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 Traas and Oleg Blum. They will serve until the next International Botanical Congress.

Editor: Irwin M. Brodo
National Museums of Canada
Ottawa, Ontario K1A 0M8
Canada

Editorial

The Adventures of the IAL in Costa Rica

On the morning of the 28th of December, 1978, a group of lichenologists began their tropical field symposium in San José, Costa Rica. All of them seemed to forget about late arrivals, missing luggage and other difficulties, sitting under the fiery, red flowers of Spathodea trees, overlooking the coffee-plantation next door. All the unforeseen mishaps which occurred over the next week had the same fate – they drowned in the impression of the overwhelmingly rich flora.

We immediately headed for the high peaks of Cerro de la Muerte. The first stop in the lower montane rain forest had already revealed a rich flora. It was pleasing to see Erioderma wrightii so well developed. The richness only increased as we climbed towards the top of the road. I shall never forget the discovery of Cladonia – and the mud-hole I fell into by shear enthusiasm. Most interesting also were the road-cuts covered with several Stereocaulon, Cladonia and Baeomosses species, not to mention the omnipresent Cora panonia. We reached Cerro de la Muerte so late that there was no time to collect there.

But the next day was spent here in this lichen eldorado in the subalpine rain paramo zone at about 3,400 m.s.l. The influence of frequent fog was evident. The bushes were covered with lichens: Erioderma (5 species), Lepiotaena, Menegazzia, Stictaceae etc. The soil lichens were also interesting with such arctic-alpine species as Parmelia and Sticta at the summit. In fact several species previously only known from the paramos in South America were collected here for the first time in Central America. In San Isidro,
where we stayed over night, the Association had a meeting with Rex Fison showing slides from Australia. The proposed activities during the coming International Botanical Congress were discussed and, later during the trip, subjects for symposia were agreed upon.

On the 30th we continued toward Finca Las Cruces and made several stops on the road, some involuntarily due to difficulties with the buses. After having crossed Rio Grande de Terraba with a very simple but efficient ferry (see Newsletter 12, 1), the roads became more and more difficult, the worst part being that from San Vito to Finca Las Cruces itself. We made it in deep tropical darkness without really knowing the exact location of the place, but finally we arrived safely at our destination. Here, Catherine and Robert Wilson have created one of the most remarkable botanical gardens in the world, outstanding in the variety of tropical species they grow.

We botanized during the following days in the premontane rain forests surrounding the gardens. It was hard walking in the hot sun, but Mason Hale succeeded in locating a shop - which looked like a shed to the rest of us - just when we thought we were going to die of thirst.

New Years Eve was celebrated here in high spirits under the direction of Jacob Garty whose special "show" for the occasion was welcomed with enthusiasm. The song "Apostasia" ought to be recorded.

Another evening was spent discussing lichenology in the tropics and in Costa Rica in particular. It was decided to try to make a list of lichens found in the country. Drs. Ahti, Amann, Dibben, Follmann, Henssen and Mathey gave lectures relevant to problems in tropical lichenology. On the 2nd of January the plan was to return to San José, a plan that proved difficult to carry through! After having passed Paso Real, one of the buses suffered a final break-down. We spent most of the day at Rio Brujo, a hot place with a rather poor lichen flora. Luckily there was an excellent local inn. Rex Fison and myself took some very interesting Spanish lessons from the innkeeper's children and learned quite a bit about daily life in Costa Rica - not at all wasted time! Finally in the evening a new bus arrived and brought us to our destination through a fog-storm in the mountains. It is still a mystery to me how the driver was able to see the road.

The next morning Prof. Luis Gomez, who had also been with us at Cerro de la Muerte, showed us the National Museum. We then left for Monte Verde - after some hide-and-seek with a few people who had left the main group. After finally having been reunited, we started with hope for a smooth journey - but as soon as we left the main road, one of the buses broke down and darkness caught us right at the beginning of the steep, narrow, stony and muddy road to Monte Verde. Rainy weather and strong gales did not make the trip easier. The drivers admitted afterwards that they had never thought that Costa Rica could have such poor roads. They really did a marvellous job in spite of their poor buses.

The storm unfortunately continued next day; the roof was nearly blown off the hotel where we stayed. It was the only day with heavy, persistent rain during the whole excursion. Many participants stayed in the vicinity of the houses and never reached the magnificent National Park with a proper rain forest. This in turn led to that unfortunate incident of overcollecting near private homes, which has been dealt with separately (Newsletter 12, 1). Some of us got out of the village and up to the rich open pastures in the premontane forest. In the evening, Mass, Tiffen, Wetmore and Yoshimura gave another set of lectures on tropical lichen groups for a tired but attentive group of lichenologists.

We arrived back in San José on the 5th of January, without any more incidents. The excursion was scientifically most successful. It had given us first-hand knowledge and field experience with a tropical flora which very few of us had previously seen. Thirty-four people representing 13 nations, several religions and both sexes had been travelling together without any serious disagreements. No diseases of importance attacked us, and only a few snakes - all of them hurrying away - were observed. Most of the missing luggage reappeared; Cliff Smith was the only one who had to do without it all the time. Only one item, a jacket containing no valuables, was reported stolen and even the reconfirmations of the return tickets were secured after some shouting and waving!

The IAL is much obliged to Prof. Luis Gomez and the ONS for their assistance and particularly to Martyn Dibben who carried the heaviest burden. In spite of the frequent unforeseen difficulties, I only saw him really worried once during the whole trip. We must all be thankful that he had the courage to take on the leadership of this excursion and bring us through all the dangers!

- Per Magnus Jørgensen

Books


"... a revision of all known obligately or primarily lichenicolous Hyphomycetes ... Forty-four species belonging to 23 genera are accepted and keys to these are provided... one genus and 117 species are described as new." No lichens with hyphomycete imperfect states are currently recognized in nature with certainty. This is a very important study of a poorly known group of fungi and should be of great interest to "pure" lichenologists as well as to mycologists. The work concludes with a useful glossary of mycological terms unfamiliar to lichenologists.

- T. Ahti
"This work deals with approximately 450 British Lichens, covering the common species and a selection of rare ones.... A particular feature of the book is the large number of photographs - most species are illustrated in black and white and over 50 in full colour."

"...In 1977 a conference 'Anthropotolerance of biocenoses and the applied ecology' was held in Tallinn, where some problems of bioindication were reported, though without profound account of theoretical and methodical questions.

In the present abstracts, reflecting (briefly) the complex of issues of the all-Union conference 'Lichen indication of the environment condition', these questions will find more detailed treatment according to the following main groups of subjects: I. General problems of the lichen indication; II. Anthropogenic changes in flora and synunia of mosses and lichens; III. The role of lichens and mosses in ecosystems and the accumulation of chemical elements; IV. Licheno- and bryoindicational mapping of the state of environment; V. Anthropogenic changes of the physiology of mosses and lichens."

- H. Trass

---

In addition, the following major monographs have recently appeared in journals:


---


The second edition of Hale's very popular guide differs sufficiently from the first to merit its purchase, even if you have the first. The keys have been improved in many places, although weak or misleading choices still appear here and there. The maps have been updated and the illustrations greatly improved both in number and quality. The pages are larger (19 x 24 cm), with a two column format. Perhaps the most noticeable change is in the recognition of the many segregate genera introduced since 1969, such as Cladina, Bryoria, Phaeophyscia, Flagoconia, Korschyparma, Parmotrema and so on."

- Irwin M. Brodo
News and Notes

AHII, T. (Finland) spent one month at the British Museum (Natural History), London, in May-June 1979. He was finalizing his study on the Cladonia gracilis group and also examined the Neotropical Cladonia collections.

BRADY, Lois (U.S.A.) is well into her studies of the lichen flora of Wabasha and Winona Counties in southeastern Minnesota. She is working on a master's degree with Cliff WETHERED at the University of Minnesota.

BROD, Irwin M. (Canada) spent two weeks at Université Laval in Quebec City, Quebec, giving a course on lichen identification. A field excursion with the students resulted in several new and interesting records for the province. Work is slowly progressing on the Leucogone subfusca group and on the lichen flora of the Queen Charlotte Islands, B.C.

DIXON, Jean (Jamaica) visited the Smithsonian Institution for a few days in August 1979 to examine tropical lichens as part of a program to establish a lichen herbarium in Kingston.

EGAN, Robert S. (U.S.A.) has recently moved to the Department of Biology, University of Nebraska at Omaha, Omaha, Nebraska 68182. He would like to continue his lichen exchanges at his new institution.

ESSLINGER, Theodore L. (U.S.A.) is currently working on the genus Oroopogon, concentrating on new world taxa. He intends to include old world taxa as material becomes available. He is also continuing his work on the Physciaeae and the brown Parmeliaceae.

GALLOWAY, David J. (New Zealand) has almost finished work on the lichen Flora of New Zealand. He will be working at the British Museum until January when he will return to New Zealand for several months (until May). He will then return to England.


HAWKSWORTH, David L. (U.K.). With "The lichenicolous Hyphomycetes" published in May, work on a similar treatment of the lichenicolous Coelomycetes (so far described is underway. He hopes to complete that work in 1980. A paper discussing some fungi occurring on Pelitigina, including a key to 42 species on that host genus, will be published in Trans. Br. mycol. Soc. in February. Inclusion of lichenicolous fungi in the new UK checklist has meant re-considerations of numerous lichenicolous fungi and several name changes will have to be made in that list. A revision of taxonomic and nomenclatural problems, especially at the generic level, in Discocarpon, Endocarpon, Mellicella and Lithothecium is to appear in Bot. Notiser in September 1979. He has also been investigating Microthellic auct. and a treatment of the non-lichenized taxa in the group should be completed within the next few months.

Dr. HAWKSWORTH, together with Peter W. JAMES and Brian I. COPPINS completed the second draft of a new "Check-list of British Lichen-forming and lichenicolous fungi" in July and parts are being circulated to various colleagues around the world for their comments and corrections. Dr. HAWKSWORTH visited Helsinki in August in part to study types of lichenicolous fungi in connection with this list, and Peter James visited Ove Alaborn and Rolf Santesson in September to discuss the list with them. The check-list, which will probably be published in the February 1980 Licheneslogis, is not merely a compilation, but includes a reassessment of the status of many genera and contains considerable number of nomenclatural changes. Non-lichenized fungi generally studied by "lichenologists" and lichenicolous fungi are included, as are some lichenized fungi usually ignored by "lichenologists". An additional feature of the list will be the citation of pertinent papers under the entry for each genus.

HENNSER, Aino (B.R.D.) visited the CSRS in June and met Dr. VÁZÁR. She had very stimulating discussions with him on foliicolous lichens and considered the possibility of an excursion to an El Dorado for "small black ones". For her monographic treatment of Cetraria and Thamna, Dr. Hensburg would welcome material from China, Japan, India and other countries of the Far East.

Dr. HENSSEIY reports on the activities of her students as follows: Cornot WOBIS received his doctor's degree in July, 1979. His thesis, "Bau und Entwicklung der Flechten-Pycnidien und ihrer Conidien" will be published in "Bibliotheca Lichenologica" (Cramer Verlag). For the past year, he has been working as a research assistant with the German government project for taxonomic research in actinomycetes studying conidial development in these organisms. Bernd HENSSEIY hopes to soon finish his doctor's thesis dealing with methods for quantifying the influence of lichen algae on the morphological and metabolic organization of the mycobiont. Andrésinas GLADITI DE WOBIS, a student of Irma GANNUNI DE AMENDS in La Plata (Argentina) joined the Marburg group in November 1978 and is studying South American material of Flavopara. Bernd ZEUN finished his master's thesis entitled "Entwicklung der Fruktionstammsorgane bei lichenisiertem und nicht lichenisiertem Vertretern der Osmundaceae".

HERTEL, Hannes (B.R.D.) spent five weeks, together with Hans ULLRICH (Goslar) and Christian LEUECKERT (Berlin) (part of the time under the guidance of HDrur KRISTENSSON (Beykjavik) in Iceland, collecting crustaceous lichens, mainly Leccidi. He is working on an "Index Collectorum Lichenorum", covering names and some basic biographic information of the collectors of those lichens which are kept in the herbarium of Botanische Staatsammlung (B). At the moment some 1500 names have been picked up.
HUSS-DANELL, Kerstin (Sweden) has completed his doctoral thesis entitled, "Nitrogen Fixation in the Lichen Stereocaulon paschale" at the University of Umeå. The study discusses the influence of environmental factors and the physiological conditions of the thallus on N-fixation. The nitrogen input to the site, a sparsely stocked pine forest in northern Sweden, was also studied.

JØRGENSEN, Per M. (Norway) on the 2nd of December 1978, defended his monograph on the European Pannariaceae for the degree of Dr. philos., and left shortly afterwards on a field-trip to the Americas including California, Arizona, Costa Rica, Venezuela and Jamaica. He is now acting professor of taxonomic botany at the University of Bergen, and most of his time is devoted to teaching and administration. He has four students, two working with crustose lichens on rocks in the vicinity of Bergen, one with species on smooth bark (mainly Ilex) in W-Norway, and one with pollution problems. A fifth student has just finished his degree on marine lichens. Several new species for Scandinavia and Norway have been discovered. Together with D.O. ØSTDAL, Dr. Jørgensen is working on the lichens of the Norwegian Bouvet-Island expedition. He is continuing his work on the Pannariaceae (except Erioderms) and will be grateful to receive material for identification, particularly from extra-European Countries.

KEUCK, Gerhard (D.B.R.) is beginning a world monograph of the genus Nephroma and requests specimens of this genus from various parts of the world.

LAII, Ming-Jou (Taiwan) finished a one year fellowship at the Smithsonian Institution in Washington, D.C. and has now returned to the Botany Department, National Taiwan University, Taipei. He worked with Mason Hale on Taiwanese Parmeliaceae, and also wrote an article on Asian Hypogymnia and Cetraria with black undersurfaces.

MAASS, Wolfgang (Canada) has developed a technique for making single spore cultures from individual asci of lichen fungi. He now has cultures of eight asci from one ascus for Teloschistes exilis, T. flavicans, Ramalina farinacea, and Stroma squamosa. The cultures are being developed in the context of an investigation of lichen genetics.

MacFARLANE, John (Canada) has completed his Ph.D. work at McMaster University and has taken a postdoctoral fellowship at Imperial College of Science and Technology (Department of Botany) in London, England.

MARSH, Janet (Canada) now at the Northern Forest Research Centre, 5320 122nd Street, Edmonton, Alberta T6H 3S5, is working on Banff-Jasper biophysical inventory and land classification for Parks Canada.

MARTON, Kela (Israel) spent a half year at Universität Marburg with Aino Nissenson's group studying South American Peltigera species.

RICHARDSON, David H.S. (Canada) will be spending a year away from Sudbury on a sabatical leave. He will spend the first six months in Oxford, England and the second six months in Western Australia based at the Western Australian Herbarium at Perth.

Maximilian Steiner - 75th birthday

Professor Steiner is one of the few lichenologists to have made significant contributions in both the fields of lichen physiology and lichen systematic. He introduced the formula for a stable, aqueous solution of para-phenylenediamine, a very useful reagent which is now appropriately called "Steiner's Solution". The photograph above was taken near Steinbach in the Austrian Alps as Professor Steiner was leading one of the outings on the I.A.L.'s first Field Symposium in 1973.

- Irwin M. Brodo
RUDOLPH, Emanuel D. (U.S.A.) has become the chairman of the Department of Botany at Ohio State University.

RUNNEL, Philip W. (U.S.A.) spent September and October of last year in northern Chile doing ecological work in the coastal desert fog zone studying both lichens and vascular plants. This summer, he spent time on the Hawaiian Islands with Clifford SMITH working with the Hawaiian Rainforest.

SHOGAN, Ray (U.S.A.) is continuing his studies on the lichens around coal-fired power plants in Ohio. He finds that "the more modern plants with tall stacks seem to be pretty clean".

VÁZQUEZ, Victor Manuel (Spain) is beginning his doctoral research on the lichens of northern Spain, especially those of the Cordillers Cantábrica, under the direction of Ana CRÉSPO.

WEI JIANG-CHEN (China), whose name was formerly transliterated V.E. J. TZAN- CZUNJ, is now the Head of the Department of Mycology, Institute of Microbiology, Academia Sinica, Beijing (= Peking). He is working on the lichens of Tibet.

WETMORE, Clifford (U.S.A.) spent five weeks in northern Minnesota (Voyageurs National Park) collecting 3000 lichens especially in localities visited by Bruce Fink.

XAVIER Filho, Lauro (Brasil) is doing a study of the "Cerrado" lichens in Central Brazil (Brasilas DF). It should be noted that he has moved from the Universidade Federal de Pernambuco, Recife, to UnB-IB-Veg. Cx. Postal 152836, 70.910 Brasilas DF, Brasil.

Deaths

FLÖSSNER, Willy Otto died 81 years old, on June 2, 1979. He worked as a teacher in Oberhau (D.R.) and his lichenological activities concentrated to the lichen flora of "Erzgebirge" (Mts.). He gave his lichen collections to Herbarium Haussknecht, Jena (ZB).
Societies

International Association for Lichenology: Rare or threatened lichens

The Lichen Sub-committee of the Threatened Plants Committee (TPC) of the International Union for Conservation of Nature and Natural Resources (IUCN) was formed in 1977 in response to a request made by the Secretary of TPC.

The President of the International Association for Lichenology invited the following to form the Sub-Committee: Dr. M.R.D. Seaward (Chairman), Dr. F. Rose, Dr. R.E. Showman, Dr. C.M. Wetmore and Dr. V. Wirth. Broadly-speaking the purpose of this Sub-committee is to co-ordinate with international conservation efforts, and to help identify endangered lichen species by undertaking a survey of the factors endangering lichens on a world scale, and a survey of the most threatened species with particular references to Europe and North America. The work of this Sub-committee will be communicated to IUCN, and reported on at the next International Botanical Congress to be held at Sydney in 1981.

One of the Sub-committee's activities is to evaluate the range of pressures acting upon vulnerable species and important lichen sites. To this end, a number of lichenologists are being approached with a view to compiling a corpus of information in the form of case studies. Questionnaires outlining all the needed information will be supplied on request. It is hoped to publish a representative selection or synthesis of these, and all help will be duly acknowledged. All material received will be filed for future use by lichenologists, etc. unless indicated 'confidential'. We would also welcome lists of (a) species known to be extinct and (b) species threatened with extinction at a regional/national/international level.

- Mark Seaward
  Chairman, Lichen Sub-committee of the Threatened Plants Committee

Mycology and the IUBS

At the XII General Assembly of the International Union of Biological Sciences (IUBS) held in Helsinki in August, the International Mycological Association (IMA), to which the IAL recently affiliated, managed to achieve an improved status for mycology within the hierarchy of international biology. The current Division of Botany in IUBS is to be re-titled Division of Botany and Mycology and the IMA is to form a Section of General Mycology within this a part to the Section of General Botany. Mycologists are thus now of an equivalent standing to all other groups of "botanists" in IUBS. These changes mean that a logical infrastructure for mycology within IUBS will be possible. In particular, sections based on international bodies representing particular parts of mycology are likely to prove acceptable to the next IUBS General Assembly. The IAL, for example, may wish to propose its formal acceptance as a Section of Lichenology, a move that would certainly be strongly supported by the IMA. Sections in IUBS are entitled to apply for financial assistance from IUBS towards administrative costs, etc., and automatically are entitled to a grant towards sending an official representative to IUBS General Assemblies.

The XII General Assembly of IUBS is to be held in Ottawa, Canada in 1982.

- D.L. Hawksworth (Secretary, IMA)

Excursions

Western Canada

Several excursions are being planned for the summer of 1980 in conjunction with the annual meetings of the American Bryological and Lichenological Society (ABLS) and the Canadian Botanical Association (CBA) at the University of British Columbia in Vancouver, B.C. These meetings will be immediately followed by the International Congress of Systematic and Evolutionary Biology (ICSEB) at the same place. One of the field trips will be to the Queen Charlotte Islands off the coast of the British Columbia mainland.

It will be limited to 20 participants and will cost between $300 and $400.

The excursion will take place 8-11 July prior to the CBA/ABLS meetings, and then will be repeated 22-25 July following the ICSEB. All aspects of botany will be covered in both alpine and rain forest localities.

A shorter (and less expensive) trip is being planned for the two days between the meetings (16-17 July), this one to alpine and valley localities in the Caribou Mountains (just a short drive north of Vancouver). The leader of all these trips will be Dr. Wilfred Schofield, Department of Botany, University of British Columbia, Vancouver, B.C. V6T 1Z5, Canada. Write to him for more information.

In addition, there are some tentative plans for a lichenological-bryological trip across the Rocky Mountains prior to the CBA/ABLS meetings starting from Edmonton, Alberta. There will be more information about all these excursions in the next issue of the Newsletter.
Meeting in France

The British Lichen Society is having a field meeting in the Fontainebleau area of France, 3-7 July 1980, under the leadership of Dr. Francis Rose. On the 8th of July, the group will travel to Alencon to meet with the Association Francaise de Lichénologie and will continue the field activities jointly, 8-14 July. This part of the trip, organized by Mme. Marie-Agnes Letemietz, will be spent in Normandie (Orne) (near Mortagne, Bagnoles-de-l’Orne), Juigny-sous-Adaine, Mortain, and Verne-Bernard (around St. Léonard-des-Boise and la Corniche-de-Fail). For information write (as soon as possible) to Dr. Francis Rose, 36 St. Mary’s Road, Liss, Hampshire GU33 7AH, England.

Meetings

International Botanical Congress, Australia, 1981.

Plans are well underway for lichenological involvement in this important meeting. The I.A.L. has appointed Rex Filson as our official representative for the Congress program committee and has submitted a proposal for a number of symposia and field trips. Among the suggestions are symposia on "Lichens of the Arid Regions", "Evolution of Lichenized Fungi", "Modern Criteria in Lichen Taxonomy", "Influence of Air Pollution on Lichens", "Environmental Response of Lichens" and "The Lichen Symbiosis: Algal-fungal Relationships". Tentative plans are being considered for a two week field study session in the mountains of New Zealand with one week in each of two rich localities. There will almost certainly be an excursion in Australia as well. Details of all these suggestions will be published in the April, 1980 issue of the I.L.N. Suggestions or comments on any of the Congress activities should be sent to the I.A.L. Secretary, Tom Nash.

Symposium on Qinghai-Xizang (Tibet) Plateau

This symposium, which includes papers on the origin and evolution of the lichen and fungus flora of Xizang (Tibet), will be held in Beijing (Peking) on 25-31 May 1980. The central theme of the symposium is "The Rise of Qinghai-Xizang (Tibet) Plateau and its Effects on the Natural Environment and Man". The working language of the symposium is English. For further information write to the Secretariat of the Organizing Committee of the Symposium on Tibet Plateau, Academia Sinica, Beijing, People's Republic of China.

Exsiccate

Hannes HERTEL (München, B.R.D.) is planning to start a new exsiccate which will specialize in members of the Lecidinae (sensu Zahlbruckner) with worldwide coverage. It will be issued in only 15 copies. Dr. Hertel would appreciate having material for the series in sets of 15.

The true pyxie-cup lichen. Drawn by Bruce Ryan.