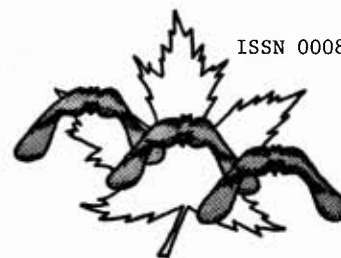


THE CANADIAN BOTANICAL ASSOCIATION

# BULLETIN

L'ASSOCIATION BOTANIQUE DU CANADA



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## PATRON

HER EXCELLENCY THE RIGHT HONOURABLE JEANNE SAUVÉ, P.C., C.C., C.M.M., C.D., GOVERNOR GENERAL OF CANADA

## PATRON

SON EXCELLENCE LA TRÈS HONORABLE JEANNE SAUVÉ, C.P., C.C., C.M.M., C.D., GOUVERNEUR GÉNÉRAL DU CANADA

## CANADIAN CONGRESS OF BIOLOGY — IMPRESSIONS BY CBA/ABC MEMBERS

The first Canadian Congress of Biology was a success from several points of view — the campus at the University of Western Ontario was aesthetically a very pleasing setting and offered excellent lecture rooms and halls; the well-trained volunteer projectionists were much appreciated as they helped to maintain a smooth flow in the presentations; the sessions were numerous and well-organized; the quality of papers in the CBA/ABC sections was excellent (thus giving the lie to all those who do not attend CBA meetings on the pretext of low caliber papers); the considerable representation from our society provided ample choice from among the many contributed papers; the overall quality of student papers in the Lionel Cinq-Mars competition was particularly impressive, and the scheduling for these papers was admirably handled with almost no conflicts for the judges; the majority of speakers remembered to allow time for at least one thought-provoking question, which is a very valuable part of the overall process (although I am ashamed to admit that I was the only person to run overtime in all the sessions that I attended). The symposia were interesting, although the tight scheduling meant that one could attend only a few of them. Several memorable symposium talks gave me a real lift, although some lacked any real appeal in spite of the catchy titles. Most speakers in the contributed paper sessions demonstrated a good grasp of their material, both conceptually and analytically, and the papers were very well presented.

One noteworthy impression that I carried away with me concerned studies designed to test a specific hypothesis about plant interactions or plant community relations. There were a few papers of this type and, almost invariably, the results led either to a rejection of the hypothesis or gave no strong support in its favour. To

me, this signals a healthy awakening among ecologists to the need for proper testing of theories, many of which are perpetuated in the literature and in undergraduate ecology courses. There seems to be an abundance of problems of this nature to be tackled in ecology and Canadian ecologists will be making significant contributions to this field in the years ahead, judging by the range of topics covered and the overall quality of the work reported at these meetings.

The Congress was not without some shortcomings. There were mixed feelings regarding the overall organization. Problems earlier in the year and decisions that had to be made to ensure that the meetings would proceed resulted in very limited pre-congress information being available on the scheduling of events. A detailed programme was not available for pre-registrants. Receipts for societal banquets and field trips were not automatically offered during registration. The Congress Banquet cost about \$17 (included in the registration fee) and was a relatively uninspired buffet that was not a particularly exciting culinary event. The scheduling was extremely tight, especially for evening events. Meeting sites for CBA/ABC sections were sometimes rather far apart, making it difficult to move quickly from one to another. We might regret that some CBA/ABC sections once again had trouble in getting members to attend their business meetings.

The Pinery Field Trip was excellently organized and led, and was enjoyed by everyone. Favourable comments were also made regarding the "Weeds" trip.

The CBA/ABC Banquet was relatively expensive but was a much more appealing meal than the Congress Banquet, and was accompanied by wine (Ed. Note — Thanks to a donation!). The identical bouquets of local weeds and wildflowers on each table, which served as materials for an identification quiz

(Latin names, English and French common names), were novel ice-breakers and conversation pieces. The quiz was won by the table occupied by the out-going President, in-coming President, in-coming President-Elect and the Banquet speaker — some felt that this table had an unfair advantage and the prize (a bottle of wine) had to be carefully guarded! Many thanks to Paul Threadgill for organizing the bouquets and marking the quizzes.

The L.K. Weresub Memorial Lecture by Harold Brodie was a delightful reminiscence of his years of work with the bird's nest fungi.

London gave us a warm and sunny welcome, which continued through the week, and the mood of the meeting was congenial and friendly. It was particularly relaxed at the CBA/ABC Banquet.

Many people felt that the cross-exchanges between Canadian biologists in various fields were positive enough to warrant a repetition of the experience in 5 years time. No doubt, improvements will come as more Canadian experience is gained in organizing such sizable, interdisciplinary meetings. Perhaps some further thought should be given to lowering overhead costs in future meetings in order to reduce the registration fees (\$100 pre-registration/\$140 at the door). I am a little dismayed that the 2nd Congress will probably be held at Laval — a second eastern Canada location instead of moving to western Canada. I understand that the rationale is to increase participation by Quebec biologists — but western Canadians may also begin to have feelings of alienation! One reasoning given to me was that biologists from western Canada will travel east to attend the meetings because they do feel somewhat "cut-off", but that Ontario and Quebec biologists will not travel west. Therefore, the meetings will have to be held in the east to ensure that they do not lose any more money than necessary. It is certainly true that CBA/ABC meetings held in the east tend to have higher attendances (and therefore make more money) than do those held in the west.

All in all, it was a worthwhile experience. Many thanks to Dick Greyson and his local organizing committee for CBA/ABC for all the hard work which they put into the meeting. We appreciate it!

#### NEW CBA/ABC COMMITTEES ESTABLISHED

The President of CBA/ABC, Iain Taylor, has established two *ad hoc* committees to examine matters of interest to the Association.

The *ad hoc* Committee on Teaching of Botany in Canada is chaired by Richard (Dick) Greyson, and is expected to examine the teaching of Botany in high schools, colleges and universities across Canada. Any member with opinions on this matter is urged to contact Dick:— Dr. R.I. Greyson, Department of Plant Sciences, University of Western Ontario, London, Ont N6A 5B7.

The *ad hoc* Committee on the Biological Survey of Canada is chaired by Erich Haber, and will examine the relationship of CBA/ABC with the Biological Survey and whether the Association should participate. Please contact Erich if you have any opinions on the matter:— Dr. Erich Haber, Museum of Natural Sciences, Botany Division, Ottawa, Ont K1A 0M8

#### OFFICERS OF CBA/ABC 1985-1986

President:	Dr. Iain E.P. Taylor Univ. of British Columbia
Past-President:	Mr. Gerald A. Mulligan Biosyst.Res.Inst., Ottawa
Vice-President:	Prof. Keith Winterhalder Laurentian Univ.
President-Elect:	Dr. Luc Brouillet Univ. de Montréal
Secretary:	Dr. Paul G. Harrison Univ. of British Columbia
Treasurer:	Prof. Keith Winterhalder Laurentian Univ.
Directors:	M. Denis Barabé Jard. Botan., Montréal
	Dr. C.C. Chinnappa Univ. of Calgary
	Dr. Erich Haber Nat.Mus.Nat.Sci., Ottawa
	Dr. Richard Hebda B.C. Prov.Mus., Victoria
	Dr. R. Larry Peterson Univ. of Guelph
	Dr. Anton A. Reznicek Univ. of Michigan
Editor <i>Bulletin</i> : ( <u>ex off.</u> )	Mrs. Sylvia Taylor UBC Botanical Garden
Archivist:	Dr. W.I. Illman Carleton Univ.

#### NEW CBA/ABC ENDOWMENT FUND

The CBA/ABC Endowment Fund was established by resolution of the Annual General Meeting held at the University of Western Ontario in June 1985.

The goal of the Fund is to provide awards to support graduate student attendance at the CBA/ABC Annual Meeting. A capital fund will be established and invested to earn interest which will be used to provide awards that will make a significant contribution to expenses incurred in attending the meeting. The cash value of any single award will be pro-rated according to the actual costs involved in an attendee's travel to the meeting. There will be an annual competition for the awards.

Members who wish to contribute to the capital fund will have an annual opportunity when paying their dues. We hope that there will be opportunity for 'covenanting' over several years. I hope that members will contribute generously and will assist with suggestions for corporate and other donors. We have 'tax-deductible' status, and have permission from Revenue Canada to accumulate funds to finance prizes such as are proposed here.

A committee of the Board of Directors is at work in the terms of reference for the Endowment Fund, and these and other details will be circulated with your dues notices in November.

Iain E.P. Taylor  
President, CBA/ABC

## CBA/ABC AWARDS 1985

### GEORGE LAWSON AWARD

The George Lawson Award of the CBA/ABC was presented to Dr. J.C. (Jim) Ritchie (Scarborough College and Department of Botany, University of Toronto) at the Annual Banquet, June 27, 1985. The Award was made by Mr. Gerald A. Mulligan, President of CBA/ABC, and was received by Dr. L.C. Cwynar (University of Toronto) on behalf of Dr. Ritchie who was unable to be present. The citation read, in part, as follows.

*Dr. J.C. (Jim) Ritchie ..... is the 1985 winner of the George Lawson Medal in recognition of his cumulative and distinguished research, teaching and administrative contributions to the advancement of Canadian botany.*

*..... Jim Ritchie has been a pioneer in pollen analysis and the many implications that this speciality holds for the fields of paleoecology, biogeography and environmental history. He has published many papers in the top specialized journals in the field, as well as in Science and Nature. His work on the Quaternary plant ecology of the Yukon has made outstanding contributions to our knowledge of the vegetational history of this uniquely interesting region. This has culminated in the recent publication of a book Past and Present Vegetation of the Far Northwest of Canada.*

*..... Dr. Ritchie is not only a productive and far-sighted researcher, he has also shown himself to be an able teacher and administrator ..... (and) has also served the biological community well in other ways.*

### MARY E. ELLIOTT SERVICE AWARD

The Mary E. Elliott Service Award of the CBA/ABC was presented to Mrs. Sylvia Taylor (University of British Columbia Botanical Garden) at the Annual Banquet, June 27, 1985. The Award was made by Mr. Gerald A. Mulligan, President of CBA/ABC. The citation reads, in part, as follows.

*Sylvia Taylor ..... is the 1985 winner of the Mary E. Elliott Service Award for meritorious service to the Canadian Botanical Association. .... She joined the Canadian Botanical Association in 1978 and in 1980 became Editor of the CBA/ABC Bulletin. Sylvia has been a tireless worker on behalf of the Association and has developed the Bulletin into the main organ of communication between members and a strong voice for botanical interests. She has recently indicated that it is time for the role of Bulletin Editor to pass elsewhere. It is, therefore, appropriate, at this time, that she receive the Mary E. Elliott Service Award for the excellent job that she has done as Editor since 1980.*

### LIONEL CINQ-MARS AWARD

Twenty-five papers were presented in the competition for the Lionel Cinq-Mars Award for the best student paper presented at the London meetings. The panel of judges, representing all six sections of CBA/ABC, found the papers to be of high standard and finally selected the paper presented by Scott D. Wilson (University of Ottawa) as the best paper. The title of the paper was The Relationship Between the Field Distributions and Competitive Abilities of Wetland Plants: A Field Experiment (Wilson and Keddy). In addition, the judges highly commended three other competitors:- M.M. Faconer, C.J. Perumalla and P. Threadgill.

The award was presented to a representative of Mr. Wilson at the Annual Banquet, June 27, 1985, by the incoming President, Dr. Iain E.P. Taylor

### LUELLA K. WERESUB AWARD

The 1985 winner of the Luella K. Weresub Award for the best mycological paper published during 1985 by a graduate or undergraduate student at a University in Canada, or by a Canadian student at a university abroad, is Mr. Greg Thorn (University of Guelph). The award of \$1000 was given for Mr. Thorn's paper 'Carnivorous Mushrooms' published in Science.

## BCC GOLD MEDAL 1985

The BCC Gold Medal for 1985 was presented to Dr. David F. Mettrick (Department of Zoology, University of Toronto). Dr. Mettrick was nominated for the Medal, awarded for "outstanding contributions to the advancement of biology in Canada", by the Canadian Society of Zoologists. The citation reads, in part, as follows.

*Those who know David Mettrick recognize his special talent at organizing arguments rationally and succinctly, and his ability to present them orally and to respond clearly and unhesitatingly to questions and unlikely comments from members of panels or parliamentary committees before which he has appeared to argue the cause of biology. Effective in this way, as in his administrative and committee service, his editorial work, and his science, David Mettrick is a worthy successor to previous holders of this Gold Medal.*

Each year the CBA/ABC invites its entire membership to make nominations for the George Lawson Medals and the Mary E. Elliott Service Award. The Awards Committee is now also responsible for forwarding nominations for two awards by other organizations.

#### George Lawson Medal

The purpose of the award is to provide a collective and formal expression of the admiration and respect of botanists in Canada for the excellence of the contribution of an individual to Canadian botany. Any botanist working permanently in Canada or having spent the greater part of his/her career here is eligible.

In any year, a maximum of two (2) awards may be made, one in each of the two categories outlined below, although a single award, or no award, may be made as the Awards Committee judges appropriate. The two categories are:

- A. Recognition of the cumulative, distinguished contributions of a senior investigator and/or teacher and/or administrator who has worked in Canada for the greater part of his/her career, and whose influence has contributed notably to the advancement of Canadian botany.
- B. A single contribution to botanical knowledge of outstanding distinction. Commonly this would take the form of a published paper, a series of papers, a monograph, or a book by a botanist at any stage of his/her professional career. The contribution should be of singular significance to the discipline at large.

In order that the Awards Committee may learn of botanists who are eligible for these awards, all members of CBA/ABC are invited to submit nominations, and to consult with their colleagues for suggestions. Nominations should be accompanied by a curriculum vitae, a clear statement of the nominee's contribution to botany in Canada, and as much documentation as possible. Letters by others supporting the nomination would also help the Awards Committee in reaching its decision.

#### Mary E. Elliott Service Award

This award was established in 1978 for meritorious service to the Canadian Botanical Association. The award may be made from time to time as the Awards Committee may recommend at its discretion.

Members of CBA/ABC are invited to submit nominations for this award to the Awards Committee, together with a curriculum vitae. A citation of approximately 100 words should accompany the nomination.

Nominations for these Awards are kept on file for 3 years after submission, but nominators are requested to provide updated information for the second and third years. Will nominators of candidates for these Awards during the last two years (i.e., 1984 and 1985) please submit a curriculum vitae for their candidate (if not included originally) and update the information as necessary.

#### Biological Council of Canada Gold Medal

The Gold Medal Award of the BCC is made annually to a member of a constituent society who has made outstanding contributions to the advancement of biology in Canada. Such contributions are not intended to be solely in scholarship; significant service in national agencies, institutions and societies will also be recognized.

The individual Societies are expected to forward nominations from their members to the BCC Gold Medal Committee, and this is taken as endorsement of the nominee(s) by the Society. Nominations for the Award must be submitted in writing, and will stand for 3 years, although they should be revised annually and may be renewed.

A nomination for the BCC Gold Medal must contain a citation drawing attention to all the achievements that should be considered by the Gold Medal Committee, with stress laid on those of particular significance. This must be accompanied by an up-to-date curriculum vitae (information about graduate students and post-doctoral fellows supervised is important), and a list of publications. It is not necessary to have extra letters of support from individuals.

#### John and Alice Tyler Ecology/Energy Prize

This international prize is awarded to individuals or organizations for outstanding achievements benefiting mankind. Nominees can be associated with any field of science. The term "organization" includes universities, foundations, corporations or other types of organization.

Prizes are awarded for the protection, maintenance, improvement and understanding of ecological and environmental conditions anywhere in the world; or for the discovery, further development, improvement or understanding of known or new sources of energy.

Nominations must include the name and address of the nominee (or administrative office of an organization), summary of accomplishment, detailed description of the contribution (including publications or other evidence), and 3 letters of recommendation plus the names of 3-5 further referees. Nominations will stand for 2 years.

Nominations for any of the above Awards should be submitted to the Chairman of the CBA/ABC Awards Committee before December 31, 1985 (as soon as possible for the external awards), with all necessary documentation:-

Dr. Iain E.P. Taylor  
Department of Botany  
University of British Columbia  
Vancouver, B.C. V6T 2B1

#### MISCELLANEA

CBA/ABC members visiting London, England, may be interested in a new tour that is available. Parks and Farms in Tower Hamlet guides residents and visitors to gardens, three urban farms and the best view of Wren's magnificent Greenwich Hospital. The guide is available from The Tower Hamlets Environmenta Trust, 192-196 Hanbury St., London, E1, England.

CALL FOR NOMINATIONS OF OFFICERS AND DIRECTORS  
FOR CBA/ABC 1986-1987

At the Annual Meeting at the University of Western Ontario a call for nomination for the following members of the Board of Directors was made:

1. President-Elect (1986-1987)
2. Secretary (1986-1988)
3. 3 Directors (1986-1988)

In accordance with By-law 14, one of the 3 Directors must reside west of the Ontario-Manitoba Provincial boundary.

Nominations must be signed by not less than three (3) members in good standing. All nominations must be accompanied by the consent of the nominee.

Les membres sont invités retourner chaque mise en nomination au secrétaire pour le 31 décembre de cette année. Toute nomination doit être accompagnée du consentement écrit de la personne nommée, laquelle doit être membre régulier en règle. Chaque mise en nomination doit porter la signature d'au moins trois membres en règle.

All nominations must be delivered in writing no later than December 31, 1985, to the Secretary of the Association:

Dr. Paul G. Harrison  
Department of Botany  
University of British Columbia  
Vancouver, B.C. V6T 2B1

On behalf of the Nominating Committee.

Gerald A. Mulligan, Chairman

CBA/ABC BOARD MEETING NOTES

The Board of Directors held two meetings at London, Ontario, during the Association's Annual Meeting. Following are extracts from the Minutes of these meetings.

A. Outgoing Board of Directors Meeting, June 23 (G.A. Mulligan presiding).

The President reported that a bilingual brochure outlining the aims of CBA/ABC has been prepared by I.E.P. Taylor and is being distributed. The \$2500 loaned to BCC to help cover expenses prior to the Canadian Congress of Biology will be paid back (Ed. Note:- A check for this amount was handed over to CBA/ABC during the Annual Banquet). The Botanical Society of America has accepted our invitation to meet with us in Toronto in 1989, and AIBS also want to attend. BCC has proposed that a 2nd Canadian Congress of Biology be held in 1990, probably at Laval University. Consideration of CBA/ABC participation was deferred to the incoming Board of Directors. A Field Station Policy document from BCC has been sent to NSERC and will be sent to the Science Council and MOSST. A document on Canada's Threatened Forests has been prepared by Taylor Steeves and his committee and submitted to BCC.

The Secretary reported that the November conference telephone call cost \$530 - a minor amount compared to the cost of flying the Executive to one meeting site. It was moved/seconded/approved that the Association charge \$250 for repeat uses

(up to a maximum of 5 times) of the mailing list. The sale of the mailing list is restricted to companies advertising items of botanical interest e.g., book companies, herbarium supplies, etc.

The Treasurer submitted the financial statement and explained that the CBA/ABC Conservation Committee had received a research grant from the Ontario Heritage Foundation.

The Vice-President reported that over 130 abstracts had been received from CBA/ABC members, about one-third of them from students. The botanists, zoologists and geneticists made up the bulk of the Congress attendees. CBA/ABC attendance may exceed 200.

The Editor of the *Bulletin* reported that costs had dropped due to changes in accounting procedures at the printers. The *Bulletin* cost \$2337.67 to produce (July 1984-April 1985), or approximately \$7.00 per member (about 35% of the membership fee). The bulk mailing system saved \$354.40 over the period, or 41.8% of the potential mailing costs. There is still a problem with members renewing late, and various methods of re-inforcing renewal notices were discussed.

In Other Business, I. Taylor requested retro-active approval for Job Kuijt to convey greetings from CBA/ABC to the first National Botanical Congress of Cuba (see report elsewhere).

It was moved/seconded/approved that CBA/ABC donate an annual cash prize of \$100 for the best exhibit in plant biology at the Canada-wide Science Fair.

Motions referred to the AGM were:-

That CBA/ABC make a single donation of \$100 to the J.M. Naylor Memorial Fund in recognition of his behind-the-scenes support of the Association (AGM approved).

That CBA/ABC establish an Endowment Fund to support travel for graduate students to the Annual Meeting (approved).

That CBA/ABC commend the NRC for its no-page-charge policy which is a very significant factor in keeping Canadian Botany strong and in attracting material of such quality that the Canadian Journal of Botany is recognized internationally as a forefront journal (approved).

That CBA/ABC participate in the 2nd BCC Congress in 1990 (approved).

That "the official languages of the Biological Council of Canada shall be the official languages of Canada" become the new Article 10 of the BCC constitution (approved). This was in accordance with a request from BCC.

B. Incoming Board of Directors Meeting, June 28 (I.E.P. Taylor presiding).

The President reported that R.I. Greyson has been asked to chair a committee on the Teaching of Botany in Canada. G. Mulligan, L. Peterson, K. Winterhalder, A. Reznicek and I. Taylor will develop terms of reference for the Endowment Fund for graduate student travel aid. E. Haber, D. Barabé, R. Hebda and C.C. Chinnappa will investigate the relationship of CBA/ABC and the Biological Survey of Canada, and the prospects of our participation. A Policy Manual is to be developed for the guidance of officers of the Association. The Secretary will request each Director to submit written reports for discussion at the AGM, these reports to be duplicated and included in the registration material. This will

allow members to read the information before the AGM and thus be better able to contribute to discussions.

The Archivist, W.I. Illman, will be retiring in the Fall of 1986. Approaches are being made to find a replacement.

Keith Winterhalder was appointed Vice-President, 1985-86, and reported that all is going well for the 1986 Annual Meeting in Sudbury.

Luc Brouillet reported that plans are well in hand for the Montreal meeting in 1987. It will be held one week earlier than usual because the normal meeting period conflicts with the Quebec holiday on June 24.

The Treasurer, Secretary and *Bulletin* Editor will discuss the future handling of the membership list and report to the Fall Executive meeting.

I. Taylor and E. Haber will investigate the possibility of CBA/ABC obtaining a high-quality pin for sale to members and as possible commemorative gifts to highly commended student speakers, guests, etc.

The joint CBA/ABC and CSPP membership directory is to be updated and published in early 1986.

The total registration at the Canadian Congress of Biology was about 765, with CBA/ABC contributing about 200 attendees.

## NEWS FROM THE SECTIONS

### Ecology Section

Chairman: Bruce A. Roberts, Canadian Forestry Service, P.O. Box 6028, St. John's, Nfld A1C 5X8

Secretary:

Richard Sims and Keith Winterhalder were elected by acclamation to the executive.

### General Section

Chairman: Joanne MacDonald, Department of Biology, University of Victoria, Victoria, B.C. V8W 2Y2

Secretary:

General and mycology papers were combined to produce a varied session at the meetings. Nine papers were presented. The post-congress field trip to the Royal Botanical Gardens, Hamilton, was organized by the Section with the assistance of the Local Organizing Committee. Special thanks go to the trip leader, Jim Pringle.

The Section will produce a "What's happening in Paleobotany" for the CBA/ABC *Bulletin*.

Members involved in teaching reproductive biology of conifers will be interested in a set of 35mm slides produced by Mary Moore. Details appear elsewhere in this issue.

### Mycology Section

Chairman: James A. Traquair, Harrow Research Station, Agric. Canada, Harrow, Ont NOR 1G0

Secretary:

The Section did not hold a business meeting at London. About 30 people attended the Weresub lecture. The Section may consider the possibility of uniting with the General Section.

## 5th L.K. Weresub Memorial Lecture

Only a speaker with an acute sense of humour would follow the Joy of Cooking and the Joy of Sex with a lecture entitled "The Joy of Nid Picking"! The 5th Luella K. Weresub Memorial Lecture was given by Dr. Harold J. Brodie on June 25, 1985, at the first Canadian Congress of Biology. I am confident that anyone who has met this charming and distinguished mycologist would agree that he is very witty and has a clever way with words.

Dr. Brodie began by explaining that the word NID in the title was a convenient though reprehensible abbreviation referring to a small group of unusually interesting fungi known as the Nidulariaceae or Bird's Nest Fungi which he has been studying for over 40 years.

The first section of the talk explained that the small vase-shaped fruit body (containing a 'clutch' of 'eggs') is a structure superbly adapted to achieve dispersal of the fungus spores for reproduction. This is accomplished by means of the splashing out, laterally, of the spore-containing capsules (the 'eggs'), making use of the momentum energy of large, falling raindrops.

The growth and life cycle of the Bird's Nest Fungi were described in the second part of the lecture, as well as some of the theoretical and actual consequences of research concerning them. Among the latter are: the metabolites of the Nidulariaceae include about 50 organic compounds previously unknown to chemists and exhibiting potentially useful antibiotic properties; some species have been shown recently to be capable of breaking down or biodegrading the usually chemically unavailable lignocellulose of wheat straw, corn stover, rice paddy and other similar waste materials, and the activity of such NIDs could conceivably be used to obtain glucose sugars for fermentation from those wastes; even a partial understanding of the mechanics of rain-splash dispersal in the Nidulariaceae has led to the recognition of morphologically and functionally similar splash cups in almost all phyla of the plant kingdom.

In the final section of the presentation, the speaker described some unusual habitats in which NIDs have been found. Several unusual experiences were described that had, over the years and in many localities, contributed to the excitement of hunting for NIDs. Noteworthy among these anecdotes was his accidental slide down a scree slope in Rocky Mountain National Park that led to his discovery of the new species *Cyathus helenae*. These experiences exemplified the title 'Joy of Nid Picking'.

Dr. Brodie obtained his M.Sc. degree from the University of Michigan in 1934. Following a National Research Fellowship in plant pathology at McGill University, he was appointed as assistant professor of Botany at the University of Manitoba in 1937. He taught botany and mycology at the University of Indiana from 1946-1953 and was Professor and Head of the Botany Department at the University of Alberta in Edmonton from 1957-1970. Dr. Brodie has an international reputation as an expert on the Nidulariaceae and has maintained an active interest in research. He was able to describe all aspects of these intriguing fungi in a comprehensive book *The Bird's Nest Fungi* (1975, Univ. of Toronto Press) and its supplement *More Bird's Nest Fungi* (1984, Lejeunia, Nouvelle serie 112).

Boundless enthusiasm and articulate expression are characteristics that Harold Brodie admired in his teacher, critic and long-time friend, the late Dr. A.H.R. Buller. They are features that are easily recognized in his own work. Indeed, he has taken up the torch, and we are proud that he has been able to light so well our memories of Luella K. Weresub.

#### Phycology Section

Chairman: Gordon G.C. Robinson, Department of Botany, University of Manitoba, Winnipeg, Man R3T 2N2

Secretary:

The Section will choose the new executive by mail ballot, and a student member will be included. Workshops on the following topics will be promoted at future meetings: metal stress in aquatic environments, algal pesticide toxicology, enclosure/exclosure methodology, algal biotechnology, and specific techniques (unspecified).

#### Structure & Development Section

Chairman: Nancy G. Dengler, Department of Botany, University of Toronto, Toronto, Ont M5S 1A1

Secretary: V.K. Sawhney, Department of Biology, University of Saskatchewan, Saskatoon, Sask S7N 0W0

#### Systematics & Phytogeography

Chairman: Keith E. Denford, Department of Botany, University of Alberta, Edmonton, Alta T6G 2E9

Secretary: Sylvia Taylor, Office of the Botanical Garden, University of British Columbia, 6501 NW Marine Drive, Vancouver, B.C. V6T 1W5

No election was held for the second year in succession. Sylvia Taylor was appointed Interim Secretary to replace Janet Dugle who had to step down.

Paul Catling reported that 8 new checklists were added to the unpublished checklist repository. The Rare Plants of British Columbia is expected to be published in August. Part 4 of the Rare Plants of Ontario should be published in 1986.

#### 35MM SLIDE TEACHING SET AVAILABLE

##### Sexual Reproduction in *Pinus banksiana* Lamb. (Jack Pine, pin gris)

Teaching set of 33 colour transparencies with accompanying text and glossary. Slides lead the student from what can be seen on the tree with a good hand lens to the cellular level.

Prepared by Mary I. Moore, advised by Nancy G. Dengler.

Cost \$65.00, postage paid. Delivery about 4 weeks.

Order from: Mary I. Moore, 6 Laurier Ave., Box 159, Deep River, Ont K0J 1P0

#### BCC INFORMATION

##### BCC PRESIDENT'S REPORT — J.R. NURSALL

I intend to report regularly to BCC member societies through their bulletins or newsletters. This report is written immediately following the First Canadian Congress of Biology at the University of Western Ontario, London, 23-29 June, 1985. The Congress has taken the bulk of our attention this spring and summer, so this report will be mostly concerned with it.

About 780 people registered for the Congress. Four member societies (Canadian Botanical Association, Canadian Phytopathological Society, Canadian Society of Zoologists, Genetics Society of Canada) took advantage of the Congress to hold their annual general meetings at it. The Entomological Society of Canada and our colleagues of the Canadian Society of Microbiologists, who have recently become observers at the BCC, each held significant sets of meetings.

Each of us who attended the Congress will have his own opinion of its success, but the general impression that I carried away was that the meetings had worked well, despite the occasional gaffe or imperfection in the program. Let me try to capture some of the feeling and sense of the Congress by reporting or paraphrasing what I said at different public occasions at which I spoke.

At the opening session:

"The substance of our careers is the experiment and the publication and wider testing of its results. Today we begin the first Canadian Congress of Biology — an experiment of the Biological Council of Canada. You are the ones, who in your numbers and responses, will determine how significant the experiment will have been.

"This experiment is based on the hypothesis that biologists of varied backgrounds and interests should have the opportunity to meet together, periodically, to share ideas, to compare ends and means and to build their sense of community.

"The experiment of the Congress was approved by the BCC in 1980. The protocols were set up within a year and the University of Western Ontario chosen as laboratory.

"An organizing committee was established under the chairmanship of David B. Walden, Department of Plant Sciences, University of Western Ontario. The committee represents all seven member societies of the BCC plus the Canadian Society of Microbiologists.

"The BCC is made up of 7 biological organizations and has 3 observer societies attached. Thus it represents more than 4000 professional biologists in government, industry and the universities. The BCC serves to carry the opinions and interests of this large and important segment of Canadian science to the ministries and agencies that legislate our activities and control our resources. This is done by means of briefs, publications, symposia and direct communication with appropriate ministers, bureaucrats and officers. The Council itself, comprising chiefly representatives of member societies, directs these activities. In other words, the BCC can be used as your collective political voice.



"But we are a free association of societies and never before have taken the opportunity to meet together in this way. There has been no requirement that member societies participate in this Congress. Some have not been able to, because of previous commitments. There is no requirement that participating societies be members of BCC. We are particularly pleased to see our colleagues of the Canadian Society of Microbiologists taking advantage of this Congress.

"We shall expect to hear the reactions of the societies to the Congress. If you are having your annual general meeting here, I hope that you will use the occasion to evaluate this sort of gathering of societies. You see, tentatively we plan a Second Congress to be held at l'Université Laval, from 20-25 August, 1990. How shall we put the lessons learnt here to good use in planning it?

"The results of any experiment, if it is a good one, will give rise to more questions than it answers, for our discoveries tell us most clearly what it is that we do not know.

"I know that this is a good experiment. The Organizing Committee has worked long and hard and Congress Canada, our professional guides, have done incredibly well within the limits we put upon them. BCC is deeply grateful to the Congress sponsors, who are acknowledged in the program book. What more elegant, impressive or significant location could we have chosen than the University of Western Ontario?

"Malgré les renseignements de la brochure finale, le mot final appartient au président de conseil, qui dit a nos collègues francophones. 'Je vous souhaite bienvenue au premier congrès canadien de biologie. Faisons cette occasion le temps de la coopération et l'entente parmi collègues. Nous sommes un corps; nous marcherons en accord!'"

We were warmly welcomed to the University of Western Ontario by Acting President A.K. Adlington. The University proved to be a gracious and generous host. The success of the Congress depended on it to no small extent.

At the first plenary session: we were given the chance to hear the views of three pre-eminent practitioners of biology in Canada, David Mettrick (The BCC Gold Medal Award winner for 1985), Gordon MacLachlan and John Phillips. Wach speaker, from his own vantage point, looked at Canadian biology in the past, as it is practised now and as it may be. Thus we saw our capacities, our possibilities and the problems we face. It was a good introduction to the second plenary session, two days later, where David Low, the Deputy Secretary of MOSST, Douglas Wright, President of the University of Waterloo and author of the report on Federal Policies and Programs for Technology Development, and Gordon MacNabb, President of NSERC, outlined the problems and prospects of science in Canada. The presence of these speakers emphasized the importance of BCC as a forum for the expression of opinion and announcement of policies and initiatives.

One of the most enjoyable tasks I had at the Congress was having the opportunity formally to return to member societies the loans they made willingly and generously when asked in 1984 to

assist the Organizing Committee with its cash flow. That expression of interest and confidence in the BCC was much appreciated and enabled the Organizing Committee to proceed expeditiously with its arrangements. The presentation of the money was greeted with cheers by the CBA, CPS, ESC and GSC. Even the CSPP, which was unable to participate in the Congress due to previous commitments, contributed to our success and has been reimbursed by mail.

The BCC also got instructions for initiatives from its members. Council will express forceful opinions on matters of cuts to staff at NSERC, the National Museum of Natural Sciences and the Science Council of Canada. We shall comment soon on the new Five Year Plan of NSERC. There will be initiatives in regard to expansion of the Biological Survey of Canada, as well as the development of a workshop with the Climate Planning Board and the Atmospheric Environment Service to consider the impact of climatic change on animals and plants in Canada. Following the October meeting of the BCC, you can expect to hear more about these and other activities of Council.

J.R. Nursall  
President, BCC

## A CUBAN ADVENTURE

The "Primer Simposio de Botanica Cubana" was held in Havana from July 2-5, followed by a 4-day field trip to the Sierra Maestra in eastern Cuba. The conference was attended by some 300 botanists, including a few from Czechoslovakia, Russia, East Germany, England, Mexico, Nicaragua the United States, and one (myself) from Canada.

It was obvious to all foreign visitors that Cuban botany is making great efforts to emerge from post-revolutionary doldrums. The quality of papers presented and posters displayed was generally good. The inimitable Dr. Arthur Cronquist from the New York Botanical Garden delivered the keynote address, and staff members from the Missouri Botanical Garden were prominent. A visit to the Jardín Botánico Nacional just outside Havana showed an ambitious undertaking with strong government support. The garden, started about 13 years ago, consists of 600 hectares, and employs more than 300 people. Large areas are devoted to major Cuban vegetation types, and elsewhere we saw young collections of African and Asiatic materials plus a palm collection. Especially noteworthy was an impressive serpentine area. The garden at this time is basically an arboretum, but has a general Cuban herbarium of some 60,000 numbers. Active collecting has been carried out for some years, especially in the Oriente region.

Even though the combination of a communist bureaucracy and the Latin temperament was at times irksome, the conference was much enjoyed, and will hopefully lead to more frequent botanical interchange with Cuban botanists.

Job Kuijt  
Univ. of Lethbridge





# ACADEMIC PRESS



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## **Experimental Mycology**

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**Experimental Mycology** publishes clear, original papers in which the results add significantly to a better understanding of the biology of fungi, with investigations which relate structure and function to growth, reproduction, morphogenesis and differentiation of fungi. The journal features studies of developmental processes at the cellular and subcellular level and offers experimental inquiries into fungal cytology, biochemistry, physiology, genetics and phylogeny. Research papers are written not only by mycologists, but also cell biologists, biochemists, geneticists, increasingly molecular biologists, and are of interest to scientists working within these disciplines.

**Volume 9, 1985, in 4 issues: \$89.50**

## **The Lichenologist**

*Editor: D. L. Hawksworth*

**The Lichenologist** reports on lichenology throughout the world. It is the only journal devoted exclusively to the study of lichen-forming fungi and provides a forum for the dissemination of new concepts and topical reviews. It reaches more scientists concerned with the study of lichens than any other single journal. All aspects of lichenology are covered in the journal, including physiology of the whole thallus, physiology of symbiosis, ultrastructure, ecology, systematics, floristic surveys, chemical products, effects of pollutants and use as bioindicators, identification keys, biogeography and book reviews. In 1986 the journal will be published quarterly. The Lichenologist is produced by the British Lichen Society.

**Volume 17, 1985, in 3 issues: \$107.00**

## **Physiological Plant Pathology**

*Editor-in-Chief: D. D. Clarke*

**Physiological Plant Pathology** presents the results of current research into plant disease and is recognised as one of the leading journals of experimental plant pathology. The journal provides a forum for studies on physiological and biochemical aspects of host-parasite interaction and an increasing number of papers contribute to our understanding of the molecular control of this interaction. The journal also covers work on environmental, genetical and ultrastructural studies that help to elucidate the relationships between host and pathogen. **Physiological Plant Pathology** is of interest to all plant scientists, including physiologists, agricultural botanists, biochemists, geneticists and molecular biologists who have an interest in any aspect of host-parasite interaction.

**Volumes 26, 27, 1985, in 6 issues: \$220.00**

## **British Phycological Journal**

*Editor: R. M. Crawford*

The **British Phycological Journal** is an important international journal which publishes papers on current research in algae. It also includes brief reports of lectures to the British Phycological Society and reviews of publications in phycology. All aspects of phycology are considered for inclusion and the editor endeavours to achieve a balance between the subjects represented in each volume. Topics covered include physiology, ultrastructure, ecology, systematics, floristic surveys, effects of pollutants and use as bioindicators.

**Volume 20, 1985, in 4 issues: \$127.50**

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# TREASURER'S REPORT

CANADIAN BOTANICAL ASSOCIATION/L'ASSOCIATION BOTANIQUE DU CANADA

FINANCIAL STATEMENT FOR FISCAL YEAR 1984/85

<u>BALANCE OF FUNDS</u> - August 1984 .....	\$15,735.64
<u>REVENUE</u> .....	35,040.20
	<u>\$50,775.84</u>

<u>EXPENDITURES</u> .....	23,713.97
---------------------------	-----------

<u>BALANCE OF FUNDS</u>	
Chequing/Savings Account .....	17,061.87
Term Deposit .....	10,000.00
	<u>\$27,061.87</u>

## REVENUE BREAKDOWN

Membership Dues	
Regular (296) ....	\$5,920.00
Student (72) .....	720.00
Retired (27) .....	270.00
Excess Payment ...	7.50
	<u>\$ 6,917.50</u>
BCC Dues .....	1,881.69
NRC Journal Subscriptions .....	3,327.50
CBA/ABC Bulletin Subscriptions .....	380.00
CBA/ABC Bulletin Advertisements .....	195.00
Sale of Mailing Labels .....	150.00
Profits, 1984 Meeting .....	4,000.00
Premium on US Cheques .....	79.03
Interest, Chequing/Savings Account .....	91.67
Term Deposit plus Interest .....	10,517.81
*Grant for Savanna Project .....	7,500.00
	<u>\$35,040.20</u>

## EXPENDITURE BREAKDOWN

BCC Dues .....	\$ 1,771.00
NRC Journal Subscriptions .....	3,394.00
CBA/ABC Bulletin Expenses .....	2,450.00
Conservation Committee Expenses .....	633.35
Savanna Project Expenses .....	500.00
Secretary's Office Expenses .....	1,305.36
Treasurer's Office Expenses .....	61.26
Membership Youth Science Council .....	10.00
Bank Service Charges .....	5.20
Term Deposit .....	10,000.00
London Meeting, Seed Money .....	500.00
Canadian Congress of Biology Loan .....	2,500.00
Printing of Brochures .....	583.80
	<u>\$23,713.97</u>

## RECONCILIATION

Assets (May 31, 1985)	
Chequing/Savings Account .....	\$17,061.87
Term Deposit .....	10,000.00
	<u>\$27,061.87</u>
Liabilities	
Savanna Project .....	\$ 7,000.00
BCC .....	126.00
NRC Journal Subscription .....	69.00
Treasurer's Office Expenses .....	247.65
Conservation Committee Expenses .....	238.72
Elliott Award Expenses .....	256.26
Secretary's Office Expenses .....	104.00
	<u>\$ 8,041.63</u>
Net Surplus .....	<u>\$19,020.24</u>

## WERESUB FUND

Balance - August 1984 .....	\$ 1,054.44
Revenue .....	1,124.40
	<u>\$ 2,178.84</u>
Expenditures .....	1,002.50
	<u>\$ 1,176.34</u>
Assets	
Current Account .....	\$ 1,176.34
Guaranteed Investment Certificate ...	12,300.00
	<u>\$13,476.34</u>

K. Winterhalder, Treasurer

\*First payment on \$15,000 grant for ecological studies of savanna in Ontario.

# KNOW YOUR OFFICERS

**PRESIDENT:** Official representative of CBA/ABC; responsible for all official actions of the Association; chairs Awards Committee; represents CBA/ABC on BCC Executive.

IAIN E.P. TAYLOR

**Position:** Associate Professor  
**Where:** Department of Botany, University of British Columbia

**Research Interest(s):** Biochemistry and biophysics of cell wall extension; conifer tissue culture.

**PAST-PRESIDENT:** Chairs Nominating Committee for following year's slate of officers; provides advice and help to President as required.

GERALD A. (GERRY) MULLIGAN

**Position:** Director  
**Where:** Biosystematics Research Institute, Central Experimental Farm, Ottawa

**Research Interest(s):** Cytotaxonomy and pollination biology of weeds and Cruciferae.

**PRESIDENT-ELECT:** Chairs Lionel Cinq-Mars Committee; any other jobs as requested by Presidnet; represents CBA/ABC on BCC Council.

LUC BROUILLET

**Position:** professeur-adjoint; conservateur, Herbar Marie-Victorin  
**Where:** Institute botanique, Université de Montréal

**Research Interest(s):** Systematics and evolution in genera *Aster* and *Begonia*; phytogeography of North America; systematics of Angiosperms.

**VICE-PRESIDENT:** Chairman of Local Organizing Committee for next Annual Meeting, responsible for all matters pertaining to that meeting.

E. KEITH WINTERHALDER

**Position:** Associate Professor & Chairman  
**Where:** Department of Biology, Laurentian University

**Research Interest(s):** Plant ecology, especially plant/soil relationships and specifically pollution and revegetation ecology.

**SECRETARY:** Responsible for day-to-day running of CBA/ABC; takes minutes of all Executive meetings and of Annual General Meeting; maintains membership and address lists.

PAUL G. HARRISON

**Position:** Associate Professor  
**Where:** Department of Botany, University of British Columbia

**Research Interest(s):** Ecology and physiology of estuarine plants - seagrasses and algae; functional ecology of detritus-based systems.

**TREASURER:** Responsible for all financial operations; co-ordinates membership drives.

E. KEITH WINTERHALDER

See under Vice-President.

**DIRECTORS:** Local area representatives. No specific duties but may be assigned jobs by President.

DENIS BARABÉ (85-87)

**Position:** Botanist  
**Where:** Jardin botanique de la ville de Montréal

**Research Interest(s):** Morphology and systematics of Begoniaceae and Araceae; classification of Angiosperm families.

C.C. (C.C.) CHINNAPPA (84-86)

**Position:** Associate Professor & Curator of Herbarium  
**Where:** Department of Biology, University of Lethbridge

**Research Interest(s):** Understanding evolutionary strategies and patterns of variation in vascular plants. Main interest in *Stellaria longipes* complex - 1) genetic regulation of phenotypic plasticity, 2) population differentiation.

ERICH HABER (84-86)

**Position:** Assistant Curator of Vascular Plants  
**Where:** Botany Division, National Museum of Natural Sciences, Ottawa

**Research Interest(s):** Systematics of *Pyrola*; floristics of Canada.

RICHARD HEBDA (85-87)

**Position:** Head, Environmental Section  
**Where:** Archaeology Division, B.C. Provincial Museum, Victoria

**Research Interest(s):** Vegetation & vegetation listing of B.C.; origin & development of B.C. biogeoclimatic zones; pollen morphology (Apiaceae); relationship of environmental history to evolution of native culture; paleoethnobotany & ethnobotany in B.C.; quaternary paleoecology of coastal Veracruz, Mexico, Belize; paleoethnobotany & environmental history of eastern Crete; sea-level changes & curves for west Vancouver Is; environmental history of glacial refugia of coastal B.C.

R. LAWRENCE (LARRY) PETERSON (85-87)

**Position:** Professor  
**Where:** Department of Botany, University of Guelph

**Research Interest(s):** Development & structure of roots with emphasis on ectomycorrhizae, vesicular arbuscular mycorrhizae and nodule development in actinorhizal plants.

ANTON A. (TONY) REZNICEK (84-86)

**Position:** Assistant Curator  
**Where:** Herbarium, University of Michigan  
**Research Interest(s):** Systematics of *Carex*. Migration & persistence of rare & relict species. Floristics & phytogeography of Great Lakes area flora.

**EDITOR OF BULLETIN:** Responsible for production and mailing of CBA/ABC *Bulletin*, and that official notices are published at appropriate time.

SYLVIA TAYLOR

**Position:** Research Technician  
**Where:** Botanical Garden, University of British Columbia

**Research Interest(s):** Cytogenetics; ethnobotany; editing.

**ARCHIVIST:** Receives originals &/or copies of all important items, transfers them to National Archives of Canada.

W.I. (BILL) ILLMAN

**Position:** Associate Professor  
**Where:** E.L.B.A., Carleton University  
**Research Interest(s):** Imperfect Fungi -- and all of botany!

The Secretary of CBA/ABC recently received a letter from NRCC enclosing the subscription rates for 1986 for all the research journals. Reduced rates on all these journals are available to CBA/ABC members, although only the Canadian Journal of Botany is mentioned on the membership forms. These subscriptions must be paid at the time that you pay your membership dues. Please keep this listing for reference at membership renewal time, and remember to identify the alternate journal on the form that you return to the Treasurer. The Treasurer would also greatly appreciate it if members wishing to subscribe to any of the NRCC journals would please renew promptly — it is much more difficult to ensure continuation of your journal subscription without gaps when you renew late!

<u>Publication</u>	<u>Personal Subscr.</u>		<u>Non-mandatory Subscr. with Membership</u>
	<u>Canada</u>	<u>Foreign</u>	
Can. J. Biochem. & Cell Biol.	\$39	\$ 59	\$20
Can. J. Botany	72	92	37
Can. J. Chemistry	85	105	45
Can. J. Earth Sciences	58	78	26
Can. J. Microbiology	45	65	23
Can. J. Physics	58	78	29
Can. J. Physiol. Pharmacol.	43	63	24
Can. J. Zoology	64	84	34
Can. J. Civil Engineering	39	54	14
Can. J. Forest Research	39	54	16
Can. J. Genetics & Cytology	39	54	14
Can. Geotechnical J.	33	43	14
Computational Intelligence	45	55	16

#### CANADA LOSES LANDMARK PALEOBOTANICAL SITE

Members of the geological community were shocked to learn that the Don Valley Brickyard, located in the heart of Metropolitan Toronto, was sold to a private developing company in the summer of 1984. The brick foundry continued operations until this past November, and the owner, Torvalley Associates, immediately began to fill in the quarry. Torvalley submitted a proposal in April 1985 to the Borough of East York for an exclusive 756-unit residential development. Efforts by municipal and provincial authorities to negotiate any conservation plan have been thwarted.

The brickyard has excavated the underlying clay and shale deposits for over 125 years. These deposits played a vital role in shaping Toronto's architecture, examples of which are displayed by the old city hall. The excavations provided the rare opportunity to study the last 100,000 years of glacial history in southern Ontario. The primary scientific interest focuses on the fossiliferous deposits of the Don Formation, a sequence of sediments laid down during the Sangamonian interglacial period which is the one immediately preceding the present one.

The Don Brickyard is designated the type reference (i.e., holotype) for some of the glacial units used by geologists for comparing and correlating other possible deposits of similar age. The Ontario Ministry of Natural Resources regards the brickyard as of unusual scientific interest, and the Geological Society of America lists it in a guidebook of outstanding geological interest areas (a GSA centennial project for the Decade of North American Geology). The brickyard was visited by the International Geological Congress in 1913 and 1972, and by the Congress of the International Association for Quaternary Research in 1965 (hopefully, again in 1987). Numerous other local, national and international groups have visited the site over the past century.

The Don Formation contains a unique assemblage of fossils, both plant and animal. It contains the best, and to my knowledge the only,

Carolinian fossil flora in Canada. The first plant fossils were collected during the 1870's, revealing some of our finest leaf compressions and wood specimens of such taxa as *Asimina triloba*, *Cercis canadensis*, *Gleditsia*, *Fraxinus quadrangulata*, *Quercus velutina*, *Maclura*, *Platanus occidentalis*, etc. In 1960, Dr. Terasmae studied the pollen and recovered abundant pollen of *Liquidambar*.

I have been participating in palaeobotanical studies in the last few years to make a last minute effort to salvage the opportunity to study these deposits. I have been able to add numerous new taxa previously not known from the Don Formation, some of the most interesting being *Celastrus scandens*, *Najas quadalupensis*, *N. gracilima*, *Triadenum/Hypericum*, as well as numerous unidentified fossils. I am in the process of re-examining the early collections and it seems that most are accurate determinations. (I would appreciate hearing from anyone who could help with wood identifications.) Many of the plant taxa in the Don Formation are rare in the modern flora of Canada, rare in the Quaternary flora of Canada, or not known elsewhere in the Quaternary flora of North America.

Torvalley will begin excavating the Quaternary sequences and the Don Formation in September, 1985. This will be the end of one of Canada's oldest natural museums. It will lock away again the treasure of secrets on the origin of Canada's fauna and flora.

The Don Brickyard disaster is an expensive lesson to pay for the lack of any active body concerned with our geological heritage. I feel there is a need for the CBA/ABC to play a more direct role in identifying natural areas of national palaeobotanical importance, and to make certain that necessary measures be taken to ensure that such areas or features are preserved. How about it? My fellow palaeobotanists and future generations of scientists will, no doubt, be indebted forever.

Barry G. Warner  
Dept. of Earth Sciences  
Univ. of Waterloo

REPORT IN RELATION TO PLANT TAXONOMY AND PLANT NOMENCLATURE

The XXII General Assembly of the International Union of Biological Sciences was held in Budapest, September 1-7, 1985, and was attended by representatives of 29 National (now Ordinary) Members and 24 Scientific Members.

The one pre-arranged item on the programme that particularly related to plant taxonomy and nomenclature was a Workshop on Biological Nomenclature chaired by W.D.L. Ride (Australia), President of the Commission in Zoological Nomenclature. Issues raised at the meetings of the Scientific Committee also proved relevant. Both gave rise to Resolutions relating to taxonomy and nomenclature.

Workshop on Biological Nomenclature:- This workshop had two inter-related points of origin. The first was the concern, going back at least to the XX General Assembly at Helsinki in 1975, that the divergencies between the four current codes of biological nomenclature (Bacteriological, Botanical, Zoological and that for Viruses) created unnecessary confusion to biologists in general, and practical difficulties for protistologists in particular. This led to the establishment of an ad hoc committee on the topic by the Executive Committee after the Ottawa Assembly in 1982. This, in turn, led to the holding of two symposia ("Codes of Nomenclature" and "The Protists: Evolution, Taxonomy and Nomenclature") at ICSEB III at Brighton, England, in July 1985. The second point of origin was the two resolutions adopted by ICSEB III as a result of these two symposia.

The ad hoc committee set up in 1982 recommended

- (a) (i) that the IUBS Commission on the Nomenclature of Plants and the Section on Zoological Nomenclature be requested to commence a study of the Codes with the aim of harmonizing them as far as possible, both in essential terminology and in such features as would lead to different names for the same taxon. In particular, the bodies responsible for the codes are asked to review the appropriateness of introducing
  - provisions to expedite the use of the plenary power of the Commission (zoology) and the procedure for nomina conservanda and nomina rejicienda (botany) in cases where it is necessary to use such provisions to achieve harmony in the case-by-case approach
  - provisions for the admission of living types and multiple types
  - provisions allowing protistologists to treat protists under one or other of the two codes without being required to define them as either plants or animals.
- (ii) that in course of the studies (above) the bodies responsible for the Codes be encouraged to consult whenever appropriate with the following international organizations: International Commission for the Nomenclature of Bacteria; International Mycological Association; International Society for Evolutionary Protistology; International Society of Phycologists; International Palaeontological Association; World Association of Parasitologists.
- (iii) that a body active in protistan tax-

onomy (possibly the International Society for Evolutionary Protistology) be encouraged to publish lists of generic names validly published (botany) or available (zoology) for protists.

- (b) That the ICSEB III Resolution to request the bodies responsible for Botanical and Zoological Nomenclature to establish registers of new names and to make registration a necessary condition for the establishment of a new name in botany or zoology be endorsed by IUBS.

Scientific Committee:- The Scientific Committee met publicly on three occasions during the Assembly. Concern was expressed that there was a grave shortage of taxonomists throughout the world, but particularly of workers on the floras and faunas of developing countries, most of which are in the tropics. This concern resulted in the following recommendation:

The Executive Committee is urged to appoint an ad hoc Committee on Taxonomy to consider the apparent shortage of Trained Taxonomists especially in Third World countries and possible measures to alleviate the problem. This committee is charged to:

- (a) obtain data on the amount of basic taxonomic work needed in regard to the fast modification of many ecosystem and associated current biological research
- (b) obtain quantitative estimate on the number of positions available and required for taxonomists and estimate how many of these have been lost during the last two decades
- (c) investigate the type of training that is required to best fill the need, and ways to obtain this training.

Resolutions:- Resolutions 4,5 and 6, which are relevant to plant taxonomy and nomenclature, were adopted unanimously by the Assembly. These Resolutions read, in part, as follows:

Resolution 4: Support for Systems of Nomenclature

.... Commends to all member bodies the importance of developing and providing ongoing support for all systems of biological nomenclature which provides a fundamental base for communication in biological science.

Resolution 5: Response of Systems of Nomenclature to Developments in Science and Informational Technology:

.... Requests the Executive Committee to establish a standing committee to report to it at each meeting of the Executive Committee in furtherance of the continuing aim of IUBS to achieve maximum harmony between the different systems of nomenclature.

Resolution 6: Importance of Biological Taxonomy:

.... Noting that taxonomic collections are inadequate and poorly supported in many countries, especially in the developing countries  
 .... Requests the Executive Committee to seek information on projected developments in taxonomy, and  
 Urges relevant international and national bodies to support development of taxonomy and biological collections.

International Association of Botanical and Mycological Societies (IABMS):- The IABMS was established after the XXI Assembly in Ottawa, 1982. Its main function is to serve as the body under whose aegis the International Botanical Congresses

are held. In this respect it is the successor to the Division of Botany that ceased to exist following the change in the Statutes in 1982.

The President of IAMBS for the period 1984-90 (3 years before and after the XIV IBC to be held in Berlin in 1987) is Prof. K. Esser (Federal Republic of Germany), President of the Congress. Representatives of 6 of the constituent members attended an unofficial meeting of AIBMS during the Assembly. The term of office of N. Grobelaar (South Africa) as Chairman of AIBMS ended at the Assembly. The representatives present agreed that the new chairman should be a representative of one of the members of AIBMS and one who was elected a voting member of the IUBS Executive for the period 1985-88. The formal election will be by mail vote of the member Sections and Commissions.

**Elections:** The officers and members of the Executive Committee for the period 1985-88 are: Officers:- O.T. Solbrig (President), J. Salanki (Vice President), W.D.L. Ride (Vice President), F. di Castri (Secretary General), D.F. Roberts (Treasurer), and P. Fasella (Past President). Voting Members:- H.S. Salama, A. Badran, J. McNeill, J. Silva, N. Khrushchov, W. Greuter and T. Watanabe. Alternate Members:- F.B. Golley, E. Gomez, A.N. Khalaf, Mme G. Maury-Lechon, J. Kavanagh, M. Pavan and A. Urbanek.

**Other Matters:-** The Statutes were amended to remove all reference to "country" and to rename "National Members" "Ordinary Members". This brings the Statutes into line with ICSU recommendations on this matter.

John McNeill  
Univ. of Ottawa

#### IOPB NEWS

The International Organization of Plant Biosystematists held an Open Meeting at the University of Sussex, Brighton, England, during the Third International Congress of Systematic & Evolutionary Biology. Items of general interest include the following. Dr. Krystyna Urbanska reported that plans were well advanced for the 1986 IOPB Symposium in Zurich (Differentiation Patterns in Higher Plants, July 13-18). Information may be obtained from Dr. K. Urbanska, Geobotanisches Institut, ETH Stiftung Rubel, 38 Zurichbergstrasse, CH-8044 Zurich, Switzerland. An invitation has been received from Dr. Ichiro Fukuda to hold the next IOPB Symposium in Japan, tentative title The Origin and Evolution of Wild and Cultivated Plants (date to be determined). IOPB Newsletter No. 4 has just been distributed to members. Dr. Urbanska, the Editor, welcomes contributions.

Membership in IOPB may be obtained by writing to the Secretary-Treasurer, Dr. Liv Borgen, Botanical Garden and Museum, Trondheimsveien 23B, Oslo 5, Norway. Enclose a money order for \$25 US made payable to the International Organization of Plant Biosystematists. Membership is for the period 1983-1987. Back issues of the IOPB Newsletter will be sent to new members.

#### FORTHCOMING MEETINGS

International Symposium on Grass Systematics and Evolution, July 27-31, 1986, Smithsonian Institution, Washington, D.C.

The symposium (sponsored by the Smithsonian, AIBS and NSF) is organized around 35 presentations designed to cover a wide range of topics. Leaders in the various fields will summarize recent research, identify new problems and suggest new avenues of research. These talks, plus poster sessions by other participants, will stimulate and facilitate the exchange of knowledge and ideas.

An exhibition of artworks of grasses will be held in the Museum of Natural History (organized by the Hunt Institute). There will be a welcoming reception in the Smithsonian Castle, and a dinner on July 30 in the Rotunda, Museum of Natural History. The Smithsonian Institution Press will publish a symposium volume.

Registration is limited, costs \$75.00, and the deadline is June 15, 1986. AIBS must be notified by February 1, 1986, if you wish to submit a poster.

For further information and preliminary registration form, contact:- American Institute of Biological Sciences, P.O. Box 27417, Central Station, Washington, D.C. 20038-7417, USA

Conference on Restoration and Vegetation Success in Circumpolar Lands, September 8-14, 1986, Reykjavik, Iceland.

The conference is arranged by the Comité Arctique International with two objectives: 1) to examine the questions related to establishment of plant communities on natural and disturbed substrates, and 2) the application of current plant and soil knowledge and technology to restoration and agricultural practices in high latitudes.

There will be contributed and invited papers and poster presentations. Manuscripts of papers will be due at the conference and subject to review for publication in a post-conference volume. There will also be several panel discussions on current research and technological needs for the future. Extended abstracts must be submitted for consideration no later than May 1, 1986.

Attendance is limited to 50-70 participants and accompanying persons, and priority will be given to authors of presentations. Accommodation (board and lodging) is provisionally estimated at \$70-80 US per day per person. There will be a nominal registration fee, and several short field trips are planned at modest additional cost.

Further information and/or an expression of interest in presenting a paper or poster and attendance at the Conference should be sent to the Conference Secretary as soon as possible. Subsequent circulars will be sent only to people who have expressed interest.

Contact:- Dr. P.J. Webber, Conference Secretary, Institute of Arctic and Alpine Research, Box 450, University of Colorado, Boulder, CO 80309, USA

## CBA/ABC MEMBERSHIP

The following breakdown of CBA/ABC membership by Province/Territory/Country was provided by the Treasurer, Keith Winterhalder, on July 23, 1985.

Canada	
Alberta	35
British Columbia	46
Manitoba	21
New Brunswick	18
Newfoundland	10
North West Territories	1
Nova Scotia	16
Ontario	153
Quebec	47
Saskatchewan	28
Finland	2
India	1
Japan	2
Mexico	1
New Zealand	1
United Kingdom	3
United States of America	12
West Germany	2
TOTAL	399

## BOOK REVIEWS

Fungal Protoplasts: Applications in Biochemistry and Genetics, edited by John F. Peberdy & Lajos Ferenczy. 1985. Marcel Dekker, Inc., New York. 368 pp. \$69.95 US.

Protoplasts have played a role in experimental mycology for the last 20 years but they have occupied more limelight with the recent and rapid developments in biotechnology. This timely collection of authoritative reviews provides an excellent assessment of fungal protoplast technology.

The contributions of 18 authors describe research in laboratories throughout the world. Seventeen chapters are grouped in the following three parts: The Protoplast System; Protoplasts as Tools in Physiological and Biochemical Studies; and, Protoplasts as Genetical Tools. Each chapter provides a comprehensive and readable outline of previous and state-of-the-art technology and a bibliography of pertinent scientific references.

The book begins with reviews of how fungal cells are constructed and how protoplasts (cells without walls) are isolated. The second and third parts of the book deal with the use of fungal protoplasts as physiological, biochemical and genetical tools in basic and applied research. The final chapter outlines the future prospects of protoplasts and protoplast fusion in genetic engineering and industrial microbiology. The author follows the precedent of the authors of other chapters and is frank in pointing out technical problems and areas where further research is needed.

Each chapter in this excellent compendium on fungal protoplasts is written by a researcher who is recognized internationally as an expert in the field. The book has a wide appeal to researchers at all levels of familiarity with fungal protoplasts. As the sixth volume in the MYCOLOGY Series edited by Paul Lemke, it ful-

fills the objective of the Series beautifully by emphasizing "the study of fungi and of fungal processes as they relate to mankind and to science in general".

James A. Traquair  
Agric. Canada  
Research Station  
Harrow, Ont

Pondweeds and Bur-reeds, and Their Relatives, of British Columbia, by T. Christopher Brayshaw. 1985. Occasional Paper Series, No. 26. British Columbia Provincial Museum, Victoria, B.C. vi + 167 pp. Softcover. No price given.

The latest book from the B.C. Provincial Museum is a nice addition to our slowly increasing knowledge of the B.C. flora. There are introductory sections on Collections (emphasizing the lack of collections of aquatic plants in most herbaria), The Aquatic Environment, and Evolution in Aquatic Plants. Dr. Brayshaw has included keys, descriptions, full-page black-and-white line drawings, and distribution maps to all 61 species in the 14 families of monocotyledonous aquatics known from the province. The accurate line drawings for each species were done by the author. In addition, he has included a key to all families and genera of aquatic plants of the province. The keys are mostly simple and easy to use, yet accurate. More than one-third (22 species) of the species treated are in the taxonomically difficult genus *Potamogeton*.

The format (27 x 19.5 cm) is larger than the Provincial Museum handbooks and makes this not quite a pocket book. It is, none-the-less, a lightweight and handy field book. It will be a useful reference for taxonomists and anyone interested in the aquatic environment in the province of British Columbia.

Gerald B. Straley  
Botanical Garden  
Univ. of British Columbia

## RARE PLANTS

The Rare Vascular Plants of British Columbia, by Gerald B. Straley, Roy L. Taylor & George W. Douglas was published as Syllogeus No. 59 in September 1985. The series Syllogeus is issued by the National Museum of Natural Sciences, National Museum of Canada, Ottawa.

Please contact the National Museum of Natural Sciences if you wish a copy of this new publication in the series on Rare Plants in Canada.

## NATIONAL MUSEUM OF NATURAL SCIENCES

Irwin Brodo reported to the CBA/ABC Annual General Meeting on June 27, 1985, that support for 17 staff at the National Museum of Natural Sciences has been lost.

It was recommended that CBA/ABC members write to their Members of Parliament regretting the loss of support for staff, and emphasizing the need for continuation of the Museum's work.



## NEW EDITOR FOR THE BULLETIN

This is the last issue of the CBA/ABC *Bulletin* to be produced by your present Editor. I would like to express my gratitude to all those who have kept me supplied with material. I am particularly grateful to those members who have acted as "receivers" for bulk packages of issues addressed to other people in the same institution. I have enjoyed my term of service as Editor, and have been particularly pleased to be able to get to know so many of you. I sincerely hope that you will give your new Editor the same support that you have extended to myself.

The new Editor as of November 1, 1985, will be Dr. Luis Oliveira. Luis is an Assistant Professor in the Department of Botany at the University of British Columbia, working on the electron microscopy of cell structure in algae.

Deadlines for receipt of material for the *Bulletin* remain unchanged - the first of the month before the date of publication, i.e., December 1, March 1, June 1 and September 1. All members of the Association are welcome to submit material for inclusion in the *Bulletin*.

The address of the new Editor is:- Dr. Luis Oliveira, Department of Botany, University of British Columbia, Vancouver, B.C. V6T 2B1.

## MEMBERSHIP RENEWAL

Membership renewal forms will be mailed to all members in November. The By-laws state that dues for the calendar year are due on or before January 1 each year.

The Treasurer requests that all members renew as soon as possible, particularly when wishing to subscribe to one of the NRC journals. Rates of subscription for all the NRC journals are printed in this issue of the *Bulletin*. Please refer to this listing if you wish to subscribe to any journal other than CJB.

If you have not received a renewal form by the beginning of January 1986, please notify the Treasurer immediately: Prof. Keith Winterhalder, Dept. of Biology, Laurentian University, Sudbury, Ont P3E 2C6

## NEW JOURNAL ANNOUNCEMENT

The Centre for Canadian Historical Horticultural Studies (CCHHS), Royal Botanical Gardens, Hamilton, Ontario, announces the publication of a new interdisciplinary journal - Canadian Historical Horticulture.

The journal will publish original research papers on the history of Canadian horticulture and related disciplines. Articles will cover subject areas such as historical garden restorations and reconstructions; biographies of Canadian horticulturists and landscape designers; histories of botanical gardens, arboreta, experimental stations, commercial nurseries and seed firms; accounts of plant breeding work and plant explorations; comprehensive bibliographies; and ethnobotanical studies of native peoples and early settlers in Canada and the northern United States. There is no limit on the length of papers. Submission of book reviews, shorter

communications and announcements of conferences is encouraged.

The first issue contains the following articles: Clement Charles Todd (d. 1828), an early naturalist and botanical collector in Upper Canada; Anne Mary Perceval (1790-1876), an early botanical collector in Lower Canada; and, Some early Ontario nurserymen.

Each volume will consist of 4 issues of 40-50 pages each. Subscriptions will be sold by volume at a cost of \$14 (\$16 for USA and overseas) for individuals or \$18 (\$20 for USA and overseas) for institutions.

Contact: CCHHS, Royal Botanical Gardens, Box 399, Hamilton, Ont L8N 3H8

## PERSONALIA

Dr. John McNeill, Department of Biology, University of Ottawa, and a member of the Canadian National Committee of the International Union of Biological Sciences, was elected a member of the Executive Committee of IUBS (1985-88) at the IUBS XXII General Assembly, Budapest, September 1-7, 1985.

*The Bulletin of the Canadian Botanical Assoc.*

Editor:- Mrs. Sylvia Taylor  
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AFTER NOVEMBER 1, 1985:-

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Issued quarterly in January, April, July and October, and sent to all members of the Association. Non-members may subscribe at a price of \$20.00 p.a. (\$5.00 per issue) post free. Cheques or money orders (in Canadian funds ONLY) should be made payable to "The Canadian Botanical Association" and addressed to the Editor.

Advertisements for Positions Open and Classified categories may be placed at a cost of \$10.00 Can per published half column inch. Advertisements by individual members for post-doctoral opportunities and Positions Wanted are carried free.

Material for inclusion in the *Bulletin* should reach the Editor at least one month prior to the date of publication of that issue.

To ensure prompt delivery of the *Bulletin* please notify the Editor of any change of address as soon as possible.

Inquiries about membership of the CBA/ABC should be addressed to the Secretary of the Association:- Dr. Paul G. Harrison, Department of Botany, University of British Columbia, Vancouver, B.C. V6T 2B1