Vol. 9 No. 1

February 1976

# international lichenological newsletter

Editor: Irwin M. Brodo

National Museums of Canada Ottawa, Ontario K1A OM8 Canada

# **Editorial**

Of Genotypes and Phenotypes

Until recently there has been little experimental evidence upon which to base speculation about lichen genetics, and our knowledge of this vital area of our field has remained quite primitive when compared with that of other mycological groups. Many of the old problems of methodology are still with us - the exceedingly slow growth of fungal isolates, the difficulty of re-establishing symbiosis and fructification in culture, the inability to reproduce in vitro experiments in which lichen substances are produced by isolated mycobionts (see Komiya and Shibata, 1969). In spite of this, there has been a burgeoning of direct and indirect evidence which has led to new interpretations of lichen evolution and reproduction. In recent years several authors have advanced new and innovative theories involving lichen genetics: Poelt's "artenpaare" concept (Poelt, 1970; 1972), the development of the idea of speciation

by parallel evolution (Culberson, 1972), the suggestion of hybridization of chemical genotypes with parallel morphological evolution (Culberson and Hale, 1973), and the recognition of disparate reproductive strategies and ecological behavior of sexually and asexually propagating lichens (Bowler and Rundel, 1975). The magnificent work of Jahns (see Henssen and Jahns, 1973, and other papers) has demonstrated that the mycelium of clumps of fused fruticose lichens (such as Cladia colonies) is not necessarily genetically uniform, but can be derived from more than one one genotype through fusion, early incorporation of hyphae from more than one spore or vegetative diaspore, or the vegetative propagation of either of these products through fragmentation or from diaspores. It is now apparent that genetic exchange may be possible in lichens through a wide variety of pathways. The fusion of two thalli could provide a non-sexual means of genetic change in groups reproducing by means of spores or in those utilizing vegetative diaspores if accompanied by either somatic plasmogamy or heterokaryosis. If these plants fructify and produce spores, either new combinations or a re-emergence of the initial genotype might occur (Irwin Brodo's idea). This effect could be screened in sympatric populations of mixed genotypes, with characters emerging and re-emerging from different sources in phenotypically similar plants. If no fusion occurred, the mycelia of the disparate genomes would merely be physically intertwined. In such an instance it is conceivable that a vegetative diaspore could be composed of more than one genetic line, while spores from the same plant would comprise only one. This might partially explain the broader ecological amplitude of many vegetative reproducers. Thus a plant utilizing an asexual reproductive strategy could, in this hypothetical instance, transport more genetic possiblities than a species reproducing by means of spores. It is interesting to speculate further about such possibilities....would colonies of such genetically non-uniform plants, or perhaps even individual thalli, exhibit a stratification of genotypes or would the thallus be a homogeneous mixture? I know of an instance in which two related species of Alectoria possess two different diagnostic compounds, yet a population intermediate in many characters is known in which these compounds, exclusive elsewhere, are produced in different areas of the thallus (one in the cortex, the in the medulla (Brodo and Hawksworth, in press). Does this mean that

there is cortical tissue of one genotype and medullary hyphae of another? In the Ramalina farinacea group there are plants containing salazinic, norstictic, and protocetraric acids. Do these thalli represent genotypic mixtures, hybridizations between chemical races, or simply the accumulation of an intermediate in a biosynthetic pathway producing three rather than two or one closely related compounds? Perhaps some problem species with intermediates represent the manifestation of various genotypes producing locally successful populations.

Probably ideas such as these have occurred to all of us, and there are undoubtedly anomalous chemical and morphological occurrences in many groups which have gone unreported or have been regarded as mistakes and discarded. There are still many fundamental areas of the problem about which virtually nothing is known - the viability of pycnospores and whether they can function as true asexual spores to form lichenized thalli, the chromosome number of related lichen fungi, the occurrence and frequency of heterokaryosis in lichens, and so forth. While in the past lichenologists have rarely discussed genetics and have viewed the problem narrowly, we are now becoming aware of a miasma of at least hypothetical opportunities for genetic transfer and change. One is almost surprised that more intermediates do not occur. Nonetheless, the fact that these events might occur does not mean that they are common. For example, despite the well known long and short term genetic advantages of heterokaryosis and parasexual cycle, its occurrence in wild homothallic ascomycetes, in groups for which it has been demonstrated, is probably rare (Caten and Jinks, 1966). The rarity of occurrence of these hypothetical events might explain the applicability of models such as Poelt's which deal with the majority of cases. It seems probable that research in the area of lichen genetics is apt to remain speculative during the next few years. Our success in resolving these questions will probably depend on our interpretation and re-examination of anomalous chemical combinations and the utilization of previously untried techniques.

- Peter Bowler

#### Literature Cited

Bowler, P.A. and P.W. Rundel. 1975. Reproductive strategies in lichens. Bot. J. Linn. Soc. 70: 325-340.

- Brodo, I.M. and D.L. Hawksworth. Alectoria and allied genera in North America. (in press).
- Caten, C.E. and J.L. Jinks. 1966. Heterokaryosis: its significance in wild homothallic ascomycetes and fungi imperfecti. Trans. Br. mycol. Soc. 49: 81-93.
- Culberson, C.F. and M.E. Hale, Jr. 1973. Chemical and morphological evolution in *Parmelia* sect. *Hypotrachyna*: product of ancient hybridization. Brittonia 25: 162-173.
- Culberson, W.L. 1973. The *Parmelia perforata* group: niche characteristics of chemical races, speciation by parallel evolution, and a new taxonomy. Bryologist 76: 20-29.
- Henssen, A. and H.M. Jahns. 1973. (1974). Lichenes. Eine Einführung in die Flechtenkunde. Thieme, Stuttgart.
- Komiya, T. and S. Shibata. 1969. Formation of lichen substances by mycobionts of lichens. Isolation of (+) usnic acid and salazinic acid from mycobionts of *Ramalina* spp. Chem. Pharm. Bull. (Japan) 17: 1305-1306.
- Poelt, J. 1970. Das Konzept der Artenpaare bei den Flechten. Ber. Deutsch. Bot. Ges. neue Folge 4: 187-198.
- . 1972. Die taxonomische Behundlung von Artenpaare bei den Flechten. Bot. Not. 125: 77-81.

# President's Comments

To my great satisfaction I may state that there were surprisingly many lichenologists - perhaps close to one hundred - present in the XII International Botanical Congress in Leningrad last summer. However, several leading lichenologists, especially American, could not participate. Yet the congress apparently strengthened the combined sorority and fraternity of the lichenologists considerably. It is noteworthy that under the heading 'lichenology', representatives of many different branches of botany are in contact and in mutual cooperation: taxonomists, physiologists, ecologists, chemists, morphologists, etc. This is probably not the case among students of other organisms. I do hope this cooperation is continued, e.g., in the form of reprint exchange, since it is not uncommon that a taxonomist teaches courses which include a considerable amount of lichen physiology and chemistry, and a lichen physiologist must identify lichen specimens because no lichen taxonomist is to be found in the vicinity.

One of the links in this positive development has been the International Association for Lichenology and its newsletter. I believe that all lichenologists are very grateful to the members of the first executive committee of the IAL, elected in Seattle, 1969, for their fundamental pioneering work for the association. The new council starts from the firm basis they have built!

The "obligatory" activities of the IAL for the next six years include at least one international field meeting, to be arranged outside Europe. The newsletter shall be continued, though in a form somewhat different from that which we are used to (Mason Hale & Son's invaluable service since 1968 is here gratefully acknowledged!). I do hope that the members will not mind new membership fee - very modest and to be paid only once in six years. Arrangements are also planned for those members who cannot send the membership fee abroad.

One of our important activities is to secure the inclusion of lichenology in the major international congress. The former executive committee should be also thanked for establishing a firm "friendship" with the International Mycological Association, with the result that lichenology was well represented at the First International Mycological Congress at Exeter (1971); it will also be so in the Second IMC at Tampa (1977). We should finally really admit that lichens are fungi and that we all are mycologists, although we have traditionally been more tied with bryologists! From its affiliation with the mycologists, the IAL also obtained some money.

Finally, one of the headaches of the new council is the planned, formally drawn up Constitution, which was not yet handled in Leningrad, although a preparatory work has been conducted by our Past President, Peter James.

With this very brief summary of the modest plans of the new council I again thank the members of the past executive committee and call all lichenologists, of all nations, to take part in an international cooperation in lichenological research. I also hope that all of you, once in a while, remember the industrious editor of our newsletter with brief reports of your personal activity and of the events in lichenology in your country, or your institution.

### News and Notes

- ANDERSON, R. (U.S.A.) is finishing a year's sabbatical leave including several months of study in European herbaria. He is continuing work on the Lecideaceae of Colorado as well as several other crustose genera.
- ARMSTRONG, R.A. (U.K.) is interested in the use of lichen growth rate studies in experimental ecology. At present, he is using growth as a measurement of performance after experimental treatments such as wetting and drying cycles and nutrient additions. He is also interested in the application of lichen growth rate studies in the population dynamics of lichens. Dr. Armstrong has initiated studies in population dynamics and is interested in the variables which influence establishment and recruitment of thalli in populations, mortality, age structures and the control of population numbers.
- BODO, Bernard (France) a presque terminé sa thèse de Doctorat sur l'acide bourgéanique, nouveau constituant de Ramalina evernioides.
- BOWLER, Peter (U.S.A.) is currently working at the National Museums of Canada as a postdoctoral fellow. He is studying generic relationships in the Ramalinaceae, as well as in *Cornicularia*, *Cetraria*, and *Alectoria*, using principally anatomical and chemical criteria, at least at present.
- BRODO, I.M. (Canada) and HAWKSWORTH, D.L. (U.K.) have submitted their manuscript, "Alectoria and allied genera in North America" for publication in the "Contributions in Botany" series of the National Museums of Canada. It should appear in approximately a year. Dr. Brodo is now turning his attention back to the Lecanora subfusca group and the lichens of the Queen Charlotte Islands (British Columbia).
- CARMER, Mary Bert (U.S.A.) is doing a survey of the New Mexico desert lichen flora, working under the direction of Roger Anderson.

- CLARYSSE, R. (Belgium) a l'intention d'étudier la chimiotaxonomie d'un ou deux groupes difficiles du genre *Cladonia* et la distribution en Belgique. Après cela, il voudrait étudier la distribution des épiphytes en Belgique en corrélation avec la pollution de l'air. Nouvelle adresse: Domein van Bouchout, B-1860, Meise (België)
- DIBBEN, M.J. (U.S.A.) has relinquished his position of Research Fellow in Lichenology at the Farlow Herbarium, Harvard University, Massachusetts, U.S.A. to assume the post of Chairman, Dept. of Botany, Milwaukee Public Museum, Wisconsin, U.S.A. Dr. Dibben's thesis on the chemosystematics of *Pertusaria* in North America is due for publication, Spring 1976. He is currently working on the ecosystematics of *Pertusaria* (and other lichens) in Central and South America, the genus *Lepraria*, and *Physconia* as it relates to North America. Work also is in progress on the state flora of Wisconsin and an annotated catalog of the lichens of New England. Future correspondence should be addressed to MPM Botany Division, 800 West Wells Street, MILWAUKEE, WI 53233, U.S.A.
- DOBBELER, P. (Germany) is working (under the guidance of J. POELT, Graz) on tiny ascomycetes growing on bryophytes (including some weekly lichenized ones). He took up a new position at the Institute of Systematic Botany, University of Munchen, on October, 1, 1975.
- DODGE, Carroll W. (U.S.A.) has recently finished a manuscript on the Lichens of Baja California, Mexico, based on material collected on the Allan Hancock Expedition of 1937. It will include related species from southern Arizona and California. During the fall of 1974, Dr. Dodge finished work on his Guatemalen collections of 1941 and 1942.
- EGAN, R.S. (U.S.A.) moved to the Department of Biology, Texas A & M University, College Station, Texas 77843 on 1 July 1975.
- ESSLINGER, T.L. (U.S.A.) has moved to North Dakota State University, Fargo, to accept a position as assistant professor. He is continuing research on the brown *Parmeliae*.
- FINNEGAN, Esther (Canada) is beginning systematic studies of Aspicilia in the Great Lakes St. Lawrence Forest Region of Eastern Canada.

- GALLOWAY, David (New Zealand) is still in England working on a lichen flora of New Zealand, but will be returning to New Zealand in February, 1977. In the meantime, he will be making a six week visit to the islands (especially North Island) to do some collecting. He has just finished work on *Stereocaulon* and is now immersed in the New Zealand Pannariaceae.
- GUZMAN, Gaston (Mexico) would like to receive any available publications, reprints, or duplicates concerning lichenology or mycology for use in the Mycological Library in his Laboratory. He is also interested in engaging in an exchange of lichen specimens.
- HERTEL, H. (Germany) made a field trip in the summer of 1974 to the mountains near Finse in Southern Norway, together with Ch. Leuckert (Berlin), to study saxicolous species of *Lecidea*. In the summer of 1975 he took another trip together with H. ULLRICH (Goslar) and W. REPETZKY (Nienburg) to Spitsbergen for the same purpose, working on Amsterdamoya and within Kongsfjord and the Isfjord area. Hertel is continuing work on a detailed manuscript dealing with saxicolous species of *Lecidea* from Asia.
- IKOMA, Y. (Japan) writes that his father, Yoshihiro Ikoma, was an active collector of cryptogams of all kinds. Some of his lichens were sent to Prof. Wainio through Prof. Atsushi Yasuda and were published in the Botanical Magazine, Tokyo, 32: 154-163 and 35: 45: 45-79 (1921). He is now interested in the macrolichens of the neighboring districts and the phytogeography of lichens in general. He would like to exchange papers. Address: RC-233 Omoricho, Tottori City, Japan.
- MORGAN-JONES, G. (U.S.A.) spent January 1975 in the United Kingdom visiting the Commonwealth Mycological Institute and the British Museum (Natural History).
- NOBLE, Willa (Canada) has collected a good series of lichen specimens from the areas of Mediterranean climate near the Straits of Georgia (between the city of Vancouver, B.C. and Vancouver Island) with the object of doing a phytogeographic analysis.

- OGLETREE, John F. (U.K.) is preparing a study unit on lichens for secondary school students as part of a curriculum project at the University of Exeter, Devon, England. He would appreciate having help in locating books that have colour photos or colour art reproductions of lichens. His address is: 11 Mayfield Rd., St. Loyes, Exeter, Devon EX2 5HH, England.
- PATWARDHAN, P.G. (India) spent four weeks in October-November 1975 studying lichens at the Smithsonian Institution in connection with a study of the lichens of the Western Ghats in India.
- RICHARDSON, D.H.S. (Canada) is spending this year teaching at the University of Victoria in Victoria, British Columbia. His work on the phsiological effects of air pollution on lichens is counting however.
- RUNDEL, Philip (U.S.A.) reports that during 1976, he will spend six months of his sabbatical leave in Wurzburg, Germany, with Professor Otto Lange. They will be working on a project dealing with convergent evolution in desert fog zone lichens, with particular emphasis on the comparative physiological ecology of unrelated species. Dr. Rundel will be looking at species from Baja California and Chile, working in laboratory experiments at Wurzburg. He will be supported by an Alexander von Humboldt Foundation fellowship.
- SCHNEIDER, G. (Germany) is working on a Ph.D. thesis entitled "Studies in the genus *Psora*" under the guidance of H. Hertel. It is not intended as a monographic work, but rather the aim is to get perspectives into what is hidden within the unnatural taxon "*Psora*" sensu ZAHLBR.
- SEAWARD, Mark (U.K.) lectured (mainly on lichens) in Israel at the Universities of Tel-Aviv and Jerusalem and also at the Weizmann Institute of Science. He was a guest lecturer there from 13 March to 3 April 1975. Dr. Seaward has received grants from the Praeger Committee of the Royal Irish Academy, the World Wildlife Fund, and the Department of Lands (Irish Government) for work on the lichen flora of southeast Ireland. Some surveys there have already been made, and others are planned.

TRASS, Hans (Estonian S.S.R.) spent over six weeks in Canada last autumn studying lichens at the National Museum of Canada in Ottawa, and giving some lectures at the University of Alberta (Edmonton) where he spent most of his time. In Canada, he was supported mainly by the Canada Council, but received much help from Dr. Larry Bliss enabling him to visit Inuvik in the Mackenzie delta region of the Northwest Territories, and the Rocky Mountains near Jasper.

WILKINS, Cheryl A. and MORGAN-HUWS, D.I. (U.K.) of the Department of Biological Sciences, Portsmouth Polytechnic have been studying the germination and development of soredia under controlled conditions - with a view to eventual experimental work on factors affecting their germination and growth under field conditions.

A brief report of the early findings has been prepared and is available to anyone interested or involved in this field.

ZIEGLER, H.G. (Germany) is doing Ph.D. thesis work on the chemotaxonomy of the genus *Lecidella* under the guidance of Ch.Leuchert (Berlin) and H. Hertel (Munich), using TLC, lichen moss spectroscopy and other techniques.

# Awards & Honors

DEGELIUS, Gunnar (Göteborg, Sweden) received the Linnean Gold Medal from the Royal Physiographical Society, University of Lund, on Dec. 2, 1975. The award was conferred on him in recognition of his outstanding lichenological work for more than 50 years, and in particular, of his monograph of Collema, completed in 1974.

TRASS, Hans (Estonian S.R.R.) has been elected a Corresponding Member of the Academy of Sciences of the U.S.S.R. from April 1975.

## **Deaths**

HENRY NICOLLON des ABBAYES (France), professeur honoraire à la Faculté des Sciences de Rennes, est né le 15 juillet 1898 à Vihiers, dans le Maine-et-Loire. Il est décédé en 1974, à 1'âge de 75 ans.

Il a accomplit plusieurs missions en Afrique occidentale (1948, 1951, 1954) à Madagascar et à la Réunion (1956) et il a pris part à divers congrès internationaux. Il était correspondant du Musée national d'histoire naturelle, deux fois lauréat de l'Académie des sciences et membre de nombreuses sociétés de sciences naturelles. Parmi ses oeuvres, citons de nombreux travaux de lichénologie: végétation lichénique du Massif Armoricain, Lichens d'Espagne, des Açores, de Madagascar des Iles Hawai, d'A.O.F., etc. Monographie des Cladonia du sous-genre Cladina, un traité de lichénologie (1951) et de nombreux autres travaux se rapportant surtout à la géographie botanique, ainsi que la Flore vasculaire du Massif armoricain (1971).

Le Prof. des Abbayes a été déecoré Chevalier de la Légion d'honneur, Officier de l'Ordre national du Mérite, Commandeur des Palmes académiques, Chevalier du Mérite agricole et Croix du Combattant 1914-1918. Il a constitué une importante collection de Lichens provenant du monde entier. Il a cultivé les poètes latins dont il a fait des traductions en vers et a pratiqué le "latin vivant". Sa disparation nous attriste profondément.

- L. Massé et I. Brodo

Prof. YASUHIKO ASAHINA (Japan), who almost single-handedly gave to lichenology the use of chemistry as a taxonomic tool, died 30 June 1973 at the age of 94. Among his far-reaching contributions were his introduction and popularization of the use of p-phenylenediamine, and his development of microcrystal tests for identifying lichen substances. A photograph of this distinguished scientist was published in the Newsletter in 1968 (vol. 2, no. 2) on the occasion of his 88th birthday. The death of Dr. Asahina was marked by a minute of respectful silence by all lichenologists at the Leningrad Congress.

4

Mr. WILLIAM MARTIN (New Zealand), author of the popular illustrated manual "The Lichens of New Zealand" with J. Childs in 1972, died in Dunedin in July, 1975 having lived a full and active 88 years. This remarkable man, who did so much to popularize the lichens of his land only began a serious study of them himself when he was 70 years old. He spent most of his career as a phanerogamic botanist, taking up the study of mosses upon his retirement. Lichenology, then, was his last, but not least botanical interest. A detailed description of Mr. Martin's career has been written by David Galloway and will be published elsewhere.

# **Books**

Lichens. Annie Lorraine Smith. ca. 500 pages. Originally published 1975. Available from the Richmond Publishing Co., Ltd., Orchard Road, Richmond, Surrey TW9 4PD, U.K. at £8.95 until the end of February 1976, and then £11.50. The reissue of this classic book is to be welcomed by all lichenologists, especially those entering the field. It still serves as an indispensible source of information, especially of the older literature. Dr. David Hawksworth provides additional readings to each chapter, a new introduction, and a new supplementary index to the reprint edition.

The Vanishing Lichens. D.H.S. Richardson. 231 pages, illustrated. 1974. Hafner Publishing Co., Inc. New York, 1974, at \$12.00; David & Charles (Holdings) Ltd., Devon (England) and Vancouver (Canada), 1975. This is a more popular account of lichens and lichenology with a special emphasis placed on the usefulness of the plants.

Mycologist's Handbook. D.L. Hawksworth. 231 pages. 1974. Commonwealth Mycological Institute, England. £ 5.50 or \$14.30 (hard cover edition), £ 2.75 and \$7.20 (paperback edition). This book is subtitled, "An Introduction to the Principles of Taxonomy and Nomenclature in the Fungi and Lichens". It will be very useful to all lichen taxonomists, especially those lacking extensive experience in the field of nomenclature. A particular feature of this work is the inclusion of portions of the Code of Botanical Nomenclature pertinent to mycologists and lichenologists and illustrated by means of examples drawn from the fungiand lichens.

# **Excursions**

Une Excursion Lichenologique dans le Sud de la France

L'Association Française de Lichénologie organise, du 2 au 9 Juillet 1976, une excursion de lichénologie en Provence, sous 1a direction de G. CLAUZADE et de C. ROUX. Cette excursion aura pour thème principal 1'étude des associations lichéniques saxicoles, terricoles et corticoles.

Le programme provisoire de l'excursion inclut des visites au Pays d'Apt, au Gard Oriental (environs d'Uzès at de Remoulin), aux Basaltes d'Evenos (Var) et la Ciotat (Bouches du Rhône), et, peut-être, aux Iles de la Rade de Marseille.

### Nordic Mycological Excursion

The III Nordic Mycological Congress (field meeting) will he held at Mo i Rana (Nordland, central Norway), 7-)9-12 September 1976. Details are available from S. Sivertsen, DKNVS Muséet, Botanisk avdeling, N-7000 Trondheim, Norway.

### Field Meeting in north-east Spain

The summer field meeting of the British Lichen Society will be held in north-east Spain under the leadership of Dr. X. Llimona, Departmento de Botanica, Facultad de Ciencias, Universidad de Barcelona, Barcelona, Spain, 2-11 September 1976. The first part of the meeting will be centred on Sitges, a small artistic town by the sea, 42 km south of Barcelona. The second part will be centred on Figueras, north of Gerona and near the Costa Brava.

### An excursion in southeastern United States

The American Bryological and Lichenological Society will be sponsoring an excursion in conjunction with the 1976 A.I.B.S. meetings in New Orleans. It will be a two-day field trip to rocky areas in central Louisiana and pine woods and bottom-land hardwood forests in southeastern Louisiana, beginning 28 May 1976 in Alexandria, La. Travel will be by private car. For information and intent to participate,

# Meetings

International Mycological Congress, 1977

The Second International Mycological Congress will be held in Tampa, Florida in the summer of 1977. The first congress was held in Exeter, England and was an immense success. As was true of those meetings, the Florida congress will have a substantial lichenological involvement, including field trips, symposia, poster displays, and contributed papers.

We cannot give many details at this point since plans are still actively being made, and occasionally changed. It seems certain, however, that there will be one symposium on "Lichen phycobionts: their nature and role", and another on "Parasymbiosis". There will also be symposia of direct interest to lichenologists in the Aşcomycete section. These will be on ascocarp development and ascus structure.

An ambitious field trip program is being planned, but is still too uncertain to discuss. Still, it would be well for those thinking of coming to the Mycological Congress to keep the 19th of August through the 3rd of September open, even though the Congress itself will take place only between 29 August and 3 September.

Irwin M. Brodo (Canada) is representing lichenological interests on the Congress' program committee and is also standing in for I.A.L. president Ted Ahti on the Congress Executive Committee. Questions and comments regarding the lichen program can be addressed to him. Inquiries regarding the Congress itself should be sent to Dr. Melvin S. Fuller, Department of Botany, University of Georgia, Athens, Georgia 30602.

### Meeting on Air Pollution

A Meeting for the Investigators of Plant Damages Caused by Air Pollution will take place at the University of Kuopio, 16-18 August 1976. The second day will be devoted to "lower plants". Although especially directed towards the "Nordic" scientists, the language will be English. For details, write to Prof. L. Kärenlampi, University of Kuopio, P.O.B. 138, SF-70101 Kuopio 10, Finland.

# XII International Botanical Congress - Leningrad, U.S.S.R. Scientific Meetings

Probably the largest group of lichenologists ever to gather in one place met in Leningrad in July, 1975. Hans Trass (Estonian S.S.R.), acting as convener of the Mycology and Lichenology Section, assured that lichenology was well represented in the program. The scientific meetings included two symposia specifically on lichens: "Lichen Symbiosis: Origin and Evolution" organized by Oleg B. Blum (Ukrainian S.S.R.) and chaired by V. Ahmadjian (U.S.A.), and "Lichen Substances and Chemotaxonomy" organized by I.A. Shapiro (U.S.S.R.) and chaired by H. Krog (Norway). Two sessions of contributed papers were at least in part devoted to lichens: "Ontogeny and Ultrastructure of Fungi and lichens" organized by Nina S. Golubkova (U.S.S.R.) and chaired by Marie-Agnes Letrouit-Galinou (France), and "Fungi and Lichens in Extreme Ecological Conditions" organized by Juri L. Martin (Estonian S.S.R.) and chaired by E. Rudolph (U.S.A.).

### Proposed sites for 1979 Field Meeting

The business meeting of the International Association for Lichenology was held on July 9th with 78 lichenologists in attendance. Some discussion was made on a possible site for a 1979 field meeting, but no locality was agreed upon. Among the sites suggested were Sri Lanka, Iceland, the Azores, the Canary Islands, and South Africa. More on that subject will be published in the next newsletter. If you have ideas on the matter, please communicate with Tom Nash or Ted Ahti.

New Council

A new council for the I.A.L. was then elected to hold office until the next International Botanical Congress. The council itself then met and chose officers. The results were as follows: Teuvo Ahti (Finland), president; Rolf Santesson (Sweden), vice-president; Thomas Nash III (U.S.A.), secretary; Hannes Hertel (Germany), treasurer; Irwin Brodo (Canada), Editor; Oleg Blum (Ukrainian S.S.R.); and Hans Trass (Estonian S.S.R.).

Dues

The subject of dues was then raised, and it was agreed that dues would be \$5.00 (U.S.) + an additional \$5.00 which would be optional, for the entire period between this Congress and the next (six years). This would just pay the expenses of printing the Newsletter (barely). It was decided that members who were prevented from paying, should still be regarded as "members in good standing" and receive the Newsletter. Cheques should be sent to the International Association for Lichenology, c/o Prof. Dr. Hannes Hertel (treasurer), Botanische Staatssammlung, D-8000 München 19, Menzinger Str. 67, Germany (BRD). Money orders should be sent directly to the following bank: Deutsche Bank A.G., Filiale München-Solln, account-no.: 73/28388.

#### Dinner

Following the business meeting, most of the lichenologists gathered at the Restaurant Nevsky "White Room" and participated in a marvelous dinner punctuated with numerous toasts (to the Soviet hosts, who were so extremely kind and thoughful, and to John Thomson celebrating his birthday, among others). The party reluctantly broke up at closing time, 12 o'clock.

### Field Trips

Several lichenologists took part in post-congress field trips, e.g. those to the Caucasus Mts., Tajikistan, the Baltic Republics, and the Soviet Karelia - Kola Peninsula. Although only approximately three days were spent in the field, many lichen specimens were collected by the participants.

A number of lichenologists visited the lichen herbarium (headed by Nina S. Golubkova) and lichenological laboratory (headed by I.A. Shapiro) at the Komarov Botanical Institute of the Academy of Sciences, Leningrad. Some also studied the Hoffmann, Ehrhart and Trinius lichen collections at the Moscow State University Herbarium.

# Nomenclature

The International Association for Plant Taxonomy's Special Nomenclatur Committee for Fungi and Lichens, appointed by the XII International Botanical Congress, Leningrad, for 1975-1981, includes two lichenologists, Peter W. James (U.K.) and Teuvo Ahti (Finland). The Chairman of the Committee is Dr. Luella K. Weresub (Biosystematics Research Inst., Bldg. 26, C.E.F., Ottawa, Ont. KIA OC6, Canada) and the Secretary Dr. R.H. Petersen (Dept. of Botany, Univ. of Tennessee, Knoxville, Tennessee 37916, U.S.A.

A summary of all decisions taken by the Nomenclature Section in the Leningrad Congress will be published in Taxon, February 1976. These should be considered as effective immediately, although the new code in book form will almost surely not be issued this or next year. Lichenologists are urged to pay attention to the many changes made in the Code, even though most of them are of very minor importance. For instance, from the 1972 (Seattle) Code, Articles 70 (names based on discordant elements) and 71 (monstrosities), as well as Art. 34 (1st paragraph and Note 2 (incidentally mentioned names) were totally deleted. Important changes were made in Articles 35 (names published without rank) and 69 ('A name must be rejected if it has been widely and persistently used for a taxon not including its type. Names thus rejected shall be placed on a list of nomina rejicienda'! Some of the changes in the Code will probably necessitate a few unfortunate changes in lichen nomenclature, while others make it possible to keep the wellestablished names in use. However, the concept nomen specificum conservandum was not accepted in the Code (yet?), although - as before it caused a hot discussion and bitter voting. - T. Ahti

# Societies

Nordic Lichen Society

In spring 1975 a Nordic lichenological society was initiated by a committee consisting of P.M. Jørgensen (Norway), R. Moberg (Sweden), U. Søchting (Denmark) and O. Vitikainen (Finland). The main activity was suggested to be to arrange field meetings within the Nordic countries with the first to be held in Sweden during the autumn of 1975.

With the estate Enaforsholm in the province of Jamtland (Royal Swedish Academy of Agriculture and Forestry) as the base, the first field meeting thus took place during 10-15 August 1975 under the guidance of R. Moberg and R. Santesson with 35 persons attending. Daily field trips were made to interesting localities such as the waterfalls of Handol, the area of Storlien, and the mountains Areskutan and Snasahogarna. The evenings were devoted to discussions, and the society was formally established with the initiators as the committee. The name Nordisk lichenologisk forening (Nordic Lichen Society) was accepted.

The next meeting should be held in Norway in 1977.

- Roland Moberg (Sweden)

### **Views**

A reader of the Newsletter asked me to draw attention to the fact that in some cases a few lichenologists do not follow the International Code of Nomenclature. As an example was cited the opinion expressed by Mason E. Hale (A revision of the lichen genus Hypotrachyna (Parmeliaceae) in Tropical America. Smithsonian Contr. Bot. 25:19. 1975) regarding relectotypification: " — when a second worker discovers a specimen in another collection that is in better condition or is more appropriate than the previously designated lectotype. A possibly undesirable amount of nomenclatorial instability may be introduced in these circumstances, but this seems a better course than rigidly following a lectotypification which the earlier worker himself admits may be faulty". In my opinion, relectotypifications causing name change should be reduced to an utmost minimum even in cases when the first typification is poor. The stability of the nomenclature should be the first rule to follow

It may be also noted that too many new combinations of lichen names are still published invalidly (often without a full reference - incl. the page number - to the basionym) or new taxa are erected without indication of type. The latter situation especially concerns sections, subfamilies and other supraspecific entitles. Lichenologists should also realize that if a "lichen" is considered to be a non-lichenized taxon (like Leptorhaphis epidermidis, Mycocalicium subtile), its nomenclatural starting point is (normally) Fries 1821 rather than Linnaeus 1753.

- T. Ahti

# Editor's Comments

The past year, 1975, was notable for the occurrence of the Leningrad Botanical Congress, and for the absence of a Lichenological Newsletter. The two events, as it turns out, are not entirely unrelated. Without going into involved apologies and excuses, let me simply say that the effort to get things organized for the Congress, together with a change in Newsletter editors, together with a prolonged postal strike in Canada resulted in there being no issue of the I.A.L. Newsletter in 1975. You may be certain that we will make every effort to assure that there will be no future gaps in publication.

Ahmadjian has served as editor. With the second number, Mason Hale joined him as printer. Comments from members of the I.A.L. in Leningrad made it clear that what has been put together is both valuable and appreciated. Everyone seemed pleased with the format and coverage and there were few suggested changes. With this issue, however, certain changes will be apparent. Most obvious is the production itself, now being done by a multilith photo process rather than by letter-set. Our printer, Mason Hale ("and Son"), has found that the pressure of other responsibilities has made it impossible for him to continue to print the Newsletter. All the work of type-setting and printing, as you probably know, was done entirely by hand. This was an extremely time-consuming job, even when we had only 250 copies to print. Now that we must produce almost 400, a hand-printing job has become impossible. I think everyone will join me in thanking Mason for the tremendous effort

he has put into producing the Newsletter in the past, and for the many other ways he has helped the Newsletter get off the ground.

Needless to say, following Vernon Ahmadjian as editor will be no easy task. Vernon has done a truly excellent job. The format he has developed has been so successful, I find no reason to change it in any significant way. However, if any members of the Association would like to see a change made, please feel free to let me know.

Obviously, a newsletter is nothing without news. Our publication has perennially been plagued with a lack of material to publish although we all know that an abundance of interesting and important news exists "out there". In order to increase the flow of news items to the editor, we will try something new, for a few issues anyway. Enclosed in this issue is a blank sheet with a number of headings or suggested news categories. I urge you to take the sheet and, without delay, write out any news items you think are appropriate. Then, send the sheet back to me. Of course, you can send me other news items or changes of the old items at any time by letter. You need not even "set it up" as an item in our format. I can do that later. Simply write newsy letters, if that seems easiest to you.

We will once again be soliciting "guest editorials" from various lichenologists. Vernon Ahmadjian and I both firmly believe that interesting and provocative editorials such as we've had over the past eight years are among the things which have set our publication above most others of its kind. If you are asked to do an editorial, please try to find the time to do it. On the other hand, if you feel that you have something of an editorial nature to say, please do not wait for an invitation. Send us the editorial and we will consider it for publication.

Enclosed in this issue is a subject and author index to the previous eight volumes of the Newsletter. Those at the Leningrad meeting indicated that they thought such an index would be valuable. The index was done by Dr. Peter Bowler, and I am extremely grateful for his help. It was a time-consuming job done with great care and thought. We hope you will find it useful.

# Addendum

Meetings of the American Bryological and Lichenological Society

The lichenological content of the 1976 ABLS meetings will be much greater than usual. At least 12 contributed papers on all aspects of lichenology will be presented, with 10 grouped together in a special session on lichens. A special symposium entitled, "American Bryology and Lichenology: A Retrospective View" will be held to commemorate the Bicentennary of the United States of America, and will examine the past 150-200 years of progress in these fields in America. The meetings take place 31 May - 3 June 1976 at Tulane University in New Orleans, Louisiana. For information, and registration applications, write to the secretary of the A.B.L.S., Dr. Marshall Crosby, The Missouri Botanical Garden 2315 Tower Grove Ave., St. Louis, Missouri, 63110, U.S.A.

Bibliography of Distribution Maps of Fungi

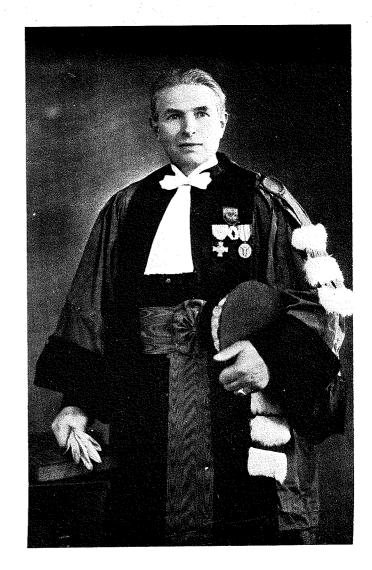
Dr. Hanns Kreisel (Germany), the author of the series "Bibliographie der Verbreitungskarten von Pilzen" I-V (Feddes repert. 82-86. 1971-75), has now begun to collect material for the part entitled "Lichenized Fungi". He would be grateful if lichenologists could support his work by sending him reprints of papers containing distribution maps of lichens, or perhaps lists of published maps. Address: Dr. habil. Hanns Kreisel, DDR-22 of Greifswald, Hans-Beimler-Str. 10, Germany (DDR).

DEGELIUS, Gunnar (Sweden) has been elected an honorary member of the British Lichen Society.

KARNEFELT, Ingvar (Sweden) received a scholarship from the Sweden-America Foundation which will permit him to study lichens (especially <u>Cetraria</u> and <u>Cornicularia</u>) both in the field and in various herbaria. He plans to be in North America from June until November.

The International Lichenological Newsletter is the official organ of the International Association for Lichenology. Membership is open to anyone who has an active interest in lichenology. Dues are \$5-\$10 per 6 years and should be sent to the Association's treasurer (see Vol. 9 no. 1, p. 16). News items intended for the Newsletter may be forwarded to the editor.

The affairs of the International Association for Lichenology are directed by an Executive Council consisting of Teuvo Ahti, president, Rolf Santesson, vice-president, Thomas Nash III, secretary, Hannes Hertel, treasurer, Irwin Brodo, editor, as well as Hans Trass and Oleg Blum. They will serve until the next International Botanical Congress.



HENRY NICOLLON des ABBAYES, 1898 - 1974.

Photo taken 1949; courtesy of L. Massé. Bibliographic notes on page 11.