland) where the local lichenologists would cooperate. Martin Grube asked for proposals of lichenological symposia for the International Botanical Congress (IBC17) in Wien 2005. David Hawksworth requested proposals for lichenological symposia for the International Mycological Congress in Oslo 2002. The session closed at 7.45 p.m.

IAL General Meeting - Honouring (Barcelona, 7 September 2000)

This General Meeting adjourned the previous evening was continued the next evening just prior to the IAL banquet located at "El Petit Miao" Restaurant, Maremagnum at 9.00 p.m. President Martin Jahns welcomed the participants and proceeded to Agenda Item 8

"Honouring of the Acharius medalists". The Acharius medalists for 2000 were Teuvo T. Ahti, Georges A. Clauzade and Nina Sergeovna Golubkova. The nomination proposal for each medalists was presented by Ana Burgaz, Xavier Llimona and Yuri Kotlov respectively (see separate publications in the next ILN). These awards were followed by "Mason Hale Award". There were six proposals and the unanimous choice of the Council was Jolanta M. Miadlikowska (Gdansk, Poland) for her outstanding work resulting from a doctoral dissertation "Revision of the genus *Peltigera* (Peltigerineae, Ascomycota) in Poland based on a world-wide phylogenetic synthesis of morphological, chemical and molecular data". Congratulations to all!

Closing Session of the IAL4 Symposium (Barcelona, 8 September 2000)

The closing session started at 6.00 p.m. The President announced the New Council and congratulated the new officers. He thanked the convenors of the sessions for their engagement and the local Organizing Committee as well as the technical staff for the excellent realization of the IAL4 Symposium in Barcelona. Pier Luigi Nimis, the new President gave the following address. The session closed at 7.00 p.m.

Dagmar Triebel, Munich

Address of the new President at IAL4 (Barcelona, 8 September 2000)

Any new President - I suppose - is eagerly expected to propagate *Urbi et Orbi* his more or less revolutionary Presidential ideas. So, here it is, my Presidential program of 212 pages!

...Well, the faces I see in the audience do perhaps suggest that I should keep it shorter...

In my opinion: a) we should try to be more active in the international scientific arena, b) we should try to have much closer links with the national/regional societies, c) we should try to be of some use for lichenologists worldwide. - This is it. - However, could we imagine these sentences with a "not" after every "should"? Better then to go straight to the really important topic: the "Soul" of our Association.

On one hand, modern Biology tends towards specialization, on the other hand the recognition of basic similarities in all biological processes is disrupting the traditional boundaries of "taxonomical" disciplines. Lichenology is no exception to this. Lichens are nothing else but a group of fungi with a funny behaviour. Most of the molecular, ecological, and physiological talks at IAL4 could have been presented in other types of biological symposia - and in front of much wider and diversified audiences. Why then do "Lichenologists" still stay together? Of course, because they love their Lichens, as much such so as the members of I.A.L.A. (International Association of the Lovers of Artichokes) love the culinary properties of certain hypertrophic flowers. Does I.A.L. resemble to I.A.L.A.? No, for sure, but this has to do more with our history than with our love for lichens.

Lichenology reached its Nadir during the World War 2, when a handful of persons only - mostly in the refugium of the Scandinavian fortress - still maintained an active interest in lichens. After the War, and quite unexpectedly, there was a veritable boom. A second generation appeared, pupils of a few Masters - mostly classical taxonomists - who,

despite the difficult times, knew each other well, and who shared a common cultural background. Fortunately for us, these were true Masters, capable of pushing forward their pupils beyond lichen taxonomy and out into all sorts of possible directions. The fourth or fifth generation has now shown up in Barcelona, but our roots and our common language are still here.

Many years ago, as a reluctant newcomer to a meeting of B.L.A.M, I felt like Paul in Damascus. As a would-be numerical ecologist I could scarcely distinguish a *Xanthoria* from a liverwort. Because of my late arrival in that small Austrian village, Josef Poelt immediately directed me - with a glass of beer - to a table where several people were having a lively discussion on how to distinguish *Hypogymnia physodes* from crooked forms of related species. The naughty boy felt proud having identified at once the sub-tribe of Biologists who were hosting him. After a few minutes, however, he started feeling confused. A man with a beard said something about low photosynthetic rates of *Hypogymnia* in polluted areas. A fat, bald man replied that metal contamination could also play a role. A blonde lady maintained that according to SEM and TEM most metals lie outside the algal layer. Then, the discussion moved to the evolution of *Hypogymnia*, its possible centres of origin, its mechanisms of evolution in relation to reproductive strategies, and - believe it or not - to the possibilities opened by DNA-analyses for answering some of these questions. The naughty boy went to bed like a dog with his tail between his legs, and in the morning he came to the bold conclusion that lichenologists were "unusual". This is - more or less - why he is now writing these lines.

IAL4 was a mirror of my earliest experience in the world of Lichenology: a firework, dazzling us with a too bright and diversified palette of topics to be able to fit into a single parish of modern Biology. Outside the main hall - until late at night - an unusual mixture of elders and babies, of ecologists and physiologists, of molecular and non-molecular was sharing knowledge and experience. Even those from the sixth generation have enjoyed a rare event, an "added value" brought by History to our apparently outdated discipline, the cross-fertilization within Biology-at-large. The "soul" of our Society - that which makes it different from I.A.L.A. - was there, floating above the tables of Catalonian restaurants. My main responsibility, and that of the new Council, will be that of keeping alive this spirit of shared history - this "soul". However, the development of a modern Biological culture from a solid historical ground does not - and cannot - depend on Presidents and Councils: it depends on the joined efforts of all of us, it is something we must all nurture.

Pier Luigi Nimis, President

THE NEW IAL CONSTITUTION

§ 1. *Name* - The name of the Association is the International Association for Lichenology (IAL).

§ 2. *Goals* - The purpose of the IAL is to promote the understanding of lichens and lichenology world-wide. To achieve this, the IAL shall: a) encourage the study of lichens, b) advocate lichenological interests in the international arena, c) stimulate communication

and discussion among those interested in lichens, d) organise symposia, field meetings, conferences, etc., and e) support the conservation of lichens. The IAL is affiliated to the International Union of Biological Sciences (IUBS).

§ 3. *Membership* - Members of the IAL are those, whose dues have been paid. Any member who is more than two years in arrears in payment may be suspended by the Council.

§ 4. *Power to raise Money* - The IAL exists only for non-profit status. It has the power to raise money by dues or other means as approved by the Council, but only for scientific purposes, awards and the administration of the Society.

§ 5. *Dues* - Membership dues will be determined at the general meeting of the IAL, upon advice of the Council.

§ 6. *Officers, Auditors and Nominating Committee* - The elected Officers of the IAL are a President, a Vice-President, a Secretary, a Treasurer, an Assistant Treasurer, an Editor, the organizer of the next IAL Congress, and three Council members-at-large. These officers form the Council of the IAL. The Auditor and Vice-Auditor are elected non-Council members. The Nominating Committee is composed of three elected non-Council members, and they elect a secretary among themselves. The term for Officers, Auditors and Nominating Committee is four years. The maximum period for any Council Officer, Auditor and Nominating Committee member is two consecutive terms. Council Officers, with the sole exception of the Editor, cannot serve more than one consecutive term in the same position.

§ 7. *Nomination and election of Officers, Auditors and Nominating Committee* - The Nominating Committee must publish a call for nominations in the IAL Newsletter at least one year prior to the general meeting. Any member of the IAL may submit nominations or be nominated. Nominations, to be valid, need the written consent of the nominees, and need to reach the Nominating Committee at least two months prior to the general meeting. Nominations from the floor at general meetings are allowed only when no nominee for a given post is elected. Elections will be made by majority vote at the IAL general meeting. Voting will take place irrespective of the number of nominees for a post.

§ 8. *Duties of Officers and Auditor* - The Council administers the affairs and funds of IAL and shall meet or in other ways communicate as decided by the President or at the request by Council Officers. The Council must establish an Advisory Board including a representative selection of lichenologists worldwide, with special attention to local societies, which shall assist the Council in the transfer and dissemination of information. The Council nominates two representatives of the IAL to the IUBS. The Council may designate Committees that shall manage topics of particular relevance for lichenology. The Advisory Board and the Committees will last until the next Council takes over. The President, or in his absence the Vice-President, or any member of Council designated by the President, shall preside at all meetings of IAL and the Council. The Secretary shall keep minutes of meetings, and shall conduct correspondence as requested by Council. The council nominates two representatives of IAL in the IUBS. The Treasurer, or in her/his absence the Assistant Treasurer, shall keep an account of all receipts and expenditures and have a statement presented at general meetings and as requested by Council. The Assistant Treasurer shall assist the Treasurer as requested by the Council. The Editor shall prepare the International Lichenological Newsletter, whose content and format shall be at his/her discretion subject to review and recommendation of Council. The Council may temporarily fill positions vacated between elections. If less than seven elected members

remain, a new Council must be elected at an additional general meeting. To be valid, decisions of Council - held by a majority vote - require that all Council members have been informed, and that at least six of them participated. The Auditor, assisted by the Vice-Auditor, will review the financial records of the IAL and present a report to the general meeting. In her/his absence, the Vice-Auditor will act as Auditor. The Nominating Committee is responsible for presenting a list of nominations to the general meeting.

§ 9. *General Meetings* - The IAL shall hold its general meeting at the IAL Congress, a major international congress covering all aspects of lichenology, to be organized every fourth year. Announcements of additional meetings must reach the membership at least six months in advance. Any member can address topics for discussion to the Secretary at least four months prior to the general meeting, so that these will be disseminated to the Membership before the meeting. Additions to the agenda require a two-thirds majority of those present at the general meeting. Decisions will be taken by a majority vote. To be valid, a general meeting requires the participation of at least 10% of the membership.

§ 10. *Awards* - At least two awards should be assigned: an award recognising excellence in research by young lichenologists for outstanding work resulting from doctoral dissertations or similar studies (Mason Hale Award), and, b) a medal recognising the life-work of distinguished lichenologists (Acharius Medal). IAL award recipients are decided on by the Council. A call for nominations to all awards must be made in the Newsletter at least one year prior to the next general meeting. The initiation of further awards will be decided by the general meetings.

§ 11. *Change of Constitutional Rules* - Changes in these rules may be made only upon approval by not less than two-thirds of the Members present at the general meeting. Proposals of changes must be sent to Secretary at least four months prior to the general meeting, so that they will be disseminated to the Membership before the meeting. No rule change shall be allowed which will change the non-profit status of the IAL.

§ 12. *Dissolution of the IAL* - A motion to dissolve the IAL must be approved by at least two-thirds of the whole Membership. If the IAL is dissolved, any funds remaining after all outstanding liabilities are discharged shall be used for scientific purposes in the field of lichenology as agreed by the last Council.

Approved unanimously at IAL4 in Barcelona, 6 September 2000

Activities of the New Council (September - 7 December 2000)

In Barcelona, several newly elected members of the Council had a brief but intense meeting (while eating a sandwich in a bar). On that occasion, it was decided that henceforward the Council will work on-line. In other words, discussions and decisions will occur within an uninterrupted four-years-long Council meeting held on the Web. The new system, managed by the Secretary, was set up rapidly, and proved to work very well: decisions are generally made within a week. All the official correspondence is being printed and stored into an Archive, to be passed over to the next Council. At the moment (December 7th, 2000) we have 30 official messages (discussion) and 7 ballots (formal decisions). The main decisions are: 1) Thanks to a generous grant by the University of Graz, the Newsletter will continue to be paper-printed, 2) A new Conservation Committee

of IAL was appointed, composed by Ch. Scheidegger (Chairman), C. Smith (Vice-Chairman), P. Wolseley (Secretary); participation is open to all IAL members who are interested. 3) The representatives of IAL within IUBS were elected; they are: P. L. Nimis and Ch. Scheidegger. The former took part to the IUBS assembly (Napoli, November); he was substituted in the following days by D. Hawksworth, who was present there as a former President of IUBS. 4) The Advisory Board (AB) of IAL was elected (see a complete list of Members elsewhere in the Newsletter). The Council decided that the number of AB members should not exceed 30; further members are likely to be appointed in the future. AB Members were selected as follows: a) the contact persons of all local/national societies were requested to suggest the name of a person which could represent their Society in the AB, b) Nominations for additional members - to render the AB more representative in terms of geography and research fields - were proposed by the Council. Communication on-line with all AB members, managed by the President, was tested - see next point - and proved to work well. 4) Starting from 2001, IAL will endorse scientific events. More details are printed elsewhere in this issue of the Newsletter. This decision was taken after consulting the AB members: 15 of them contributed with very useful suggestions, which gives us hope that the collaboration between Council and Advisory Board will be fruitful and constructive. Finally, the President took part in the CODATA general meeting in Baveno in November. Contacts at the IUBS and CODATA meetings are likely to involve IAL more deeply in the activities of these large international organizations; these matters are presently under discussion by the Council; formal decisions will be published in the next issue of the Newsletter.

Pier Luigi Nimis

IAL will endorse scientific events

Upon a formal decision of Council, starting from 2001, IAL will endorse scientific events such as meetings, excursions, courses and exhibitions, organized by national/local societies, universities, museums, etc. Organizers of events endorsed by IAL will be entitled to advertise them as "*held under the auspices of the International Association for Lichenology*". This does not involve any direct funding by IAL, but - among other things - it might be useful to obtain local funding.

The events should comply with a few fundamental features: a) they should be non-profit, b) they should be scientifically relevant, c) possibly, they should have an international scope (not mandatory: local or national events could be endorsed by IAL as well), d) excursions or similar activities involving group collecting should comply with lichen conservation ethics.

Applications should be submitted, by e-mail, to the President of IAL (nimis@univ.trieste.it). They should not exceed two printed pages, and should be structured as follows:

- 1) name and complete address of the person in charge of the organization,
- 2) institution which is organizing the event (if any),

- 3) inscription fees (if any),
- 4) nr. of participants (when pertinent),
- 5) scope and target of the event,
- 6) duration of the event,
- 7) brief description of the scientific content of the event,
- 8) brief description of the administrative structure of the event,
- 9) further information (optional).

The Council will make a decision within a couple of weeks from the date of submission.

Pier Luigi Nimis

Treasurer's Report

With this, my first report as Treasurer of the IAL, I first want to thank the exceptional work done by Edit Farkas as Treasurer of IAL for the last four years. Edit did an outstanding job in managing the European account and coordinating the financial activities of the American account. Edit was extremely generous with her time in ensuring that all minutiae inherent to this position, and to such a large membership, were dealt with efficiently and with compassion. In addition to her responsibilities as Treasurer, Edit also took-on the monumental task of sending the newsletter to all members. The IAL greatly benefited from Edit's devotion and commitment to this association. Thank you very much Edit!

What follows is a brief post-IAL4 financial report to give you an idea of our financial situation as of December 7, 2000. The Hungarian account balance is \$6,456 US. This account will be transferred to Switzerland under the responsibility of Christoph Scheidegger, our new Assistant Treasurer for 2001-2004. The balance of the US account was \$1,880.68 just before IAL4. The membership dues paid at IAL4 totaled \$4,670.87, which was deposited in the US account, for a total of \$6,551.55.

Following the initiative of our Past-President Martin Jahns, IAL accumulated \$1,439.03 in donations at IAL4. Therefore, the grand total (with interest earnings) of all IAL accounts is \$14,464.20.

Membership dues for 2001-2004

If you have not done so already, it is now time to pay your IAL membership dues for the 2001-2004 period. The IAL council has adopted a new payment policy which consists of one payment of \$40 for the 2001-2004 period. Please send your payment of \$40 as soon as possible. Payments need to be in US dollars, and cheques or money orders must be payable to the "International Association for Lichenology". I have explored the possibility of making payments with credit cards as was requested at IAL4. Unfortunately, this is a rather expensive service for a single payment of \$40 per member for four years. For this reason, this service will not be available. Please send your payment to either the Treasurer, François Lutzoni, or the Assistant Treasurer, Christoph Scheidegger, at the following addresses:

François Lutzoni
Department of Botany
The Field Museum of Natural History
1400 S. Lake Shore Drive
Chicago, IL, USA 60605-2496
Email: flutzoni@fmnh.org

or

Christoph Scheidegger
Swiss Federal Institute for Forest,
Snow and Landscape Research
CH-8903 Birmensdorf
Switzerland
Email: scheidegger@wsl.ch

François Lutzoni, Treasurer

IAL Donation Fund

At the Fourth Congress of the International Association for Lichenology (IAL4) in Barcelona, 15 lichenologists generously donated \$1,440 US to this association and 13 others have promised an additional \$1,150 for a total of almost \$2,600. The amount of single donations ranged from \$10 to \$500! As you know, the International Association for Lichenology (IAL) is a non-profit organization and has the power to raise funds by dues or other means as approved by the Council. The purpose of raising these funds is purely for scientific purposes such as funding awards, supporting congresses, distributing our newsletter (ILN), and partially covering travel expenses for students and other members who could not attend meetings otherwise.

All these activities are vital for our association to continue growing and attaining new heights in the scientific community worldwide. To encourage a broad and large membership, especially among students, the IAL annual dues are kept as low as possible (\$10 US per year). One consequence of this decision is that revenues from these dues alone cannot meet this challenge to bring the IAL to higher standards of excellence which would result from new initiatives by IAL members. This is the reason for the establishment of an IAL Donation Fund by our Past-President Hans-Martin Jahns (1997-2000), and why your generous contributions, are so important to the future of IAL. This is the first time that a donation fund was established within IAL. It demonstrates that there is a renewed and strong collective will among past and current members of the IAL Council, as well as contributors like you, for IAL to play a proactive role in the lichenological and scientific communities. Together we are making a difference.

If you would like to make a donation to the IAL, please send a cheque or money order to François Lutzoni (Treasurer) or Christoph Scheidegger (Assistant Treasurer) payable to the "International Association for Lichenology". The donation must be in US\$. Any amount in excess of the \$40 membership fee will be considered as an official contribution to the IAL Donation Fund. Specific arrangements for money transfer can be made by contacting François or Christoph.

François Lutzoni, Pier Luigi Nimis

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NEWS

IMC7 in Oslo, 11-17 August 2002

The first announcement of the International Mycological Congress with online pre-registration is available at <http://www.uio.no/conferences/imc7/>. The organizing committee has started work on the programme and proposals for lichenological contributions can be sent to Geir Hestmark, geir.hestmark@bio.uio.no

ABLS annual meeting in Albuquerque, 12-16 August 2001

ABLS will be meeting jointly with the Botanical Society of America and other societies at the Albuquerque Convention Center, Albuquerque, New Mexico. Field trips will occur before the meeting. Deadline for Abstracts is march 9, 2001. See also: <http://www.botany2001.org/>

GLAL-5 in Valparaíso, 19-23 November 2001

The next congress of the Latinamerican Association of Lichenologists will be held 19-23 November 2001, in Valparaíso, Chile. The scientific program will include: conferences, symposia, workshops, oral communications and posters. General information will be available in January 2001. Information: Cecilia Rubio, cecilia.rubio@uv.cl

Nordisk Lichenologisk Förening, excursion to Western Sweden, 2-5 August 2001

NLF arranges for an excursion in Bohuslän (the hunting-ground for Magnusson). Information will be published in the next number of Graphis Scripta.

5th International Flora Malesiana Symposium in Sydney, 9-14 September 2001

This meeting will have a session on non-vascular plants and calls for papers are invited. The website is <http://plantnet.rbgsyd.gov.au/fm/fm.html>

Second Russian Lichenological Field Meeting in Volgograd, 1-8 May 2001

The Second Russian Lichenological Field Meeting dedicated to the lichens of arid zones is planned to be arranged in Volgograd and Astrakhan regions of Russia in May 2001. The Meeting will include excursions to the various sites where desert and steppe lichens grow, and mini-symposium on desert lichens. St.Petersburg Naturalists Society,

Volgograd, Voronezh and St.Petersburg Universities are among the organisations that support the event. Further information: Eugenia Muchnik (mail@mucsf.vrn.ru), Vitaly Kulakov (kulakov@vspu.ru), or Alexei Zavarzin (baltic@teia.org).

B.L.S. Summer meeting in Dorset, 6-13 July 2001

This meeting takes place in The Kingcombe Centre, Dorchester, Dorset is coupled with a workshop on *Opegrapha*, the tutor Peter James. Information on further activities of BLS is found under <http://www.argonet.co.uk/users/jmgray/meetin.htm>

Personalia

As of Nov. 14, 2000, **Irwin (Ernie) Brodo** retired from his position as Research Lichenologist at the Canadian Museum of Nature after a tenure of 35 years. The event was marked by a marvelous party held at the Museum organized by friends at the Museum. For the present, the Museum is allowing Ernie to occupy his former space and has given him an "emeritus" status, so he will continue to do lichen research as before (especially work on British Columbia lichens, rare lichens of Canada, and studies of *Lecanora* and *Ochrolechia*). The Museum has no plans to replace Ernie's position with another lichenologist, but the lichen collection that he built from 1965 until now (growing from 18,000 to over 115,000) will remain intact. This summer, Ernie will be giving a short course on crustose lichen identification at the Humboldt Field Research Institute at Steuben, Maine.

Andreas Frisch (Regensburg), student of Klaus Kalb, is following his taxonomic studies in the Thelotremataceae. His main interest are the African species and those with a complex columella in the ascomata. Recently he visited Martin Grube in Graz, to extend his studies by molecular approaches

Katherine A. Glew (USA) accepted a position as assistant professor at the University of Puget Sound in Tacoma, Washington. She started instructing botany and ecology courses in the biology department, beginning in August of this year. Katherine will be continuing her research with alpine lichen ecology and lichen floristics of the Pacific Northwest. This past summer she joined Francois Lutzoni, Jola Miadlikowska, Valerie Reeb and Stefan Zoller, from The Field Museum of Natural History in Chicago, for a collecting foray in the Pacific Northwest.

H. Kashiwadani and **K.H. Moon** (National Science Museum, Tokyo) spent 25 days in November 2000 in Vanuatu for lichenological expedition. They made collection in Espiritu Santo, Efate and Tanna Islands.

M.J. Lai (Tunghai Univ, Taiwan) and **K. Vongshevarat** (Ramkhamhaeng Univ, Bangkok, Thailand) visited H. Kashiwadani at the National Science Museum for one week in November. They were working on lichen specimens of Taiwan and Thailand respectively.

Simone Louwhoff (Canberra) submitted her Ph.D thesis on "The Lichen Genera *Hypotrachyna* and *Parmotrema* in the Pacific Islands" at the Australian National University in Canberra, on December 5th, 2000, just in time to move to the other side

of the world and take up the lichen curator post at the Natural History Museum, starting January 8th, 2001.

Asunción de los Ríos moved from Graz to Madrid to start a three-year post-doctoral position at the Centro de Ciencias Medioambientales (CSIC). Together with C. Ascaso she will work on adaptive strategies of selected lichens and their accompanying micro-organisms in maritime and continental Antarctic zones.

Roger Rosentreter (Boise) hosted Dr David Eldridge from Australia for two weeks this fall 2000. They are collaborating on rangeland health monitoring methods that are suitable for use in a wide range of ecological vegetation community types. Roger is also teaching a three day class on the "Ecology and Management of Biological Soil Crusts" for the US Department of the Interior.

Felix Schumm (Stuttgart) collected about 1800 samples of Lichens in the Philippines (Mindanao, Leyte, Negros, Cebu) during two 4-week trips in 1999 and 2000. He is now determining *Heterodermia*, *Pyxine*, *Dirinaria*, as well as Pannariaceae and Graphidiaceae. He would appreciate the contact with lichenologists which have collected in the Philippines or elsewhere in SE-Asia and intends to collect lichens in Sulawesi in summer 2001.

Jonathan Signoret (Metz) is a Ph.D. student with Prof. S. Muller and Prof. J.-F. Ferard, University of Metz, France and Prof. Chantal Van Haluwyn, University of Lille, France. He is developing a new technique for studying epiphytic lichens using both tree bark photographs and G.I.S. (Geographic Information System).

Harrie Sipman (Berlin) just returned from a one month fieldwork stay in Singapore, aimed at a preliminary lichen catalogue, in collaboration with Prof. **B. Tan** from the National University of Singapore. He would welcome lichen collections from Singapore for study, in particular older ones which may document changes in the lichen flora. His student **Luciana Zedda** successfully defended her PhD thesis entitled "The epiphytic lichens on the genus *Quercus* in Sardinia (Italy) and their value as ecological indicators" on 11th October.

New Literature

BALASHOVA N., ZAVARZIN A. (eds.), 1999. *Biodiversity of the Leningrad Region. Algae, Fungi, Bryophytes, Lichens, Invertebrates, Fishes and Pisciformes*. Transactions of St.Petersburg Naturalists Society, Series 6, Vol. 2 – St.Petersburg: St.Petersburg University Press. 432 pp. Soft cover, ISBN 5-288-02365-4. Available from: St.Petersburg Naturalists Society bibliographer, Universitetskaya emb., 7/9, St.Petersburg 199034, Russia. The book is free of charge.

The volume summarises data on diversity of various organismal groups including lichens in the Leningrad region and published since 18th century. It contains reviews of historical studies on the region, annotated species lists, as well as references for published data. Chapter 3 is devoted to lichenological studies and contains an extensive English summary. A total of 722 species of lichenized and lichenicolous fungi are not the final checklist for the Leningrad region as there are still several vast areas which are completely unexplored, but this work will promote further studies. The presented publication is

displayed also at the Russian Lichenological Resources Internet site, by Vitaly Kulakov from the Volgograd State Pedagogical University (<http://www.vspu.ru/lichens/>).

Alexei Zavarzin, St.Petersburg, Russia

GILBERT, O. 2000. *Lichens*. The New Naturalist Library. 288 pp. Soft cover. ISBN 0-00-220082-1. Price: £19.99. Available from HarperCollins Publisher.

This book has a different focus than common textbooks on lichens. Only the first 4 of 13 chapters are devoted to the general topics such as morphology, historic uses, the role in ecosystems and the use as bioindicators. All further chapters describe the lichen diversity in British habitats. Acid rocks, heaths and moors, chalk and limestone, mountains, rivers, lakes, the coast, man-made substrates are treated in detail and particular localities in Britain are highlighted. It is probably not a text for the novice in lichenology, and some knowledge about the diversity of species is necessary, but it is a comprehensive book on habitat ecology of lichens. The book is well illustrated with 16 color plates, numerous photographs, and many informative line drawings. I wondered a bit why conservation is only discussed in connection with church-yards. Anyway, the book fits perfectly in the New Naturalist series aiming to interest the reader in the wildlife of Britain. Due to the amount and accuracy of ecological information on lichen habitats it is highly recommended and of great value, also for lichenologists outside Britain.

The Editor

HOFFMANN, N. & HAFELLNER, J. 2000. *Eine Revision der lichenicolen Arten der Sammelgattungen Guignardia und Physalospora (Ascomycotina)*. Bibliotheca Lichenologica 77: 190 pp. Soft cover. ISBN 3-443-58056-4. Price: 110 DM. Available from Gebrüder Bornträger Verlagsbuchhandlung.

The authors present a revision of the lichenicolous pyrenomycetes with hyaline, non-septate ascospores. This group of fungi was very poorly studied, and almost all previously known species had to be transferred to other genera: amongst the 17 species keyed out under *Guignardia* and *Physalospora* in Clauzade et al. (1989, Bull. Soc. linn. Provence, Num. spéc. 1), only one single species is accepted in the genus where it was placed in 1989. Both *Guignardia* and *Physalospora* are now restricted to species growing parasitically or saprophytically on plants.

The generic concepts of *Lichenochora* and *Zwackhiomyces* have been enlarged to include also non-septate species. The genus *Myxophora*, all previously known species of which are associated with cyanobacteria, comprises now also five lichenicolous species, all growing on cyanobacterial lichens. The genus *Obryzum* is accepted, with two species confined to *Leptogium*. A new monotypic genus, *Teloggalla* Nik. Hoffm. & Hafellner, is introduced to accommodate the species commonly known as *Guignardia olivieri*. Other species studied belong to *Biciliopsis*, *Epibryon*, *Gyrophthorus*, *Roselliniella*, *Sagediopsis*, *Thamnogalla* and *Verrucaria*.

The authors perfectly succeeded to abandon the classical taxonomy of lichenicolous pyrenomycetes, in which completely unnatural groups were recognized, based on a small

number of characters, like the form, septation and colour of ascospores, and the presence or absence of hamathecial filaments in mature ascomata. Instead, they used a much larger character set, including excipular pigments, the excipular texture, the nature of hamathecial filaments, ascal characters, etc., and were thus able to propose a more natural classification.

This is a long-awaited monograph, which should belong to the library of each lichenologist working with lichenicolous fungi, and for which the authors are warmly congratulated here.

Paul Diederich, Strassen

KANTVILAS, G. & JARMAN, S.J., with photographs by B.A. Fuhrer 2000. *Lichens of Rainforest in Tasmania and south-eastern Australia*. Flora of Australia Supplementary Series Number 9: 1-212. ISBN 0 642 56802 2 (pbk.); ISSN 1323 2169 (series). The Australian Biological Resources Study, Canberra. Soft cover, approximately 240 colour photographs. Price Au\$ 40.00 plus postage and handling costs (Australia Au\$ 5.00, other countries Au\$ 15.00). Copies can be obtained from: The Tasmanian Herbarium, GPO Box 252-04, Hobart, Tasmania, Australia 7001.

The cool temperate rainforests of the Southern Hemisphere host a remarkable diversity of lichens. This book provides an outstanding introduction into a world of unusual plants. It includes introductory chapters on the nature of lichens and on the distribution and biogeographical relationships of the Tasmanian lichen flora, a section on the distribution and ecology of lichens in Tasmanian rainforest followed by illustrations (with superb colour photographs) and descriptions of 127 species (mainly macrolichens) with short notes on the genera. Chapters like classification and identification of lichens are followed by a key to more than 200 Tasmanian rainforest lichen species. An appendix on the macrolichens recorded in Tasmanian rainforest, arranged alphabetically according to family, a glossary of technical terms, references and an index complete this exceptional publication.

Compliments to Gintaras, Jean and Bruce - this booklet unites consistently sound lichenology and a popular style of presentation. It will surely bring lichenology closer to the public.

Helmut Mayrhofer, Graz

PURVIS, W., 2000. *Lichens*. Life series. 112 pp. ISBN 0-565-09153-0 (ISBN 1-560-98879-7). Soft cover. Price: £9.95 (\$ 14.95). Available from the Natural History Museum, London, and the Smithsonian Institution, Washington DC.

William Purvis, a lichenologist at the Natural History Museum, London, has produced an appealing little book that serves as an ambassador for the lichenology. Lichens have a special mystique - symbiotic associations small in size, modest in morphology and cryptic in reproduction that, none-the-less, have inestimable value as early indicators for biodeterioration. By example, lichens teach us that intimate and long-term cooperation has evolutionary fitness and that the ability to colonize seemingly inhospitable habitats opens up wide expanses of the lichen's surface. Those who would be interested in these

nifty dual organisms, and there are many, previously had to keep up with the complexities of the interlinked life cycles of the component fungi and their photosynthetic algae and cyanobacteria, the composite morphologies and chemistries found neither in free-living fungi or algae, and the physiological adaptations to extreme environments through lichenological guides, textbooks and scholarly articles. As a highly specialized discipline with a population that teeters dangerously close to local extinctions, lichenology did not have a single publication that can nourish a young student, pique an interested amateur, or captivate the scientifically literate public; not to mention something to give well-meaning family and friends that could explain why you study lichens. Now we have Purvis's book that meets many of these needs.

The 112-page paperback with a preface and eleven chapters presents timely information on a diversity of topics in lichenology. The eclectically titled chapters cover the most of modern lichenology ranging from traditional taxonomy and classification to ecosystem ecology, and from basic biology lichen to applied biomonitoring and metal prospecting. Mindful of the student audience, the book provides nine pages of practical projects that would be terrific for science fairs. Although writing at a level that is accessible to these students, Purvis does not sidestep current controversies in lichenology and gamely includes species pairs, photomorphs and mechanical hybrids. Their clear explanations can benefit even professional lichenologists.

But, buy the book for the saturated colors. From *Xanthoria* orange cover to cover, the book gathers 158 color photographs from a diversity of credited photographers that show lichens (even pyrenolichens!) are beautiful. It would be hard to recommend a favorite, although the S. & S. Sharnoff's bulls-eye *Cryptothecia* and B. Hilton's lichen pocked gravestone come close. Even a herbarium specimen collected by Charles Darwin looks attractive in this format, thanks to the book designer David Robinson and high resolution printing by Craft Print, Singapore. Photographs and micrographs are illustration clear in showing structures and techniques. For, example, the box "Tests for lichen substances" provides the ultimate how-to for doing a spot test. More interestingly, the book has taken classic illustrations in lichenology and enlivened them with vibrant greens and oranges. Schwendener's definitive illustration of the dual symbiosis, James and Henssen's zoned photomorphs, Ahamadjian's imprisoned alga, Ott's *Xanthoria* life cycle, Lange's photosynthetic fixation curve, Honegger's functional thallus section, Hawksworth and Rose's UK pollution map.

William Purvis has done an excellent job with this book and lichenology stands to benefit. Every lichenologist should have this book on the bookshelf as an introduction to lichenology. But, be ready to give them away, because everyone will want one. At a modest list price of \$14.95, and widely available at discounted prices, you can afford to give them away, or at least enthusiastically recommend them, to students looking for science-fair projects, to teachers, to librarians, to science journalists, to search committees, to college lecturers . . . This little lichen book would be a value at twice this price.

Paula De Priest, Washington

A new journal: *Ecological Indicators*

The new journal *Ecological Indicators* will be launched in 2001. The journal is aiming at an integration of monitoring and assessment of ecological and environmental indicators with management practices. Further information: <http://www.elsevier.com/locate/ecolind>

REPORTS

IAL4 (Barcelona, 2-8 September 2000)

As a student in Barcelona, I noticed the rumours about the forthcoming international symposium more than a year before it actually happened. Researchers and professors at the University started talking about the IAL4 meeting and became more and more excited while administration and bureaucracy was handed over to a professional symposium secretariat (AOPC). A particular issue for the organizers was how many grants could be given and to whom. Finally, a considerable number of qualified lichenologists from disadvantaged countries were able to participate.

For me and several reknown lichenologists, the meeting started with a pleasant field trip to NE-Spain. We were lucky to have the invaluable knowledge and affable company of Dr. Roux. Dr. Llimona's "technical stops" following abundant meals were unforgettable and some of the international guests learned a bit of Spanish in the valley of Nuria.

At the meeting, I was overwhelmed by the large amount of information which makes it difficult to pick out particular talks. As a taxonomist, I was mostly impressed by presentations that used the latest molecular techniques whilst not forgetting the classical base. I could understand that it must have been difficult to select the oral presentations from so many apparently interesting abstracts. There were extraordinary talks but it also seemed that due to the persisting language barrier, some other exciting posters were not accepted as oral contributions.

By the large number of oral sessions, too little attention was paid to the many posters, in my opinion. Many had invested a lot of energy in producing the posters and therefore it was a pity that they were compressed in such a narrow space. As a young lichenologist, I would also have appreciated listening to comprehensive plenary talks about progress in lichenology. Anyhow, it was a revealing experience to "discover" all the people who I only had known as authors names. I felt absolutely lucky having the opportunity to talk personally to those people working with the same groups of lichens than I, and to learn to become a part of the community and to establish future collaborations.

As a young lichenologist I was raised with internet and email as perfect communication media, but here I realized the important aspects of personal meetings. A social event like the dinner is also a great opportunity to appreciate the 'other' side of lichenologists. After a really fantastic meal in the Magnamarum, it great to see some of the organizers succumbing to a dancing fever. Dr Llimona and Dra Crespo gave us a

master class in dancing salsa like true professionals. They were not the only ones, an endless list of lichenologists showed their talent and started to dance. Only the President did not step in and remained as an observer of the scene.

Ester Gaya, Barcelona

The Fourth IAL Symposium: "*Progress and Problems in Lichenology at the Turn of the Millennium*" took place in Barcelona in the first week of September 2000. The audience was international, "Akita, Bariloche, Barناول, Canberra, Dunedin (N.Z.), Hobart, Honolulu, Mexico City, Novosibirsk, Taichung (Taiwan), Urumqi, Vladivostok" are names of more remote cities from which lichenologists travelled. The number of participants (271) was below that of the IAL3 in Salzburg, which, I guess, had to do with the considerably higher costs. It was striking to me how rapidly the family of lichenologists has grown in the meantime. Well acquainted faces, although many, are now dispersed within the large group of "new" ones, usually those of young and - this was easy to feel - enthusiastic participants. "International" was a term that surfaced again at the end of the meeting when a decision has to be made about the venue for IAL5: Tartu (Estonia) or Tempe (Arizona)? Should IAL meet once again in Europe? Although the majority vote was for Tartu, this should not be interpreted as a vote for "Europe yet again"; it was a vote in favour of a country which, due to the Iron Curtain, was excluded from the international community for so many decades.

Barcelona, with its famous university, housed us with perfect organisation and warm hospitality. It is a most fascinating and charming city; attractive enough, that a number of the participants missed some papers for a short visit to some of its remarkable sights. The Great Hall of the Department of Biology acted as an ideal forum for our big group. The lack of a suitable room for poster presentation was the only disadvantage; general discussions in the hall and not in front of the often highly informative posters did not work.

Posters and oral presentations covered a wide field of activities, reflected by numerous main blocks of presentations [in square brackets: the number of the papers followed by the number of the posters]: (a) Systematics of the mycobiont [10/28], (b) photobionts [6/7], (c) lichenicolous fungi [3/3], (d) molecular approaches to lichen phylogeny [11/5], (e) population and thallus individuality [5/4], (f) lichen diversity and biogeography, Mediterranean and xerophilous lichens [13/31], (g) storage and retrieval of lichen data: publications, herbaria, checklists, floras [7/7], (h) morphology and structure [9/11], (i) lichen dominated communities [2/3], (k) lichens as bioindicators of the stability and stress in ecosystems [4/21], (l) strategies for the sustainable management of lichen biodiversity [4/2], (m) ecology, ecophysiology and lichen physiology [22/36].

The oral presentations - each 15 minutes long - were presented in single sessions that resulted in very intense, and somewhat long, programs (preventing overdoses of the unlimited supply of fine and amiably served coffee during the breaks). These papers (some 95) - none preceded by some general lectures - provided an immense and colourful assemblage of information that is impossible to summarize in a few lines. Numerous interesting papers focused on taxonomy and phylogeny, and most of them were based upon molecular approaches. Not surprisingly, spectacular results came out of this

lichenological 'corner'. For example, one paper concluded that whereas the *Xanthoria* fallax group might be excluded from the genus, *Xanthoria* s.str. the latter would have to accommodate a majority of the species of *Caloplaca* subgenus *Gasparrinia*, a conclusion that might have odd consequences in that *Xanthoria* will be best characterized by a base sequence (Søchting & Lutzoni). As a taxonomist, I found the papers on photobionts, most of which concentrated on morphology and structure, of general importance and I look forward to their publication.

The official Reception at the Catalan Government headquarters and the IAL Dinner at the well-known "El Petit Miao" restaurant at the harbour became social highlights of the Symposium. It was a lovely summer evening, when we walked through the beautiful old city towards the famous Gothic "Palau de la Generalitat" (parts of which date from the 14th century), where we had a reception in impressive festivity recalling Catalan grandezza.

The IAL Dinner was nicely arranged and became a most pleasant, memorable event. It culminated in the announcements of new recipients of the Acharius Medals and the winner of the Mason Hale Award. Long lasting, vivid and unanimous applause was given to the medal winners Nina Golubkova (in absentia), Teuvo Ahti and Georges Clauzade (in absentia), as well as to Jolanta Miadlikowska, for winning the Mason Hale award. Thanks to the committee, who mastered the most difficult job of choosing the award winners. However, this job was relatively minor compared with the giant task of organizing and implementing such a big meeting. Cordial thanks to Xavier Llimona and his numerous collaborators, and all the others, who helped to make the IAL4 such an interesting, pleasant, and great meeting!

Hannes Hertel, Munich

First Russian Lichenological Field Meeting (Khibiny mountains, 6-12 August 2000)

The First Russian Lichenological Field Meeting took place in the Khibiny Mountains (Murmansk Region) and was organized by the St Petersburg Naturalists Society, Russian Botanical Society and Universities of St Petersburg and Petrozavodsk. Forty-three participants from Yuzhno-Sakhalinsk, Vladivostok, Irkutsk, Barnaul, Tomsk, Ekaterinburg, Perm, Kazan, Syktyvkar, Volgograd, Voronezh, Belgorod, Ufa, Sarov, Moscow, Kaliningrad, St.Petersburg, Petrozavodsk, Apatity and Kirovsk participated in the Meeting. The organizers were also happy to welcome foreign participants from Vilnius (Lithuania) and Gdansk (Poland). The Field Meeting comprised of lichen excursions to various interesting spots in the Khibiny Mountains with a minisymposium with lectures and posters.

A first excursion was made to the Botanical Gardens protected territory on a mountain slope. All principal vegetation types of the Khibiny Mountains can be observed here within a one hour trip. The second field trip was to the Malaya Belaya (Small White) river valley in western Khibiny. Various types of forest vegetation, including old-growth forests, contain a rich epiphytic and epigeic lichen flora, readily collected by

participants. The third excursion to the Lovchorr Mountain slopes (southern Khibiny) was dedicated to different lichen tundras. The last two trips were made to Kuniyok valley (central Khibiny) with spruce and birch mountain forests and a Southern Canyon (southern Khibiny), rich in epilithic lichens.

In a course of the minisymposium lectures on lichen synusia (by Lev Byazrov, Moscow), lichen geography (by Gennadi Urbanavichus, Tanhoj), aspects of lichen floristic studies (by Eugenia Muchnik, Voronezh), ecology of microlichens (by Jurga Motejunaite, Vilnius) and a Red Data Book compilation (by Viktor Petrov, Apatity) were given. Short workshops on botanical nomenclature, *Peltigera*, *Bryoria* and *Hypogymnia* were organized by Vitaly Kulakov (Volgograd), Alexei Zavarzin (St. Petersburg), Olga Petrova (Apatity) and Svetlana Tchabanenko (Yuzhno-Sakhalinsk). All participants displayed the results of their studies in a form of poster presentations and gave short talks about their projects. Abstracts of the lectures and poster presentations with English summaries, as well as brief descriptions of the field trips, are available from Olga Petrova (olga_petrova@mail.ru) and myself (zavarzin@bfm.spb.org). As a result of this meeting, it was decided to have the Second Russian Lichenological Field Meeting already in May 2001.

On behalf of the First Russian Lichenological Field Meeting Organising Committee I express our gratitude to the Russian Federal Programme on "Integration", the St Petersburg Naturalists Society and the Barents Secretariat for providing us with financial support.

Alexei Zavarzin, St Petersburg

'Lichens and Bryophytes from Steppe to Coast', ABLs Field Trip (10-14 August 2000)

This four-day field trip was planned and led by Bruce McCune and Roger Rosentreter. We started from Portland, Oregon, where most of the twenty-five lichenologists and bryologists had just attended the Botany 2000 convention. We packed our gear into a Grayline Bus and drove to Wapanitia Pass, an area typical of the middle elevation in the Cascade Range.

After four hours of collecting we headed east to the Columbia Plateau, an area of Oregon formed from a series of lava flows. On the far side of the rimrock, displays of colorful *Pleopsidium*, *Caloplaca*, and *Psora* species covered the exposed lava flow. On Friday morning we drove southwest, again crossing the Cascade Range. We stopped at Sahalie Falls on the McKenzie River. The River crosses forested lava flows and is home to many of the rare and listed cyanolichens in Oregon, including *Nephroma occultum* and *Pseudocyphellaria rainierensis*. The area is warmer with much lower snowpack than Wapanitia Pass and *Lobaria oregana* makes up a large biomass in the old forest growth. *Pseudocyphellaria* and *Nephroma* species were growing on the small outer twigs of conifer branches, (in California I usually encounter these lichens on the trunks of trees). There were a variety of *Cladonia* and *Cladonia* species growing in forest openings. After a three-hour walk along the McKenzie river we gathered on the bus and drove to the

Oregon Institute of Marine Biology in Coos Bay. On Saturday we drove to Cape Arago, a rocky headland jutting into the Pacific Ocean. The Easterners were looking forward to seeing our western lichens *Ramalina menziesii* and *Vermilacinia (Niebla) cephalota*. On Sunday we drove a short distance north along the coast to the Eel Creek Campground. Roger was a great leader, searching out spots for some of the more unusual lichens to be found. The wooly lichens *Erioderma sorediatum* and *Leioderma sorediatum* were quite well hidden on the native Rhododendrons. We hiked to one of the conifer 'islands' within the dunes where Roger found *Anaptychia setifera* Räsänen on a dune-sand blown spruce. This field trip was a very memorable experience. Exploring a variety of habitats in Oregon, learning many new lichen species, meeting fellow lichenologists and bryologists from near and far was a true highlight. Thanks goes to Bruce and Roger for planning so well to meet the interests and needs of all the participants.

Judy Robertson, Santa Rosa

TICS (Marburg, 13-19 August 2000)

The Third International Congress on Symbiosis was held in the historical town of Marburg, Germany. The whole meeting was inspired by the intriguing way of old traditional university life and hospitality, as typical for cities like Marburg. Prof. H.C. Weber and his very professional crew of co-workers excellently organized this meeting. The TICS was a great event for all scientists who are interested in a broad spectrum of symbiotic relationships existing between living organisms and the astonishing progress of symbiotic research during the past five years.

The presentations of the congress included a great variety of projects on mycorrhizae, microbial communities living together with plants and animals, nitrogen-fixers, endophytic fungi, lichens and also enigmatic symbiotic associations.

The contributions on lichens mainly concentrated on secondary compounds, polyketide genes (D. Armaleo), culture experiments and DNA-analyses (I. Yoshimura, E. Stocker-Wörgötter) and transplantation experiments in the field (S. Etges and S. Ott). Topics touching ecophysiological problems (e.g. salt tolerance of lichen fungi, Y. Yamamoto; the role of lichen secondary compounds for channelling thallus water flow, D. Armaleo) and general aspects of the lichen symbiosis (S. Ott and H.M. Jahns) were discussed enthusiastically.

Elfie Stocker-Wörgötter, Salzburg

Lichen Monitoring Workshop (Pembrokeshire, 16-23 August 2000)

A workshop on Lichen Monitoring was held on the west coast of Wales at Orielton Field Centre, Pembrokeshire from 16-23rd August 2000 as a NATO Advanced Research Workshop to encourage collaboration between NATO and partner country scientists. This required directors; Pier Luigi Nimis, Gregory Insarov and Pat Wolseley, and an organising committee added Brian Coppins, Sergey Kondratyuk and Christoph Scheidegger. Organized by Pat from the Botany Department NHM in collaboration with

the British Lichen Society, the workshop mushroomed into an international event with 63 participants from Europe, the former Soviet Union and USA, where lichen biomonitoring is already established; and participants from countries such as Tajikistan, Thailand, Sri Lanka, where cost-effective monitoring programmes are urgently needed. The objective was to discuss methods to assess gaseous and metal pollution, biodiversity and sustainable management, and RDB species action plans. An intensive programme of presentations and discussions was interspersed with short visits to sites within easy access from Orierton, illustrating aspects of lichen monitoring, from management of important National Nature Reserves with RDB species, to coastal sites affected by oil from the Sea Empress disaster in 1996. The outcome of this workshop will be a review of Lichen Monitoring methodology and application to be published in the NATO Advanced Research Workshop series by Kluwer.

Pat Wolseley, London

Homage to Ernie Brodo (Ottawa, 10 November 2000)

On November 10, 2000, Irwin M. Brodo became Research Scientist Emeritus, at the Canadian Museum of Nature (CMN), having reached the mandatory retirement age of 65. Ernie, as he is known affectionately to friends and colleagues, thus marks an important milestone in a long, distinguished, and continuing career in lichenology. The occasion was marked in Ottawa by a festive mini-symposium, organized by his CMN colleagues Paul Hamilton and Laurie Consaul, and attended by more than 110 people. As neither the texts nor the abstracts of the presentations made at this gathering are likely to resurface in the peer-reviewed literature, we have seen fit to place a brief account of the proceedings on record here.

The customary poster section comprised a single contribution, a socio-lichenological perspective (in the form of a photo-montage) of Ernie in various settings with students and colleagues. The net effect was a demonstration of rapid cultural evolution (mainly of the students) over the past 35 years. (One of us must confess to astonishment, in view of his remarkably shaggy former appearance, that Ernie agreed to take him on as a graduate student at all!) The conference hall (the CMN cafeteria) contained numerous supplementary exhibits, including lichen-covered table-centrepieces, and many balloons—ascus and ascospore motifs? ... their number some multiple of 8?

The keynote paper, by Paul Hamilton, dealt with the curious developmental morphology of a remarkable species within the genus *Brodoa*. Particular attention was drawn to the conspicuous changes in the pubescence-state of this taxon: cranial hair but no beard in the juvenile stage, then cranial hair with beard, followed by beard with no cranial hair. The diagnosis was well and mirthfully received.

The ensuing presentation centred on a slide of the honoree surrounded by members of the Macoun Club. (This is the young persons' section of the Ottawa Field Naturalists' Club. The OFNC, of which Ernie is a former president, publishes *The Canadian Field-Naturalist*, a quarterly research journal.) Ernie led the Macoun group for several years, considerably increasing its membership through his infectious enthusiasm for systematic nature study and his love of wilderness canoeing and camping. Not surprisingly, a number

of members during those years later turned to natural science as a career, and are now well-established scientists in their own right.

After acknowledgements of Ernie's contributions from CMN management, the floor was taken by François Lutzoni to give a vivid speech from the students perspective. With his trademark wit and wisdom, George Argus then sang a wonderful poem by Robert Service, "The Petit Vieux", offering some tongue-in-cheek words of advice to Ernie for his retirement. (George is himself an emeritus scientist at CMN, having worked alongside Ernie for many years as a vascular plant systematist, authority on *Salix*, and coordinator of a major inventory and critical review of the rare vascular flora of Canada.)

Last but certainly not least on the program was a presentation of gifts, and of a large package of letters and cards bearing greetings and good wishes from Ernie's friends and colleagues around the world. Many more messages arrived via e-mail. All of this was a complete surprise for Ernie, and he was deeply touched. We trust that he will not feel slighted if we save, for another day, a fuller account of his achievements in research, education, and professional service. As we have noted, his is a career still very much in progress. During our visits to CANL several weeks ago, he was happily working through a set of fresh collections from the Queen Charlotte Islands. For now, then, we join Ernie's friends and colleagues in wishing him a long, healthy, happy, and productive retirement.

Stephen Clayden, Saint John; Trevor Goward, Clearwater; François Lutzoni, Chicago

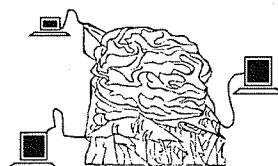
REVIEWS

Progress in lichenological Web sites

The presence of lichenology on the World Wide Web (WWW) can be screened by on-line directories (1,2) or by one of the common search engines using the key words 'lichenology' or 'lichenized fungi'. Both show that a wide range of lichenological information is already available. The increasing number of these electronic publications includes checklists, on-line keys, information systems, herbarium and literature databases, the International Lichenological Newsletter etc., and indicates that the internet becomes more and more accepted as a medium for rapid exchange of information and as a complement to paper bound publications.

On-line floristic checklists on the WWW cover supranational areas such as the whole of North America, or individual countries. Eighteen national checklists are currently available: Argentina, Australia, Brazil, Chile, Estonia, Great Britain, Israel, Italy, Japan, Morocco, Netherlands, New Zealand, Norway, Slovenia, Tunisia, Ukraine, Uruguay and Venezuela. Other national checklists are in press or in progress. The degree of lichenological exploration varies in these geographic units and much work is still to be done, but their open-ended on-line publication facilitates updating as soon as any additional information becomes available. For some of the better explored countries, lists of threatened lichens are included, which may also aid in the development of a global red list of lichens (3). Using the individual lists as sources, it is now also tried to provide

checklists for larger areas, such as the Mediterranean (4) or even at a world-wide scale. The compilation of all checklists in the world is an initiative by T. Feuerer (Hamburg, 5) who also suggests a common data format to standardize lichen checklists. However, this does not yet apply to taxonomy. Whereas taxonomic inconsistencies of generic concepts across checklists can be handled by a thesaurus of synonyms, the situation is more complex at the species level. Taxonomic checklists to particular groups of lichens, e.g. a global list of parmelioid lichens (6) or foliicolous lichens (7) can be helpful in this respect.



On-line versions of regularly updated articulate keys to taxa are currently compiled by H. Sipman (Berlin, 8). The keys cover particular taxonomic groups or geographic units. More keys can be retrieved from other sites, such as a key to Caliciales of Norway (9). Worldwide keys to foliicolous lichens are currently prepared by R. Lücking (Bayreuth, 10). These are embedded in a comprehensive information system, composed of numerous web pages and including images of foliicolous lichens, as well as a list of ecological parameters of species, the checklist of foliicolous lichens and that of their lichenicolous fungi. Apart from these keys in traditional format, interactive keys are available as subsets of the LIAS project, which is discussed further below.

A wealth of herbarium information on lichens is also available on-line, either as lists (11, 12), as specimen images (13), or as searchable databases. The latter are well established dynamic web resources, which exist for various smaller and larger herbaria and either to parts of the herbaria, such as type collections or to the entire collections. Some of these resources already try to link different databases. The database of Nordic lichens by E. Timdal (Oslo) is an excellent example, which links 7 Scandinavian herbaria (14). The latter site also maintains the databased form of Recent Literature on Lichens, which originates as a series of publications in the Bryologist. The on-line form allows complex searches for lichenological literature. The database of Italian lichens initiated by P.L. Nimis (Trieste) is a similarly complex lichenological resource. Started as a simple text checklist, and later transformed to a database, it has now become an integrated information system on lichens in Italy (15). It includes forms to search for distribution of taxa in Italy, for taxa found under selected ecological conditions, for literature references on lichens in Italy, etc. Links are available to the database of the lichen herbarium in Trieste and other herbaria in Italy. Moreover, images of the potential distribution of taxa in Italy are available.

Apparently, progress in lichenology on-line is directed at the integration of different resources and to join individual efforts. This is also the aim of the Global Information

System for Lichenized and Non-Lichenized Ascomycetes, briefly LIAS, by G. Rambold (Bayreuth, 16). It includes descriptions of taxa, image collections, interactive keys, an other information. Both the description of taxa and the interactive keys are based on the DELTA format for descriptive data. Data standardization and compatible formats in different resources are indispensable prerequisites to develop interoperable lichenological web applications (See 17). Once these are fully available, distributional or ecological data can be combined with descriptive and taxonomic data to create specific sets of information, e.g. determination keys for lichens in specified geographic regions or under particular ecological conditions.

Both the simple information repositories and the more sophisticated applications allow to connect the contemporary knowledge across all fields of lichenology, while still relying on the stable fundaments of paper bound publications of the original data.

Cited web sites:

- 1: <http://www.unomaha.edu/~abls/resources.html>
- 2: <http://www.helsinki.fi/kmus/botcryp.html>
- 3: <http://www.dha.slu.se/guest/global3.htm>
- 4: <http://biobase.kfunigraz.ac.at/medlichens.html>
- 5: <http://www.rz.uni-hamburg.de/biologie/ialb/herbar/lichenw.htm>
- 6: <http://www.ut.ee/lichens/cetraria.html>
- 7: <http://www.uni-bayreuth.de/departments/planta2/ass/robert/lichens/checkfol.html>
- 8: <http://www.bgbm.fu-berlin.de/sipman/keys/default.htm>
- 9: <http://www.thavibu.com/caliciales/keyes.htm>
- 10: <http://www.uni-bayreuth.de/departments/planta2/ass/robert/lichens/KEYGEN.html>
- 11: <http://www-ang.kfunigraz.ac.at/~oberma/li-grz1.htm>
- 12: <http://www.tc.umn.edu/~wetmore/>
- 13: <http://linnaeus.nrm.se/botany/kbo/ach/welcome.html.en>
- 14: <http://www.toyen.uio.no/botanisk/lav/>
- 15: <http://dbiodbs.univ.trieste.it/askital.html>
- 16: <http://www.mycology.net/lias/index.cfm>
- 17: <http://habanero.nhm.ukans.edu/>

The Editor

Reactions to this article, posted directly to the Editor, are included in the following section.

LICHENOLOGY-ON-LINE

New and interesting Websites

ASU website - The Arizona State University Lichen Herbarium website (<http://mgd.nacse.org/Arizona>) presently includes general information on the greater Sonoran Desert Flora project, commonly used lichen links, a searchable database with label data on over 50% of our 90,000 lichen specimens, herbarium personnel, as well as lists of exsiccata and type holdings. The lichen herbarium database has also recently become searchable at The SpeciesAnalyst (<http://habanero.nhm.ukans.edu>). General information and the current exchange list for the biannual ABLS Lichen Exchange can also be found on the ASU website. Presently, in collaboration with the Center for Environmental Studies, we are developing a more advanced search technology to facilitate complex internet-based queries and a eventually a virtual flora with the use of all of the natural history collections housed at Arizona State University. (R. Schoeninger, Tempe)

Russian Lichenological Resources - This is a web site by Vitaly Kulakov, Volgograd, Russia (<http://nature.vspu.ru/lichens/indexe.html>). At the moment the site contains the following links: Russian lichenological bibliography - a total of 2026 citations of publications by Russian and Soviet lichenologists (in any language) and of lichenological studies of the territory of Russia and former Soviet Union. Furthermore, a virtual lichenological library of selected articles and monographs, keys for identification of lichens with several lichen taxa, Photographs of lichens from southeastern part of European Russia and from the First Russian Lichenological Field Meeting. (Alexei Zavarzin, St Petersburg)

Air Quality in Pacific Northwest America - I am involved in the effort to develop a database for lichen monitoring data collected from national forests in the US. So far we have data from the Pacific NW and Alaska on-line (<http://www.fs.fed.us/r6/aq/lichen>). Users can query the database and make distribution maps, and overlay distribution data on topographic, political and climatic base maps. By clicking on data points on the map, or requesting results as a table, users can also retrieve ecological and pollution data. I am very excited about the current capability and we will continue to update the information. The work was done in partnership with the computer science department (NACSE) at Oregon State University. (Linda Geiser, Corvallis)

FungalWeb - A year ago, an international group of mycologists met in Copenhagen to plan a new integrative website. The group included Kerry O'Donnell, Ulrik Søchting, John Taylor, Lene Lange, Ove Eriksson, Ib Groth Clausen, Rob Samson, Mikako Sasa, Henning Knudsen, Jens Frisvad, Thomas Laessøe, Søren Rosendahl, and Franz Oberwinkler. FungalWeb is now available with the aim to link genetic and phenotypic databases to a current fungal taxonomy (<http://www.fungalweb.com>). A link to the Anamorph/Holomorph Connections Database permits integration of meiosporic and mitosporic fungi. With the "backbone" of fungal genera well on its way, FungalWeb will incorporate species of socially important genera such as *Aspergillus* and *Penicillium* as "ribs" on the generic backbone. (Ulrik Søchting, Copenhagen)

Back issues of ILN

The following back issues of ILN are still available: 9(1), 9(2), 10(1), 10(2), 11(1), 11(2), 12(1), 12(2), 13(1), 13(2), 14(1), 14(2), 15(1), 15(2), 16(1), 16(2), 17(1), 20(1) and further issues. Photocopies are available of: vol. 1(1), 1(2+supp.), 1(3), 2(1), 3(2), 6(2), 7(1-2), 8(1-2). Two indexes are also available: Index to vol. 1-8, Index to vol. 9-13. - According to a resolution of the IAL Executive Council, published in ILN 16(1), April 1983, the following charges will be levied for back issues of ILN: Vol. 1: US\$ 0.25 per number (3 per volume); vol. 2-8: US\$ 0.50 per number (2 per volume); vol. 9-13: US\$ 1.00 per number (2 per volume); vol. 14-17: US\$ 1.50 per number (2 per volume). Back issues from vol. 20-29 are available for US\$ 1.00 per number (3 per volume). The Indexes are free. New members will receive free only copies of the numbers constituting the volume issued for the calendar year in which they join IAL. Orders for vols. 1-29 to be sent to H. Sipman, Bot. Garten & Bot. Museum, Königin-Luise-Strasse 6-8, D-14191 Berlin, Germany, fax: (+49) 30-84172949, e-mail: hsipman@zedat.fu-berlin.de. For later issues contact the Editor.

The cover-page illustration

"Usnea" from: Anonymous: *Herbolario Volgare, nel quale si dimostra a conoscer le herbe* etc., Venezia, 1536. - One of the earliest representations of a lichen, taken from the second edition of a book originally written in Latin. Its origin is certainly earlier: a very similar drawing is present in a *Herbarius* written in Dutch, and published in Louvain in 1484; both of them have a faint resemblance with the earliest known drawing of a lichen (which was not any better), dating back to the year 1512, and probably originating from Byzantium; for further information see Richardson D.H.S. 1974: *The Vanishing Lichens. Their History, Biology and Importance*. Hafner Press (Macmillan Publishing Co.), New York. pp 28-31. [Courtesy of the Linnaean Society, London].

LIST OF SOCIETIES

Australasia: Australasian Association for Lichenology. Info: W. M. Malcolm, Box 320, Nelson, New Zealand; phone & fax: +(64) 3 545 1660.

Brazil: Grupo Brasileiro de Liqueólogos (GBL). Info: Marcelo P. Marcelli, Instituto de Botânica, Seção de Micologia e Liqueologia, Caixa Postal 4005, São Paulo - SP, Brazil 01061-970; fax: (+55)-11-6191-2238, phone: (+55)-11-5584-6304 (inst.), 218-5209 (home), e-mail: mmarcelli@sti.com.br

Central Europe: Bryologisch-lichenologische Arbeitsgemeinschaft für Mitteleuropa (BLAM), c/o Roman Türk, University of Salzburg, Dept. of Plant Physiology, Hellbrunnerstrasse 34, A-5020 Salzburg, Austria, phone: (+043)-(0)662-8044-5588, fax: (0)662 8044 619, e-mail: roman.tuerk@sbg.ac.at Info: Volker John, Kaiserslauterer Str. 86, D-67098 Bad Dürkheim, Germany; phone: (+49) 06322 67919, e-mail: 106370.1063@compuserve.com

Czech Republic: Bryological and Lichenological Section of the Czech Botanical Society. Info: Dr. J. Liska, Institute of Botany, Academy of Sciences of the Czech Republic, CS-252 43 Pruhonice, Czech Republic

Finland: Lichen Section, Societas Mycologica Fennica, c/o Botanical Museum (Lichenology), P.O. Box 47, FIN-00014 Univ. Helsinki, Finland. Info: Teuvo Ahti, phone: (+358) 9 7084782, fax: (+358) 9 7084830, e-mail: teuvo.ahiti@helsinki.fi

France: Association Française de Lichénologie (AFL). Info: Damien Cuny, Laboratoire de Botanique, Faculté de Pharmacie, 3, rue du Professeur Laguesse, BP 83, 59006 Lille Cedex. phone +3 20 96 40 40 poste 4289, fax. +3 20 95 90 09, e-mail: damien.cuny@wanadoo.fr

Great Britain: The British Lichen Society (BLS), Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD, UK. Info: Amanda Waterfield, Dept. of Botany, Natural History Museum, London SW7 5BD, UK., phone +44 (0)20 7942 5617 (P. Wolseley), fax. +44 (0)20 7942 5529. e-mail: bls@nhm.ac.uk Web page: <http://www.argonet.co.uk/users/jmgray/>

Italy: Società Lichenologica Italiana (SLI), c/o Museo Regionale di Scienze Naturali di Torino, v. Giolitti, 36, I - 10125 Torino. Info: Giovanni Caniglia, Dipartimento di Biologia, V.le G. Colombo, 3, I-35121 Padova; phone: (+039) 049-8276-239, fax: 8276-230, e-mail: caniglia@civ.bio.unipd.it Web page: <http://www.lrcser.it/~sli>

Japan: Lichenological Society of Japan (LSJ). Info: Dr. H. Harada, Natural History Museum and Institute, Chiba (CBM), Aobacho 955-2, Chuo-ku, Chiba 260, Japan.

The Netherlands: Dutch Bryological & Lichenological Society, c/o Bart van Tooren, Venuslaan 2, 3721 VG Bilthoven, The Netherlands; phone: 030-2210613, e-mail tooren.Leeuwen@hetnet.nl Web page: <http://start.at/mossen>

Nordic Countries: Nordic Lichen Society (Nordisk Lichenologisk Förening, NLF), c/o S. Heidmarsson, Institute of Systematic Botany, Villavägen 6, S-752 36 Uppsala. Info: Ulrik Søchting, Dept. of Mycology, Botanical Institute, Ø. Farimagsgade 2D, DK-1353 Copenhagen; phone: (+45) 3532-2313, fax: 3532-2321, e-mail: ulriks@bot.ku.dk Web page: <http://www.helsinki.fi/kmus/lichen/2nlf.html>

North America: American Bryological and Lichenological Society, Inc. (ABLS). Info: James D. Lawrey, Department of Biology MSN 3E1, George Mason University, 4400 University Drive, Fairfax, Virginia 22030-4422, USA; phone: (+01)-703-993-1059, fax: (+01)-703-993-1046, email: jlawrey@gmu.edu. Web page: <http://ucjeps.berkeley.edu/bryolab/ABLS.html>

North America, California: California Lichen Society (CALS). Info: Judy Robertson, 362 Scenic Ave., Santa Rosa, CA. 95407, USA; e-mail: JKSRR@aol.com, phone: (+1) 707-584-8099. Web page: <http://ucjeps.herb.berkeley.edu/rbmoe/cals.html>

North America, East: Eastern Lichen Network. Info: Marian Glenn, fax: (+1) 973-761-9772, e-mail: glennmar@shu.edu

North America, Northwest: Northwest Lichen Guild. Info: Sherry Pittam, Department of Botany & Plant Pathology, Cordley 2082, Oregon State University, Corvallis, Oregon 97331-2902 USA; fax: (+1) 541-737-3573, phone: (+1) 541-737-1741, e-mail: pittams@bcc.orst.edu

South America: Grupo Latino Americano de Liqueólogos (GLAL). Info: Susana Calvelo, Centro Regional Universitario Bariloche, Universidad Nacional del Comahue, Bariloche- 8400, Río Negro, Argentina; phone: (+54) 944-23374 or 28505, fax: 62215 or 22111, e-mail: scalvelo@crub.uncoma.edu.ar

Poland: Lichenological Section of the Polish Botanical Society (Polskie Towarzystwo Botaniczne). Secretary: Dr. W. Faltynowicz, Dept. of Plant Ecology, University of Gdansk, ul. Czołgistow 46, 81-378 Gdynia, Poland

Slovakia: Slovak Botanical Society - Lichenological Working Group, c/o Institute of Botany, Slovak Academy of Sciences, Dubravska cesta, 14 842 23 Bratislava, Slovakia. Info: Anna Guttova, phone: 07-59412501, fax: 07-54771948, e-mail: botugutt@savba.savba.sk - Web page: www.botanika.sk

Spain: Sociedad Española de Liqueología (SEL), c/o Departament de Biologia Vegetal (Unitat de Botanica), Facultat de Biologia, Universitat de Barcelona, Av. Diagonal 645, 08020 - Barcelona, Spain. Info: Leopoldo G. Sancho, Dpto. Biologia Vegetal II, Fac. de Farmacia, Universidad Complutense, E-28040, Madrid; phone: (+34) 91-3941771, fax: 91-3941774, e-mail: acrespo@eucmax.sim.ucm.es

Sweden: Svensk Lichenologisk Förening (SLF), c/o Per Johansson, Inst. f. naturvårdsbiologi, SLU, Box 7002, 750 07 Uppsala, Sweden

Switzerland: Association Suisse de Bryologie et Lichénologie, Info: Silvia Stofer, WSL, Zuercherstrasse 111, CH-8093 Birmensdorf, e-mail: stofer@wsl.ch

Turkey: Club of Turkish Lichenologists, c/o Dr. Aysen Türk, Anadolu University, Dept. of Biology, TR-26470 Eskisehir, Turkey; phone: 0.222.3350580/ 3411/5168, e-mail: aturk@anadolu.edu.tr Info: Attila Yildiz, Ankara University, Dept. of Biology, TR-06100 Besevler-Tandogan/Ankara, phone: 3122126720, fax: 3122232395, e-mail: ayildiz@science.ankara.edu.tr

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