

Vol. 3 No. 2

December 1969

international lichenological newsletter

Editor: Vernon Ahmadjian
Clark University
Worcester, Mass. 01610
U.S.A.

Assoc. Editor: Irwin M. Brodo
National Museums of Canada
Ottawa, Ontario
Canada

Report on the XI Botanical Congress

*International Association for Lichenology Made "Official"
at a Special Meeting*

Early in the Congress, a meeting of lichenologists was called to consider the official establishment of an international organization. Forty-two lichenologists attended, entirely filling the meeting room. The discussion which followed was vigorous and constructive. Many of those present made their views and thoughts known concerning the proposed organization, its functions and limitations, and its goals and structure. Irwin Brodo (Canada) chaired the meeting, and Harold Jones (US) and Ann Rudolph (US) shared in the secretarial duties, providing us a written record of the proceedings. Briefly, this is what was decided:

1. History—Peter James (UK) first gave a short "history" of the organizational efforts at Edinburgh in 1965 at the last International Congress. He noted that it was decided the main emphasis should be placed on producing an international newsletter and that, if it was successful, an international lichenological organization be put on an official basis at the

next Congress.

2. IAL Formalized—After some lively discussion over the advantages and possible dangers of an international organization, it was finally moved and passed (with only one dissenting vote) that such a body should be formed under the name "International Association for Lichenology." Most of the caution shown by some of the participants concerned the possible formation of a new journal of lichenology. The consensus was clearly that such a journal would be very premature at the present time because of the numerous outlets for the publication of lichen papers now available, and the expense involved in starting a new journal.

3. Newsletter—A motion to continue the *Newsletter* was made. The discussion which followed mainly sought to define the limits of the newsletter's responsibility. After some juggling with fears about nomenclatural consideration, it was finally agreed to allow the editors to formulate editorial policy within the limits revealed in the discussion. The motion was passed unanimously.

4. Membership—It was then agreed unanimously to open membership to "anyone who has an active interest in lichenology." There would be no institutional membership (i.e., for libraries).

5. Finances—The question of dues was considered in a motion to operate with only a subscription charge to be decided upon by the editors and reported later. This was also passed unanimously.

6. Other Functions—Other possible functions of IAL were then discussed. It was proposed that IAL should sponsor an inter-congress symposium and field meeting, possibly with some other appropriate meeting, such as I.A.P.T., Pacific Science Congress, AIBS, etc. These proposals were enthusiastically endorsed.

7. Correspondents—It was decided that various areas of the world should have news gathering correspondents who would keep their eyes and ears open for news. They would report

their findings to the editor of the newsletter before each new issue went to press. The correspondents would be selected later.

8. Recognition—The International Association for Lichenology was recognized by the General Assembly of IUBS (plenary session of the Congress). The columns of *Taxon* are open to the Association for communications and reports.

9. Officers—Rather than elect a president, secretary, etc., an executive council was set up and assigned the task of electing their own chairman, secretary, and editor. The council which was nominated, and then elected unanimously, consisted of: Vernon Ahmadjian (US), Peter James (UK), Hildur Krog (Norway), Gerhard Follmann (Germany), and Irwin Brodo (Canada).

Congress Field Trips, Official and Otherwise

The Seattle Congress was memorable for many of the attending lichenologists by the number and variety of field trips that took place. Officially, there was only one "lichen excursion." It was held in the Olympic Peninsula before the meetings got underway. Participating were 33 lichenologists from nine different countries including Sweden, Norway, Finland, England, Poland, Germany, Nigeria, Canada, and the U.S.A. The organizers and leaders were John Thomson and Irwin Brodo. The dry hills and shorelines of the northeast corner of the peninsula were visited as well as some of the mountain ridges and dense rain forests. Our day on Hurricane Ridge was wet, but most agreed that the lichens found were well worth the discomfort. The west coast rain forest was a new experience for most of the lichenologists, and many interesting records were found. On the last evening of the trip, Dr. Grace Howard recalled for us, in her typically bright and colorful style, the kind of experiences that collectors and hikers had on the Olympic Peninsula 50 or 60 years ago.

There was one free day between the end of the official foray

and the start of the meetings, and so, several lichenologists got together and went off to Mt. Rainier to see what they could find. Eilif Dahl, Hildur Krog, John Sheard, Irwin Brodo, David Richardson, and Peter James filled a car and visited the southern and eastern slopes as well as the type locality for *Pseudocyphellaria rainierensis* Imsh.

To fill another lull in the meetings, on the following Saturday, Eilif Dahl, Hildur Krog, Ove Almborn, Irwin Brodo, Larry Pike, John Sheard, Anik Mathey, and Peter James decided to do some collecting on San Juan Island just east of Victoria, B.C. The weather was perfect and the lichens cooperative, so that even though no one had lunch, and there were 6 km of road to cover by foot, not a complaint was heard.

The next day, under the guidance of Harold Jones from Yakima College, 13 lichenologists got together to sample the dry interior country of Washington. The dusty slopes, covered with sagebrush and semi-desert weeds with occasional *Pinus ponderosa* trees and *Populus trichocarpa* stands, and the massive rock outcrops were very productive. Attending this unofficial foray were Syo Kurokawa, Vernon Ahmadjian, David Smith, Anik Mathey, John Sheard, Larry Pike, Hildur Krog, Peter James, Irwin Brodo, George Fabiszewski, Cliff Wetmore, Gerhard Follmann, and Harold Jones. The delicious lunch of local fruit products prepared by Mrs. Jones at Yakima was much appreciated.

There is a plan to include all the lichens collected on these trips in a comprehensive "Additions to the Lichens of Washington" and then to publish or distribute a new catalogue of the Washington lichens to bring up to date John Thomson's catalogue, which he prepared especially for the Congress. This effort will, of course, depend entirely on the cooperation of the participants of these trips. All lists should be sent in to either I. M. Brodo (National Museums of Canada, Ottawa), or John Thomson (Dept. of Botany, University of Wisconsin, Madison, Wisc. 53706). The tentative deadline is 31 December

1970, a year from now, but your comments on that would also be welcome.

Irwin Brodo

Research Notes

Ahmadjian, V. (U.S.A.)—In collaboration with H. Heikkilä (Finland), synthesis experiments were conducted with *Endocarpon pusillum* and *Staurothele catalepta*. Separate cultures of the phycobiont (from hymenial algae) and mycobiont (from spores) were combined on soil contained in clay pots in a manner described earlier by Stahl. Complete re-synthesis (spore-to-spore) was achieved with *E. pusillum* and partial synthesis with *S. catalepta*. Experiments are still in progress. A detailed report will appear in an appropriate journal.

Culberson, C. F. (U.S.A.)—Johan Santesson reported that gan-galeoidin was produced by the mycobiont *Lecanora chlaro-tera* Nyl. in culture (*Acta Univ. Uppsala Diss. in Sci.* 127, 1969) and Syo Kurokawa, in a paper presented at a post-Congress symposium at Corvallis, Oregon, described the isolation of usnic and salazinic acids from cultures of a Japanese *Ramalina* by T. Komiya and S. Shibata (*Chem. Pharm. Bull.* 17, 1305-6, 1969). For these cases it is proven that the fungus alone synthesizes characteristic lichen products without special algal enzymes or mysterious starting materials supplied by the phycobiont. Here the production of the lichen compounds is clearly an inherent trait of the fungal component. Proponents of the use of chemistry in systematics will see in these results a vindication of their point of view. The old taxonomic dispute will not end but perhaps turn to consideration of environmental effects on quantitative aspects of the production of characteristic lichen substances and the origin of accessory substances. The Japanese workers found that temperature was critical in the production of usnic and salazinic acids in their cultures. Can we explain some of the

accessory substances and concentration variations noted in many species in nature by factors as simple as temperature? Will fungal component of species separated upon chemical characters alone retain their chemical distinctness in culture? How readily will chemical mutants appear in cultures and will they show the same changes in biosynthetic pathways already deduced for chemical species in nature? Can related but nonlichen-forming fungi be induced to synthesize characteristic lichen products by growing them under similar conditions? The field of experimental lichenology has suddenly expanded and the answers to many of the most intriguing lichen riddles will be found in our time.

Hale, M. E. (U.S.A.)—Preliminary analysis of Thelotremaaceae collections made in Dominica, B.W.I., last year show that there are at least 32 species in contrast to 4 previously reported. Chemistry has proved to be quite varied with psoromic and hypoprotocetraric acids most common. Since the majority of species were represented by only one specimen, mostly from tree tops in logging areas, it would seem that this family is evolving rapidly. I hope to do more work on the island in the spring of 1970.

News

Asta-Giacometti, J. (France)—Étudie la flore lichénique de la région de Grenoble, en rapport avec la végétation phanérogamique.

Boissiere, M. et Mme. R. (France)—Structure et composition chimique des parois de hyphes des lichens (en cours d'étude: *Parmelia* et *Peltigera*.)

Fineran, B. A. (New Zealand)—A lichen collector of the subalpine regions of New Zealand and the subantarctic islands recently visited C. W. Dodge.

Follmann, G. (Germany)—A lichen symposium, organized by J. Poelt, was held at the annual meeting of the German Bo-

tanical Association at Berlin (5-8 Oct. 1969). Fourteen papers on the chemistry, ecology, morphology, phylogeny and systematics of lichens were presented. Some of the papers were: H. Hertel, The Trapeliaceae, a new lichen family of morphological and geographical interest; E. Peveling, Observations on submicroscopical structure in lichens; J. Santesson, New problems in lichen chemistry; V. Vareschi, Lichenometrical contributions to glaciological problems in the Andes.

Follmann, G. and Huneck, S. (Germany)—Preparing a phytochemical and chemotaxonomic sketch of the insufficiently known lichen family Buelliaceae. We are prepared to include material from all parts of the world (the samples should yield a few grams of dry matter). G. F. spent a week studying Dirinaceae and Roccellaceae in the Dodge herbarium in Vermont and a week at the Smithsonian; working on a monograph of the Antarctic and subantarctic species of the Lecanoraceae. Would appreciate receiving specimens from this area for determination.

Galun, M. (Israel)—Working with Prof. E. I. Friedmann (Florida State Univ.) on algae and lichens forming soil crusts in deserts and on endolithic desert algae and lichens. Ultrastructure studies on algal-fungal contacts in lichens continues. A lichen flora of the Sinai Peninsula is under way.

Hawksworth, D. L. (England)—Leaving Leicester to take up a post at the Commonwealth Mycological Institute, Ferry Land, Kew, Surrey, England, as of Sept. 1969. Work on the taxonomy of *Alectoria* continues with several papers in press. Plan to finish revision of the British species (12) in 1970. *Alectoria* material from anywhere for identification or exchange will be appreciated.

Huneck, S. (Germany)—Meine neue Anschrift lautet: Institut für Biochemie der Pflanzen der Deutschen Akademie der Wissenschaften, DDR-401 Halle/Saale, Weinberg. Aus *Arthonia impolita* Borrer isolierten wir ein neues Depsid: Arthoniasäure (Schmp. 167-169 deg., Cl plus rot). Die Structurauf-

klärung ergab, daß es sich um 4-O-Desmethyl-2'-methylmichrophyllinsäure handelt.

Imshaug, H. A. (U.S.A.)—Leaving in December with R. Norris for Campbell Island to continue a large scale program on the subantarctic lichen flora.

Jones, C. B. (U.S.A.)—Making field collections from the Sandia and Manyano Mts. near Albuquerque, New Mexico. Records of substrate, temperature, moisture and light requirements are being kept. Coinciding with this has been a study of *Xanthoria* and *Cladonia* in New Mexico. Lichen lists are being prepared for the National Park Service at Capulin and Fort Union Nat. Monuments. Maintain a personal herbarium of approximately 2300 specimens from N.M. Would like to initiate a lichen exchange, offering N.M. species for those from other parts of the world.

Klement, O. (Germany)—Ein reiches, über 1000 Proben umfassendes Samelgut von Flechten aus der Mongolischen Volksrepublik wurde mir von Prof. R. Schubert (Universität Halle/Saale) zur Bearbeitung überlassen. In einer Gemeinschaftsarbeit soll gegen Jahresende die erste größere Florenliste dieser wenig bekannten innerasiatischen Gebiete erfolgen. Das Material entstammt in der Hauptsache verschiedenen Vegetationstypen der weiteren Umgebung von Ulan-Bator und hat überwiegend boreal-montanen Charakter mit nur geringen Beimengungen des irano-turanischen Elements. Die Auswertung umfangreicher Aufsammlungen aus dem Hawaii-Archipel u.zw. von den Inseln Oahu und Hawaii, die das Forscher-ehepaar Otto und Isa Degener in den beiden letzten Jahren zustande gebracht hat, stehen vor einem teilweisen Abschluß und bringt eine größere Anzahl neuer, für den Archipel noch nicht bekannter Arten, vornehmlich südamerikanischer Provenienz. Ein großer, noch nicht bearbeiteter Rest mußte aus gesundheitlichen Gründen Herrn Prof. G. Follmann zur weiteren Bearbeitung überlassen werden.

Lamb, I. M. (U.S.A.)—Traveled to Costa Rica in the spring of

1969 and made collections and field studies of *Stereocaulon* species.

Lallemant, R. (France)—A terminé son étude du *Peltigera rufescens* et du *Nephroma resupinatum*. Est nommé assistant à la faculté des Sciences d'Orsay.

Letrouit-Galinou, M.-A. (France)—Lauréate de la Société Botanique de France en 1968 (Prix Gandoger de Cryptogamie). Continue ses recherches sur le développement des apothécies des Discolichens et la structure de l'appareil apical des asques. A terminé l'étude du *Parmelia conspersa* (structure de thalle comparé à celui des Algues multiaxiales et développement des apothécies). A entrepris celle du *Lobaria laetevirens*.

Rydzak, J. (Poland)—The lichen flora of various regions in Poland; investigations on the growth rate of lichens.

Swinscow, T. D. V. (England)—Studying the lichens of East Africa, that is, Uganda, Kenya, and Tanzania. Initial study will be of the macrolichens. Specimens have been collected personally and sent by other collectors. Further visits are planned.

Wetmore, C. (U.S.A.)—Received the Jesse M. Greenman Award given by the Missouri Botanical Garden for the best Ph.D. thesis in systematics published in 1968. It was titled "Lichens of the Black Hills of South Dakota and Wyoming" Publ. Mus., Michigan State Univ., Biol. Series, vol. 3, no.4.

Addendum on the XI Congress

I.A.L. Executive Committee Meeting

The Executive Committee of the International Association for Lichenology met at 12 noon on 1 September 1969 at the University of Washington, Seattle. Present were Vernon Ahmadjian, Irwin Brodo, Gerhard Follmann, Peter James, and Hildur Krog. James was elected chairman of the committee, Krog

secretary, Ahmadjian editor and Brodo associate editor of the *International Lichenological Newsletter*.

It was decided that officers should serve a term of five years or from one International Botanical Congress to the next. New officers would then be elected, and would meet with the members of the retiring committee, who would also serve as advisors when needed. The committee will make an effort to arrange symposia, field meetings, etc., between Congresses. S. Kurokawa was appointed assistant chairman for a tentative meeting to be held in Tokyo in 1972, in connection with a proposed meeting of IAPT.

The *Newsletter* policy was discussed. It was agreed that preliminary research findings ought only to be announced when the purpose was to elicit further information on a problem.

Thirteen correspondents, who will be listed in the next issue of the *Newsletter*, were selected from various countries and, provided they accept the appointment, will serve as contacts for the *Newsletter*.

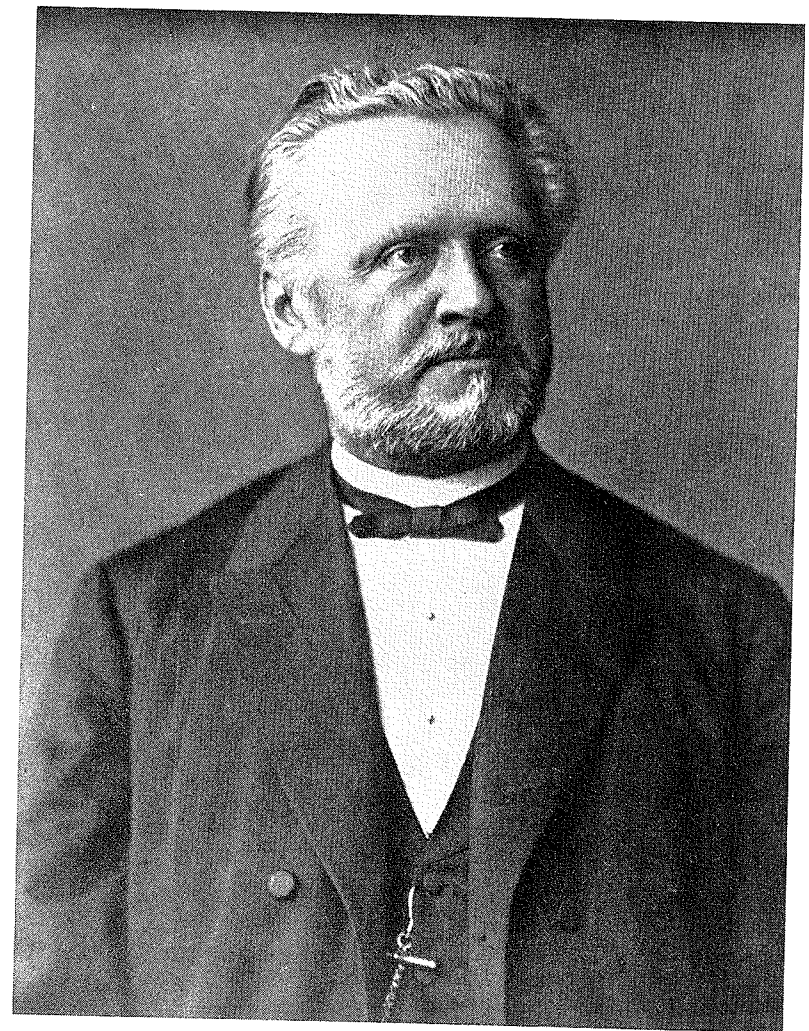
Hildur Krog

New Books

Chemical and Botanical Guide to Lichen Products, by Chicita F. Culberson. University of North Carolina Press, Chapel Hill, N.C. 27514; \$12.50. This major contribution to lichen chemistry includes exhaustive listings of all known lichen substances and species in which they have been reported. The bibliographies are complete to about 1967.

How to Know the Lichens, by Mason E. Hale. W. C. Brown Co., Dubuque, Iowa 52003; \$3.00. This is part of the Pictured-Key series with keys, illustrations, and distribution maps for over 350 species of macrolichens in the U.S.A. and Canada.

Cover: Secalonic acid A (entothecin), the yellow pigment
in *Parmelia entothecioides* and *Claviceps purpurea*
(I. Yoshioka, *Chem. Pharm. Bull.* 16:2090. 1968)



Simon Schwendener (1829-1919)
*Swiss Lichenologist and Foremost Proponent
of the Dualism Theory*