# INTERNATIONAL LICHENOLOGICAL NEWSLETTER vol. 5

Vol. 55, no. 1, July 2022



# Official publication of the **International Association for Lichenology**

#### **Editor:**

BEATA GUZOW-KRZEMIŃSKA University of Gdańsk, Wita Stwosza 59, 80-308 Gdańsk, Poland Email: <u>beata.guzow-krzeminska@ug.edu.pl</u>, phone: +48 58 523 6163

#### **Editorial Board:**

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

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 30 EUR or 40 USD for 2021-2026) using PayPal or by bank transfer. All details available at <a href="http://www.lichenology.org/">http://www.lichenology.org/</a>.

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 virtual IAL9 Symposium (Bonito, Brazil, 2021) are listed below, and will serve until 2026.

#### **IAL COUNCIL 2021-2026**

- **President**: François Lutzoni, Department of Biology, Box 90338, Duke University, Durham, NC 27708, USA. Email: <a href="mailto:francois.lutzoni@duke.edu">francois.lutzoni@duke.edu</a>
- **Vice President**: Marcela Eugenia da Silva Cáceres, Departamento de Biociências, Universidade Federal de Sergipe, Av. Vereador Olímpio Grande, s/n, 49500-000, Itabaiana-SE, Brasil. Email: <a href="mailto:mscaceres@hotmail.com">mscaceres@hotmail.com</a>
- **Secretary**: Lucia Muggia, Department of Life Sciences, University of Trieste, via L. Giorgieri 10, 34127 Trieste, Italy. Email: <a href="mailto:lucia\_muggia@hotmail.com">lucia\_muggia@hotmail.com</a>; <a href="mailto:lmuggia@units.it">lmuggia@units.it</a>
- **Treasurer**: Andreas Beck, Botanische Staatssammlung München, Department of Lichenology and Bryology, Menzinger Str. 67, D-80638 München, Germany. Email: <a href="mailto:beck@snsb.de">beck@snsb.de</a>
- Assistant Treasurer: Imke Schmitt, Senckenberg Biodiversity and Climate Research Centre, Senckenberganlage 25, 60325 Frankfurt/Main, Germany. Email: imke.schmitt@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: <a href="mailto:beata.guzow-krzeminska@ug.edu.pl">beata.guzow-krzeminska@ug.edu.pl</a>
- Members-at-Large: Jessica Allen, Biology Department, Eastern Washington University, Cheney, WA, USA. Email: jallen73@ewu.edu Cécile Gueidan, Australian National Herbarium, National Research Collections Australia CSIRO, GPO Box 1700, Canberra ACT 2601, Australia. Cecile.Gueidan@csiro.au Scott LaGreca, Department of Biology, Box 90338, Duke University, Durham, NC 27708, USA. Email: scott.lagreca@duke.edu
- **Webmaster:** Andreas Beck, Botanische Staatssammlung München, Department of Lichenology and Bryology, Menzinger Str. 67, D-80638 München, Germany. Email: beck@snsb.de

# ASSOCIATION NEWS LETTER FROM THE PRESIDENT

Dear members of the IAL,

Since my last letter published in the December 2021 issue of the ILN, the IAL Council and its two affiliated committees (Communications Committee and Inclusion, Diversity, Equity and Accessibility [IDEA] Committee) have been actively contributing to our association. You can find the names of these generous volunteers at <a href="http://www.lichenology.org/">http://www.lichenology.org/</a>. Thanks to their resolve, and sustained efforts, I am happy to report two major achievements. A new website for the IAL community is approaching its completion, with a potential unveiling, by the IAL Communications committee, scheduled for September 2022. As you know, this website is our window to the world, and we hope the new website will attract a broader and more representative diversity of the international lichenological community within the IAL. A statement on diversity and inclusion was thoughtfully crafted by the IAL IDEA committee and will be included on the new website. Later this fall, a survey will be sent to all current IAL members to assess the state of our association and to seek your suggestions to improve the IAL. I want to take this opportunity to thank the co-chairs of these two committees for their exceptional service to the IAL: Silvana Munzi and Toby Spribille (Communications Committee), and Manuela Dal Forno, Natália M. Koch, and Joel A. Mercado-Díaz (IDEA Committee).

With the release of our new website, communications with our membership will increase. In addition to the usual two newsletters per year, we will be communicating with current IAL members via emails on a more regular basis. Moreover, IAL will have a Twitter account, a Facebook page, and a YouTube channel. New initiatives will be taken, including an invitation to graduate students and postdoctoral researchers to form a new chapter within the IAL, with the mandate to organize activities for IAL members. This could include, for example, online talks featuring the latest results from research by student and postdoc members of the IAL. Workshops on next generation sequencing techniques and bioinformatics for enhancing research on lichens would likely be very popular among our members. All this to say, that this is an ideal time to join the IAL, if you have not done so already. If you are a graduate student or postdoctoral researcher interested in playing a leading role to establish this new chapter of the IAL, please contact me as soon as possible (<a href="mailto:francois.lutzoni@duke.edu">francois.lutzoni@duke.edu</a>). Also, I invite all principal investigators to encourage members of their labs to join the IAL. If the \$40 US for the entire period of August 2021-August 2026 (including IAL10) is too high for you, or for someone you know, please do not hesitate to contact me. You can renew your membership, or join the IAL for the first time, using our current website <a href="mailto:http://www.lichenology.org/">http://www.lichenology.org/</a>.

It is with sadness that I have learned about the passing away of two lichenologists –Frank Dobson and Pak Yau Wong (see the obituaries section of this issue). During the two years I spent at the Canadian Museum of Nature for my Master's degree, I had the privilege to interact daily with Pak Yau. I was impressed by his knowledge of lichens and TLC techniques, as well as by his work ethic. He was always ready to help with a smile and was very generous with his time. He had a wonderful sense of humor that I greatly appreciated.

Now that many COVID restrictions have been lifted, it is now easier to do field work abroad. Please stay safe as we slowly return to a new normal.

François Lutzoni, Durham, North Carolina

## **REPORTS**

# REDISCOVERING THE HISTORICAL LICHEN COLLECTION OF AMÉRICO PIRES DE LIMA

The Pires de Lima's lichen collection is an historical collection housed at the Herbarium of the University of Porto (PO, Portugal) and composed of 1029 specimens. The material was collected by Américo Pires de Lima (1886–1966) in Mocimboa da Praia and Palma, two localities of Mozambique,

during a military campaign in 1916–1917. Pires de Lima was in fact a university lecturer at the Faculty of Sciences, the Director of the Botanical Institute of Porto, but also an army doctor that travelled to, at the time, Portuguese colonies in Africa (Paz-Bermúdez, 2004). The Finnish lichenologist Edvard August Vainio (1853 – 1929), who was asked to analyze the material, described 66 new species of lichens and six new species of non-lichenized ascomycetes from the collection in 1929 (Vainio, 1929a,b). Since then, the collection deposited at the PO Herbarium has remained almost untouched by other lichenologists, with many specimens still undetermined.

To deepen our knowledge of this collection and make it available to the scientific community, a proposal for a Synthesys+ visit was prepared. The Synthesys+ project is a European Commission-funded project whose aim is to create an integrated European infrastructure for natural history collections (https://www.synthesys.info/). It allows researchers to carry on short-term scientific visits in several European museums and other institutions.



Detail of one of Vainio's drawings on a specimen's cardboard.

The project "The Graphidaceae of the collection of A. Pires de Lima (1916-1917): botanical and historical value" was approved and almost 500 specimens travelled to the Natural History Museum of London in May 2022. There, I had the possibility to work with Dr Gothamie Weerakoon, Senior Curator of the Cryptogamic Herbarium, and international expert in Graphidaceae.

Working with Dr Weerakoon was an incredibly enriching human and professional experience, and the NHM is a magic place to work. However, sometimes we are luckier than expected, and it happened that my visit at the NHM partially



Silvana Munzi studying the Lichenologist to get familiar with the diagnostic characters of Graphidaceae.



Gothamie Weerakoon solving some problems for Silvana Munzi (*Photo: Robert Lücking*).

overlapped with the visit of Dr Robert Lücking, who kindly devoted some of his time to my project. Let's say it, it was like learning football with Ronaldo!

With two top experts in Graphidaceae working on it, the project couldn't run better, and the visit resulted the revision in and identification of many species, including new records for the African continent as well as taxa new to science. While a detailed description of the results will still take some months, preliminary results of the project will be presented at the "XV Encuentro del Grupo Latinoamericano de Liquenólogos (GLAL XV)", in July 2022, and at "XXXIV Convegno della Società Lichenologica Italiana", September in 2022.



Robert Lücking checking specimens of the Pires de Lima's collection (*Photo: Gothamie Weerakoon*).

This work will be an important contribution to our knowledge of the origin of diversity in the tropics, while documenting the importance of historic collections in herbaria and fungaria across the world as permanent records of botanical and mycological diversity.

#### Acknowledgements

This research received support from the SYNTHESYS+ Project <a href="https://www.synthesys.info/">https://www.synthesys.info/</a> which is financed by European Community Research Infrastructure Action under the H2020 Integrating Activities Programme, Project number 823827. I am extremely grateful to Dr. Cristiana Vieira, the curator of the Herbarium of Porto (PO), for her contribution to the project, and for her warm welcome at the PO Herbarium.

#### References

Paz-Bermúdez G. 2004. The new taxa of lichens and other ascomycetes from Mozambique collected by Pires de Lima and described by E. A. Vainio. Taxon 53(2): 511–51.

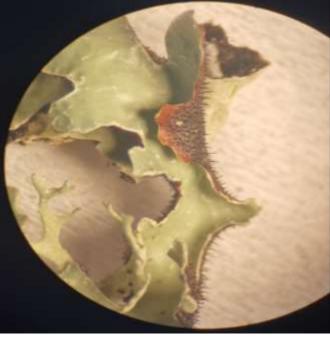
Vainio, E. A. 1929a. Lichens Mozambici. Boletim da Sociedade Broteriana sér. 2. 6: 144–179. Vainio, E. A. 1929b. Lichens Mozambici. Impresa da Universidade, Coimbra. [Reprint of Vainio, 1929a.]

Silvana Munzi

## OUR FIRST LICHEN EXPERIENCE - REPORT OF AN ERASMUS+ VISIT

We, Valentina and Marta, are two graduated students in Industrial Biotechnology from the University of Tuscia, Italy. We spent 2 months during the summer at the University of Lisbon for an internship funded by the Erasmus Traineeship Project. There, we studied various forms of mutualism, namely lichens and mycorrhizae, under the supervision of Dr Silvana Munzi and Dr Ana Corrêa, respectively. During our prior studies we focused principally on natural substances extracted from plants and on microbiology, working with fungi and environmental bacteria. Our goal with this internship was to learn more about symbiotic relationships in general, so the experience at the Universidade de Lisboa was a great opportunity to achieve that. During the first month, we learned how to identify lichens, focusing on a few species widely spread in the Lisbon area, and started to understand more about the world of lichens and their complex structures. Our work was based mainly on the observation of





Observation of rhizines (Photo: Valentina Caradonna).

morphological characters in the field and under the microscope. We learned how to recognize the different characters that allow the identification of lichen species and how to perform chemical tests—for example, applying a drop of a potassium hydroxide directly on the lichen cortex or medulla to observe if the colour changes. Once familiar with the most common species, we recorded their distribution within the municipal parks of Lisbon. We were able to understand how the frequency of different species changed depending on exposure to pollution. It was in fact easier to identify many more species within very large and unspoilt parks, such as Monsanto, than it was in smaller green areas in downtown.

Field identifications were entirely recorded in the database <a href="https://www.biodiversity4all.org/">https://www.biodiversity4all.org/</a>, an iNaturalist project recording Portuguese biodiversity. Our time at the University of Lisbon was an excellent experience in which we both expanded our knowledge of the world of symbiosis. Furthermore, it allowed us to explore the city and to be a part of a citizen science community. We hope that we'll be able to utilize the skills we have gained not only for our personal knowledge, but also for our future careers.



Teloschistes chrysophthalmus, Candelaria concolor and Diploicia canescens (Photos: Valentina Caradonna)

Brief reflection of the supervisor Silvana Munzi

Once again, the Erasmus+ program proved to be an important tool for students to increase their skills and experience. Marta and Valentina had no lichenological background, and seeing their interest and passion for lichens increase was particularly rewarding. iNaturalist also confirmed, if a certain degree of lichen training is provided to the users, its value in carrying on simple and defined research tasks.

#### Acknowledgements

We are grateful for the support of the Erasmus+ programme of the European Union.

Valentina Caradonna<sup>1</sup>, Marta Zambelli<sup>1</sup>, Silvana Munzi<sup>2</sup>
<sup>1</sup>University of Tuscia, Viterbo, Italy; <sup>2</sup>Centro Interuniversitário de História das Ciências e da
Tecnologia, Universidade de Lisboa, Lisbon, Portugal

### 100 DAYS UNDER RUSSIAN OCCUPATION: LIFE WITH LICHENS AND HOPE

On February 24, 2022, the fate of life for all Ukrainians was divided into "before" and "after". No

Ukrainian lichenologists escaped this fate. Each of them has their own history in this war. The war was experienced by Prof. Dr. Sergiv Kondratyuk in Kviv, Alla Gromakova in Kharkiv, and Nadia Kapets in Ivano-Frankivsk. I experienced it in Kherson. My city was occupied only a few days after the start of the war, and therefore it was impossible to evacuate the secondlargest collection of lichens in Ukraine (more than 15, 000 specimens) from Kherson State University. During the first days after the beginning of the war any job was difficult. The first two weeks were such a shock, it was impossible to be engaged in any scientific and educational work. It took big preparations to even take a trip into the city. A whole plan for the day looked like this: 1) replace the phone SIM card with another card because telephones were being checked by patrolling Russian soldiers; 2) plan out the best and safest route; 3) look for an opportunity to attend demonstrations to protest against the occupation; 4) continue on to university. Lichens did not evade the eye during walks through the temporarily occupied city. New locations of Calogaya lobulata. Rinodina pyrina, Physcia



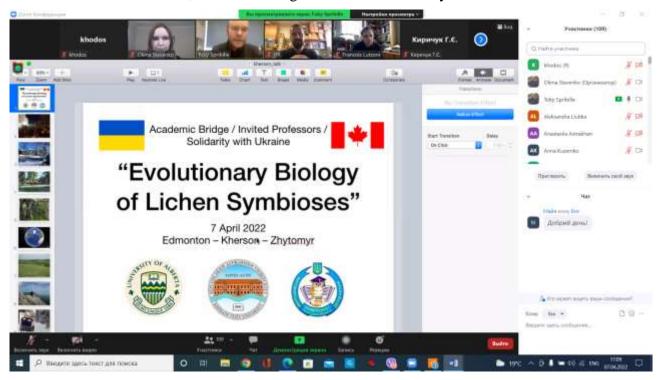
In laboratory of biodiversity of Department of Botany, Kherson State University, 29 April 2022.

adscendens and Xanthoria parietina from the Freedom Square (Ploscha Peremogy) in Kherson's city centre were placed on iNaturalist. March 17 was the first work day when I was able to work in the lichenological laboratory. I worked on a previous description and photos of a new species for science from the genus *Circinaria* the entire day. On March 30, the explosions continued around Kherson and therefore we moved about 200 type specimens of lichens and lichenicolous fungi from the seventh floor of our building to a safer underground room. Prior to this, the herbarium of Kharkiv University with its lichen collections was moved to a larger safe place as well.

From the first hours of the war we were supported by the lichenological community. The "academic bridge" Edmonton-Kherson-Zhytomyr allowed us to obtain new knowledge, listen to the world's leading scientists, and be distracted for a couple of hours from the realities of the war. On April 7, Dr. Toby Spribille (University of Alberta, Canada) gave a lecture on "The Evolutionary Biology of Lichen Symbiosis," based on the latest research from his research group. It was nice to hear words of support and solidarity with Ukraine from Francois Lutzoni (Duke University, USA), Jurga Motiejūnaitė (Lithuania, Vilnius) and Adam Flakus (Krakow, Poland) as well. That evening, lichens connected 109 students, scientists and teachers from Cherkasy, Durham, Edmonton, Krakow, Kharkiv, Kyiv, Ivano-Frankivsk, Sumy, Vilnius and Zhytomyr.

In Kherson, the editorial board of the Chornomorski Botanical Journal (Black Sea Botanical Journal) completed the first issue for 2022. The electronic version of the journal was published on May 15, 2022 and can be downloaded here: <a href="http://cbj.kspu.edu/index.php/uk/">http://cbj.kspu.edu/index.php/uk/</a>. The issue includes one regional lichenological paper dedicated to the first lichen records for Kivertsy National Natural Park

"Tsumanska Pushcha". After February 24, the world scientific community opened up possibilities for specific applications for projects for researchers from Ukraine. Thanks to the support of the Czech Academy of Sciences, I have hope for further productive lichenological projects with my old friend Jan Vondrák. This gave us a sense of confidence in the future, as almost all state research projects in Ukraine have been canceled, or their funding has fallen dramatically.



The academic bridge Edmonton-Kherson-Zhytomyr on Zoom, 7 April 2022.

The field season we have held in the south of Ukraine for the last 30 years in April and May was disrupted. During these months, however, it was possible to access the university and work in the laboratory several days a week. I tried to organize the collections of past years. The least studied lichens were from the Chernivtsi region. Among these samples were a monotypic genus new for Ukraine, *Zahlbrucknerella*, as well as several species new for Ukraine: *Anema tumidulum*, *A. nodulosum*, *A. aff. suffruticosum* and *Pyrenocarpon thelostoma*. These and other lichens form specific associations that have probably not yet been described within the class Collematetea cristati Wirth 1980 on seeping rock faces and limestone outcrops in the Ukrainian Carpathians (1200 m above sea level, Sarata village, Chernivtsi region).

On May 30, *Pyrenocarpon thelostoma* (KHER 15219) was the last lichen I identified in Kherson. Economic annexation (inability to use Ukrainian bank cards), information annexation (disconnection of all Ukrainian operators and the Internet) and my personal danger as ex-rector of Kherson State University forced me and my family to leave Kherson on the 100th day of occupation. I left the city in the hope of a victory for Ukraine and plans for future expeditions to its attractive steppes with granite and limestone outcrops along Dnipro, Ingulets, Kalmius and Siversky Donets; sand dunes and small forests in the Oleshky 'desert'; salt marshes with shrubs and soil crusts around the Sivash lagoon; and limestone cliffs along the Azov and Black Seas. The landscapes and lichens of these regions are close to my heart and I live in the hope of their liberation.

Alexander Khodosovtsev Kherson State University

#### LICHEN TRAINING PROGRAM

The Indian Lichenological Society (ILS), in collaboration with Uttarakhand Forest Research Institute, Haldwani, organized 'A field-based training on lichens in forestry' which took place during May 3–6, 2022. A total of 20 forest officials and research scholars participated in the training programme. The participants were provided hands-on training on the collection, preservation, identification of lichens and their utilization as indicators of forest health. Drs. D.K. Upreti, Sanjeeva Nayaka, Gaurav K. Mishra and Siljo Joseph served as resource persons from the Indian Lichenological Society, while Mr. Sanjiv Chaturvedi, Conservator of Forests and Mr. Kundan Kumar, Dy. Conservator of Forests facilitated the event at the Uttarakhand Forest Research Institute.

Sanjeeva Nayaka

## **NEWS**

#### **NEW VERSION OF ITALIC**

ITALIC 0.7, a new version of the Information System on Italian Lichens, has been published online in June 2022. The system makes available information and resources about the lichens known to occur in Italy. It is maintained and updated by the Research Unit of Professor Pier Luigi Nimis, at the University of Trieste (NE Italy), Department of Life Sciences. Most of the data are derived from the latest Checklist of the Lichens of Italy by Nimis (2016), but nomenclatural and distributional data are being continuously updated online—for example, complete identification keys for some areas of the country, as well as for genera or groups of genera, are published online for testing. In addition, species descriptions are available in ITALIC 0.7 for more than 3.200 infrageneric taxa (several of which are not known from Italy but are known from neighbouring countries, e.g. in the Alps and in the Mediterranean Region). Further, a searchable archive of images curated by P.L. Nimis and F. Schumm, not limited to taxa occurring in Italy, presently includes 46.713 images for 6.277 taxa. Additionally, a project for georeferencing all samples collected in Italy from 13, mainly modern herbaria was started and completed in the first half of 2022. These herbaria are now searchable online, and dot-maps of herbarium samples are visible in the taxon pages of ITALIC 0.7, and are downloadable in Darwin Core format. The link to ITALIC 0.7 is: https://italic.units.it/

Pier Luigi Nimis, Matteo Conti, Andrea Moro, Stefano Martellos

#### EAGLE HILL INSTITUTE'S 2022 LICHENOLOGY AND RELATED SEMINARS

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

\*Please note that proof of full COVID-19 vaccination (including booster) is required for acceptance into our seminars.

August 14–20 — Introduction to Lichens — Fred Olday

For general information, the registration form, seminar flyers, and a complete calendar:

https://eaglehill.us/programs/sems-weeklong/calendar-weeklong.shtml

If you have any questions about the content of the seminar, please reach out to the seminar instructor(s), whose contact info can be found on the seminar flyer. If a seminar you are interested in is full, and you would like to be put on the waitlist, please fill out the application form.

If you have any questions about registering for the seminar, please contact us at office@eaglehill.us.

Gideon Wallace

#### XXIII SYMPOSIUM OF CRYPTOGAMIC BOTANY

The XXIII International Symposium of Cryptogamic Botany will be held in Valencia (Spain) on 20-22 July 2022. The theme of the Symposium is "Cryptogams: Biodiversity, Conservation and Interactions". Oral and poster communications will be presented in different fields of Cryptogamy, including lichenology. You will find more information about this event at the following link: <a href="https://congresos.adeituv.es/simposiobotanica2022/presentacion/index.es.html">https://congresos.adeituv.es/simposiobotanica2022/presentacion/index.es.html</a>

on behalf of the Organizing Committee XXIII Symposium of Cryptogamic Botany

# LICHENS FOR ALL – A MONTH COMMEMORATING THE CONTRIBUTIONS OF FRANK DOBSON

To commemorate his huge contribution to lichenology through publishing, recording and teaching, the British Lichen Society invite you to take part in "Lichens for All – A Month Commemorating the Contributions of Frank Dobson". A month of activities will take place in August 2022 including a special one-day commemorative field meeting in Surrey where Frank did so much lichen recording. Find out more on the British Lichen Society Events pages. <a href="https://britishlichensociety.org.uk/thesociety/events/frank-dobson-commemorative-events">https://britishlichensociety.org.uk/thesociety/events/frank-dobson-commemorative-events</a>. All are welcome to organize an event of any size – share images and findings at #LichensForAll @BLSLichens.

Rebecca Yahr

## LICHENOLOGICAL NEWS FROM INDIA RELEASE OF ILS ELETTER

The Indian Lichenological Society released the first volume of its newsletter 'ILS eLetter'. The 36 pages of the newsletter included messages from the president and secretary of ILS, as well as the Chief Editor of the newsletter; popular articles on lichens; minutes of the meetings; news; a poem; and the complete list of Life Members of ILS. The pdf version of the newsletter may be downloaded from the ILS website.

#### NEW PROJECTS INITIATED

Dr. Sanjeeva Nayaka, CSIR-National Botanical Research Institute, Lucknow and Dr. T.A.M. Jagadeesh Ram, Botanical Survey of India, Coimbatore initiated new projects funded by the Science and Engineering Research Board, New Delhi. Dr. Nayaka will study 'Taxonomy and ecology of lichenicolous fungi in Eastern Himalaya' while Dr. Jagadeesh Ram will carry out 'Taxonomic assessment of the lichen biodiversity of Agasthyamalai Biosphere Reserve, South Western Ghats'.

# UPCOMING EVENTS INTERNATIONAL CONFERENCE

The Indian Lichenological Society, in collaboration with the CSIR-National Botanical Research Institute, will be organizing an international lichen conference September 28–30, 2022 to mark the birth centenary of Dr. D.D. Awasthi, who is popularly known as the Father of Indian Lichenology. Conference details will be announced soon on the ILS website and other media.

#### SPECIAL ISSUE OF CBA

The Indian Lichenological Society will be publishing a special issue of its journal 'Cryptogam Biodiversity and Assessment (CBA)' comprising memoirs of Dr. D.D. Awasthi on his birth centenary. Although the journal is dedicated to Dr. Awasthi, the contributors can submit articles on any group of cryptogams (algae, fungi, lichens, bryophytes and pteridophytes). The last date for submission of articles is August 15, 2022; the article processing charge (APC) is Rs. 1000/- (US \$ 15) per article, irrespective of type of ILS membership. Potential contributors may consult the journal site at www.cbaj.in for author guidelines and submission.

Dr. Sanjeeva Nayaka Senior Principal Scientist, CSIR-NBRI, Lucknow

#### THINKING ABOUT PUBLISHING A PAPER?

We welcome submission of original research papers of the highest quality; larger monographs; review articles on timely subjects; and short communications to *Plant and Fungal Systematics*. Publishing in this journal is completely free, including full color figures. Articles are published online with full pagination immediately upon acceptance. *Plant and Fungal Systematics* is peer-reviewed, fast-track, and open access. Over the last four years we published 91 papers from the international botanical and mycological communities. We received a Scopus Cite Score of 1.6 in 2021, which is expected to go up to 1.9 for 2022. The journal is currently being evaluated for receiving Impact Factor scores from Clarivates. Topics include biodiversity, taxonomy, molecular systematics and evolution of all plants and fungi, which makes it a perfect fit for systematic studies on lichens and lichen-associated myco-and phyco-biota!

More information can be obtained at: <a href="https://pfsyst.botany.pl/">https://pfsyst.botany.pl/</a> Sincerely yours,

> Adam Flakus and Jolanta Miadlikowska Editors-in-Chief of Plant and Fungal Systematics

#### FORENSIC LICHEN PHILATELY

#### Identification of Lichen Pigments in Stamps using In-Situ Raman Microspectroscopy

Heretofore stamp pigments, overprints (O.P) and cancellations have been identified solely by visual—and occasionally microscopic—methods. These simple methods are unsatisfactory in determining the authenticity of an O.P.; the approximate date of an O.P.; and whether, in fact, the stamp is authentic or fake based on colour. Other features like perforation obviously cannot be analyzed in this manner.

The principle here is the same as the principle routinely used in art conservation and determination of provenance. In this instance, pigments on paintings are identified based on their physio-chemical properties when subjected to Raman radiation excitation. It is most unfortunate that the leading scholar in this field, Dr. John Winters of the Freer-Sackler Gallery (specializing in Asian art) at the Smithsonian Institution, passed away several years ago. Dr. Winters was unfailingly courteous, a gentleman by the highest standard, a true native of Manchester, and a man of incomparable intellect.

In the same way that Dr. Winters could identify green as the mineral Malachite, and blue as the mineral Azurite, more challenging colours, like yellow, were ultimately determined by Raman and GC-MS methods to be a yellow plant alkaloid isolated from *Mahonia japonica*. In the same that a

non-invasive probe can be used on a painting or a Japanese wall scroll to determine the chemical composition of the pigments, the microscopic probe can be non-invasively placed on any stamp, and its chemical composition compared with standards. Since lichen dyes have been known for hundreds of years and had widespread use in dyeing textiles—producing a broad range of fast, textile stable, colours—it is conceivable lichen pigments were used to dye stamps in the late 19th and early 20th Centuries.



Johore: Straits Settlements overprinted Star and Crescent (Brown, Two Cents), 1876, S.G. 1

- 1. Question: What is the chemical composition of the Johor O.P.? Is it possible that this brown dye was made from *Ochrolechia* spp.which is known to produce brown dyes with aqueous ethanolic KOH.If it is Ferric Ferricyanide (or some other modern ink), the O.P. could not possibly date from the late 19th Century. If the ink is Iron Gall ink, the chemical composition will be different from modern inks. If the O.P. is made from a lichen compound, it will be entirely organic, with no iron.
- 2. The same method can be used to analyze watermarks with Raman, UV and IR spectroscopy. What is being measured is not colour, but watermark contours, and even the presence and absence of watermarks which can also be used to validate the authenticity of the stamp.

A Good Rule of Thumb for Stamp Collectors:

Always assume the stamp forger is smarter and more versatile than you are.

Peter Cohen

# LICHEN STUDIES AT THE DUTCH BRYOLOGICAL AND LICHENOLOGICAL SOCIETY

Last year, the Dutch Bryological and Lichenological Society (BLWG) celebrated its 75<sup>th</sup> anniversary with a big symposium and field trip in the heathlands of the Veluwe (Europe: The Netherlands). Most of the 400 members are (or were) involved as volunteers in citizen science projects, conducting bryophyte and lichen surveys, taxonomical revisions, or reporting casual observations.

BLWG is probably the only lichenological society with two lichenologists employed (1.2 FTE)—Laurens Sparrius (since 2002) and Henk-Jan van der Kolk (since 2021) —assisted by a group of freelance ecologists. Most of our work consists of biodiversity monitoring and reporting. Monitoring

air pollution with lichens has been a 'Dutch' thing since 1950, when Jan Barkman started his research on epiphytic lichen vegetations and lichen deserts caused by acid rain. Nowadays, nitrogen pollution is a serious problem in the Netherlands and strongly affects epiphytic lichens. With data from thousands of sites, we are able to create maps and pollution indicators for the Dutch government and provinces. Another part of our work is reporting for European nature legislation (Natura 2000). Our surveys provide data about presence and viability of protected and indicator species in, for example, coastal dunes, heathlands and peatlands— all habitats where bryophytes and lichens dominate.



Henk-Jan van der Kolk conducting a lichen survey on oak trees in a village in Friesland (NL) (Photo: Laurens Sparrius).

We invest the income that we generate from consultancy work in things that are generally difficult to get funded: species and habitat conservation, field guides, DNA-barcoding, surveys of rare species, and training to improve species knowledge among volunteers and professional ecologists.

Most of our work is available online, for example, the living lichen atlas: https://www.verspreidingsatlas.nl/7037

as well as our journals Buxbaumiella <a href="https://natuurtijdschriften.nl/col/7/">https://natuurtijdschriften.nl/col/7/</a> and Lindbergia <a href="https://bioone.org/journals/lindbergia/issues">https://bioone.org/journals/lindbergia/issues</a>.

Laurens Sparrius

#### THE FUNGAL TREE OF LIFE POSTER

The László Nagy Laboratory (<a href="http://group.szbk.u-szeged.hu/sysbiol/nagy-laszlo-lab-index.html">http://group.szbk.u-szeged.hu/sysbiol/nagy-laszlo-lab-index.html</a>) in Hungary has generated a beautiful poster representing the fungal tree of life and made it publicly available for download. When he released the poster, László Nagy wrote "I would like to make the poster as broadly available as possible, at no charge, to everyone, with the aim of spreading the word on the beauty of fungal morphologies. Please feel free to distribute!"

You can find the thumbnail size and the high resolution image under this link: <a href="http://group.szbk.u-szeged.hu/sysbiol/nagy-laszlo-lab-poster.html">http://group.szbk.u-szeged.hu/sysbiol/nagy-laszlo-lab-poster.html</a>

François Lutzoni



## **NEW BOOKS AND PUBLICATIONS**

van Dorst, Klaas & Horvers, Bart (2022) Coniocarps, Rain shadow specialists – KNNV-afdeling Tilburg, Tilburg. 192 pages. > 175 figures. Hardcover. ISBN 978-90-826157-4-6. Price: € 25,- + shippingcoasts

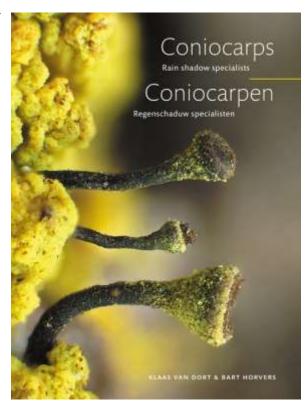
The collective term 'coniocarps' refers to a group of inconspicuous fungi. The fruiting bodies look like miniature pinheads, hence the popular name 'pinhead lichens'. Coniocarps are very useful as bioindicators.

This guide covers an area ranging from Spain to Denmark. Its primary aim is to help the reader quickly identify coniocarpous species in the field using morphological characters. Habit and fruiting bodies are shown in great detail. For each species, characteristics and habitat preference are summarised. Differences with similar species are mentioned in the text. Keys facilitate identification to species level. Diagnostic characteristics are listed separately for lichenized species and non-lichenized species. An overview of essential microscopic characteristics is also given.

To order this book, go to: <a href="https://tilburg.knnv.nl/boek-coniocarpen/">https://tilburg.knnv.nl/boek-coniocarpen/</a>

After ordering, we will send a separate email with book price, shipping costs and bank account information.

More information: <a href="mailto:coniocarpen@gmail.com">coniocarpen@gmail.com</a>



Marie-Cécile van de Wiel

#### AN UPDATED GUIDE TO FLORIDA MACROLICHENS

Roger Rosentreter, Ann DeBolt and Laural Kaminsky have produced an updated (2022) version of their "Field key to Florida lichens (Macrolichens). It can be found at:

https://www.floridamuseum.ufl.edu/wp-content/uploads/sites/67/2022/04/2022-FL\_lichen\_Keys\_Whole-Document.pdf

Ann DeBolt continues to do more additional transplants of the US Federally Endangered lichen species *Cladonia perforata*. Her previous transplant work can be found in the citation below:

DeBolt, A. 2021. Transplant success of *Cladonia perforata* (Florida perforate cladonia) at the Jupiter Inlet Lighthouse Outstanding Natural Area. Evansia 38 (2): 32-42.

Roger Rosentreter

## **OBITUARIES**

# PAK YAU WONG (1939-2022)



Pak Yau Wong, February 1986 (*Photo: Irwin M. Brodo*)

Pak Yau Wong was a Research Assistant and later Curator in the Lichenology Section of the Canadian Museum of Canada in Ottawa. Pak Yau recently passed away at the age of 83, leaving a legacy of thousands of well-identified lichens, a well-curated lichen collection (CANL) and several important research publications on Canadian lichens.

Pak Yau was born in Kuala Lumpur in Malaysia, part of the Chinese community there. He came to Canada in 1970 to further his education and earned a Master's Degree at Queens University in Kingston, Ontario, in lichen ecology and floristics with Dr. Roland Beschel. In 1971, Pak Yau took a position at the Canadian Museum of Nature as my field and research assistant, later becoming the curator of lichens in 1992. He remained in that position until he retired in 2010. While he was my assistant, he quickly became very adept at identifying Canadian lichens from all parts of the country. He was soon identifying about 75% of the lichens sent to the Museum for determination. As curator, he prepared an important catalogue of the type specimens in CANL and was an important contributor to the exsiccate, *Lichenes Canadenses Exsiccati*.

Although mainly occupied with the lichen collection, Pak Yau also engaged in some important lichen research. He collaborated with researchers such as Diane Fahselt, Paul Maycock, Charles D. Bird,

George Scotter, John Thomson and myself, and he completed a major work on the lichens of Southern Ontario. He also had a long-term collaboration with Paul Budkewitsch of the Geological Survey of Canada in a remote sensing project. Towards the end of his career, Pak Yau travelled several times to China where he taught lichenology.

Pak Yau was a quiet, modest and rather private person, rarely attending lichenological meetings, but had a ready smile and warm, friendly personality making him a much-loved and admired member of the Museum staff. His contributions to the Canadian Museum of Nature, and to our knowledge of Canadian lichens, were considerable.

Bibliography of Pak Yau Wong (not chronological).

Bird, C.D., J.W. Thomson, A.H. Marsh, G.W. Scotter and P.Y. Wong. 1981. Lichens from the area drained by the Peel and Mackenzie rivers, Yukon and Northwest Territories, Canada. II. Microlichens. Canadian Journal of Botany 59: 1231-1252

Brodo, I.M. and P.Y. Wong. 1992. Lichenes Canadenses Exsiccati, Fascicle IV: Nos. 226-250. - National Herbarium of Canada, Canadian Museum of Nature, Ottawa. 9 pp

Brodo, I.M. and P.Y. Wong. 1993. Lichenes Canadenses Exsiccati: Fascicle IV. Mycotaxon 46: 135-140.

Brodo, I.M., R.E. Lee, C. Freebury, P.Y. Wong, C.J. Lewis and R.T. McMullin. 2021. Additions to the lichens, allied fungi, and lichenicolous fungi of the Ottawa region in Ontario and Quebec, with reflections on a changing biota. Canadian Field-Naturalist 135: 1-27.

Fahselt, D., P. Maycock and P.Y. Wong. 1989. Reproductive modes of lichens in stressful environments in central Ellesmere Island, Canadian high arctic. Lichenologist 21: 343-353.

Wong, P.Y. and I.M. Brodo. 1973. Rock-inhabiting lichens of the Frontenac Axis, Ontario. Canadian Field-Naturalist 87: 255-259.

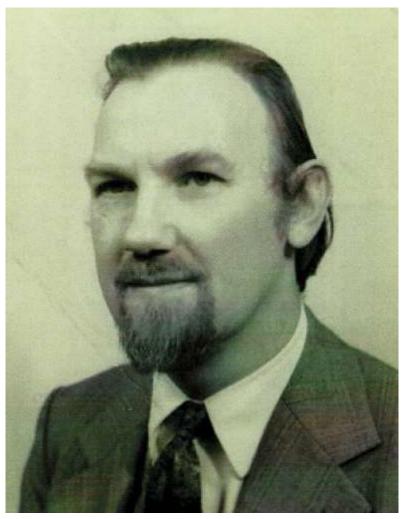
Wong, P.Y. and I.M. Brodo. 1990. Significant records from the lichen flora of southern Ontario, Canada. The Bryologist 93: 357-367.

Wong, P.Y. and I.M. Brodo. 1992. The Lichens of Southern Ontario, Canada. Syllogeus 69, Canadian Museum of Nature, Ottawa. 79 pp.

Wong, P.Y. 1993. Type specimens of lichens and lichenicolous fungi in the Canadian Museum of Nature (CANL). Mycotaxon 47: 295-357.

Irwin M. Brodo





The loss of Londoner Frank Stuart Dobson (11 June 1934 – 19 December 2021), after many years of struggling with ill-health, marked a sad day for the lichenological community. He was a most remarkable man of many parts, most of which he kept very much to himself. These ranged from GB Olympic 50 m pistol-shooter in the 1960 games, to Special Constable, mayoral candidate for London, printer, publisher, devoted Christian, fencer, ice-skater, painter, boat-builder, wildlife film-consultant, father to six daughters, and owner of a converted windmill in Norfolk.

Frank initially came into lichenology through photography. He had been involved with a printing and photographic company in Kingston-upon-Thames, and had a then state-of-the-art Hasselblad camera – similar to the one lichenologist Mogens Skytte Christiansen (1918-1996) was then using in Denmark. Lichens really caught his attention as subjects, and he soon wanted to learn more about them. Pictures were brought to me to see at Kew, and he became increasingly hooked as he started to be a regular student at the Field Studies Council courses Peter James was running in Orielton (Pembroke) and I was in Slapton (Devon) through the 1970s-80s. In 1975 he joined the British Lichen Society's Council, and as his expertise grew, he realized there was a need for a well-illustrated identification manual, and started to prepare one. He would bring in draft layouts of pages for particular genera to Kew for me to look at, also photographing specimens of species that were missing from the Institute's collections. Dyslexia was always an issue for him, but he was very determined, and when I queried why some species were keyed out where I would not expect, he explained that was because it reflected mistakes he often made himself.

The result was *Lichens: an illustrated guide*, which first appeared in 1979, and has grown from strength to strength over the years. At first the photographs were all black-and-white, but with the advances in technology editions in full colour and with increasing numbers of species emerged – the seventh in 2018 despite his health by that time precluding personal field-work. The Richmond Publishing imprint was set up to publish this, and the company also ventured into facsimiles of classic works on firearms and also several key works in lichenology, such as Acharius' *Lichenographia Universalis* (1810), including new introductory material. At that time these works were not available electronically, but I had original copies at Kew that he used. The company went on to publish other mycological works, such as a new edition of *Microfungi on Land Plants* (1997) and even a journal, *Natural History Book Reviews* (1976–80). Richmond Publishing evolved into a bookseller, originally with an office and shop (by appointment) in Richmond.

Frank had learned his lichenology primarily from field courses, and as his confidence grew he taught such courses himself, eventually taking over from me with the Slapton ones. He also provided photographs for colour fold-out identification charts for the Field Studies Council, and separate field keys to coastal and seashore lichens, churchyard lichens, and lichens on trees. These pragmatic guides were illustrated with sketches of key features, and in some cases also distribution maps. Through his user-oriented publications and teaching, Frank earned a unique place in the history of lichenology for his role in making lichen identification accessible to non-specialists. An especially remarkable achievement for someone with no formal training or research background in lichenology who was also so busy with so many other interests! He is sorely missed.

[A more detailed account of Frank's life and work is being prepared for publication in *The Lichenologist*.]

David L Hawksworth

# **PERSONALIA**

#### NEW PROFESSOR AT THE UNIVERSITY OF PADUA

Francesco Dal Grande, who was senior scientist in my group for many years, has now started a position as Professor for Systematic Botany at the University of Padua, Italy. His new email address is: francesco.dalgrande@unipd.it

I am very happy for Francesco, and for lichenology! :)

Imke Schmitt

#### **RBG KEW - NHM**

Robert Lücking (Botanical Garden and Botanical Museum, Germany) and Isaac Garrido (University of Valencia, Spain) visited RBG Kew - NHM in May for three and two weeks, respectively, under a Synthesys grant to work on several Teloschistaceae projects with Ester Gaya.

Ester Gaya

#### **NEW PHD**

My student and colleague Katalin Veres defended her PhD thesis in lichenology / ecophysiology on 6 May with maximum results.

Her dissertation was prepared in English and is based on three main publications. It is a relatively new and seldom chosen option for preparing the thesis in Hungarian universities. The title is "The bright and shaded side of duneland life from lichens' point of view" and is available from the following link: <a href="https://doktori.hu/index.php?menuid=193&vid=24668&lang=EN">https://doktori.hu/index.php?menuid=193&vid=24668&lang=EN</a>



Katalin Veres presenting her PhD thesis in Gödöllő University, 6 May 2022. (Photo: E. Farkas).

Here I remember my co-supervisor, Dr. habil. Zsolt Csintalan (1963-2019) who specialized in the ecophysiology of cryptogams, and was a student of my similarly early deceased ecophysiologist colleague, Prof. Zoltán Tuba, DSc (1951-2009).



Lichenologists surrounding Katalin Veres after the PhD defence, Gödöllő, 6 May 2022. From left to right: Arthur Macharia Muhoro, PhD student; Katalin Molnár, member of the committee; Edit Farkas, supervisor; Katalin Veres; and László Lőkös, examiner for the doctoral examination. (*Photo: N. Varga*)

Edit Farkas

#### **APPOINTMENT**

Dr. Siljo Joseph joined the Forest Botany Department, KSCSTE- Kerala Forest Research Institute, Thrissur, India as 'Scientist B' on 13 April 2022. Earlier, Dr. Joseph worked as DST INSPIRE Faculty at the CSIR-National Botanical Research Institute, Lucknow.

#### **FELLOWSHIP**

Dr. Gaurav K. Mishra has been awarded a 'SERB International Research Experience' fellowship for the year 2022-2023 by the Engineering Research Board, New Delhi. As part of this fellowship he will visit The Field Museum, Chicago and gain experience in advanced research in lichenology with Dr. H. Thorsten Lumbsch for six months.

Sanjeeva Nayaka

## LIST OF SOCIETIES

Australasia: Australasian Lichen Society. Info: W.M. Malcolm, Box 320, Nelson, New Zealand

7040. Phone: (+64) 3-545-1660, e-mail: <u>nancym@micro-opticspress.com</u>

Journal: Australasian Lichenology, web-page: http://nhm2.uio.no/botanisk/lav/RLL/AL/

Brazil: Grupo Brasileiro de Liquenólogos (GBL), contact: Dr. Adriano Afonso Spielmann, (e-mail:

<u>adriano.spielmann@ufms.br)</u>, e-mail: <u>BrazilianLichens@gmail.com</u>; web-page: https://brazilianlichens.wixsite.com/website

Central Europe: Bryologisch-lichenologische Arbeitsgemeinschaft für Mitteleuropa (BLAM).

Contact: Martin Nebel, Wellingstr. 14, 70619 Stuttgart, Germany, e-mail nebel martin@web.de,

web-page: <a href="http://blam-bl.de/">http://blam-bl.de/</a>

Journals: Herzogia https://blam-bl.de/herzogia/herzogia-ueberblick.html, Herzogiella, web-page:

https://blam-bl.de/herzogiella-oben.html

Colombia: Grupo Colombiano de Liquenología (GCOL). Info: Bibiana Moncada, e-mail:

bibianamoncada@gmail.com;

web-page: https://www.facebook.com/groups/485251978343916

Czech Republic: Bryological and Lichenological Section of the Czech Botanical Society.

Chairperson: Svatava Kubešová, e-mail: svata.kubesova@gmail.com,

web-page: <a href="https://botanospol.cz/cs/bls">https://botanospol.cz/cs/bls</a>

Journal: Bryonora, web-page: <a href="https://botanospol.cz/index.php/cs/bryonora">https://botanospol.cz/index.php/cs/bryonora</a>

Ecuador: Grupo Ecuatoriano de Liquenología (GEL). Info: Alba Yanez, e-mail:

albayanez8@gmail.com;

web page: <a href="http://grupoecuatorianodeliquenologia.blogspot.com/">http://grupoecuatorianodeliquenologia.blogspot.com/</a>

Estonia: Mycology Society, Estonian Naturalists' Society, Struve 2, Tartu 51003, Estonia, Chairman:

Külli Kalamees-Pani, e-mail: kulli.kalamees-pani@ut.ee

web-page: http://mukoloogiauhing.ut.ee/avaleht (in Estonian).

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.ahti@helsinki.fi

Journal: *Karstenia*, web-page: http://www.karstenia.fi/index.php

France: Association française de Lichénologie (AFL). Président: Joël Boustie, e-mail:

joel.boustie@univ-rennes1.fr,

web-page: http://www.afl-lichenologie.fr.

Bulletin: Bulletin d'Informations de l'Association française de lichénologie (deux Bulletins annuels),

web-page: <a href="http://www.afl-lichenologie.fr/Afl/Publications\_afl.htm">http://www.afl-lichenologie.fr/Afl/Publications\_afl.htm</a>

**Great Britain:** The British Lichen Society (BLS). C/o: Royal Society of Biology, 1 Naoroji Street, London, WC1X 0GB, United Kingdom. President: Rebecca Yahr. Secretary: Eluned Smith.Email

and Info: <u>enquiries@britishlichensociety.org.uk</u> For membership go to

https://my.britishlichensociety.org.uk/,

Society web-page: www.britishlichensociety.org.uk/

Journal: *The Lichenologist* (accessible via Cambridge Core <a href="https://www.cambridge.org/core/journals/lichenologist">https://www.cambridge.org/core/journals/lichenologist</a>); *British Lichen Society Bulletin https://www.britishlichensociety.org.uk/the-society/bls-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. Gaurav K. Mishra, e-mail: <a href="mailto:indianlichenology@gmail.com">indianlichenology@gmail.com</a>, webpage: <a href="mailto:http://www.indianlichenology.com">http://www.indianlichenology.com</a>

**Iran**: Lichenology Branch, Iranian Mycology Society, C/o: The Museum of Iranian Lichens. P.O. Box 33535111, Tehran, Iran, Iranian Research Organization for Science and Technology (IROST). Info: Mohammad Sohrabi, e-mail: *sohrabi@irost.org* 

**Italy:** Società Lichenologica Italiana (SLI). President: Juri Nascimbene, Dipartimento di Scienze Biologiche, Geologiche e Ambientali Via Irnerio 42, Bologna, email: <u>juri.nascimbene@unibo.it</u>, web-page: <a href="http://www.lichenologia.eu/">http://www.lichenologia.eu/</a>

Journal: *Notiziario della Società Lichenologica Italiana* (in Italian), web-page: <a href="http://www.lichenologia.eu/index.php?procedure=pubbl\_not">http://www.lichenologia.eu/index.php?procedure=pubbl\_not</a>

**Japan:** The Lichenological Society of Japan (LSJ): President: Hiromi Miyawaki, e-mail: *miyawakh@cc.saga-u.ac.jp*,

web-page: <a href="http://eng.lichenjapan.jp/">http://eng.lichenjapan.jp/</a>

Journal: *Lichen*, web-page http://lichenjapan.jp/?page\_id=19

The Japanese Society for Lichenology (JSL). President: Kunio Takahashi, contact email (secretary): <a href="mailto:kawahara@kansai-u.ac.jp">kawahara@kansai-u.ac.jp</a>, web-page: <a href="mailto:http://www.lichenology-jp.org/index.php/en/">http://www.lichenology-jp.org/index.php/en/</a>

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: <a href="mailto:sparrius@blwg.nl">sparrius@blwg.nl</a>,

web-page: <a href="http://www.blwg.nl">http://www.blwg.nl</a>

Journals: *Buxbaumiella* and *Lindbergia*, web-pages: <u>www.buxbaumiella.nl</u> (open access) and <u>www.lindbergia.org</u> (open access)

**Nordic Countries:** Nordic Lichen Society (Nordisk Lichenologisk Förening, NLF). President: Ave Suija, e-mail: ave.suija@ut.ee,

web-page: <a href="http://nhm2.uio.no/lichens/nordiclichensociety/">http://nhm2.uio.no/lichens/nordiclichensociety/</a> Journal: <a href="http://nhm2.uio.no/lichens/nordiclichensociety/">http://nhm2.uio.no/lichensociety/</a> Journal: <a href="http://nhm2.uio.no/lichensociety/">http://nhm2.uio.no/lichensociety/</a> Journal: <a hre

**North America:** American Bryological and Lichenological Society, Inc. (ABLS). President: Jon Shaw, contact e-mail: *show@duke.edu*,

web-page: http://www.abls.org/

Journals: *Evansia*, web-page: <a href="http://www.bioone.org/loi/evia">http://www.bioone.org/loi/evia</a>; and *The Bryologist*, web-page: <a href="http://www.bioone.org/loi/bryo">http://www.bioone.org/loi/bryo</a>

**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: Tom Carlberg, contact e-mail: <a href="mailto:president@californialichens.org">president@californialichens.org</a>,

web-page: http://californialichens.org/

Bulletin: *Bulletin of the California Lichen Society*, web-page: http://www.californialichens.org/calsbulletin/

**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: Rafał Szymczyk, Enviromental Survey Laboratory Ekoprojekt, Nowica 24, 14-405

Wilczęta, Poland, Email: <u>lichensptb@gmail.com</u>

web-page: https://pbsociety.org.pl/ind/sekcja-lichenologiczna/

**Slovakia:** Slovak Botanical Society – Lichenological Working Group, c/o Institute of Botany, PSBC, Slovak Academy of Sciences, Dúbravská cesta 9, 845 23, Bratislava, Slovakia. Info: Zuzana Fačkovcová, e-mail: zuzana.fackovcova@savba.sk,

web-page: <a href="http://sbs.sav.sk/">http://sbs.sav.sk/</a>

Journal: Bulletin Slovenskej botanickej spoločnosti, web-page: <a href="http://sbs.sav.sk/SBS1/content.html">http://sbs.sav.sk/SBS1/content.html</a>; <a href="http://sbs.sav.sk/lichens/">http://sbs.sav.sk/SBS1/content.html</a>;

**South America:** Grupo Latino Americano de Liquenólogos (GLAL). Info: Alfredo Passo, e-mail: alfredo.passo@gmail.com

Journal: GLALIA, web-page <a href="http://nhm2.uio.no/botanisk/lav/RLL/GLALIA/">http://nhm2.uio.no/botanisk/lav/RLL/GLALIA/</a>

**Spain:** Sociedad Española de Liquenologia (SEL). President: Sergio Pérez-Ortega, e-mail: <a href="mailto:sperezortega@rjb.csic.es">sperezortega@rjb.csic.es</a>, secretary: María Prieto Álvaro, e-mail: <a href="mailto:maria.prieto@urjc.es">maria.prieto@urjc.es</a>;

web-page: <a href="http://www.ucm.es/info/seliquen/">http://www.ucm.es/info/seliquen/</a>;

Journal: Clementeana, web-page: http://www.ucm.es/info/seliquen/cl.htm

**Sweden:** Svensk Lichenologisk Förening (SLF). President: Martin Westberg, e-mail: martin.westberg@em.uu.se,

web-page: <a href="http://lavar.se">http://lavar.se</a>

Bulletin: Lavbulletinen, web-page: <a href="https://lavar.se/lavbulletinen/">https://lavar.se/lavbulletinen/</a>

Switzerland: Swiss Association of Bryology and Lichenology (BRYOLICH). President: Ariel

Bergamini, e-mail: <a href="mailto:praesidium@bryolich.ch">praesidium@bryolich.ch</a>, web-page: <a href="mailto:http://www.bryolich.ch/index\_en.html">http://www.bryolich.ch/index\_en.html</a>

Journal: Meylania, web-page: http://www.bryolich.ch/meylania/meylania\_en.html

Venezuela: Grupo Venezolano de Liquenólogos (GVL). Info: Jesús Hernandez, e-mail:

*jeshernandezm2@gmail.com*, web-page: www.bit.ly/lqvzla

#### **AUDITORSHIP COMMITTEE**

**Auditor**: Starri Heiðmarsson, Icelandic Institute of Natural History, Akureyri Division, Borgir vid Nordurslod, IS-600 Akureyri. Iceland. Email: <a href="mailto:starri@ni.is">starri@ni.is</a>

**Vice Auditor**: Andrei Tsurykau, Francisk Skorina Gomel State University, Department of Biology, Sovetskaja str., 104, 246028 Gomel, Belarus. Email: <a href="mailto:tsurykau@gmail.com">tsurykau@gmail.com</a>

#### IAL NOMINATION COMMITTEE

- Manuela Dal Forno, Botanical Research Institute of Texas, 1700 University Drive, Fort Worth, Texas 76107-3400 USA. Email: <a href="manuelaforno@hotmail.com">manuelaforno@hotmail.com</a>
- R. Troy McMullin, Research and Collections, Canadian Museum of Nature, PO Box 3443 Stn "D", Ottawa, ON, Canada, K1P 6P4. Email: <a href="mailto:tmcmullin@nature.ca">tmcmullin@nature.ca</a>
- Ave Suija, Institute of Ecology and Earth Sciences, University of Tartu, Liivi street 2, Tartu, Estonia. Email: <a href="mailto:ave.suija@ut.ee">ave.suija@ut.ee</a>

#### IAL EDITORIAL COMMITTEE

- **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-krzeminska@ug.edu.pl
- **Editorial Board:** Scott LaGreca, Department of Biology, Box 90338, Duke University, Durham, NC 27708, USA. Email: <a href="mailto:scott.lagreca@duke.edu">scott.lagreca@duke.edu</a>

#### IAL IDEA COMMITTEE

- **Co-Chair:** Manuela Dal Forno, Botanical Research Institute of Texas, 1700 University Drive, Fort Worth, Texas 76107-3400 USA. Email: <a href="manudalforno@hotmail.com">manudalforno@hotmail.com</a>
- **Co-Chair:** Natália Mossmann Koch, Department of Ecology, Evolution, and Behavior, University of Minnesota, 140 Gortner Laboratory, 1479 Gortner Ave, St Paul, MN 55108 USA. Email: nkoch@umn.edu
- **Co-Chair:** Joel A. Mercado-Díaz, Botanical Gardens Herbarium of the University of Puerto Rico, Calle Juan Ponce De Leon, Rio Piedras, Puerto Rico. Email: joel\_pr19@hotmail.com

#### **COMMUNICATIONS COMMITTEE**

- **Co-Chair:** Silvana Munzi, <sup>1</sup>Centro Interuniversitário de História das Ciências e da Tecnologia, Faculdade de Ciências, Universidade de Lisboa; <sup>2</sup>Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências, Universidade de Lisboa, Campo Grande, 1749-016 Lisbon, Portugal. Email: <a href="mailto:ssmunzi@fc.ul.pt">ssmunzi@fc.ul.pt</a>
- **Co-Chair:** Toby Spribille, Canada Research Chair in Symbiosis, University of Alberta, Edmonton, AB, Canada T6G 2R3. Email: <a href="mailto:spribill@ualberta.ca">spribill@ualberta.ca</a>
- Andreas Beck, Botanische Staatssammlung München, Department of Lichenology and Bryology, Menzinger Str. 67, D-80638 München, Germany. Email: <a href="mailto:beck@snsb.de">beck@snsb.de</a>
- Alejandro Huereca, Canada Research Chair in Symbiosis, University of Alberta, Edmonton, AB, Canada T6G 2R3. Email: <a href="mailto:huerecad@ualberta.ca">huerecad@ualberta.ca</a>
- Frank Bungartz, <sup>1</sup>Natural History Collections, Arizona State University, PO Box 874108, Tempe AZ 85287-4108, U.S.A; <sup>2</sup>Charles Darwin Foundation (AISBL), Puerto Ayora, Santa Cruz, Galápagos, Ecuador; <sup>3</sup>National Biodiversity Institute of Ecuador (INABIO), Quito, Ecuador. Email: <a href="mailto:frank.bungartz@gmail.com">frank.bungartz@gmail.com</a>
- Roberto De Carolis, University of Trieste, Department of Life Sciences, via L. Giorgieri 10, I-34127 Trieste, Italy. Email: <a href="mailto:roberto.decarolis@phd.units.it">roberto.decarolis@phd.units.it</a>
- Ana Fávaro, Departamento de Biologia, Universidade Federal de Lavras, Lavras, Minas Gerais, Brazil. Email: anafavarovga@gmail.com
- Beata Guzow-Krzemińska, University of Gdańsk, Department of Plant Taxonomy and Nature Conservation, Wita Stwosza 59, 80-308 Gdańsk, Poland. E-mail: <a href="mailto:beata.guzow-krzeminska@ug.edu.pl">beata.guzow-krzeminska@ug.edu.pl</a>
- Natália Mossmann Koch, Department of Ecology, Evolution, and Behavior, University of Minnesota, 140 Gortner Laboratory, 1479 Gortner Ave, St Paul, MN 55108 USA. Email: <a href="mailto:nkoch@umn.edu">nkoch@umn.edu</a>, <a href="mailto:natimkoch@gmail.com">natimkoch@gmail.com</a>
- Theo Llewellyn, <sup>1</sup>Department of Life Sciences, Faculty of Natural Sciences, Imperial College London, Exhibition Road, London, United Kingdom, SW7 2AZ; <sup>2</sup>Comparative Fungal Biology, Royal Botanic Gardens Kew, Richmond, Surrey, United Kingdom, TW93AE, Email: t.llewellyn@kew.org; t.llewellyn19@imperial.ac.uk
- Marcela Caceres (ex officio), Departamento de Biociências, Universidade Federal de Sergipe, Av. Vereador Olímpio Grande, s/n, 49500-000, Itabaiana-SE, Brasil. Email: <a href="mailto:mscaceres@hotmail.com">mscaceres@hotmail.com</a>
- Scott LaGreca (ex officio), Department of Biology, Box 90338, Duke University, Durham, NC 27708, USA. Email: scott.lagreca@duke.edu
- François Lutzoni (ex officio), Department of Biology, Box 90338, Duke University, Durham, NC 27708, USA. Email: françois.lutzoni@duke.edu
- Lucia Muggia (ex officio), Department of Life Sciences, University of Trieste, via L. Giorgieri 10, 34127 Trieste, Italy. Email: <a href="mailto:lucia\_muggia@hotmail.com">lucia\_muggia@hotmail.com</a>; <a href="mailto:lmuggia@units.it">lmuggia@units.it</a>

#### The cover-page illustration

Himantormia lugubris (Hue) I. M. Lamb (Ascomycota: Parmeliaceae) from Livingston Island (maritime Antarctica) (*Photo: Ulrike Ruprecht*).