

international lichenological newsletter

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Editorial

1983 - Will IAL meet with IMC³ in Japan?

Despite correspondence from both the IAL President (Mason HALE) and Secretary (Per Magnus JØRGENSEN) to the IMC³ Organizing Committee (Dr. N. Hiratsuka, Chairman), the IMC³ Secretary General (Prof. K. Tubaki), and IBC President C. V. Subramanian, a lack of confirming replies leaves IAL currently uncertain about its Japan program. However, the first IMC³ circular of July 1981 allowed that LICHENS (17) would be part of some twenty-six possible subject areas.

The Third International Mycological Congress will be held August 28 through September 3, 1983 in Tokyo, Japan and be based at the Keio Plaza Inter-Continental Hotel. The second circular with full details is about to be released. Anyone not on the IMC³ mailing list and wanting to attend should write the Secretariat; c/o International Congress Services, Inc., Chikusen Bldg. 5F, 2-7-4, Nihombashi, Chuo-ku, Tokyo, Japan 103.

An official travel program for the Mycological Society of America, just released, uses Garber Travel Service, Inc. of Massachusetts, details accommodation and travel needs for the Congress, and describes and prices two pre-congress tours of Japan and China.

Plans for IAL participation remain unfirm but a banquet and business meeting are intended. Contributed papers (both oral and/or poster) are still being sought for several lichen sessions; potential authors should write Per Magnus JØRGENSEN now (see temporary address under NEWS AND NOTES), although most Congress deadlines are well into the spring of 1983. Two symposia are being organized with one on "Symbiosis in Lichens" already defined and to be convened by Margalith GALUN and Vernon AHMADJIAN.

Some 2,000 congress participants are expected to attend with about 60 currently indicating an interest in the lichenological program. A number of mycological field trips are planned by the Japanese Organizing Committee (Kiyosumi, Boso Peninsula, Chiba Pref. -- August 25-28; Nikko National Park, Nikko, Tochigi Pref. -- August 25-28; Mount Fuji (san), Fujinomeya, Shizuoka Pref. -- September 4-8) and will be open to lichenologists.

Your participation will determine the success of an IAL meeting. Show your enthusiasm by notifying Mason HALE or Aino HENSSEN (IAL Vice-President) of your intent to attend.

Special Report

IAL Field Trip to New Zealand (September 7-15, 1981)

After a successful 13th International Botanical Congress with several lichen excursions (already reported in ILN), a group of 18 lichenologists under the leadership of David GALLOWAY gathered in Christchurch to explore the rich and diverse lichen flora of New Zealand. Participants included: Ted and Leena AHTI, Ove ALMBORN, Lois BRAKO, Ernie BRODO, Bill BUCK, John CHRISTY, Joy FILDES, Aino HENSSEN, Yoshiatsu IKOMA, Peter JAMES, Per Magnus JØRGENSEN, Hildur KROG, Helmut MAYRHOFER, Tom NASH, Harrie SIPMAN, Shirley TUCKER, Joy WALKER and from New Zealand, John Barlett, Margaret Bulfin, Mavis Davidson, and Colin Meurk.

On the first day we travelled by West Coast Railcar to the University of Canterbury Field Station at Cass, just east of Arthurs Pass National Park in the rain shadow of the Southern Alps. The scenery reminded one very much of certain parts of Norway and Scotland, but this feeling was immediately dispelled once lichen collecting began. On bushes of *Discaria* just outside the station several unfamiliar species were found - *Teloschistes velifer*, *Haematomma babingtonii*, and brown *Parmelia zopheroa*. And relict patches of mountain beech (*Nothofagus solandri* var. *cliffortioides*) forest in sheltered gullies just above the station contained several species of *Pseudocyphellaria*, not less than seven species of *Psoroma*, and striking cushions of *Collema fasciculare* and *Brigantia chrysostricta*. Those who managed to climb higher into the alpine area found local species of saxicolous *Placopsis* and terricolous *Thamnomia*; Helmut MAYRHOFER discovered an interesting new yellow *Rinodina*.

The following day we visited the mountain beech forests of the Craigieburn Forest Park, clambering along tracks deep in snow. The trees had a luxuriant but astonishingly species-poor lichen flora dominated by *Stictaceae* (*Pseudocyphellaria colensoi* being the most elegant and conspicuous taxon) and several species of *Menegazzia*. To Peter JAMES's delight, a new species of this latter genus apparently endemic to the region was found. Its bright orange-red apothecial margins made it the most admired species of the day.

On September 9 we visited quite a different area - the limestone outcrops above open grassland at Cave Stream. *Discaria* bushes here bore masses of *Teloschistes velifer*, *Ramalina glaucescens*, and *Xanthoria novaeseelandiae*, but the most interesting finds were made on rocks. Species with blue-green phycobionts proved especially frequent and it was quite difficult to persuade Aino HENSSEN to leave her "small black ones." Admittedly, the discovery of fruiting *Zahlbrucknerella calcarea* was indeed most exciting.

On the morning of the 10th we left Cass in two minibuses (ably driven by Margaret Austin and Christine McArtney) en route for Boyle Lodge. On the way we stopped at Porter's Pass to study the alpine flora of *Chionochloa* grassland on the slopes of Foggy Peak. Unfortunately, snow was still prevalent (it being late winter) but we succeeded in finding *Pseudocyphellaria berberina*, *P. lechleri*, *Hypogymnia lugubris* and *H. pulchrilobata*. In the afternoon, after a splendid lunch at the Rangiora High School organized by Ian Stephenson, we stopped at Weka Pass in North Canterbury. Here a limestone railway cutting contained a number of interesting genera and species, including *Caloplaca decipiens*, not previously recorded from the Southern Hemisphere. In contrast to the Cave Stream site, this limestone area had a pronounced "European" assemblage of species including *Buellia sabuletorum* and *Leproplaca chrysodeta*. At the end of the day we arrived at the spacious lodge set amid *Leptospermum* scrub on a terrace above the Boyle River and surrounded by a dark green mantle of southern beech capped by the snow-topped mountains of the Lewis Pass Scenic Reserve.

The Nina Valley, a western tributary of the Lewis River, was visited the next day and proved to be the highlight of the whole excursion. We had to cross the broad, but shallow, river either by balancing on a wire 3 meters above its surface or by wading through the ice-cold water. Margaret Austin made the wire look easy, but Tom NASH showed otherwise; most of us preferred to ford. Once on the far bank, however, no-one had cause for complaint as the bush revealed a lichenologist's paradise. Just out of the water Hildur KROG discovered *Sticta sublimbata* - a first for New Zealand, and then an undescribed *Pseudocyphellaria* in the *intricata* group resembling *Nephroma parile*. Other finds included the two endemic, monotypic, genera *Calycidium* and *Thysanophoron* (the most stately of all lichens) and *Stictaceae* in such profusion and representation of chimeric parallels that even JAMES and GALLOWAY had "to look closer later on" to be certain of names. Added to this were fascinating crusts in *Lecidea*, *Ramonia*, *Micarea*, and the *Lecanactidaceae*, *Cetrariastrum sorocheilum*, *Gymnoderma melacarpa*, *Pannoparmelia angustata*, *Usnea xanthophana* and several species of *Sphaerophorus*. Surely there could be no more! Nothing was further from the truth. When we reached the first boggy flats beyond the forest, we discovered isolated stands of mountain beech set in hummocks of *Sphagnum* and cladoniiform lichens that supported an even richer flora. In the open bog were found at least three species of *Siphula*; *Cladia*, *Cladina*, and several species of *Cladonia*. On rotting logs were two species of *Multiclavula*. But it was the trees and shrubs that had the most diversity. Never in my life have I seen so many different representatives of the family *Pannariaceae* in one locality. The genera *Degelia* (this being the type locality of *D. durietzii*), *Erioderma*, *Leioderma*, *Pannaria*, *Parmeliella* and *Psoroma* were all present; of *Psoroma* no less than 14 species were recorded. Many other new taxa were also discovered, including a curious *Phlyctella* with single, very large, spores and its sorediate counterpart.

The next day (Saturday) we drove eastwards, away from the mountains, and met with members of the Canterbury Botanical Society for a pleasant social and collecting excursion at Dog Stream in the Hammer State Forest. After lunch, the trees of an exotic plantation near the Forest Service Information Center were studied and proved to have a rich flora. Most interesting was the discovery of an undescribed brown *Parmelia* (the sorediate counterpart of *P. zopheroa*?) found only on *Acer pseudoplatanus*; but the best find was the soil lichen *Thrombium epigaeum*, new to New Zealand and the Southern Hemisphere. A shower of rain did not cool the group's enthusiasm and afterwards all took a communal bath in the hot mineral springs for which Hammer is renowned. In the evening a dinner was arranged at Hammer Lodge where I hesitatingly made my debut as a peripatetic cabaret singer in full "field dress" and GALLOWAY performed "Ba, Ba Black Sheep" being the good New Zealander that he is. Apart from enjoying the food and wine many also participated in the riotous dancing that ensued. A memorable evening! Many

National Anthems were raucously rendered in the mini-buses on our return to Boyle Lodge later that night.

September 13 was a "rest-day," but devotees spent the morning along the Boyle River in beech forest carpeted thickly with moss and here found an interesting *Trapelia*, *Degelia durietzii*, *Micarea peliocarpa*, and more species of *Pseudocyphellaria*. On the bark of some old, dry, red beeches (*Nothofagus fusca*) several examples of *Caliciales*, *Graphina*, *Lecanactidaceae* and *Ramonia* were found that had not previously been seen during the excursion. In the afternoon, I botanized in the *Leptospermum* scrub near the Lodge finding *Coccocarpia erythroxyli*, *Degelia duplomarginata*, *Pannoparmelia wilsonii*, and many taxa in the families *Collemataceae*, *Pannariaceae* and *Stictaceae*. It was quite an experience to find *Sticta latifrons* with both green and blue-green chimeric states joined together.

The last day of collecting was spent on the summit of Lewis Pass admiring the splendid bog formations bordering the tarn from the comfort of wooden duck boards. Here we were snowed on, but escaped westwards down through a magnificent avenue of towering red beech to some slight rain in the Maruia Valley where, on the trunks of mature beech near Rough Creek, was found a curious, stalked, palmate blue-green *Sticta* and *Pilophorus conglomeratus* growing over rotting stumps. Later, at Speargrass Flat, many interesting things were found on the thickly divaricating shrubs bordering the road; for example, *Coenogonium implexum*, *Degelia gayana*, *Heterodermia podocarpa*, *Nephroma lepidophyllum* and *Physma chilense*. It was a tantalizing glimpse of the more humid western lichen flora of New Zealand that whetted the appetite for more. But sadly the excursion had come to an end.

Back in the Christchurch area we were warmly received by Dr. Henry Connor (Director of the Botany Division) and his staff at the DSIR herbarium in Lincoln. Never before had so many overseas botanists been at work in CHR at one time. Bryony Macmillan and her associates made sure that all collections were properly packed and dispatched. Margaret Bulfin provided an excellent lunch at her lovely home where the group met Dr. Eric Godley (former Director of the Botany Division). That evening, on our arrival in Christchurch, all were relieved to change out of field clothes and "dress for dinner." The final social function of the trip was a lively affair complete with speeches and presentations and votes-of-thanks all around.

To sum up, I cannot remember having participated in any previous lichen excursion where I have seen so many new species. I felt rejuvenated when I arrived home; New Zealand truly is a lichenologist's haven. It is a paradox that this lichen flora has, until recently, been relatively neglected. The remedy certainly will be GALLOWAY's new flora which was made essential reading for the foray. Many participants added useful observations, additions, and corrections to the script. We are particularly grateful to David for organizing such a smoothly-run and rewarding excursion. Our thanks go also to the bus drivers, to Kath and Allan Mathews who fed us in royal fashion, and to Ian Stephenson who took care of all practical arrangements in a most excellent manner. After the foray Ross and Yvonne Elder acted as hosts to several botanists who stayed longer in Christchurch. The hospitality of New Zealanders is a memory that will long remain. Undoubtedly, this was one of the most successful IAL Field Meetings yet held.

--- Per M. JØRGENSEN

(Editor's comment: Jørgensen's report was much longer, underwent extensive revision by Galloway and James, and then suffered the pen of an editor who was unable to stay in Australasia long enough to attend the foray. Accompanying photographs are to be found on pages 10 and 11 of this issue of the Newsletter.)

News and Notes

AHMADJIAN, Vernon (U.S.A.) is developing synthetic lichens from single spore isolates of the mycobiont *Usnea strigosa* to see if chemical variation in this lichen has a genetic basis. Chemical studies are being done in collaboration with Chicita CULBERSON. Recent visitors to Clark University have included Mason HALE, Imre FRIEDMANN and Margalith GALUN; the latter two also attending last August's International Microbiology Congress held in Boston.

AMMANN, Klaus (Switzerland) was recently awarded a permanent position as Head of the Department of Cryptogamic Botany at the "Systematisch-Geobotanisches Institute" in Bern which he has been reorganizing for four years.

Research has centered on the chemosystematics of the *Cladonia furcata-rangiformis* group during a 1978-81 grant period. Nearly 5,000 specimens from across the world have been analysed chemically by the Culberston method.

Current funding (1981-83) is supporting a morphological study of these samples, all data being analysed by multivariate methods and Gower clustering. In addition, a quantitative investigation for a series of selected compounds is planned for samples of the same taxonomic group.

Also based in Bern, Rolf Herzig, Luzius Liebendörfer, and Martin Urech plan to work in collaboration on a national air pollution project and develop methods of lichen bio-indication especially adapted to the Swiss environment.

DIBBEN, Martyn J. (U.S.A.) continues research of the *Pertusariaceae*. Graduate student Dianne FOSTER is producing interesting EM results in her surface and transmission studies of the fruit bodies, asci, and spores of ornate-spored *Pertusariae*.

FAHSELT, Dianne (Canada) sends news from her laboratory at the University of Western Ontario. We have been using HPLC to quantify the levels of lichen products within stands of *Cladonia stellaris*. We also have been working with six isozyme systems in *Cetraria arenaria*. Graduate student Cecilia HAGEMAN is now comparing isozymes in four species of *Umbilicaria*.

HAFELLNER, Josef (Austria) has finished his monograph of *Letrouitia* (*Bombyli-ospora domingensis* group) which will be published in *Nova Hedwigia*. A revision of *Brigantiaea* will be completed in the near future. In September he returned to St.-Claud (France) to continue TEM investigations with André BELLEMERE. He has now replaced Hannes HERTEL as author of the chapter on "Lichen Systematics" in the journal *Progress in Botany*. He would appreciate receipt of any lichen systematics papers published in the eighties.

HENSSEN, Aino and Hannes HERTEL (Germany, BRD) thoroughly enjoyed an April-May South African expedition to the Prince Edward Islands led by Valdon Smith (Bloemfontain). The two found the subantarctic lichen flora fascinating and enjoyed life among the elephant seals, fur seals, breeding albatrosses penguins and giant petrels. Back in Cape Province they collected lichens on field trips led by Dr. E. A. Schelpe (Cape Town) and Shaun Russell (Alice). Dirk WESSELS finally organized 12 very profitable days in the Transvaal with field trips to Pietersburg, Louis Trich-

ardt, and Graskop. A lot of "small black ones" were found on seepage rocks in these areas.

HUNECK, Siegfried (Germany, DDR) left Halle the end of last June for Mongolia. One aim of this second joint expedition of the Academy of Sciences of the Mongolian People's Republic and the Academy of Sciences of the German Democratic Republic is the collection of lichens in the mountains of the Mongolian Altai, about 1,200 km west of Ulan-Bator.

JAMES, Peter, W. (U.K.) reports that life is as hectic as ever at the BM what with research, politics, and transport strikes. During this past summer he has received visits from Hildur KROG (Norway), Shirley TUCKER (U.S.A.), and Emmanuel SERUSIAUX (Belgium).

JANEX-FAVRE, Marie-Claude (France) a orienté ses recherches mycologiques dans deux domaines: 1. ultrastructure des asques et ascospores, principalement chez les Pyrénomycètes; 2. ontogénie des pycnides et des périthèces des Lichens.

JØRGENSEN, Per M. (Norway) has been appointed Professor of Taxonomic Botany at the University of Bergen. He now hopes to get more time for lichen research. As a prelude, he is spending a sabbatical at The Royal Botanic Garden - Edinburgh to study microlichens of the British Isles. He will be there from June 1982 to April 1983; during this period all correspondence should be addressed to: Royal Botanic Gardens, Edinburgh EH3 5LR, Scotland, U.K.

LAI, Ming-Jou (Republic of China) is currently visiting Prof. Seung-Tai PARK at the Biological Laboratory, Jeonbug National University, Jeonju, Republic of Korea. Here he is working with Park and his students on the lichen flora of Korea previously investigated by Kim-Seung HOI. Mr. Hoi died last year with little of his work known to the western world. For example, none of his publications were listed in Hawksworth's Bibliographic Guide to the Lichen Flora of the World.

MCCARTHY, Patrick M. (Ireland) is studying the distribution, ecology, and phytosociology of lichen communities in the Burren and on the Aran Islands of western Ireland; together these areas constitute some 500 km² of karstic Carboniferous limestone. Other topics of special interest include the microclimatic conditions in the lichen/air boundary layer and the extent and explanation of intra-specific variation in certain micro-pyrenocarpous species.

NASH, Thomas H. (U.S.A.) revisited Australia during May 1982 spending five days visiting the Tinderry Mountains and Brindabella Ranges of New South Wales. Many specimens of Xanthoparmeliae were gathered here with the help of Chris McCartney and later in Morton National Park, the Blue Mountains, and the Gloucester Tops before proceeding to Mt. Hutt in New Zealand.

RICHARDSON, David H.S. (Ireland) is continuing work in Dublin on the uptake of inorganic ions by lichens and mosses and the use of these plants for monitoring purposes. Student John WELLS is beginning an M.Sc. research project on the uptake of arsenate by mosses and lichens, extending earlier work started by Richardson and Evert NIEBOER at Laurentian University, Canada.

ROGERS, Roderick W. (Australia) is visiting the Botany School, University of Sheffield, England from September 24, 1982 through February 20, 1983. He then plans to visit Leif TIBELL, Helmut MAYRHOFER, and the Paris and Vienna herbaria. From March 20 through April 22, 1983 he will be staying with Aino HENSSEN in Marburg, Germany (BRD).

SEPPELT, Rod (Tasmania) is currently working up collections made in Antarctica especially those from the Davis Station in the Nestfold Hills. Ultimately he anticipates revising the lichen flora of the Australian Antarctic Territory updating and expanding Rex FILSON's earlier studies. Rod has also been working on collections from Head and Macquarie Island, and started fieldwork in Tasmania to expand the HO herbarium holdings which recently incorporated the 16,000 lichen specimens from Geoff Bratt's private collection. He reports that Gintaras KANTVILAS's recent back injury appears to be only a temporary disability.

VOBIS, Gernot and Aino HENSSEN (Germany, BRD) attended the 5th International Symposium on Actinomycete Biology (August 16-19) in Oaxtepec, Mexico where both had been invited to give papers. They stayed for two weeks after the congress to collect Mexican lichens. Earlier in the year (January-February), Dr. A. Punugu from Palni visited Marburg for study and discussion on Indian lichens. In October, Leif TIBELL gave a paper on "Taxonomy of the Caliciales" at a Fachbereich Biologie der Philipps-Universität colloquium.

Meetings

American Bryological and Lichenological Society

The 1983 ABL/AIBS meetings will be held at the University of North Dakota, Grand Forks, N.D. from August 7 - 11.

Clifford M. WETMORE is again in charge of organizing the paper sessions and symposia and will lead a pre-meeting foray to the Black Hills of South Dakota. An intermediate stop in North Dakota between the Black Hills and Grand Forks is also planned.

The call for papers and foray reservations will be mailed to the membership in early December 1982. A major symposium will be ASSESSING AIR QUALITY WITH LICHENS AND BRYOPHYTES. It will be co-sponsored by the Air Quality Division of the U.S. National Park Service with the following speakers and topics.

Overview And Introduction: The National Park Service's Role in Air Pollution.
J. P. Bennett, AQD, National Park Service.

Lichen Floristics And Air Pollution.
C. M. Wetmore, University of Minnesota.

Mapping Air Quality With Lichens.
R. E. Showman, American Electric Power.

Statistical Analysis Of Air Pollution Indicators.
Susan Will-Wolf, University of Wisconsin.

Correlating Fumigation Studies With Field Effects.
T. H. Nash, Arizona State University.

Correlating Physiological Studies With Field Effects.
Evert Nieboer, Laurentian University.

Trace Element Mapping With Lichens.
K. J. Puckett, ARQA Environmental Service.

Trace Element Mapping With Bryophytes.
(Speaker to be announced).

Species Variability - Mosses And Lichens.
W. E. Winner, Virginia Polytechnic University.

Ecological Importance Of Lichens and Bryophytes: What Happens If They Disappear? (Speaker to be announced).

A report of the 1982 ABLS/AIBS meetings is given elsewhere in this Newsletter (see SOCIETIES).

British Lichen Society

The BLS will mark its 25th Foundation Anniversary (Silver Jubilee) with a special Annual, General, Lecture, and Exhibition Meeting, January 7-8, 1983 to be held at the British Museum (Nat. Hist.), Kensington, London.

Friday January 7, president Mark SEAWARD will host a symposium followed by an evening celebration dinner. Events on Saturday January 8 will include the AGM, lecture, and exhibition meetings. Field meetings planned for 1983 include an 8-day spring meeting to the Islands of Coll and Tiree (Argyll Co., Inner Hebrides) off the west coast of Scotland.

Full details for both these events will be given in the next BLS Bulletin (No. 51) which will also include the second of four invited reports on the early years of the society.

Organization for Flora Neotropica

The next Annual Meeting of the OFN Board and Commission will take place in Caracas, Venezuela on May 14, 1983 immediately before the VII Venezuelan Botanical Congress which will occur May 15-21 at the Jardin Botanico de Caracas.

The OFN meeting itself will be preceded by a 4-day field trip from May 9-13 to Sierra de Perija in the State of Zulia. Attendees will be guests of the Ministerio del Ambiente and stay free at their field station. Participants will, however, be responsible for all travel costs and food and hotel while in transit. Those planning to participate should book to arrive Maracaibo on May 8 and fly from there to Caracas on May 13.

Details about the field trip can be obtained from Dr. Ghillian T. Prance of the New York Botanical Garden. Information on the Venezuelan Botanical Congress can be obtained from President Dr. Leandro Aristeguieta, Jardin Botanico, Apartado 2156, Caracas 1010-A, Venezuela. Accommodations in Caracas should be confirmed well in advance as the Congress is planned to coincide with the celebration of the Simon Bolivar Bicentenary.

At the 1982 OFN Meeting held in Lima, Peru on June 30, the "cryptogamic manifesto" tabled since 1980 was resurrected for discussion. Dana GRIFFIN

(Florida) repeated the objections many cryptogamists have to publication in Flora Neotropica. Special dispensation that might allow for OFN publication of cryptogamic genera of less than 50 species or of small family groups was again not favored, considered expensive, and felt inefficient from the viewpoint of production.

Why cryptogamists could not publish large familial treatments as do phanerogamists was countered by reference to the poorer collections and knowledge of these plant groups and that such taxa usually have much broader distributions than their angiosperm counterparts making a regional neotropical treatment more difficult. The fact that no OFN bryological or lichenological treatment has been published to date obviously causes specialists in these areas to disregard Flora Neotropica as an appropriate publication outlet. Evidently encouragement should be given -- but the consensus was that OFN likely would remain a source only for the exceptionally large tropical cryptogamic monograph.

Herbaria

Eduard Frey Herbarium (BERN), Switzerland

Under the guidance of Klaus AMMANN, the assistance of Philippe CLERC, and the generosity of the Swiss National Foundation, this lichen herbarium of some 40,000 specimens is now fully accessible. The best collected taxa are alpine species of the genera Cladonia, Lecanora, Physcia, Stereocaulon, Umbilicaria, and Usnea.

Ammann has written a herbarium computer program for labelling specimens which allows quick and comfortable screen editing. A microcomputer (Compu-corp 675) is used as an intelligent typewriter set that new users need only a minimum of starting instruction. The same hardware has been used to program documentation of selected references, develop a system for labelling color slides, and allow subsequent data processing for floral lists, map production, etc.

This year saw the completion of a file card bibliography based on all issues of cryptogamic literature published in The Bryologist. Over 22 meters of cards have now been arranged as three catalogs covering hepatics, mosses, and lichens. Each is divided into four sections: authors; genera and species; geographical keywords; and, keywords derived from reference titles.

Additional funding from the Swiss National Foundation has also allowed the development of a laboratory for lichen chemosystematics to be run part-time by Florencia OBERLI. Besides developing the Culberson method (TLC), she is especially concerned with microcrystal tests and establishing a HPLC quantitative setup for studying lichen compounds.

--- Klaus AMMANN



Page 10 top: Participants and luggage arriving at Cass aboard the West Coast Railcar. Page 10 bottom: Colin MEURK, Bill BUCK, Per Magnus JØRGENSEN, and Peter JAMES resolving a *Siphula* problem. Page 11 top: The ritual of the Nina Valley -- fording the snowmelt waters of the Lewis River. Page 11 bottom: Group photograph taken at Boyle Lodge. Back Row -- Ian STEPHENSON, Margaret AUSTIN, Ted AHTI, Helmut MAYRHOFER, Harrie SIPMAN, Ove ALMBORN, Joy FILDERS. Middle Row -- Lois BRAKO, Per Magnus JØRGENSEN, Yvonne ELDER, Christine McARTNEY, Bill BUCK, John CHRISTY, Joy WALKER, Leena AHTI, Ross ELDER, David GALLOWAY. Front Row -- Colin MEURK, Peter JAMES, Aino HENSSEN, Kath MATTHEWS, Yoshiatsu IKOMA, Alan MATTHEWS, Hildur KROG, Shirley TUCKER, Ernie BRODO. Absent as ever and still botanizing -- Tom NASH.

Theses and Dissertations

CLERC, Philippe (Switzerland) is working under Klaus AMMANN on a revision of the *Usnea* subsections *Floridae* Mot. and *Tortuosae* Mot. of Europe. His thesis will cover morphological, chemosystematic, and ecological methods, the total data to be treated by multivariate analysis. Ruoss ENGELBERT is also at Bern where he has begun diploma work under the advice of Teuvo AHTI on the *Cladinae* of the Swiss Alps. Methods of chemical, morphological, and phytosociological analysis will be applied to this project.

EVERSMAN, Sharon T. (U.S.A.) finished her Ph.D. program at Arizona State University back in August, 1981. Her dissertation entitled "Lichens as predictors and indicators of SO₂ pollution from coal-fired power generating plants" provides (1) a documentation of physiological response of *Usnea hirta* and *Parmelia chlorochroa* to low-level SO₂ fumigations, (2) an extensive documentation of ultrastructural changes in *Usnea hirta* following such exposure, and (3) a quantitative description of epiphytic lichen variation on Ponderosa Pine in southeastern Montana.

KORIEEM, Ali Mohamed (Egypt) is a Ph.D. candidate working with Vernon AHMADJIAN at Clark University. He is studying the cultural aspects of symbionts on Antarctic endolithic lichens and of microcolonial fungi which grow on desert rocks. Synthesis attempts are being made with both groups of fungi and subsequent ultrastructural studies planned for any lichenized states derived.

MOSER, Thomas J. (U.S.A.) defended his Ph.D. degree from Arizona State University way back in May of 1981. His dissertation entitled "Field Studies on Arctic Caribou Forage Lichens" details (1) estimates of gross productivity of both *Cladonia stellaris* and *C. rangiferina* based on diurnal photosynthetic patterns measured over the summer growing season and (2) an assessment of response of these caribou forage lichens to long-term field sulfur dioxide fumigations.

ROSS, Lisa J. (U.S.A.) completed her M.S. program at Arizona State University last May. Her thesis entitled "Lichens on Coastal Live Oak in Relation to Ozone" provides (1) a quantitative analysis of lichen vegetation on coastal live oak in relation to Los Angeles and (2) an experimental

elucidation of the sensitivity of *Pseudoparmelia carperata* and *Ramalina menziesii* to ozone fumigation.

SCHEIDEGGER, Christoph (Switzerland) is at Bern where he will soon finish his diploma work on *Varicellaria carneonivea* under Josef POELT. He proposes to rename the taxon to the genus *Anzina*, his main concern having been the systematic position of the new genus as supported by TEM study and phytosociological analysis of its habitat. He is planning to shift to thesis work on saxicolous *Buelliae* of the Alps.

WIPPICH, Christine (Germany, BRD) has finished a study at Marburg under Aino HENSSEN entitled "Vergleich der Apothecienentwicklung bei den Caliciales und Mycocaliaceen." Bernd RENNER leaves the group in October to take a post as Hochschulassistent at the Institute für Angewandte Botanik der Universität, Marseillestr. 7, 2000 Hamburg 136, Germany.

ZOOK, Douglas P. (U.S.A.) is completing graduate work at Clark University designed to isolate and characterize bacteria from selected lichens. He recently completed studies in marine tropical algae at the Bermuda Biological Research Station and, supported by the Station and Clark University, did additional investigation of mangrove lichen epiphytes. His current research under Vernon AHMADJIAN will help determine whether certain bacteria are indigenous to lichens and, in fact, whether direct association with the standard lichen symbionts does occur.

Membership

New Members and/or Addresses

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SEPPELT, Rod	Tasmanian Herbarium, University of Tasmania, GPO Box 252c, Hobart, Tasmania 7001, Australia.
SINGH, Krishna P.	Botanical Survey of India, Laitumkarah, Shilling 793003, Meghalaya, India.
XAVIER Filho, Lauro	Laboratório de Tecnologia Farmacêutica, Universidade Federal da Paraíba, 58000 - João Pessoa, Paraíba, Brasil.

IAL Constitution, Membership Directory, and Dues

As promised (ILN 14(2): 5), the current editor has now produced four versions of the accepted IAL Constitution in English, French, German and Spanish. Copies of these will be made available to paid-up members as of the start of 1983.

Mailing labels for the Newsletter are now produced care of an Apple II computer at MIL. This system allows for easy alphabetical and geographical sorting and the quick production of an updated membership list. A new IAL Membership Directory will be prepared at the end of 1982 and mailed to paid-up members with their copies of the Constitution.

Continuance of these activities and the production of the Newsletter requires not only your correspondence but the prompt payment of outstanding dues for the 1981-87 period. **PAY YOUR DUES NOW!** See inside the Newsletter's covers for the payment procedure and the address of the IAL Treasurer.

Books

Marine Flora and Fauna of the Northeastern United States. Lichens (Ascomycetes) of the Intertidal Region. Ronald M. TAYLOR. NOAA Technical Report, NMFS Circular 446, iii + 26 pp., 1982. U.S. Department of Commerce. \$2.50.

Part of a subseries of original, illustrated, modern manuals on the identification, classification, and general biology of the estuarine and coastal marine plants and animals of the northeastern U.S., this number deals with the lichens found in the intertidal zone from New Jersey north to Newfoundland.

The manual treats twenty-two species from seven genera of lichens (Arthopyrenia, Caloplaca, Lecanora, Lichina, Stigmidium, Verrucaria, and Xanthoria) in both an illustrated key and alphabetical listing. Methods of collection, preparation, and study of materials are discussed, along with brief descriptions and ecological notes on each taxon. A glossary of terms is included along with a selected bibliography.

Designed to satisfy use by biology students, research biologists, oceanographers, and the informed layman wishing to identify regional organisms, this particular volume is of interest lichenologically because it expresses Taylor's interpretation of North American Verrucariae.

Much of Taylor's doctoral work at Michigan (MSC) was devoted to unraveling the taxonomy of this group before he moved to the Lansing Community College. Henry A. IMSHAUG is to be credited with helping this study see publication.

Journals

Polar Biology (SPRINGER, West Germany)

For those lichen and moss people who are working on the ecology of plants in the arctic, high arctic, and Antarctica (including the subantarctic areas) a new journal POLAR BIOLOGY is available.

Interested contributors are encouraged to submit their papers for possible inclusion in this journal designed to handle biological research in the polar regions of the world.

--- Ludger KAPPEN

Societies

Australasian Lichenologists

The 5th meeting of the Australasian Lichenologists was held in Brisbane, Australia, May 8-9, 1982. Seven lucky people participated: Alan ARCHER, John CUNRAN, Jack ELIX, Rex FILSON, Rod ROGERS, Cheryl SCARLETT and Nell STEVENS - and enjoyed a relaxed field trip to Coochiemudlo Island.

Business items discussed were a possible North Queensland foray set for June-July, 1983 and the proposed two-volume Flora of Australia lichen project for which Elix, Filson, and Rogers will be co-editors. During Filson's current residence in London (see ILN 15(1): 3; News and Notes), Elix was elected to act as temporary editor of the A.L. Newsletter now in its eleventh issue.

North American Lichenologists

Canadian and U.S. lichenologists and bryologists met August 8-12, 1982 at the 33rd Annual AIBS Meeting held at The State University, University Park, Pennsylvania. Clifford M. WETMORE was Program Chairman and Thomas H. NASH President of the American Bryological and Lichenological Society's activities.

Some 30 contributed papers or poster sessions were provided with eleven covering lichenological topics. Authors included W.L. and C. F. CULBERSON; U.U. MATTHES and T. H. NASH; M.J. LECHOWICZ and M. GROULX; S. EVERSMAN; J.A. SCHUTTE; T.D. TRANA; S. LINK, T.J. MOSER and T.H. NASH; M. SCOTT AND D.W. LARSON; C.W. SMITH; J.W. THOMSON; and L.L. SIGAL.

Members also attended a two-day pre-meeting field trip to the Allegheny National Forest and Clear Creek State Forest of Pennsylvania led by Harold J. Webster. But the most significant outcome of this year's meeting was that ABLS has developed major financial problems. In particular, through bringing The Bryologist up to date by the issue of six enlarged numbers over the last year, the society has been caught in the current inflation of press and postal charges.

In light of insufficient funds the following policies were adopted by ABLS at the 1982 Annual Meeting. The Bryologist will become limited to 400 pages per volume with stricter editing and pursuit of author page charges. Subscription rates will remain at the 1982 level (\$25.00) for 1983, but members are encouraged to contribute an additional tax deductible gift or become Contributing Members (\$50.00). Foreign members will be charged an additional \$5.00 fee to cover surface mail postage and handling (if airmail delivery desired Mexico and Latin America = \$20.00; other foreign addresses = \$25.00) while the membership-at-large has been polled as to their suggestions for solving the dilemma.

Miscellaneous

Projecto Flora Amazonica

Three North American cryptogamic botanists will venture to the Amazon when Lois BRAKO (NYBG), Martyn DIBBEN (MIL), and bryologist Bill REESE (LAF) join forces in a three-month foray to Brazil. The trio will participate as part of the NYBG based PFA program directed by Ghillian Prance and funded by NSF. Designed to both train Brazilian counterparts and supply them with well documented collections from rainforest habitats likely to be destroyed, the April-June 1983 expedition will concentrate on the isolated Serra do Cachimbo mountains in the southwestern part of the state of Para.

Due to the timing of the trip, April 1983's issue of the IAL Newsletter (ILN 16(1)) may well go awry if contributors do not get copy to Milwaukee early in the year. PLEASE NOTE THIS -- YOU HAVE BEEN WARNED!!!

Lichens and Litmus

While in Europe on a Churchill Travelling Fellowship, Tim MOXHAM had chance to visit what is probably the only litmus-from-lichens factory left in the western world outside of Russia.

He reports (BLS Bulletin 50: 1-3, Summer 1982) that the Stuurman Company of Holland has a coveted reputation gained over 300 years for the non-synthetic manufacture of litmus from Roccella spp.

Dry-stored in loosely packed 10kg jute sacks, some 700 to 1,400 kg of lichen are used annually to produce from 1 to 2 tonnes of litmus. Current holdings represent a three or four year supply, but despite decreased sales projected demand has made the company aware that a source-of-supply problem will inevitably arise.

The IAL membership, based on its extensive travel, should be in a position to judge alternative harvest sites and offer advice to the industry after a careful scrutiny of competing commercial and conservation interests.

Friends of the Farlow

A new group the FRIENDS of the FARLOW has been formed by those concerned about the future of this special institution. As of October 1982 some 130 members from 7 countries have registered their interest.

The Farlow Reference Library and Herbarium of Cryptogamic Botany at Harvard University is devoted to the systematic study of lower plants. The herbarium of some 1.25 million specimens of algae, fungi, lichens and mosses collected from around the world over the last 150 years is backed by a library of some 60,000 books and journals. Today it is a unique resource for the study of non-vascular plants.

The FRIENDS recognize that the Farlow's vital and historic function is coupled with limited financial resources. They are attempting to provide support from individuals and diverse groups concerned with natural history and the preservation of the environment.

FRIENDS of the FARLOW will receive an annual Report, Member's Newsletter, a yearly "Evening at Farlow" event, nominal charge photocopy service, and discounts on all Farlow publications.

To join, write FRIENDS of the FARLOW, Farlow Herbarium, 20 Divinity Avenue, Cambridge, MA 02138, U.S.A. Membership categories are: Associate \$5-15; Member \$25; Sponsor \$50-\$1,000; Benefactor \$1,000 and over. An inaugural meeting for charter members will be held in the Harvard University Herbaria Building on November 6, 1982 at 4:30 PM to be followed by dinner in the Cronkhite Graduate Center, Radcliffe College.

Index of Fungi

A change to Art. 13 (starting point dates) of the International Code of Botanical Nomenclature was ratified at the XIII International Botanical Congress, Sydney, 1981.

Valid publication of the names of all Fungi (including lichen-forming fungi) is now treated as beginning with Linnaeus (May 1, 1753) and encompasses even the special status names of Persoon (December 31, 1801) and Fries (January 1, 1821) even though these take priority over homonyms and synonyms published earlier.

The effect of this change is to eliminate any practical distinction between the nomenclature of non-lichenized fungi and lichen-forming fungi. Commencing with Volume 5, Part 4, July 1982, citations for both groups will be merged in the Index for Fungi effectively "losing" the lichens among the free-living fungi.

Oh be of stout heart all ye non-believers!

Views and Comments

Definition of the term LICHEN

As detailed in ILN 14(2) of December 1981, the IAL Terminology Committee canvassed members as to which of five definitions of the term 'lichen' proposed in Australia was most acceptable.

Vernon AHMADJIAN now reports that forty (40) respondents replied as detailed below in favor of definition #1: "A lichen is an association of a fungus and a photosynthetic symbiont resulting in a stable thallus of specific structure."

Votes by Country	Definition				
	#1	#2	#3	#4	#5
Australia	2				
Austria		1			
Belgium		1			
Canada		1	1		
Denmark		1			
Finland	1				
France	1				1
Germany	3				
Iceland		1			
Ireland				2	
Norway	1				
Sweden	3				
United Kingdom		3	1		
United States	9	1	1	2	
Country unknown	3				
TOTAL VOTE	23	9	3	4	1

Since the 1981 General Meeting of IAL held in Sydney could reach no agreement, it is now up to the Executive Council to vote on whether definition #1 (originally proposed by the Terminology Committee) be formally accepted as the definition of a lichen.

In anticipation of this event it seems warranted to recall (Oliver GILBERT, BLS Bulletin 50: 11, 1982) a poem that once appeared in that notorious ap periodical of the Cambridge Botany School -- the Tea Phytologist:

'Some algae met some fungi
And together went a hiking.
The fungi were hungry
The result was a lichen.'

Does lichenization lead to drink?

To steal from the Grapevine may not be just, but for a "beer city" resident the following note on the activity of a European species that is a vagrant in the Pacific Northwest seems prophetic.

David LINDSAY in his Lichens of the Birmingham Region (Proc. Bgham. Nat. Hist. Soc. 24: 125-152, 1981) records that toxitolerant Lecanora conizaeoides is found through the area. ---"Very common on worked wood and especially frequent on wooden furniture repeatedly inundated by beer in gardens of public houses."

Apparently, with renewed vigor, a species freed from peer pressure by the effects of pollution has taken the liberty of libation and become alcohol tolerant. Watch out Milwaukee - it may be more than a World Series you have to gain!

Holobionts have more parts

With the growing acceptance that "blue-green algae" are not algae per se but actually bacteria, some new terms seem necessary to describe the different types of photosynthetic lichen symbionts.

For example, the term phycobiont should no longer be applied to blue-green symbionts since the combining from "phyco-" refers to algae which in this case is inappropriate.

I propose the following terminology to solve this problem: Photosynthetic symbionts of lichens should together be referred to as PHOTOBIONTS (antonym is MYCOBIONTS); the blue-green symbionts should be renamed CYANOBIONTS or BACTOBIONTS; the green algal and other algal symbionts should continue to be referred to as PHYCOBIONTS.

--- Vernon AHMADJIAN

Excursions

International Association for Lichenology

As of this moment no special IAL lichen excursion is planned for IMC³ due to the reluctance of the Japanese Lichen Society to host such an activity (but see also EDITORIAL).

There is, however, an offer from the team who arranged the 1981 New Zealand foray (see SPECIAL REPORTS) to organize a post-Japan excursion to the lichenologically richer southwestern parts of New Zealand around September 3-15, 1983.

Costs will again be kept as low as possible and anyone interested should contact the IAL Secretary immediately. The membership is also reminded of the possible 1985 forays suggested for Greece, northern Africa, or Baja California (ILN 14(2): 12) and the additional plug for South Africa made by Henssen and Hertel (ILN 15(1): 6). Please let the IAL Executive Council know your wish.

--- Per Magnus JØRGENSEN

Deaths



Ruggero TOMASELLI (Italy); 1920-1982

Professor Tomaselli died in March of this year following a car crash. Long associated with the University of Pavia, most recently as the Director of the Institute of Botany and its Laboratorio Crittogamico (PAV), he had led a colorful life in lichenology.

Variouly a Professor of Botany at Catania, Pavia, or Urbino, he also served as a visiting Research Associate at the University of Kansas (1952-53) just prior to obtaining his doctorate. His more than 50 publications date from 1946 and cover mainly systematic, biochemical, and phytogeographic studies (Grumman, 1974). Most were published in journals associated with Italian universities or the Archives of Botany and Biogeography, but he had an early paper in Endeavour on antibiotic lichen substances.

The most controversial of his research objectives involved the taxonomy of lichen mycobionts for which he proposed new names when grown as isolates in culture. For his efforts, he not only received the wrath of his peers who were authorities in this area, but saw his nomenclatural proposals defeated on an international level (TAXON 1953-54 and later) and most of his gen.nov. names sunk back into synonymy.

The editor unfortunately has no knowledge of Prof. Tomaselli's personal life or of his next of kin. The photograph was taken around 1952.