

Cover drawing: *Cetraria arenaria* Karnefelt from a recently completed manuscript on "The Lichens of the Ottawa Region" by I.M. Brodo. Drawing by Susan Laurie-Bourque.

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Editor: Irwin M. Brodo

National Museums of Canada
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Editorial

The Amateur in Lichenology

By its Latin derivation the word "amateur" fits most clearly the first of the definitions given to it by the *Oxford English Dictionary* (Concise), namely, "one who is fond of a thing." But the *OED*'s second definition of the word is what provides its special distinction from the professional worker: "One who practises a thing as a pastime." These definitions are quoted here because the question is sometimes asked, What is an amateur? And it must be admitted that amateurs themselves may feel reluctant to acknowledge a status that has given rise to the adjective "amateurish," meaning (to quote the *OED* again) "having the faults of amateurs' work, unskilful in execution." Yet the respect of professional workers has encouraged many amateurs to believe that in practising their pastime they have succeeded in making some advancement of knowledge about the strange universe in which individually we have such a brief journey.

For many amateurs the mainspring of their pastime is a love of nature. By studying their specimens they gain some understanding of the plants and of the natural world. Many amateurs go no further than that, and the collections they make may in themselves form useful contributions to knowledge if they are properly preserved and labelled. Moreover, they will become of increasing importance as the years pass.

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.

But even at this elementary stage an amateur needs to make a clear assessment of his limitations. These may be divided into physical and academic.

The most decisive physical limitation that an amateur suffers in lichenology is the impracticability of thin-layer chromatography in the home, where most amateurs do their work. But microcrystal tests, in addition to colour spot tests, are well within an amateur's competence, so that, provided he works in fairly well botanized regions, he will find that the simpler methods satisfy most of his requirements. Though squash preparations generally suffice for microscopical examination, the amateur will find it worthwhile to master the art of cutting sections. With the aid of a simple microtome he can section ascocarps and lobes at 15-20 μ m thick, mount the sections in lactophenol-cotton-blue, and form a semipermanent collection of slides.

In addition to this basic equipment an amateur puzzling over his specimens soon finds that he needs something more, and that is the assistance of experts. If he can receive some help in the determining of his material, he is well set for the next stage open to him, and that is to report on the specimens he has collected. He may do this, in Great Britain at least, by sending exact details to a nationally organized mapping scheme. Or he may go further and himself write up the lichens of a defined region or habitat. For work at this level there is still plenty of scope in lichenology to advance knowledge with the aid of simple collecting techniques, manageable chemical tests, and light microscopy carried out on a table at home.

But the amateur starting on anything more ambitious quickly becomes aware of the second type of limitation noted above, namely, academic. It is perhaps not so immediately striking as his inability to set up a gas chromatograph column in the dining room, but in the long run, it is apt to exert a more deleterious effect on such original work as he may attempt.

By definition few amateurs may be presumed to have had a thorough training in botany. Most must be conscious at times of considerable gaps in their basic knowledge of the subject. Looking back, therefore, the amateur will see defects in his education, and they should put him on his guard. Looking forward, he will see two more defects of an academic nature, but fortunately they are easier to repair.

Firstly, nobody in lichenology, whether amateur or professional, will get far without knowing something of the formidable literature that has accumulated in several languages. Consequently access to a good botanical library is essential. Amateurs can obtain this access if they set about it in the right way, but working in their own homes as they do, they will never enjoy that easy recourse to a key reference that is so enviable a facility for professionals in academic institutions.

Secondly, and as indispensable as a library service, is personal guidance from experts. Academic workers are usually generous in the help they give to serious inquirers, whether they offer informed guidance or even actual collaboration. It is fortunate that they are, for amateurs must face the fact that lichenology has reached a stage of development at which research in taxonomy and ecology - the two paths most open to amateurs beyond simple reports of collections - are unlikely to be satisfactory without academic collaboration. This is not merely because a professional colleague may be able to take charge of technical investigations beyond the amateur's capacity.

There is more to it than that. The professional botanist has a deeper understanding of the relevance of different approaches to a problem, more ideas inspired by the way other people have tackled related problems, a much broader view of the literature, a more assured pace through the labyrinth of the International Code, and probably a keener acquaintance with the gossip by which the worth of this or that publication is assessed in academic circles. The guidance he can give on such matters during a joint piece of work is of inestimable value to the amateur.

Scientific research is to some extent a competitive sport, and, as in athletics, amateurs have a great deal to learn not just at the beginning but continually year after year if they are to keep in training. In return the amateur must naturally offer something the professional needs. It may be inspiration in the laboratory or companionship in the field, the unusual specimens he has collected or the results of his work on them. The mere pressure of the amateur's enthusiasm may be a tonic to the jaded professional. At the least he has an obligation to make some return for the professional assistance he receives.

Editorials in the *IL Newsletter* commonly sound a personal note, so perhaps I may draw on that tradition both to conclude and to give emphasis to a point mentioned above. A friend once asked me as an amateur what I regarded as the most necessary qualification for an amateur botanist. After thinking about my own experience I replied, "To have the right friends." I have been exceptionally fortunate in receiving the friendship of botanists who have guided my studies. The space here is too small to list them and the occasion inappropriate to pick out those who have specially helped me. But my indebtedness to them I must acknowledge. Finally, another absolute prerequisite for productive work as an amateur should be stated. If he earns his living in a responsible and tiring job, the time and energy available for his hobby are limited and are part of his home life. Discord is surely inimical to good work, so he must enjoy, as I have always gratefully done, a happy home.

- T.D.V. Swinscow

Awards & Honors

HAWKSWORTH, David L. (United Kingdom) (U.K.) received a D.Sc. from the University of Leicester this past summer.

News and Notes

ALMBORN, Ove (Sweden) has retired from his position as Keeper of the Universitetets Botaniska Museum in Lund. He says that he looks forward "to becoming a full-time lichenologist again" and especially to resuming work on his South African collections. He has accepted an invitation to spend several months (October 1981-March 1982) in South Africa as a research officer and plans to take part in the AETFAT Congress in Pretoria, January 1982.

CLAUZADE, G. et Cl. ROUX (France) terminent une révision des *Acarospora* de l'Europe et de la région méditerranéenne qui doit normalement être publiée à la fin de l'année 1981.

Par ailleurs, c'est avec une grande tristesse qu'ils font part de la disparition de leur excellent ami de Marseille, Jean AMIC, retraité de l'Electricité de France, membre de la Société Linnéenne de Provence, mort subitement à l'âge de 60 ans, le 29 décembre 1979. D'une obligeance rare, il avait - bien que nonlichénologue - récolté pour eux, au cours de ses voyages à travers toute l'Europe, de nombreux échantillons de lichens, parmi lesquels des espèces intéressantes pour la flore des Iles britanniques et de la Scandinavie. Il avait en outre participé à l'organisation de la sortie à l'île de Riou, au S de Marseille, lors de la 1^{re} excursion internationale de l'Association française de Lichénologie, dans la basse vallée du Rhône et la Provence occidentale, en juillet 1976.

CORBIN, Juan T. (Spain) is beginning a thesis at the Universidad de Valencia concerning lichens as pollution monitors. He is also interested in the lichen flora on sandstone substrates and would appreciate reprints of publications on the subject.

CULBERSON, William and Chicita (U.S.A.) spent three months at the Muséum National d'histoire naturelle, Paris, where Bill held the title of Professeur associé au Muséum and worked at the Laboratoire de Cryptogamie. Chicita spent her time in the Laboratoire de Chimie appliquée aux corps organisés working with Professors Molho and Bodo.

HANSEN, Eric Steen (Denmark) went to Greenland in July to make sociological investigations of saxicolous lichen communities and to collect additional material for a new fascicle of "Lichenes Groenlandici Exsiccati".

HAWKSWORTH, David L. (U.K.) has completed his manuscript on "The Lichenicolous Coelomycetes" which is expected to appear in the British Museum publication series in late 1981. His *Microthelia* s. lat. work is continuing.

HERTEL, Hannes (B.R.D.) spent several weeks in the Peoples Republic of China. He gave several lectures at the Academia Sinica in Peking and did some field work (see his special report on page 12).

HUNECK, Siegfried (D.D.R.) is continuing his work on the yellow *Acarosporae* (subgenus *Xanthothallia* with studies of *A. chlorophana* (Wahlenb. ex Ach.) Massal., *A. gobiensis* H. Magn., *A. oxytona* (Ach.) Massal., and *A. schleicheri* (Ach.) Mass. He would greatly appreciate receiving samples of yellow *Acarospora* species (2-10 g of thallus per sample). The samples should be sent with the special notation, "Einfuhr in die DDR auf Grund der allgemeinen Genehmigung Nr. 50" to: Institut für Biochemie der Pflanzen der AdW der DDR, DDR-401 Halle/Saale, Weinberg, German Democratic Republic.

KÄRNEFELT, Ingvar (Sweden) participated in an expedition to Kong Karls Land (Spitzbergen) aboard the H.M.S. Ymer. He says that he saw many interesting lichens and about 80 polar bears!

KIDBY, Denis K. (Western Australia) writes that his recent interests have included population measurements of *Caloplaca* on gravestones and the monitoring of SO₂ using lichens as bio-indicators. Also involved is a Ph.D. student from Guelph, Ontario (Canada) Ann Louise HUBER, whose research programme is actually on free-living nitrogen fixing cyanobacteria.

The high point of 1980 at the U.W.A. was the visit of David Richardson. Dr. Kidby adds that any lichenologist who is visiting Perth would be made most welcome. His after-hours (24-hour answering service) telephone is 09-386-7981.

LAI Ming-Jou (Taiwan, R.O.C.) recently left the Department of Botany, National Taiwan University to take up a position as Associate Curator of Botany at the Taiwan Museum. He is preparing a book to be called "The Macrolichens of Taiwan" (in the Chinese language), and is also working on Asiatic *Cetrariaceae*. His new mailing address is: Dep't of Botany, The Taiwan Museum, 2 Siangyang Rd., Taipei, Taiwan 100, R.O.C.

LEUCKERT, Christian (B.R.D.) berichtet von laufenden chemosystematischen Studien in folgenden Gruppen: *Ochrolechia*-Arten in Europa (mit B. HANKO, Berlin und T. AHTI, Helsinki). - *Haematomma ventosum* s.l. in Mittel- und Nordeuropa.

In Zusammenarbeit mit H. MAYRHOFER (Graz, Austria) wird der Chemismus von *Rinodina*-Arten untersucht. - Eine Studie über die Verteilung der Chemorassen von *Dimelaena oreina* auf verschiedene Höhenstufen im Vinschgau ist fast abgeschlossen (mit A. BUSCHARDT, Berlin und H. HERTEL, München).

Aktivitäten von Schülern: Bernd HANKO arbeitet an seiner Dissertation über die Chemotypen europäischer Pertusarien. - Annelie BURGHause beschäftigt sich - ebenfalls im Rahmen ihrer Dissertation - mit der Lokalisation von Inhaltsstoffen im Thallus verschiedener Gruppen. - Christina TERL studiert im Rahmen ihrer Diplomarbeit die Chemotypen von *Rhizocarpon*-Arten in Bayern (als Ergänzung der Arbeit von T. FEUERER, München).

RICHARDSON, David H.S. (Canada) has been appointed to the Chair of Botany at Trinity College, Dublin, Republic of Ireland and has resigned his post at Laurentian University in Sudbury. His frequent collaborator, Evert

NIEBOER, has also left Laurentian University having taken up a post at McMaster University in Hamilton, Ontario, Canada.

SHIBUCHI, Heinal (Japan) is studying species of *Pertusaria* in Eastern Asia under the guidance of Syo Kurokawa. He is working at the Kumagaya Girl's High School, 2-131 Suehiro, Kumagaya, Saitama-ken, 360, Japan.

VEJ T.C. (P.R.C.) reports that there is renewed interest in cryptogamic botany, including lichenology in China. "The Algal Flora of China", "The Flora of the Fungi of China", "The Lichen Flora of China" and "The Bryophyte Flora of China" are being studied and written by Chinese algologists, mycologists, lichenologists and bryologists under the leadership of "The Editorial Committee of Cryptogamic Flora of China, Academia Sinica." The chairman of the committee is Prof. Dr. WANG Yun-Zhang, mycologist, (Beijing); Vice chairmen are Prof. Dr. RAO Qing-zhi, algologist (Wuhan City), Prof. Dr. ZENG Cheng-kui, algologist (Qingdao City) and (Associate) Prof. Dr. VEJ T.C., lichenologist (Beijing); there are 20 other members as well. The office of the committee is in the Institute of Microbiology of Academia Sinica in Beijing.

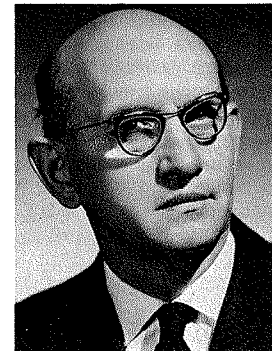
Deaths

Fernand MOREAU (France), author of many scholarly and thought-provoking papers on lichens, died early this year at the age of 93. Marie-Agnes Letrouit wrote the following remarks concerning Professor Moreau in the June 1980 edition of the Bulletin d'information de l'association française de lichénologie":

"[Monsieur le Professeur MOREAU] avait exercé les fonctions de Professeur de Botanique à l'Université de Clermont-Ferrand et de Caen. Il avait donné à la station biologique de Besse en Chamdesse (63) une impulsion qui a été décisive pour son développement.

Le professeur MOREAU, élève de P. DANCEARD, était mycologue, mais il a fait, assisté par sa femme, des travaux tout à fait originaux d'une part sur le développement des ascocarpes des Lichens et d'autre part sur celui des céphalodies dans les familles des Stictacées et des Peltigéracées. Ceci l'avait conduit à émettre une théorie audacieuse quant à la nature du thalle lichénique qu'il comparait à une galle, provoquée par l'algue sur le mycélium du champignon. Tenue longtemps pour suspecte, cette théorie trouve aujourd'hui un regain de considération à la suite des travaux de P. JAMES et A. HENSSEN sur les thalles "chiméroïdes". Le professeur MOREAU avait témoigné immédiatement d'un grand intérêt pour l'association [A.f.l.] à laquelle il avait fait don, peu avant sa mort, de sa collection d'ouvrages lichénologiques."

László GALLÉ (Hungary) died suddenly in his home in Szeged, Hungary, on 4 March 1980, at the age of 72. He was active in lichen-cenology, ecology and teratology. His active mind was always seeking new ways of looking at cenological-problems. Nothing made him happier than helping a friend or colleague. Dr. Gallé was truly a great personality in the field of lichenology in Hungary.



- P. Solymosi

Books

Farne - Moose - Flechten Mittel-, Nord- und Westeuropas. Hans Martin Jahns, BLV Verlagsgesellschaft, München, Wein, Zürich. 256 Seiten, 655 Farbfotos, 26 Schwarzweissfotos, 3 Zeichnungen, 12,8 x 19,8 cm, laminiertes Einband. 1980. DM 36.-- (S 295.--; US\$ 20.00).

Although written for the "Hobbybotaniker", this little identification guide to the common lichens of Europe will be of interest to all lichenologists because of its illustrations. The book contains 299 extraordinarily beautiful colour photographs of micro- and macrolichens with an extremely faithful rendering of their natural colour. Each manages to show the main diagnostic features of the lichen. These features are emphasized in very short diagnoses presented together with notes on the ecology and distribution of each species illustrated. A short introductory section covers the morphology of lichens and presents a simple key to genera and species groups. I might add that the photographs of ferns and bryophytes are equally superb.

- I.M. Brodo

The Chemosystematics of the Lichen Genus Pertusaria in North America North of Mexico. Martyn J. Dikken. Milwaukee Public Museum Publications in Biology and Geology Number 5:1-162. 1980. US\$ 22.50. (Available from Milwaukee Public Museum, 800 Wells St., Milwaukee Wisconsin 53233, USA. Orders should include \$0.85 for postage and handling.)

This major work joins those by Schneider, Mayerhofer, and Haffelner in being a modern, scholarly treatment of a major crustose lichen genus. Dikken in reviewing the genus, presents us with the results of his original investigations of ascocarp and spore structure, and, as one would expect from the title, has a long and illuminating chapter on thallus chemistry. The genus is divided into two subgenera: *Pertusaria*, including the "pertusariate" and

"ampliariate" taxa, with 35 North American species; and *Pionospora*, taxa with "lecanorate" or sorediate verrucae, with 31 species. Fifteen species are described as new. Keys and descriptions, as well as notes on ecology and distribution are presented for all species. The keys work extremely well, but have been printed in minuscule type making them difficult to read. The photographs are too dark, but will be helpful nevertheless. Distribution maps for 56 of the 66 species are presented, unfortunately on outline maps which sometimes obscure the dots along the coasts.

- Irwin M. Brodo

Checklist of British Lichens. D.L. Hawksworth, P.W. James & B.J. Copping.

Those wanting reprints of the "Checklist of British Lichen-forming, Lichenicolous and Allied Fungi" (Lichenologist 12: 1-115. 1980.) can obtain interleaved copies at £6 per copy, postage included, from Peter Lambley, Castle Museum, Norwich, NR1 3JU, U.K. (The price for members of the British Lichen Society is £4).

Herbaria

Lichen herbarium at the Academia Sinica, Peking, P.R.C.

The Department of Mycology of the Institute of Microbiology, Academia Sinica consists of 37 people, including only one Professor, Prof. WANG yun-Zhang, and six Associate Professors. The director of department is (Associate) Prof. Dr. VEJ T.C. (lichenologist), and the vice-directors are (Associate) Prof. YU Y.N. (mycologist) and (Associate) Prof. ZHENG R.Y. (mycologist). The department has a herbarium (in Beijing) called the "Herbarium Mycologicum Instituti Microbiologici Academiae Sinicae," which can be referred to as "HMAS". (It is not yet listed in the Index Herbariorum.) The herbarium consists of two sections: the section of Fungi and section of lichens. The herbarium and the fungi section is curated by Prof. Zheng and the lichen section by Prof. Dr. Vej. The lichen section of the herbarium has a collection of 10,000 specimens, 50% of which has already been classified according to genus, and 50% according to species. The collection includes samples collected from different parts of China, including Yunnan, Tibet and elsewhere, plus a fair number of duplicates and Exsiccati from foreign countries.

- Vej T.C.

Meetings

XIII International Botanical Congress, August 1981, Sydney, Australia

An exciting and varied programme in lichenology is being planned for the Sydney Congress. It will include symposia, contributed papers, pre- and post-congress excursions, and a field meeting in New Zealand. As we go to press, the following items are fairly definite:

1. *International Association for Lichenology*: Business meeting and dinner.
2. *Symposia*: Section 9. Fungal Botany

9.8 LICHENS OF ARID REGIONS; Conveners: L. Kappen and R. Rogers

Speakers: O. Lange, P. Rundel, L. Kappen, M. Galun with possible contributions on floristic richness and the ecology of lichens in certain regions by T. Nash, J. Redon, R. Rogers, R. Filson, M. Galun, R. Schubert, X. Llimona, and J.W. Thomson.

9.9 LICHEN SYSTEMATICS FOR THE 80's. Conveners: I.M. Brodo & M. Dikken.
Speakers: M. Hale, H.A. Imshaug, R. Honegger, J. Elix, and possibly H. Hertel.

9.10 EVOLUTION IN LICHENIZED FUNGI. Conveners: D.L. Hawksworth & J. Poelt.

Speakers: D.L. Hawksworth, P.W. James, H. Mayerhofer, J. Poelt, T. Ahti, and H. Krog.

9.11 THE ROLE OF SECONDARY SYMBIONTS IN LICHEN SYMBIOSIS. Conveners: A. Henssen and V. Ahmadjian.

Speakers: J.W. Millbank, B. Feige, Renner, and possibly J. Jacobs, J.C. Boissière, and J. Poelt.

3. *Excursions*: Official Congress Field Trips

Field Trip 29. MEDITERRANEAN & ARID ZONE LICHENS IN SOUTH-EASTERN AUSTRALIA. 11-20 August. Route: Adelaide-Horsham-Ballarat-Melbourne-Sydney. Leader: R. Rogers, University of Queensland. Participants will travel some 1800 km by coach over a ten-day period. Five days will be spent in the vicinity of Adelaide examining the lichens in *Eucalyptus* dominated woodlands and in arid shrublands. Five more days will be spent travelling from Adelaide to Melbourne with the opportunity to examine some *eucalyptus* forest, *Eucalyptus* shrubland and sub-alpine lichens. During the trip a wide range of cryptogamic and phanerogamic vegetation will be examined. The genera *Chondropsis*, *Cladia*, *Thysanothecium* and *Heterodes* will be encountered, as will an enormous array of *Xanthoparmeliae*. Corticolous, saxicolous and terricolous substrates will be visited. Collecting of specimens will be severely restricted in most communities and totally forbidden in others. Transport: air, 740 km; coach, 1800 km. Ground cost A\$721; air fares A\$167.

Field Trip 30/1 and 30/2. SUBALPINE AND TEMPERATE RAINFOREST LICHENS. 30/1, 16-18 August; 30/2, 31 August-2 September (Note choice of dates!) Route: Sydney-Canberra-Sydney. Leader: J. Elix, Australian National University. This trip will study lichen communities in two very different habitats near Canberra, rainforest gullies at Monga and Mt. Aggee in the Brindabella Ranges. The Monga forest is dominated by *Eucryphia* and *Atherosperma* with an understorey of tree ferns. Access is through logging trails. Epiphytic lichens including *Parmaria*, *Psoroma* and *Coccocarpia* occur in lighter areas of the forest. Other genera, such as *Lobaria* and *Peltigera* form associations on many rocks and fallen logs. Mt. Aggee is an exposed schistose/slate outcrop at about 1500 m altitude. The summit track passes through open forest of snow gum (*Eucalyptus pauciflora*). Different lichen associations are found on exposed rock faces, ledges and sheltered crevices. Genera present include *Lecanora*, *Buellia*, *Rhizocarpon*, *Parmelia* and *Cladonia*. Transport: air, 500 km; coach 300 km. Ground cost A\$171, air fares A\$35.

4. New Zealand Field Meeting:

This meeting will be held post-congress: 5 - 16 September 1981. Two venues have been decided upon: 1. University of Canterbury Field Station at Cass, Arthurs Pass National Park; 2. Boyle Lodge, Lewis Pass Forest Reserve. Both of these places offer a high standard of accommodation in really attractive surroundings of native vegetation in good mountain scenery. The tentative itinerary is as follows:

Sat Sept	5	: Arrive in Christchurch - billeted with Canterbury Botanical Society members.
Mon	7	: Leave by train for Cass
Tue	8	: Botanising at Cass
Wed	9	: Leave Cass by train. At Springfield transfer to mini-buses. Lunch at Rangiora then via Hanmer to Boyle Lodge.
Thurs	10	: Botanising in the Lewis Pass area
Fri	11	:
Sat	12	: Combined Botanical Society Field Trip - Nina Valley and Lewis Pass
Sun-Tue	13-15	: Botanising and possible excursion to Nelson Lakes National Park, Westland, Hanmer etc.
Wed	16	: Leave Boyle Lodge and return to Christchurch

All transport, food, drink, and bedding will be provided; an expected cost for the excursion is £100.00. Numbers are restricted to 30 non-NZ botanists and already 15 overseas lichenologists have written to say that they will be coming. Those interested in attending should contact: David Galloway, British Museum (Natural History) Cromwell Road, London SW7 5BD.

The Congress as a whole will take place 21-29 August at the University of Sydney. The Nomenclature Sessions will, however, take place 17-20 August. Registration fees, payable before May 1981, are A\$130 for regular members, A\$40 for student or accompanying members. Accommodation is at the University or at hotels nearby. For more information, circulars, and registration forms, write to Dr. W.J. Cram, Executive Secretary, International Botanical Congress, University of Sydney, N.S.W. 2006, Australia.

American Bryological and Lichenological Society

The annual meeting of the A.B.L.S. will be held this year apart from any other botanical conference. It will take place during the week of 7-12 June 1981 at the Highlands Biological Station, Highlands, North Carolina (about 75 miles southwest of Asheville). The meetings will emphasize the floristics of bryophytes and lichens of the southern Appalachians and the southeastern U.S. In addition to several field trips planned for the mountainous area around Highlands, a few keynote speakers will be invited. It is anticipated that facilities for the identification of collections will be available and that participants will help each other with such identifications.

Accommodations are available at Lee's Inn and Motel in Highlands at US \$ 30.00 per day including all three meals. A few spaces are also available for graduate students on a first-come-first-served basis at the Highlands Biological Station at \$6.00 per day without meals. There is also camping nearby.

Registration is \$10.00 and is due by 1 March 1981. Make checks out to The American Bryological and Lichenological Society and mail them to Dr. Thomas H. Nash III, Dep't of Botany & Microbiology, Arizona State University Tempe, Arizona 85281, USA. Those wishing to present papers or who need additional information should write to Dr. Nash.

Botanical Society of America

The newly formed Bryological and Lichenological Section of the B.S.A. is meeting in mid-August in conjunction with the American Institute of Biological Sciences Conference at the University of Indiana, Bloomington (USA). Contributed papers in lichenology can be presented there. For information, contact Dr. Shirley Tucker, Dep't of Botany and Plant Pathology, Louisiana State Univ., Baton Rouge, Louisiana 70803, USA.

Courses

Lichens on limestone

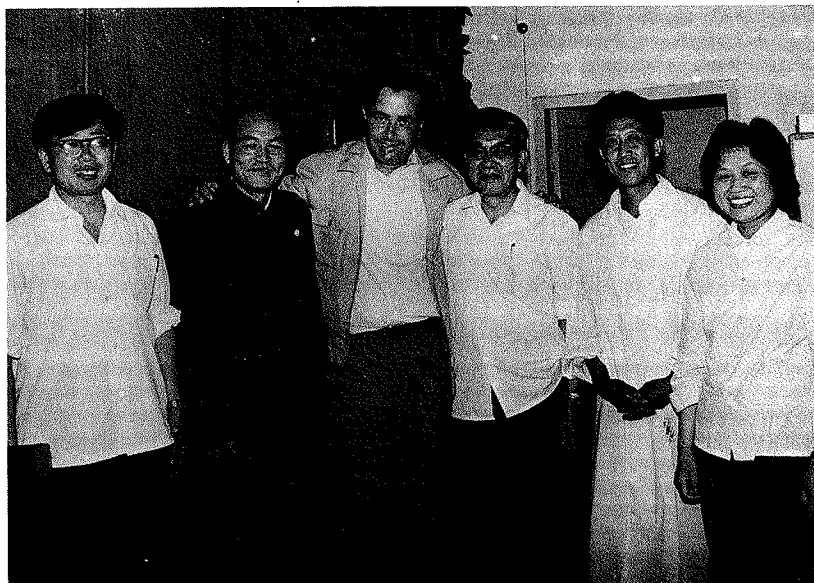
The university of Bristol, Department of Extra-Mural Studies is offering a course entitled "Lichens on Limestone" (course no. B80 950 SB). It will take place 10-12 April 1981 at Burwalls, Leigh Woods, Bristol, England with D.L. Hawksworth, P.W. James, and D.J. Hill as tutors. The fee is £26.10, including the residential costs. For more information and an application, write to: Dr. D.J. Hill, Dep't of Extra-Mural Studies, 32 Tyndall's Park Road, Bristol BS8 1HR, England.

Special Reports

Lichenology in the People's Republic of China

(Editor's note: Hannes Hertel recently returned from a short visit to China. He sent this report on his travels and contacts. See also Prof. Vej's comments under "News & Notes" and "Herbaria")

In the spring of 1980, I had the pleasure of being a member of an official 4-person delegation going to China. Favoured by perfect organization and warm hospitality, it was possible to do some lichen collecting especially in southern Yunnan, on the island of Hainan and in the Changbei Shan mountains (Jilin province). There was also an opportunity to visit the Institute of Microbiology of the Academia Sinica in Beijing (Peking), where the lichenological



Lichenological group at the Institute of Microbiology, Peking. Photo taken 9 June 1980. Left to right: Wang, Vej, Hertel, Li, Hu, & Mrs. Jiang.

logical team under Prof. Vej is working. At the Academia, I saw a small (but rapidly growing), well organized, modern lichen herbarium and met some of Prof. Vej's staff. I tried to gather as much information as possible on Chinese lichenologists. Prof. Vej was kind enough to make corrections and additions to the following list. (The family name of each individual is underlined. In Chinese it usually precedes the given name.)

Associate Prof. Dr. Tzjan-czunj VEJ; Institute of Microbiology of Academia Sinica, Beijing; Vice chairman of the committee for editing a Cryptogamic Flora of China, Director of the Department of Mycology; special research: Lichens from Xizang (Tibet), Umbilicariaceae, Cladoniaceae, *Cretraria*. Research Assistant, Mr. HU Yü-Shen; Laboratory of Sciences of Mt. Changbei Shan area, Jilin Prov.; special research: Lichens of Chanbei Shan. Research Associate, Mrs. JIANG Yu-mei, Institute of Microbiology, Academia Sinica, Beijing. Special research: *Everniastrum*, lichens from Xizang (Tibet). Associate Prof. LI Tian-Ching, Department of Forestry, Beijing College of Forestry, Beijing; research: anatomy of higher plants, lichens and air pollution in Yunnan province. Research associate, Mr. WANG Hian-Ye, Institute of Microbiology, Academia Sinica, Beijing; Research: Ramalinaceae, lichens of Tien Shan. Research associate, Mrs. WU Jin-ling, Institute of Botany in Shanxi. Research: *Lethariella*. Lecturer, Mr. WU Ji-nong, Teachers College of Nanking City, Dept. of Biology, Nanking. Research: Stictaceae. Research assistant, Mr. ZHAO Cong-fu, Institute of Forestry and Pedology, Academia Sinica, Shenyang (Liaoning). Research: Lichens of North-eastern China.

- Hannes Hertel

Guide to Culture Collections of Lichen Symbionts

Techniques for the synthesis of lichens in laboratory cultures are well-established. Some lichens can easily be synthesized and maintained on soil contained in small clay pots (Ahmadjian, Russell & Hildreth, 1980, Mycologia 72:73-89.) and axenic lichens can be produced in a reliable manner from cultures of mixed symbionts on mica strips (Ahmadjian, in press). With both methods, the formation of *Cladonia* squamules (tested to date: *Cladonia chlorophaea* and *C. cristatella*) occurs within 3 weeks. I hope the availability of these cultures will encourage more lichenologists to study lichen synthesis and development under controlled laboratory conditions as well as the physiology and biochemistry of algal and fungal symbionts. The cultures and synthesis methods can also be used for student instruction.

- Vernon Ahmadjian

Culture Collections of Mycobionts. (Because of the slow growth of mycobionts in culture media, at least 2 months should be allowed for delivery.)

A. American Type Culture Collection, c/o Sales Department, 12301 Parklawn Drive, Rockville, Maryland 20852 USA. Cost: \$28.00/culture.

<i>Acarospora fuscata</i>	<i>Cladonia gracilis</i>	<i>Microthelia albidella</i>
<i>Acarospora smaragdula</i>	<i>Cladonia nemoxya</i>	<i>Opegrapha lichenoides</i>
<i>Anaptychia ciliaris</i>	<i>Cladonia piedmontensis</i>	<i>Parmelia centrifuga</i>
<i>Anthracotheclium albescent</i>	<i>Cladonia rangiferina</i>	<i>Parmelia conspersa</i>
<i>Arthonia cinnabarina</i>	<i>Cladonia subtenuis</i>	<i>Physcia millegrana</i>
<i>Bacidia incompta</i>	<i>Dermatocarpon fluviatile</i>	<i>Physcia stellaris</i>
<i>Baeomyces roseus</i>	<i>Graphis tenella</i>	<i>Porina sandwichensis</i>
<i>Buellia punctata</i> v. <i>polyspora</i>	<i>Lecanora cinerea</i>	<i>Pyrenula nitida</i>
<i>Buellia stillingiana</i>	<i>Lecanora dispersa</i>	<i>Ramalina americana</i>
<i>Caloplaca aurantiaca</i>	<i>Lecanora rubina</i>	<i>Sarcogyne simplex</i>
<i>Candelariella vitellina</i>	<i>Lecidea atrocineria</i>	<i>Stereocaulon vulcani</i>
<i>Cetraria islandica</i>	<i>Lecidea crustulata</i> *	<i>Umbilicaria papulosa</i>
<i>Cladonia bellidiflora</i>	<i>Lecidea erratica</i>	<i>Usnea florida</i>
<i>Cladonia cristatella</i>	<i>Lecidea sp.</i>	<i>Xanthoria parietina</i>

B. Culture Collection of Lichen Symbionts at Clark University. (Dr. Vernon Ahmadjian, Department of Biology, Clark University, Worcester, Massachusetts 01610. USA. Cost: \$4.00/culture).

<i>Cladonia stellaris</i>	<i>Cladonia cristatella</i>	<i>Cladonia macilenta</i>
<i>Cladonia boryi</i>	(single spore isolates)	<i>Cladonia pleurota</i>
<i>Cladonia cariosa</i>	<i>Cladonia evansii</i>	<i>Huilia albocaulerulescens</i>
<i>Cladonia chlorophaea</i>	<i>Cladonia floerkeana</i>	<i>Lepraria sp.</i>
(single spore isolates)	<i>Cladonia furcata</i>	<i>Pycnothelia papillaria</i>

C. Culture Collection of Mycobionts at George Mason University. (Dr. James D. Lawrey, Department of Biology, George Mason University, The State University in Northern Virginia, 4400 University Drive, Fairfax, Virginia 22030 USA. Cost: \$4.00/culture).

<i>Aspicilia cinerea</i>	<i>Graphis scripta</i>	<i>Lopadium sp.</i>
<i>Bacidia chlorantha</i>	<i>Huilia albocaulerulescens</i>	<i>Melanotheca cruenta</i>
<i>Bacidia leucophyllina</i>	<i>Hypotrachyna livida</i>	<i>Melalgospora sp.</i>
<i>Buellia lauricassiae</i>	<i>Lecanora cenisia</i>	<i>Opegrapha lichenoides</i>
<i>Buellia parasema</i>	<i>Lecanora cinerofusca</i>	<i>Pertusaria leioplaca</i>
<i>Buellia schaeferi</i>	<i>Lecanora chrysoleuca</i>	<i>Physcia alipolia</i>
<i>Caloplaca citrina</i>	<i>Lecanora hageni</i>	<i>Physcia millegrana</i>
<i>Caloplaca ferruginea</i>	<i>Lecanora hypoptoides</i>	<i>Physcia phaea</i>
<i>Caloplaca festiva</i>	<i>Lecanora muralis</i>	<i>Physcia stellaris</i>
<i>Caloplaca saxicola</i>	<i>Lecanora nigromarginata</i>	<i>Pyxine eschweileri</i>
<i>Caloplaca wrightii</i>	<i>Lecanora rupicola</i>	<i>Ramalina fastigiata</i>
<i>Cetraria ciliaris</i>	<i>Lecidea chalybeiza</i>	<i>Rinodina mucronatula</i>
<i>Cladonia capitata</i>	<i>Lecidea cyana</i>	<i>Sarcogyne pruinoso</i>
<i>Cladonia cristatella</i>	<i>Lecidea hasseii</i>	<i>Usnea strigosa</i>
<i>Cladonia squamosa</i>	<i>Lecidea lapicidia</i>	<i>Xanthoparmelia conspersa</i>
<i>Cladonia subcariosa</i>	<i>Lecidea uliginosa</i>	<i>Xanthoparmelia cumberlandia</i>
		<i>Xanthoria parietina</i>

Culture Collections of Phycobionts

A. The Culture Collection of Algae at the University of Texas at Austin (UTEX). (Dr. Richard C. Starr, Culture Collection of Algae, Department of Botany, The University of Texas at Austin, Austin, Texas 78712, USA. Cost: \$4.00/culture, academic, nonprofit individuals and organizations).

Hyalococcus dermatocarponis (*Dermatocarpon fluviatilis*)
Myrmecia biatorellae (*Dermatocarpon tuckermanni*)
Pseudotrebouria

- P. aggregata* (*Xanthoria parietina* *)
- P. corticola* (isolated as free-living but most likely from a soredial propagule)
- P. decolorans* (*Buellia punctata*, *Xanthoria parietina* *)
- P. galapagensis* (*Ramalina* sp.)
- P. gigantea* (*Caloplaca cerina*)
- P. higgensiae* (*Buellia straminea*)
- P. incrustata* (*Lecanora dispersa* *)
- P. impressa* (*Physcia stellaris*)
- P. jamesii* (*Schaereria tenebrosa*)
- P. potteri* (*Rhizoplaca chrysoleuca* *)
- P. showmanii* (*Lecanora hageni*)
- P. usnea* (*Usnea filipendula*)

Trebouria

- T. anticipata* (*Parmelia rudecta* *)
- T. erici* (*Cladonia cristatella*)
- T. excentrica* (*Stereocaulon dactylophyllum* var. *occidentale*)
- T. flava* (*Physcia pulverulenta* *)
- T. gelatinosa* (*Parmelia caperata*)
- T. glomerata* (*Stereocaulon pileatum*, *S. saxatile*)
- T. irregularis* (*Stereocaulon* sp.)
- T. magna* (*Cladonia* sp.; *Pilophoron acicularis*)
- T. pyriformis* (*Cladonia squamosa*; *Stereocaulon pileatum*)

Trentepohlia sp. (*Pyrenula nitida*)

B. Culture Centre of Algae and Protozoa, Institute of Terrestrial Ecology, 36 Storey's Way, Cambridge, England CB3 0DT (CCAP).
 Cost: Basic charge = 7.50/culture plus shipping charges. Rate for academic bodies in U.K. = 1.40/culture plus 50p shipping charges.

Trebouria

- T. crenulata* (*Parmelia acetabulum*; *Xanthoria aureola*)
- T. italica* (*Xanthoria parietina*)

[Cultures with asterisk (*) in UTEX collection are also available from CCAP.]

C. Culture Collection of Lichen Symbionts at Clark University. Dr. Vernon Ahmadjian, Department of Biology, Clark University, Worcester, Massachusetts 01610. Cost: \$4.00/culture).

Pseudochlorella sp. (*Lecidea granulosa*, *Stereocaulon strictum*)

Nostoc sp. (*Peltigera canina*, *P. polydactyla*)

(unialgal, with bacteria)

Myrmecia sp. *Lecidea crystallifera*)

Pseudotrebouria

P. aggregata (*Lecidea fuscoatra*)

P. potteri (*Pertusaria* sp.)

P. sp. (*Acarospora fuscata*, *Aspicilia calcarea*, *Astroplaca* sp.,

Caloplaca holocarpa, *Diploschistes scruposus*, *Lecania* sp.,

Lecidea sarcogynoides, *Lecidea tenebrosa*, *Omphalodinium arizonicum*,

Parmelia tinctorum, *Rhizocarpon geographicum*, *Toninia caerulonigricans*)

Trebouxia

T. excentrica (*Cladonia bacillaris*, *C. subtenuis*, *C. leporina*, *Huilia*

tuberculosa, *Lecidea metzleri*, *Lepraria* sp.)

T. glomerata (*Cladonia boryi*, *Huilia albocaerulescens*)

T. sp. (*Cladonia chlorophaea*, *C. verticillata*, *Gymnoderma lineare*,

Lecidea crustulata, *L. erratica*, *Lepraria zonata*, *Parmeliopsis*

hyperopta, *Physcia millegrana*, *Umbilicaria mamulata*, *U. papulosa*)

Translations

Many of us have had translations made or have prepared our own translations of important publications. The I.A.L., through this Newsletter, will attempt to make translations known to other lichenologists. The translations would be prepared on a "cost-recovery" basis and would be coordinated by a member of the Association. (We already have a volunteer for the job.) The mechanism for handling the translations is still to be worked out, but a start in the service will be made here.

The Canadian Government Translation Service has prepared a translation from Russian into English of all the keys published in the "Handbook of the Lichens of the U.S.S.R." (volumes 1-5). The Copyright Agency of the U.S.S.R. generously gave us permission to distribute the translation on a non-profit basis. The typescript is about 375 pages and can be supplied as microfiche for \$4.00 per copy, or as "hard" copy (done by a photocopying process) for about \$30 per copy (including postage). Anyone interested in a copy of the translation should write to me, I.M. Brodo, at the National Museums of Canada, Museum of Natural Science, Ottawa, Ontario, Canada K1A 0M8. Be sure to say in what form you would like the translation.

Anyone else with translations of lichenological material which can be distributed on a cost-recovery basis should contact Barbara Murray, University Museum, University of Alaska, Fairbanks, Alaska, 99701, U.S.A. Tell her: a) the title of the material (original & translated), b) author(s), c) bibliographic citation, d) languages of the original document and the translation, e) number of pages.

- I.M. Brodo