

INTERNATIONAL LICHENOLOGICAL NEWSLETTER

Vol. **51**, no. 1, July 2018



Official publication of the
International Association for Lichenology

Editor:

BEATA GUZOW-KRZEMIŃSKA

University of Gdańsk, Wita Stwosza 59, 80-308 Gdańsk, Poland

beata.guzow@biol.ug.edu.pl, phone: +48 58 523 6163

Editorial Board:

SCOTT LAGRECA (Duke University)

ISSN: 0731 2830

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 (IAL)** promotes the study and conservation of lichens. It organizes symposia, field trips, and distributes a biannual newsletter. There is a listserver that 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 or become members of IAL are requested to pay their membership fee (one payment of 40 USD for 2016-2020) using PayPal or by bank transfer. All details available at <http://www.lichenology.org/>.

The **International Lichenological Newsletter** is the official publication of IAL. It is issued twice a year (July and December) in English. The *Newsletter* is also available on the Internet. The *Newsletter* is divided into four 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) **Reviews**: presentation of recent progress and other topics of interest in lichenology with optional discussion. When the material exceeds the available space, the Editor will prepare a summary, on prior agreement with the contributors.

Any information intended for publication should reach the Editor on or before June 10 and November 10 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 IAL8 Symposium (Helsinki, Finland, 2016) are listed below, and will serve until 2020.

IAL COUNCIL 2016-2020

President: Mats Wedin, Swedish Museum of Natural History, Department of Botany, P. O. Box 50007, SE-104 05 Stockholm, Sweden. Email: mats.wedin@nrm.se

Vice President: Ana Crespo de Las Casas, Catedrática de Botánica, Directora del Departamento de Biología Vegetal II, Facultad de Farmacia, Universidad Complutense de Madrid, 28040 Madrid, Spain. Email: amcrespo@ucm.es

Secretary: Scott LaGreca, Department of Biology, Box 90338, Duke University, Durham, NC 27708, USA. Email: scott.lagreca@duke.edu

Treasurer: Imke Schmitt, Senckenberg Biodiversity and Climate Research Centre, Senckenberganlage 25, 60325 Frankfurt/Main, Germany. Email: imke.schmitt@senckenberg.de

Assistant Treasurer: Volker Otte, Senckenberg Museum für Naturkunde Görlitz, PF 300 154, 02806 Görlitz, Germany. Email: Volker.Otte@senckenberg.de

Editor: Beata Guzow-Krzemińska, University of Gdańsk, Department of Plant Taxonomy and Nature Conservation, Wita Stwosza 59, 80-308 Gdańsk, Poland. E-mail: beata.guzow@biol.ug.edu.pl

Members-at-Large: Chris Ellis, Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh, EH3 5LR, U.K. Email: c.ellis@rbge.ac.uk – Martin Kukwa, Department of Plant Taxonomy and Nature Conservation, University of Gdańsk, Wita Stwosza 59, PL-80-308 Gdańsk, Poland, Email: dokmak@ug.edu.pl – Silke Werth, LMU Biozentrum, Großhaderner Straße 2-4, D-82152 Planegg-Martinsried, Germany. E-mail: silke.werth@lmu.de – Marcela Eugenia da Silva Cáceres, Departamento de Biociências, Universidade Federal de Sergipe, Av. Vereador Olímpio Grande, s/n, 49500-000, Itabaiana-SE, Brasil. Email: mscaceres@hotmail.com

Webmaster: Andreas Beck, Botanische Staatssammlung München, Dept. of Lichenology and Bryology, Menzinger Str. 67, D-80638 München, Germany. Email: beck@bsm.mwn.de

ASSOCIATION NEWS

LETTER FROM THE PRESIDENT

Dear IAL Members!

The IMC meeting in Puerto Rico is rapidly approaching, and although the program only includes two lichen-specific Symposia (<http://imc11.com/program-at-a-glance/>) I am sure that there will be many lichen-related talks in the often comparatively general Symposia in the program. I also hope that I will see many of you at the Conference, and that many of you will meet up at the traditional IAL Dinner that we plan to have on the evening of Friday 20th July. At the IAL Dinner we will present two IAL awards, the Acharius Medal and the Mason Hale Award. An invitation to register for the dinner will come to the lichenological community, as an email very soon through lichens-l.

I would like to draw your attention to the recent passing of Hans Martin Jahns, who was IAL President 1996-2000. Please find an obituary on page 14.

I am sure many of you are aware of the recent changes in the Regulations on Data Safety in the European Union [General Data Protection Regulation (GDPR) (EU) https://en.wikipedia.org/wiki/General_Data_Protection_Regulation]. This has among other things caused us to temporarily remove our list of members from the IAL website, until we have collected permissions from members that their membership status is available online. This currently makes it difficult for you to check your membership status. It turns out that many are uncertain whether they have paid their dues or not, and indeed many lichenologists seems not to have paid their dues for the present period. Please contact Scott LaGreca <scott.lagreca@duke.edu> or Andreas Beck <beck@bsm.mwn.de> if you are uncertain and want to check! We want you all to continue being members!

In Sweden, after an extremely snow-rich winter, we have had an extremely hot and dry spring. Temperatures in May were approaching what is normally the hottest parts of summer. If this is due to climate change, we are facing great problems in the future. In any case, I hope that you all will have a great and lichen-rich summer, and that I meet many of you in the IMC11 or at other events later this year!

Mats Wedin, IAL President

FROM THE EDITOR

Dear Lichenologists,

The International Lichenological Newsletter is the official publication of IAL, which is issued twice a year (July and December). It is distributed to current members only, so those that did not get a copy probably are no longer members, and need to contact Scott LaGreca (IAL Secretary) or Volker Otte (IAL Treasurer) to sort it out and renew their membership.

Taking into account the new Regulations on Data Safety in the European Union [General Data Protection Regulation (GDPR) (EU)], which went into effect on 25 May 2018, the IAL assumes that all persons who have submitted any items to our IAL Newsletter (including those communicated to us in the past, as well as in the future) have given their tacit approval to publish their names/addresses/email addresses in the Newsletter, by the very act of submitting items to the Newsletter.

The Editors

NEWS

REMINDER – PARTICIPATE IN IMC-11!

The 11th International Mycological Congress, to be held in San Juan, Puerto Rico from July 16-21, 2018, will probably go down in history as one of the most important mycological gatherings of all time. In addition to the impressive list of symposia and workshops that the congress will be featuring (<http://imc11.com/program-at-a-glance/>), important decisions regarding the way science is done in our field will be made. The most important of these will be, without doubt, the discussion regarding two proposals to amend Article F.4.2 of the *International Code of Nomenclature for algae, fungi, and plants* to allow for the use of DNA sequence data to serve as types for fungal names (Proposals F-005-006, Hawksworth *et al.* 2016, Hawksworth 2018). IMC-11 participants will have the opportunity to vote on this controversial amendment to the *Code* during the Fungal Nomenclature Session (FNS) on Thursday, 19 July 2018, in the plenary hall of the Puerto Rico Convention Center. In anticipation of this event, IAL members and members of other organizations have been invited to participate in a pre-Congress Guiding Vote, a non-binding assessment for the FNS on the published proposals (<http://www.ima-mycology.org/nomenclature/guiding-vote>). Please note that the deadline for voting is June 17, 2018, and only current IAL members may vote. These proposals have already sparked substantial discussion within our community and have led to the recent publication of articles with contrasting viewpoints on this matter (Lücking & Hawksworth 2018, Thines *et al.* 2018, Zamora *et al.* 2018). See May and Redhead (2018) for a synopsis of these and other proposals to be discussed and voted on at IMC-11.

Apart from these important discussions, IMC-11 will feature two symposia that will focus on lines of research of increasing interest within lichenology: 1) *Evolution and diversity of lichenization in the Basidiomycota*, taking place on July 17th from 8:30-10:30am, and 2) *Lichens on islands: evolution, endemism, and conservation*, happening on July 21st from 2:00-4:00pm. Organized field trips will also provide a great opportunity to become familiar with the diversity of lichens of Caribbean islands, and will give participants a chance to assess the impacts of Hurricane Maria on the lichen flora of Puerto Rico. A Puertorican lichenologist (myself!) will serve as a guide for two of these field trips (Bosque Carite and El Yunque National Forest), so you can be sure that lichens will be highlighted in these excursions!

Hopefully these are enough good reasons for you to consider participating in IMC-11. You can register at <http://imc11.com/registration/>; registration will be open through June 20th, 2018. If you cannot participate, please make sure your voice is heard by voting in the Guiding Vote mentioned above. Join the discussion!

Joel A. Mercado-Díaz
Ph.D. Candidate
Committee on Evolutionary Biology
The University of Chicago

References

- Hawksworth DL, Hibbett DS, Kirk PM, Lücking R (2016) (308–310) Proposals to permit DNA sequence data to serve as types of names of fungi. *Taxon* 65: 899–900.
- Hawksworth DL (ed.) (2018) Proposals for consideration at IMC11 to modify provisions solely related to fungi in the International Code of Nomenclature for algae, fungi, and plants. *IMA Fungus* 9(1): (i)-(vii).
- Lücking R, Hawksworth DL (2018) Formal description of sequence-based voucherless Fungi: promises and pitfalls, and how to resolve them. *IMA Fungus* 9(1): 143–166.

Thines M, Crous PW, Catherine Aime M, Aoki T, Cai L, Hyde KD, Miller AN, Zhang N, Stadler M (2018) Ten reasons why a sequence-based nomenclature is not useful for fungi anytime soon. *IMA Fungus* 9(1): 177-183.

Zamora JC, Svensson M, Kirschner R, Olariaga I, Ryman S, *et al.* (2018) Considerations and consequences of allowing DNA sequence data as types of fungal taxa. *IMA Fungus*, 9(1), 167-175.

A MINI SYMPOSIUM AND ONE-DAY FIELD EXCURSION TO CELEBRATE ANA CRESPO'S 70TH BIRTHDAY 27 – 28 SEPTEMBER, 2018

We are delighted to announce that an event is organized to celebrate Ana Crespo on the occasion of her 70th birthday and retirement from the Universidad Complutense de Madrid. The mini symposium will be held on 27th September 2018 at the Faculty of Pharmacy, Complutense University of Madrid. There will be short oral presentations on scientific issues and recent advances on lichen research by Ana's close colleagues and experts in the field. The one-day field excursion will be organized on 28th September 2018 to the Guadarrama National Park. It is located in the eastern part of the Spanish "Sistema Central" and extends through the peaks of the Sierra de Guadarrama. This is one of the main systems of mountain ranges in the Iberian Peninsula. Its highest summit is Peñalara (2,428 m high). The excursion is to provide training on common lichens of the Sistema Central, especially to students, and include the opportunity to collect lichens. If you are interested, please contact one of us.

Leopoldo G. Sancho and Pradeep K. Divakar
Universidad Complutense de Madrid, Spain

Email: sancholg@farm.ucm.es, pdivakar@farm.ucm.es

EAGLE HILL INSTITUTE LICHENOLOGY PROGRAMS IN 2018

Eagle Hill lies right on the coast of Eastern Maine, between Acadia National Park and Petit Manan National Wildlife Refuge.

| | | |
|--------------|----------------------------------|-----------------------------------|
| Jun 24 - 30 | Lichens and Lichen Ecology | David Richardson and Mark Seaward |
| Aug 26 – Sep | Independent Study: Pyrenolichens | Richard Harris |
| Oct 26 - 28 | Crustose and Foliose Lichens | Fred Olday |

The following general flyer has links to individual lichenology program flyers.

<https://madmimi.com/p/824fbb?fe=1&pact=429973-144174433-7501261478-20090a01de8023c1c2cadde1ccf225b5e24b7b28>

For general information ... <https://www.eaglehill.us/programs/nhs/nhs-calendar.shtml>
office@eaglehill.us <<mailto:office@eaglehill.us>> ... 207-546-2821 Ext 4

Joerg-Henner Lotze
Director, Eagle Hill Institute
PO Box 9, 59 Eagle Hill Road, Steuben, ME 04680-0009 United States
joerg@eaglehill.us <<mailto:joerg@eaglehill.us>>
Phone: 207-546-2821 Ext. 4. Cell: 718-715-2824. FAX: 207-546-3042.
<http://www.eaglehill.us>

EAGLE HILL –END OF AN ERA

The Eagle Hill institute, Steuben, Maine, USA is a field station where week-long seminars are taught to amateurs, undergraduate and graduate students on a wide variety of topics. The institute is surrounded by land comprising a large reserve area (60 ha). This is made up of blueberry barrens and Acadian forest that extends to the ocean on its eastern side and to Dyer Bay Road on the west, and includes Eagle Hill (elev. 70 m). In 1987 a laboratory, office building and dining area with a lounge were built and week-long courses on natural history commenced in that year. A year later, Mason Hale from the Smithsonian Institution, on his first visit to Eagle Hill, gave the first course on lichens entitled 'Lichens of Maine'. This was followed by a course entitled 'Lichens and lichen ecology' led by Sharon Gowan. In 1993 a large laboratory was completed and progressively more accommodation was provided for participants. David Richardson took over the 'Lichens and lichen ecology' course in 1994, which he has conducted annually since then, teaching jointly with Mark Seaward since 2006. Annual courses on 'Crustose lichens' led by Irwin Brodo began in 2001, and thereafter other specialist courses have followed on such topics as lichen parasites, calicioid lichens, ground-inhabiting lichens, lecideoid lichens, sterile crustose lichens, Rhizocarpon and allied genera, Cladonia, and Usnea as well as TLC. Within the last decade, a large new building, including a new dining room and a library, has been added to provide further facilities at Eagle Hill. The lichen courses generally involve 8 to 14 students and the result has been a generation trained lichenologists as well as a small, well-curated herbarium and a recently published account that includes a list of the 600 lichens and 82 lichenicolous and allied fungi that can be found in and around the Eagle Hill institute (Seaward et al., 2017). This year David Richardson and Mark Seaward are teaching their 'Lichens and Lichen Ecology' course for the last time.

Seaward, M.R.D., Richardson, D.H.S., Brodo, I.M., Harris, R.C., and Hawksworth, D.L. (2017). Checklist of Lichen-forming, Lichenicolous and Allied Fungi. *Northeastern Naturalist* **24**(3):349–379.

David Richardson

PROPOSALS TO HOST THE 2021 INTERNATIONAL SYMBIOSIS SOCIETY CONGRESS

I am now pleased to invite submissions to host the next International Symbiosis Society Congress, scheduled for 2021. Typically, the Congress attracts 300-350 participants.

Rather than require a lengthy, detailed proposal at this stage, the ISS Executive Committee will be pleased to consider a one-page proposal that outlines the proposed venue and facilities, the experience of those making the proposal, and the benefits of holding the Congress in the proposed location. Please submit your proposal by Friday 6th July to me at simon.davy@vuw.ac.nz <<mailto:simon.davy@vuw.ac.nz>>

The Executive Committee will then discuss all submitted proposals at the upcoming Congress in Oregon, with the aim of making a decision then or soon thereafter, if at all possible.

If you have any queries prior to submitting a proposal, then please contact me.

Simon Davy (President, International Symbiosis Society)

INTERNATIONAL SYMBIOSIS SOCIETY - MEMBERSHIP OF EXECUTIVE AND STUDENT COMMITTEES

I am pleased to invite applications to join the Executive Committee of the International Symbiosis Society, as well as our Student Sub-Committee. There are a number of 3-year positions available:

Executive Committee

1. President
2. Vice-President (Education) ((Position 1)
3. Vice-President (Education) (Position 2)
4. Vice-President (Website)
5. Treasurer
6. Secretary
7. Student Representative and Chair of Student Sub-Committee

Student Sub-Committee

1. Student Rep # 1 and Committee Chair (see Executive Committee membership)
2. Student Rep #2
3. Student Rep #3
4. Student Rep #4

If you are interested in any of these positions, then please submit a 1-2 paragraph biography, including your suitability for the role of interest, by Friday 29th June.

Please send this information to me at simon.davy@vuw.ac.nz<<mailto:simon.davy@vuw.ac.nz>>.

Examples of short biographies of the current Executive Committee can be found at: <http://iss-symbiosis.org/Executive-Team>.

These biographies will then be made available to the voting membership of the ISS for an online poll, to be held just before or during the upcoming ISS Congress in Oregon, with the intention of announcing the new Executive Committee and Student Sub-Committee at the Congress.

Please note that, for logistical reasons of where the ISS bank account is held, the Treasurer position is open only to those based in the US.

If you have any questions about what's involved prior to putting your name forward, then please let me know.

Simon Davy (President, International Symbiosis Society)

REPORTS

REPORT ON “NATIONAL CONFERENCE ON CURRENT DEVELOPMENTS AND NEXT GENERATION LICHENOLOGY”

ORGANIZED BY INDIAN LICHENOLOGICAL SOCIETY, LUCKNOW (INDIA)

The Indian Lichenological Society (ILS), Lucknow, successfully organized its second national conference from 27 to 28 January, 2018 with the title “Current Developments and Next Generation Lichenology”. A preconference workshop on “Molecular Systematics of Lichens” was also held on 26 January 2018. In addition, a special session on Biological Diversity Act - 2002 and its relevance was also conducted during the conference. The event was organized at the CSIR-National Botanical Research Institute, a premier plant science research institute located in Lucknow. The conference date coincided with the 60th Birthday of Dr. D.K. Upreti, a well-known and highly accomplished Indian lichenologist.

India has made significant contributions in lichenological research over the last six decades, and at present more than 100 researchers are engaged in lichenological studies throughout the country. Much of the research has traditionally focused on taxonomy, floristic or revisionary studies of lichens; more recently, research on biodeterioration, biomonitoring, climate change and bioprospection aspects of lichens has been initiated. Lichenological research in India still, however, has a strong basis in classical taxonomy, and still follows traditional techniques. At the same time, it is on the verge of transforming into modern lichenology, incorporating several advanced methods. This conference reviewed the current developments in Indian lichenology while exploring new frontiers. 150 participants were in attendance, mostly from different parts of India, but also a few from Thailand and Nepal. A total of 126 abstracts were received.

Workshop: The preconference workshop on molecular systematics of lichens was conducted by Dr. H. Thorsten Lumbsch, Vice President, Science and Education, The Field Museum, Chicago, U.S.A, and Dr. Pradeep Kumar Divakar, Professor, Departamento de Biología Vegetal II, Facultad de Farmacia, Complutense University of Madrid, Spain, who are well-known, prolific lichenologists of worldwide repute. A total of 50 candidates who are already engaged in lichen research participated in the workshop. The participants were given hands-on training in molecular techniques such as DNA extraction, PCR amplification, DNA sequencing, sequence editing and alignment, as well as various phylogenetic approaches such as maximum likelihood, maximum parsimony and Bayesian analysis.



Dr. H.T. Lumbsch and Prof. P.K. Divakar imparting training in molecular systematics of lichens during a preconference workshop organized by the Indian Lichenological Society.

Inauguration: The two-day national conference was inaugurated on the morning of 27 January with Dr. D.K. Upreti (President, ILS) delivering the welcome address, followed by Dr. Sanjeeva

Nayaka (Secretary, ILS) highlighting events that were key to the origin of the society and the conference. The coveted D.D. Awasthi Memorial Lifetime Achievement Award was conferred upon Dr. K. P. Singh (NASI Senior Scientist, Botanical Survey of India, Allahabad) by the Guest of Honor, Dr. S. K. Jain, who, expressed his views about the conference and motivated the participants. This was followed by the release of a special volume of *Cryptogam Biodiversity and Assessment*, published by the society in commemoration of Dr. D. K. Upreti's 60th birthday. It was released by Dr. H. Thorsten Lumbsch (Chief Guest), who also felicitated Dr. Upreti along with other guests on the stage. In his address, Dr. Lumbsch emphasized the importance of molecular systematics in lichenology. He expressed how happy and thankful he was to participate in the conference, and wished good luck to all the participants. Another Guest of Honor—Prof. C. Manoharachary (NASI Senior Scientist, Osmania University, Telangana)—emphasized the need for more lichen research in India, because it has been neglected for so long.

Technical sessions: The inauguration was followed by the D.D. Awasthi Memorial Lifetime Award lecture by Dr. K.P. Singh, entitled “Role of Botanical Survey of India in the Development of Lichen Taxonomy in India”. Mentioning the contributions of different researchers of BSI who have played a pivotal role in lichenological explorations in the country, he highlighted the monumental collection of over 45,000 specimens that BSI has to its credit in its different centers. He also pointed out some of his notable contributions to the subject, which includes his collection of more than 30,000 specimens.

The first keynote address was by Prof. C. Manoharachary, entitled “Some Aspects and Prospects of Lichens”. In his talk, he gave basic information of lichens including their growth forms, morphology, habits, identification, etc. He also shared some information on the uses and applications of lichens. The second keynote address was delivered by Dr. H. Thorsten Lumbsch and was entitled “Progress in Understanding the Evolution of Lichen-forming Fungi”; in his talk, Thorsten described the diversification dynamics and evolution of lichenized fungi. He emphasized that even though traditional lichenological studies assume lichens evolved early in evolutionary history, recent molecular data suggest lichens have evolved relatively recently. He also opined that major diversifications of taxa occurred during the Miocene and Pliocene periods, which he illustrated using the examples of *Cladia aggregata* and *Oropogon* spp. (diversified during Oligocene and Miocene) as well as *Xanthoparmelia* spp. (diversified during Pleiocene).

In continuation of the above presentations, a special lecture entitled “Parmeliaceae: from Classic Systematics to Phylogenomics” was delivered by Dr. P.K. Divakar. According to him, this family is one of the largest families of lichenized Ascomycetes, one that has attracted many researchers from across the globe, and also has one of the most robust molecular phylogenetic frameworks for any lichenized fungi so far. He also opined that this family evolved in the mid-Cretaceous, with its major lineages diversifying between the Paleocene, Eocene and Oligocene periods.

The technical session on the first day also included ten invited lectures by researchers working on lichens from different institutions. Simultaneously, poster sessions were conducted wherein the presenters were split into delegates and students competing for the Dr. Ajay Singh Award for best poster presentation in each category. A total of 50 posters were presented in this session.

Session on Biological Diversity Act - 2002: On the second day, a special session on the Biological Diversity Act - 2002 (India) was conducted. Dr. R.S. Rana (Chairman, Bio-Links & Former member, NBA) in his opening presentation entitled “Regulation of Access to Genetic Resources and Benefit Sharing in India”, discussed the different sections of the Act which regulate access to genetic resources in nature (along with the associated traditional knowledge) as well as the fair and equitable sharing of benefits arising from their uses by various stakeholders. He emphasized the fact that all researchers from any university/institute have to strictly adhere to the protocols of the Act, and reminded participants that they can only share samples with researchers outside of India if they

have prior approval of the NBA. Dr. Rana interacted with the participants of the conference both during and after the session.

The second invited speaker for this session—Dr. R.L.S. Sikarwar (Arogyadham, Deendayal Research Institute, Chitrakoot, Satna, M.P.)—gave a comprehensive presentation on the different aspects of biodiversity in India, and also listed out the different sections of the BDA, in his lecture entitled “Biodiversity of India and Implementation of Biodiversity Act-2002 for Conservation of Biodiversity”. This was followed by a lecture by Dr. K.N. Nair (Senior Principal Scientist, CSIR-NBRI, Lucknow), who elaborated the role of Indian botanical institutions in achieving the identified goals of the National Biodiversity Action Plan, the National Biodiversity Targets, and the Sustainable Development Goals and Global Strategy for Plant Conservation (GSPC 2011-2020). His lecture was entitled “Role of Botanical Institutions in Implementing National Biodiversity Targets”.

This special session was followed by a technical session of invited lectures wherein nine delegates delivered presentations on a range of subjects. After this session, two parallel sessions were conducted; one included oral presentations by post docs and higher-ranking academics, while the other consisted of oral presentations by students (including masters and research scholars). In both of these sessions, the presenters were judged by the chair and co-chair for the Dr. P.G. Patwardhan award for best presentation in each category.



Group photo of participants with dignitaries during the national conference organized by Indian Lichenological Society, Lucknow held on 27 and 28 January 2018.

Valedictory: The conference was concluded on the evening of January 28 with a valedictory session wherein participants gave feedback about their experience of the events. The Organizing Secretary summarized the highlights of the molecular workshop and the conference, and listed the key outcomes from the many brainstorming discussions that had happened during the two days of presentations. The Chief Guest—Dr. Lumbsch and Special Guest—Dr. Divakar—also presented their views, sharing their warm feelings about the conference. In addition, Dr. D.K. Upreti (President, ILS) thanked the participants for their support and active participation in the workshop and conference, and congratulated the organizers for a very successful conference. Dr. Lumbsch gave away the Dr. P.G. Patwardhan Award for best oral presentation to Dr. Anand Pandey, Allahabad University (delegate category) and Ms. Akanksha Singh, CSIR-NBRI (student category), while Dr. Ajay Singh awards for best poster were presented to Dr. Roshni Khare, Agarkar Research Institute (delegate category) and Ms. Sakshi Upadhyay, Kumaun University (student category). ILS also gave a best paper award for an article in volume 2 of its journal *Cryptogam Biodiversity and Assessment* to Dr. Namita Gupta of Dr. Babasaheb Bhimrao Ambedkar University, Lucknow. The conference was concluded by an expression of deep thanks by Dr. Nayaka.

Recommendations: The experts and participants proposed several recommendations. First and foremost, participants were extolled to continue organizing ILS conferences to popularize our much-neglected branch of botany, lichenology. It was also suggested that the conference should be organized in different geographic regions of the India, instead of solely in Lucknow. Further, the frequency of the conference should be alternate years. In addition, it was recommended that, apart from the conference, ILS should organize frequent workshops, and a popular lecture series on

various aspects of lichenology. The participants felt that lichen research in India should be prioritized towards molecular systematics, quantitative ecology and biomonitoring climate change. Bioprospecting of lichens which have biotechnological potential in agriculture, pharmaceuticals, health, nutraceuticals and other, similar areas should also be encouraged. Participants also agreed that lichen research centers throughout India should be facilitated with state-of-the-art infrastructure; and, finally, that the various Indian funding agencies need to be convinced to award more grants for lichens research.

Acknowledgements: ILS is indebted to Prof. S.K. Barik, Chief Patron of the conference and Director, CSIR-National Botanical Research Institute, Lucknow for his support to this special conference on lichens. ILS thanks the National Biodiversity Authority, Chennai; the Science and Engineering Research Board, New Delhi; the Council of Science and Industrial Research, New Delhi; and the State Bank of India, Lucknow for financial assistance in organizing this year's conference. In addition, ILS is grateful to Prof. Prof. C. Manoharachary, Drs. H. Thorsten Lumbsch, P.K. Divakar, S.K. Jain, R. Raina, R.L.S. Sikarwar and K.N. Nair for being our special guests and speakers. ILS is also thankful to Ms. Sridevi Natesan, the members of the organizing committee, and everyone who contributed to the success of the conference.

Sanjeeva Nayaka^{1,2}

¹*Organizing Secretary*

Indian Lichenological Society

²*Lichenology Laboratory*

CSIR-National Botanical Research Institute

Rana Pratap Marg, Lucknow-226001, U.P.

Email: nayaka.sanjeeva@gmail.com

BOOK REVIEWS

JOHN, V. & A. TÜRK (2017): Türkiye Likenleri Listesi. [A Checklist of the Lichens of Turkey] – İstanbul: Nezahat Gökyiğit Botanik Bahçesi Yayın, xv + 831 pages, hardback. ISBN 9786056717215. Price: 50 TLK; Available via Kleinsteuberbooks at 35 €

Turkey, situated partly in Europe and to a much larger extend in Asia, has long been known for its rich spermatophyte flora. In contrast, its lichen flora was much-neglected, becoming better known only during recent decades. This quick improvement is due mainly to the continued activities of the senior author Volker John of Bad Dürkheim and a growing group of Turkish lichenologist who followed his enthusiasm for lichens and began their own careers as lichenologists at several Turkish universities and other institutions. 19 co-workers are listed in the book, and more names of Turkish lichenologist are to be found among the references. So there is some hope that these activities will be continued.

As a result, the first annotated checklist of lichenized and lichenicolous fungi of Turkey has now been published, and it contains a wealth of information, especially on the distribution of the accepted species. For every species, its geographic distribution among the 81 provinces of Turkey is listed in alphabetical order, after its scientific

Türkiye Likenleri Listesi



Volker John - Ayşen Türk

and Turkish names (and relevant synonyms). This also includes unpublished records, mainly from the herbarium of the senior author. A map of the provinces is provided in the short introduction on page xiv. Unfortunately, the authors do not give any species numbers in the book. According to my own rough accounting, there are more than 1850 accepted taxa (1839 species plus 34 varieties), of which more than 150 species are marked with an asterisk* as lichenicolous fungi. But sometimes the asterisk is missing (e.g. *Lichenosticta alcicorniaria* or *Norrlinia peltigericola*).

All the information in this book can be used without any knowledge of Turkish, but it would have been a great help for users with no knowledge of Turkish to have the three pages of introduction also translated into English (or to at least have a short English summary).

The numerous references (pp. 642-741) can also be seen as a bibliography of Turkish lichens. There are 20-25 citations on each of its 100 densely printed pages. All Turkish and scientific names, including authorities, are also listed in a useful 90-page register. The authors and publishers are to be thanked for this considerable step forward in the knowledge of Turkish lichens as well as the better understanding of the distribution of many holarctic species.

Peter Scholz, Schkeuditz

BILL AND NANCY MALCOLM (2018 Revision): New Zealand Lichens. - Micro-Optics Press, 307 pages, A5 (See accompanying advertisement for purchasing details).

This is a brilliant revision, with much more depth and breadth than its title implies. Over 300 pages are packed full of surprises for anyone interested in lichens, from novice, to teacher, to expert. There are more than 700 superb photographs, drawings, microscopic and even SEM images. Use of fresh material, clever stacking techniques and close-up photography makes the lichens leap off the page and reveals minute features. Clear line drawings and micrographs throw fresh light on microscopic or internal structures ranging from: cross-sections of fertile and non-fertile material; green algae and cyanobacteria; sexual spores and ascus tips; campylidia and conidiophore asexual reproductive structures — and much more, such is the wide range and depth of detail. Yet all this complexity of life forms is written about in such an entertaining and accessible style that any interested reader could follow it.

A brief foreword and introduction give a first taste of the essence of the lichen lifestyle, the richness of New Zealand's 2000-plus species of lichens and the value and uses of lichens worldwide. The next 200-odd pages are divided into 22 wide-ranging sections full of fascinating detail. This is relevant to anyone anywhere in the world keen to know more about lichens. That the illustrations are mainly of New Zealand examples is largely irrelevant.

The quirky section headings cry out to be explored further. '*Home is almost anywhere*' explores the reasons why lichens can live in a greater variety of places than any plants, and why New Zealand has so many leaf-living lichens, typically found only in the tropics. '*You scratch my back and I'll scratch yours*' delves into the complexity of the lichen symbiosis, including the recent discovery of a basidiomycete yeast that rocked the established view of lichen species each containing one unique fungus, nearly always an ascomycete. The accompanying yeast appears to play an important role in the cortex of Parmeliaceae, one of the largest family of macro-lichens world-wide, yet it remained undetected for over 140 years. '*Origins*' covers 10 pages on the evolution of the lichen lifestyle, while '*Dog-eat-dog competition*' adds another four pages on how species evolve. '*Growth forms*' is self-explanatory and the main forms are illustrated over 18 pages, with '*Some exceptions*' devoting another 10 pages to deviations from the three core growth forms.



New Zealand Lichens

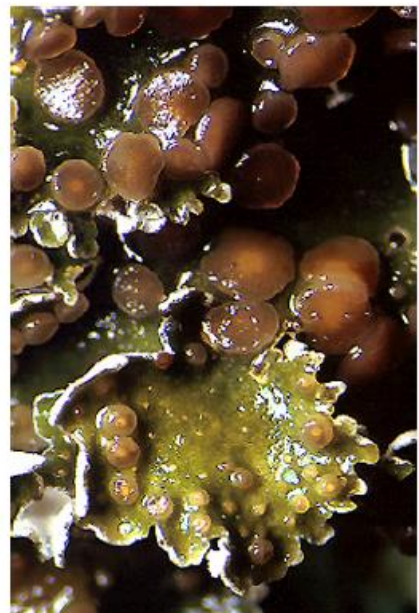
by Bill and Nancy Malcolm, 2018, Micro-Optics Press

Fungi can't make their own food, but nonetheless they thrive because they've evolved reliable ways of getting food from other creatures by what we humans call theft and barter. Some of them take on algal and/or bacterial partners that can make food by trapping sunlight. That "life style" is called a lichen. This book explains how a lichen's partners interact, shows what lichens look like on the outside and how they're built on the inside, and recounts the bizarre uses that they've been put to over the centuries.

307 pages, illustrated with more than 700 colour photographs, microscope views, drawings, and diagrams.

Price NZ\$69 (includes GST and shipping inside New Zealand).

Order from Bill by **e-mail** at nancym@micro-optics-press.com or by **post** at P.O. Box 320, Nelson 7040, or by **phone** at 03-545-1660. Payment options PayPal or direct credit.



Two sections on '*Light-trappers*' deal with the green algal partners and then the cyanobacteria, while '*Getting the best of both worlds*' devotes five pages to the cosy arrangements of tripartite lichens, which contain both green algae and cyanobacteria. '*Gas exchange*' describes and illustrates various adaptations developed to aid the diffusion of gases essential for photosynthesis, and notes their taxonomic importance. '*Drying out*' investigates the miraculous ability of lichens to survive levels of desiccation that would kill plants, and how this contributes to astonishing longevity and ability to live in extreme conditions. '*Identity crisis*' considers the taxonomic conundrum that arises when a single species of lichen fungus can associate predominantly with either a green alga or, alternatively, with a cyanobacterium, and sometimes switches between the two forms.

The long-standing mystery of how the various partners in a symbiotic relationship can come together over and over again to form a consistently recognisable 'species' deserves to be thoroughly examined and the book does this admirably. Fully 30 pages are devoted to sexual reproduction, another four pages to unraveling the dispersal and the phylogenetic relationships of consistently sterile lichens, followed by sizeable sections on asexual spores and on vegetative reproduction. '*Lichen substances*' turn out to be the myriad of unique chemicals that lichens are capable of manufacturing, and this 10 page section discusses the biologic intricacies, main chemical pathways and taxonomic implications of the major lichen substances. '*Spot tests*' continues the chemical theme for another 10 pages, explaining the chemistry behind the commonly used spot tests and showing how these simple tests can help discriminate between different species and genera.

Have you ever wondered what uses lichens have? The 18 pages on '*Uses worldwide, past and present*' offer plenty of answers. '*Braving the elements*' is not quite the response to a hostile environment that you might first think. Lichens have an astonishing capacity to concentrate and survive levels of radioactivity, copper, iron, zinc and sulphur that would be toxic to other organisms. '*Pollution damage*' discusses lichens as sensitive indicators of pollution and elaborates on the remarkable rise and fall of populations of the acid-tolerant lichen *Lecanora conizaeoides*. The challenge and history of giving binomial 'species' names to a disparate collection of organisms from different kingdoms that live together in symbiosis is treated superbly in the last of the 22 sections, '*Lichen names*'.

The Gallery of images of New Zealand lichens that follows is further testimony to Bill's consummate skill as a photographer and artist. Over 300 species are displayed in colour in the next 79 pages. These are a godsend to New Zealand lichenologists, but should also have broader appeal. The New Zealand lichen flora contains a good sprinkling of cosmopolitan lichens as well as many with bipolar, subtropical or temperate distributions. Even the endemic species are mostly in genera that occur overseas. A very thorough index covering 13 pages helpfully gives both old and new names, and to round it all off, there are two pages of additional reading to further whet the appetite.

Thoroughly recommended — Bill and the late Nancy Malcolm have produced a brilliant update and revision with something for every biologist to marvel over. See the accompanying advertisement for purchasing details.

Allison Knight

ORBITUARY

IN MEMORIAM MARTIN JAHNS (1941-2017)

In Groningen, as a biology student, I became acquainted with the very shy, young doctor, Martin Jahns, in 1968. He had arrived in Groningen just one week before. He came from Marburg an der Lahn, where he completed his PhD studies under Professor Dr. Aino Henssen. Groningen was his first job.

Martin immediately had to go on a field trip. It was during that trip, on the island of Schiermonnikoog, that he showed me and my fellow students lichens for the first time. In the main street of the small village there, we were led from tree to tree. He did not tell us the names of the lichens, but instead pointed out the growth form and reproductive organs of these weird things—things that none of us had seen before. I laughed at first; “I am not a dog that runs from tree to tree”, was my comment. Martin was very angry with me on the spot. He insisted that I listen to his explanation



Prof. Dr. Hans Martin Jahns inaugurating a new greenhouse (2004); © *Botanical Garden, HHU*

before I gave an opinion. Martin then explained lichens and their life strategy so enthusiastically, we all remembered lichens after that. In this way, Martin laid the foundation for Lichenology at the University of Groningen. His research questions arose, and were formulated, during that period. Over the years Martin has been able to give answers to those questions with his PhD students and staff.

And that's how it was for years. Martin inspired many via his lectures—bright, simple and often humorous, as witnessed by those who have attended IAL conferences. He told us about the results of his field observations in combination with the results of his microscopic examinations. His experiments were always related to the special life strategy of lichens. In the seventies, Jahns helped make lichens the “textbook example” of symbiosis of two taxa.

Martin saw lichens as an intellectual challenge with interesting philosophical aspects. He appreciated that, for trained biologists with a knowledge of higher plants, there is no real difference between collecting plants and collecting lichens. But Martin always emphasized that a lichen in a packet is essentially different from a higher plant on a herbarium sheet. He emphasized that, unlike plants, lichens were associations of cryptogams, and accordingly, each has its own shape and reproduction strategy. He ingrained that philosophy in many generations of students with statements like this one: “Be aware of how you look, as an upright person, to your research object in nature. Observe what actually happens in nature to taxa, and how they reproduce.” Martin always tried to make these principles clear in all his lectures. Through a wide range of laboratory methods, combined with years of field observations supported by many PhD students, he made an enlightening contribution to unraveling the lifestyle of lichens. We might call this contribution “the

autecology of lichens.” Since Martin’s groundbreaking work, the lichen lifestyle has turned out to be billions of years old, and symbiosis has now proved to be one of the basic principles of biology.



Vice president Prof. Dr. Dr. Alfons Labisch ritires Prof. Dr. Hans Martin Jahns (2007-03-23); © Sarah Theel / HHU.

Martin spent a lot of time in both education and management at three major universities” Groningen 1968-1973; Frankfurt 1973-1987; and Düsseldorf 1987- 2003. Sometimes his work consisted of having fun together with nice colleagues, but sometimes, his work was like slogging in the mud. In order to balance the heavier tasks of his workload, Martin thought up surprising and fun projects for himself. For example, compiling a scrapbook of his experiences with students on his many foreign student excursions; presenting an evening lecture on the civilization of man in Europe; or organizing a photoflora for ferns, mosses and lichens. One Christmas, his colleagues, friends and family were surprised to receive a calendar with paintings of Gotland, his favorite holiday destination.

From a shy young man to a very sympathetic professor, I kept in touch with Martin Jahns all those years, while I watched his scientific career from the sidelines. Discussions of his work are among my most pleasant memories. The above is my impression of his fundamental ideas—the gift that Martin leaves behind for his colleagues. Unfortunately, Martin’s innovative experiments were often not understood in the right context by his colleagues. He therefore had few international discussion partners. Now, due to new molecular approaches to lichenology, Martin’s vision is in danger of being lost.

I wish his wife, Sigrid, a lot of strength with the loss of her mate and life partner. A special person has died. It is a great loss for lichen-philosophy.

Ineke Beltman

PERSONALIA

NEW PhD THESIS FROM THE UNIVERSITY OF BERN, SWITZERLAND

Shiva Devkota successfully defended his PhD thesis "Effects of land use on distribution and genetic structure of *Lobaria pindarensis* in Nepal: ecology, genetic structure and traditional use of a Himalayan lichen" on 18 December 2017 in Bern (Switzerland), with Prof. Pradeep K. Divakar (Universidad Complutense de Madrid, Spain) as the opponent. His thesis was supervised by Prof. Dr. Christoph Scheidegger (Swiss Federal Research Institute WSL, Switzerland), and co-supervised by Prof. Dr. Silke Werth (LMU, Germany) and Prof. Dr. Ram Prasad Chaudhary (Tribhuvan University, Nepal). The thesis is based on four published papers, one submitted paper, and one manuscript in preparation.

During his PhD work, Shiva collected intensively in several remote highlands (2200 - 4000 m elevation) of Nepal and addressed scientific problems on many aspects (i.e. distribution / habitat preferences; taxonomy; molecular ecology / population genetics; and conservation measures) of the lichen species *Lobaria pindarensis*. This species is endemic to the Himalayas, where it has a relatively narrowly defined ecological niche in old-growth forests at the subalpine timberline around 4000 m elevation.



From left to right: Matthias Erb (The Chair of the defense), Shiva Devkota and Christoph Scheidegger after Shiva's defence on 18 December 2017 at the Botanical Garden, Bern, Switzerland (Photo: Sabine Fink).

His work on the ecology of lichens using modern molecular tools is already a new milestone in the history of lichenology in Nepal. Eighteen new microsatellite loci were developed applying the 454 pyro sequencing method to the haploid lichen fungus *Lobaria pindarensis*. His work confirmed that

the genetic diversity, allelic richness and gene pool composition and distribution of each symbiont were significantly influenced by altitude, rather than land use types, in the Himalayas. Shiva's research, which focuses on species diversity and distribution of Lobarian species (i.e. *Lobaria* spp. and *Sticta* spp.) in Nepal, explores the taxonomy, ecology and national conservation status of this important lichen community. The habitat of this species is currently threatened by increasing demands for timber and firewood. In addition, the regeneration of the forest trees is often strongly limited by grazing cattle and domesticated yak. Apart from his work on molecular ecology, he has also made studies on the trade and ethnic uses of Nepalese lichens. This work has shed light on the twenty commercially important species and their documented six use values (i.e. medicinal value (MV), food value (FV), ritual and spiritual value (RSV), aesthetic and decorative value (ADV), bedding value (BV), and ethno-veterinary value (EVV)). His findings from the trade scenario will be critical for revising existing provisions (Nepal Government, Forest Regulations 1995) for the management and conservation of lichens.

Currently, Shiva resides in Nepal and is working to submit pending manuscripts on lichens and macromycetes. He is also looking for a postdoc position (postdoc offers are always welcome at: shiva.devkota@gmail.com) to work further on Himalayan lichens (preferably) or other lichenological topics.

Shiva Devkota

NEW PHD THESIS FROM THE W. SZAFAER INSTITUTE OF BOTANY, POLISH ACADEMY OF SCIENCES

Natalia Matura successfully defended her PhD thesis entitled "*The streams of the Western Carpathians – a hotspot of freshwater lichens diversity in Poland*", on 21 November, 2017 in Cracow, Poland. The thesis was prepared under the supervision of Beata Krzewicka, with Adam Flakus serving as associate supervisor.

In her doctoral thesis, Natalia studied the freshwater lichens of selected Carpathian streams to understand their diversity and habitat preferences. Field work was performed on almost one hundred research plots divided into three hydrological zones. Natalia reported a total of 94 lichens associated with water habitats, including seven species new to Poland. For all species, detailed descriptions, habitat and distribution information, and short taxonomic discussions are provided. A key for species determination is also given in the thesis. Natalia's investigations showed that the assemblages of freshwater lichens are impacted by many ecological factors including substrate; duration and frequency of immersion in water; amount of sunlight; the degree of silting; and the physicochemical parameters of the water.

Natalia Matura

FRANK BUNGARTZ UPDATE

Working almost a decade for the Charles Darwin Foundation (CDF) in the Galapagos Islands, Frank Bungartz recently returned to the Sonoran Region, starting his new job as Collections Manager of Lichens and Digital Data at the Lichen Herbarium of the Biodiversity Information Knowledge Center (BioKIC) at Arizona State University (ASU).

Closely collaborating with CDF as an adjunct scientist, Frank continues his lichen inventory of the Galapagos, currently revising a loan of more than 3,000 still unidentified specimens from the archipelago.

Frank again visited the islands from February through March, 2017; then, that April, before moving to Arizona, he was sponsored by a SYNTHESYS grant to review Galapagos lichen specimens at the Natural History Museum in London.

Along with Alba Yáney-Ayabaca and Ángel Raymundo Benítez Chávez from the Grupo Ecuatoriano de Liquenología (GEL), Frank is currently organizing a Latin American Lichen Symposium at the XII Latin American Botanical Congress in Quito, October 21-28, 2018. Two students, Andressa Silva Rodríguez from Brazil and Camilha Mahecheca from Columbia, were awarded a US \$1,000 scholarship to attend the symposium. Jorge Déleg from Ecuador received an honorable mention. We much appreciate the financial support from two anonymous North American lichenologists to make this stipend possible.

After the congress, Frank will be visiting the Galapagos Islands again; collaborating with Damien Ertz on Galapagos Arthoniales and Javier Etayo and David Hawksworth on lichenicolous fungi of the archipelago.

As manager of the digital data at the Arizona Natural History Collections, Frank recently took over administration of the Consortium of North American Lichen Herbaria (CNALH, <http://lichenportal.org/portal/>), and with Ed Gilbert worked to expand the scope of this biodiversity data portal into Latin America as the Consorcio de Herbarios de Líquenes en América Latina (CHLAL, <http://lichenportal.org/chlal/>). Built on the Symbiota platform (<http://symbiota.org/docs/>), Frank and Ed are currently also working on establishing a National Biodiversity Data Portal for Ecuador with the Instituto Nacional de Biodiversidad (INABIO).

When Tom Nash retired from ASU, the Lichen Herbarium was placed in storage. The lichen specimens were finally filed back into their cabinets in 2014 when ASU's new collection facilities opened. Unfortunately, many specimens that were sent out on loan as part of the Sonoran Project have not yet been returned. We would like to appeal to anyone who participated to finally please return all outstanding loans. These specimens should be mailed to:

*Dr. Frank Bungartz
Lichen Curator and Digital Collections Manager
Lichen Herbarium, Biodiversity Information Knowledge Center, Arizona State University
PO Box 874108, Tempe AZ 85287-4108, USA*

SCOTT LAGRECA RETURNS TO DUKE UNIVERSITY

In October 2017, twenty years after completing his PhD under the supervision of the late Professor William L. Culberson, Scott LaGreca returned to Duke University. He is the new Collections Manager of the William L. Culberson Lichen Herbarium and Library (DUKE), working under the direction of the lichen herbarium Curator, Professor François Lutzoni. Scott succeeds Molly McMullen, who retired last summer after 32 years of service to Duke's cryptogamic herbarium.

For six years prior (2011-2017), Scott was Curator of the Plant Pathology Herbarium (CUP) at Cornell University. At Cornell, among other things, he managed three NSF-funded fungal specimen digitization projects (Lichens & Bryophytes, Macrofungi, and Microfungi) that resulted in the creation of 186,000 digital specimen records. Last Fall, just before leaving New York State, Scott organized the first-ever bioblitz in the Cayuga Lake Basin (the "SIPS BioBlitz"), with over 70 participating scientists.

In addition to overseeing the day-to-day lichen herbarium activities at DUKE, Scott will be focusing on (1) pairing Professor Chicita Culberson's secondary product data with DUKE's digital lichen specimen records; and (2) processing and integrating nearly 10,000 critical *Peltigera*

molecular vouchers generated by the Lutzoni Lab. The Lab has TLC facilities—something Scott has been missing for the past 10 years—so if any IAL member is in need of chromatography, please get in touch via the email addresses below. If you are requesting TLC, we prefer that you send a duplicate for chemical analysis that can be directly deposited at DUKE.

Speaking of duplicates, Scott is organizing a gift/exchange program involving hundreds of duplicates (mainly Culberson specimens, but also duplicates of NSF AFTOL project vouchers), prepared by Molly before she retired. If your herbarium is interested in receiving a batch of duplicates, please email us at the address below.

Scott also enjoys research time in his new position. He is currently finishing a paper on the *Ramalina siliquosa* group—a species complex that was a major focus of the Culbersons' research—based on DNA sequences obtained during research stints at the Field Museum (F) in 2014 and 2016, with collaborators Thorsten Lumbsch, Steve Leavitt and others. Scott is also continuing his work on the lichen flora of Bermuda (<http://bermudalichens.myspecies.info>) with coauthor Franz Berger. Scott last visited Bermuda in May of 2017, where he spent a week collecting and photographing lichens, and delivered a public lecture entitled “An introduction to lichens: a focus on Bermuda” at the Bermuda Aquarium, Museum and Zoo. In addition, Scott continues in his roles as editor of the journal *Evansia* and as Secretary of the International Association for Lichenology.

Although now retired, Molly still works part-time, providing much-needed overlap between old and new collections managers, which is rare these days. In retirement, she is databasing DUKE's non-North American lichen specimens. Thanks to her efforts, DUKE currently has over half of its lichen holdings online—over 85,000 of an estimated 160,000 total specimens are currently searchable (<http://lichenportal.org>). For more information please visit our website (<https://herbarium.duke.edu/collections/lichens>). All requests for loans, and other inquiries, should be directed to Scott (cc: François Lutzoni, flutzoni@duke.edu) at the address below.

*Dr. Scott LaGreca,
Collections Manager, William L. Culberson Lichen Herbarium and Library
Duke University Herbarium (DUKE), Department of Biology
Box 90338, 137 Biological Sciences Building, 130 Science Drive
Duke University, Durham, North Carolina 27708-0338, USA
email: scott.lagreca@duke.edu, phone: [+001] 919-613-6112, fax: [+001] 919-660-7293*

CHANGE OF ADDRESS OF DR. WOLFGANG VON BRACKEL

Dr. Wolfgang von Brackel; Wolfgang von Brackel, Kirchenweg 2, D-91341 Röttenbach, Germany
e-mail: wolfgang@vonbrackel.de<<mailto:wolfgang@vonbrackel.de>>

LIST OF SOCIETIES

Australasia: Australasian Association for Lichenology. Info: W.M. Malcolm, Box 320, Nelson, New Zealand 7040. Phone: (+64) 3-545-1660, e-mail: nancym@clear.net.nz
Journal: *Australasian Lichenology*, web-page: <http://nhm2.uio.no/botanisk/lav/RLL/AL/>

Brazil: Grupo Brasileiro de Liqueólogos (GBL). Info: Marcelo P. Marcelli, Instituto de Botânica, Seção de Micologia e Lichenologia, Caixa Postal 4005, São Paulo – SP, Brazil 01061-970. Fax: (+55)-11-6191-2238, phone: (+55)-11-5584-6304 (institute), 218-5209 (home), e-mail: mpmarcelli@msn.com

Central Europe: Bryologisch-lichenologische Arbeitsgemeinschaft für Mitteleuropa (BLAM). Contact: Volker John, Pfalzmuseum für Naturkunde, Hermann-Schäfer-Straße 17, D-67098 Bad Dürkheim, Germany, e-mail: V.John@pfalzmuseum.bv-pfalz.de, web-page: <http://blam-bl.de/>
Journals: *Herzogia*, *Herzogiella*, web-page: <http://www.blam-hp.eu/herzogia.html>

Colombia: Grupo Colombiano de Liqueología (GCOL). Info: Bibiana Moncada. E-mail: bibianamoncada@gmail.com; web page: <http://grupocolombianodeliquenologia.blogspot.com/>

Czech Republic: Bryological and Lichenological Section of the Czech Botanical Society. Chairperson: Svatava Kubešová, e-mail: svata.kubesova@gmail.com, web-page: <http://botanika.bf.jcu.cz/bls/english/index.html>
Journal: *Bryonora*, web-page: http://botanika.prf.jcu.cz/BLS/bryonora_en.php

Ecuador: Grupo Ecuatoriano de Liqueología (GEL). Info: Alba Yanez, e-mail: albayanez8@gmail.com; web page: <http://grupoecuadorianodeliquenologia.blogspot.com/>

Estonia: Mycology Society, Estonian Naturalists' Society, Struve 2, Tartu 51003, Estonia, web-page: <http://mukoloogiauhing.ut.ee/avaleht> (in Estonian). Chairman: Külli Kalamees-Pani, e-mail: kulli.kalamees-pani@ut.ee
Journal: *Folia Cryptogamica Estonica*, web page: <http://www.ut.ee/ial5/fce/>

Finland: Lichen Section, Societas Mycologica Fennica. C/o: Botanical Museum (Lichenology), P.O. Box 7, FI-00014, Helsinki University, Finland. Info: Teuvo Ahti, e-mail: teuvo.ahiti@helsinki.fi
Journal: *Karstenia*, web-page: <http://www.karstenia.fi/index.php>

France: Association française de Lichénologie (AFL). Président: Jean-Pierre Gavériaux, e-mail: jp.gaveriaux@numericable.fr, web-page: <http://www.afl-lichenologie.fr>
Bulletin: *Bulletin d'Informations de l'Association française de lichénologie* (deux Bulletins annuels), web-page: http://www.afl-lichenologie.fr/Afl/Publications_afl.htm

Great Britain: The British Lichen Society (BLS). C/o: Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD, UK. President: Dr. A. Pentecost. Secretary: P.A. Wolseley. For membership go to <https://my.britishlichensociety.org.uk/>, Society web-page: www.britishlichensociety.org.uk/
Journal: *The Lichenologist* (accessible via Cambridge Core <https://www.cambridge.org/core/journals/lichenologist>); *British Lichen Society Bulletin*

India: Indian Lichenological Society. Address for correspondence: Lichenology Laboratory; CSIR-National Botanical Research Institute; Rana Pratap Marg, Lucknow-226001, U.P., India. President:

Dr. D.K. Upreti. Secretary: Dr. Sanjeeva Nayaka, e-mail: indianlichenology@gmail.com, webpage: <http://www.indianlichenology.com>

Italy: Società Lichenologica Italiana (SLI). President: Sonia Ravera, via del Labaro 54, I-00188 Roma, e-mail: presidente@lichenologia.eu, web-page: <http://www.lichenologia.eu/>
Journal: *Notiziario della Società Lichenologica Italiana* (in Italian), web-page: http://www.lichenologia.eu/index.php?procedure=pubbl_not

Japan: The Lichenological Society of Japan (LSJ): President: Hiromi Miyawaki, e-mail: miyawakh@cc.saga-u.ac.jp, web-page: <http://eng.lichenjapan.jp/>
Journal: *Lichen*, web-page http://lichenjapan.jp/?page_id=19
The Japanese Society for Lichenology (JSL). President: Kunio Takahashi, contact email (secretary): kawahara@kansai-u.ac.jp, web-page: <http://www.lichenology-jp.org/index.php/en/>
Journal: *Lichenology*, web-page: <http://www.lichenology-jp.org/index.php/en/journal/>

The Netherlands: Dutch Bryological & Lichenological Society (Bryologische +Lichenologische Werkgroep, BLWG). Contact: L.B. (Laurens) Sparrius, contact e-mail: sparrius@blwg.nl, web-page: <http://www.blwg.nl>
Journals: *Buxbaumiella* and *Lindbergia*, web-pages: www.buxbaumiella.nl (open access) and www.lindbergia.org (open access)

Nordic Countries: Nordic Lichen Society (Nordisk Lichenologisk Förening, NLF). President: Ave Suija, e-mail: ave.suija@ut.ee, web-page: <http://nhm2.uio.no/lichens/nordiclichensociety/>
Journal: *Graphis Scripta*, web-page: see NLF web page

North America: American Bryological and Lichenological Society, Inc. (ABLS). President: Catherine LaFarge, contact e-mail: clafarge@ualberta.ca, web-page: <http://www.abls.org/>
Journals: *Evansia*, web-page: <http://www.bioone.org/loi/evia>; and *The Bryologist*, web-page: <http://www.bioone.org/loi/bryo>

North America, Northwest: Northwest Lichenologists (NWL). Info: Bruce McCune, contact e-mail: bruce@salal.us, web-page: <http://www.nwlichens.org>
Newsletter: *Northwest Lichenologists Newsletter*, web-page: <http://www.nwlichens.org>

North America, California: The California Lichen Society (CALS). President:, contact e-mail: president@californialichens.org, web-page: <http://californialichens.org/>
Bulletin: *Bulletin of the California Lichen Society*, web-page: http://californialichens.org/?page_id=15

North America, East: Eastern Lichen Network. Info: Marian Glenn, e-mail: glennmar@shu.edu, web-page: <http://www.nybg.org/bsci/lichens/elN/>

Poland: Lichenological Section of the Polish Botanical Society (Polskie Towarzystwo Botaniczne). President: Martin Kukwa, e-mail: dokmak@ug.edu.pl, web-page: <http://www.porosty.varts.pl/>

Slovakia: Slovak Botanical Society – Lichenological Working Group, c/o Institute of Botany, Slovak Academy of Sciences, Dúbravská cesta 9, 841 01, Bratislava 4, Slovakia. Info: Alica Košuthová, e-mail: alica.kosuthova@savba.sk, web-page: <http://sbs.sav.sk/>
Journal: *Bulletin Slovenskej botanickej spoločnosti*, web-page: <http://sbs.sav.sk/SBS1/content.html>; <http://ibot.sav.sk/lichens/>

South America: Grupo Latino Americano de Liquenólogos (GLAL). Info: Susana Calvelo, e-mail: scalvelo@crub.uncoma.edu.ar
Journal: *GLALIA*, web-page <http://nhm2.uio.no/botanisk/lav/RLL/GLALIA/>

Spain: Sociedad Española de Lichenología (SEL). President: Isabel Martínez, e-mail: isabel.martinez@urjc.es, secretary: Sergio Pérez-Ortega, e-mail: sperezortega@rjb.csic.es, web-page: <http://www.ucm.es/info/seliquen/>
Journal: *Clementeana*, web-page: <http://www.ucm.es/info/seliquen/cl.htm>

Sweden: Svensk Lichenologisk Förening (SLF). President: Martin Westberg, e-mail: martin.westberg@nrm.se, web-page: <http://www.sbf.c.se/slf/>
Bulletin: *Lavbulletin*, web-page: <http://www.sbf.c.se/slf/Bulletinen.html>; see also *Svensk Botanisk Tidskrift*, web-page: <http://www.sbf.c.se/index.php?id=122>

Switzerland: Swiss Association of Bryology and Lichenology (BRYOLICH). President: Ariel Bergamini, e-mail: praesidium@bryolich.ch, web-page: http://www.bryolich.ch/index_en.html
Journal: *Meylania*, web-page: http://www.bryolich.ch/meylania/meylania_en.html

Venezuela: Grupo Venezolano de Liquenólogos (GVL). Info: Jesús Hernandez, e-mail: Jeshernandezm@gmail.com, web-page: www.bit.ly/lqvzla

IAL ADVISORY COMMITTEE IS UNDER CONSTRUCTION

Auditor: Ulf Arup, Botanical Museum, Lund University, Sölvegatan 37, 223 62 Lund, Sweden.
Email: ulf.arup@biol.lu.se

Vice Auditor: Starri Heidmarsson, Icelandic Institute of Natural History, Akureyri Division, Borgir
vid Nordurslod, IS-600 Akureyri. Iceland. Email: starri@ni.is

IAL Nomination Committee:

Rebecca Yahr, Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh, EH3 5LR, U.K.
Email: r.yahr@rbge.org.uk

Toby Spribille, Division of Biological Sciences, University of Montana, 32 Campus Drive,
Missoula, MT 59812, U.S.A. Email: tooby.spribille@mso.umt.edu

Jolanta Miadlikowska, Department of Biology, Duke University, 137 Bio Sciences, 130 Science
Drive, Durham, NC 27701, USA. Email: jolantam@duke.edu

The cover-page illustration

Dibaeis columbiana (Vain.) Kalb & Gierl (*Ascomycota: Lecanoromycetes: Icmadophilaceae*) from
Colombian paramo near Bogota (*Photo: Robert Lücking*).