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Editor / Rédaction:
J. F. (Joe) Gerrath
Guelph

PATRON

His Excellency the Right Honourable / Son Excellence le Très Honorable
Ramon John Hnatyshyn P.C., C.C., C.M.M., C.D., Q.C.
Governor General of Canada / Gouverneur Général du Canada

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EDITOR'S COMMENTS COMMENTAIRE DE LA PART DU RÉDACTEUR

The Annual Meeting of CBA/ABC at Ames, Iowa, is over and now I am able to bring you news of many things that were discussed and decided. This issue has been expanded to 20 pages to include some important items. More items about the Annual Meeting will appear in the October Bulletin.

Please read the news about the firings at the Canadian Museum of Nature on the following pages. This action affects all of us who must ensure correct identification of plants that we use in our research. Consider writing a letter of protest to add to the indignation expressed by many at the Annual Meeting (including many of our American colleagues).

The meeting organizers at Ames are to be congratulated for some nimble rearrangements during the two weeks prior to the arrival of registrants. A flash flood resulting from a monsoon-like downpour flooded the convention centre where the meetings were to take place [I kid you not - the stream that overflowed is no more than 5 meters wide]. When we arrived there was still ample evidence of the flooding (but little standing water left) in various parts of the city and in the surrounding corn fields. Most of the campus of Iowa State is on higher ground and the meetings were shifted to the Memorial Union (except for the phycologists, who were exiled to a building on the north side of the campus). Some of the rooms in the Memorial Union were unsuitable, being either too small for the crowds trying to elbow their way in to hear papers, or too large and cavernous to properly hear speakers over the din of state-of-the-art projectors. Perhaps the most peculiar venues were a tiny reading library, which resembled a long, narrow cave, where the palaeobotanists had their sessions, and the "Maintenance

Shop", which is normally a student eatery equipped with a stage and rock-music-type loudspeakers (and a cooler with a compressor which kept turning on at the most inopportune times during the bryophyte sessions). However, everyone seemed to be in particularly good humour at these meetings, and the weather smiled upon us (except for some light showers on the last day).

I served as a Lionel Cinq-Mars Award judge at Ames and I would like to commend all of our student members who participated for providing an excellent series of presentations. This competition gets better and better each year, making it very difficult to pick an obvious winner. I thought that many of the student papers this year were better in terms of presentation than the other papers in their session.

You no doubt have noticed the mail ballot concerning the new dues structure which has been included with this issue of the Bulletin. We have also included an addressed envelope in the hope that this will spur you into returning the ballot. In her report to the AGM the Treasurer noted that the Association currently is perilously close to having no operating funds (i.e. ready cash in our bank account), although there is a moderate reserve currently tied up in investments. The CFBS debacle has cost the Association dearly. Since our membership would not approve an increase in our fees to cover the increase in CFBS fees, we had to pay the extra assessment out of our current account, resulting in a considerable loss to the Association.

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Membership renewals continue to fall below expectations (currently there are about 220 members in good standing). At the Annual General Meeting in Ames the Board of Directors presented a proposed new dues structure, and there seemed to be general agreement among the members present that setting dues at \$45.00 for regular members and at \$25.00 for student and retired members would be a suitable dues structure to maintain our current membership, and perhaps to attract some previous members to rejoin the Association. The Board of Directors also approved the implementation of a penalty (\$5.00) for late payment of dues, a feature which many societies now use to encourage prompt payment. If approved by the mail ballot, the new dues structure will go into effect for the 1994 calendar year.

When I took over the production of the Bulletin I noted that members in arrears were kept on the mailing list for more than a year after their last paid-up year (address labels have a coded year on them), and received a copy of the Bulletin during that period. Some, in fact, did not want to renew their membership, and felt that we were hounding them by continuing to send them the Bulletin. Each Bulletin we mail costs us a little more than \$2.00. Therefore, as a cost cutting measure the Association will be returning to a strict adherence to By-Law 10, which states that members more than six months in arrears will be removed from the membership list. I will be implementing this policy immediately, so if you are a member in arrears (the number 92 is beside your name on the mailing label), this will be your last issue of the Bulletin unless your dues are paid before the October Bulletin is mailed.

I received a very irate letter concerning the lack of a list of the Board of Directors in the April issue (it was replaced by a warning about the "91" group being cut off the mailing list). This is the only issue of the year in which the back page does not have the listing of the Board, and it certainly doesn't do much for my ego to know that Bulletins I have sweated over to produce are consigned to the waste basket so soon. However, to mollify all who are concerned, the Board listing will appear in all future issues of the Bulletin.

With this year's Annual Meeting now filed in our memories, we must look forward to next year's meeting at the University of Calgary. C.C. Chinnappa and his committee have arranged an excellent and stimulating series of symposia, details of which will appear in future issues of the Bulletin.

Finally, on behalf of the Board of Directors (and especially the Nominating Committee), I would like to appeal to members to submit nominations of members willing to serve on the Board. Over the past two years the Nominating Committee has received a grand total of none (zero, zilch, nada, zip, etc.). Nominations require the consent of the nominee and 3 members in good standing as proposers. If you want to volunteer to serve and don't have members close to you, we will be happy to find nominators for you. The Directors must also appoint a new Archivist and a new Chair of the Conservation Committee. Any suggestions from members would be appreciated. Please send all nominations and suggestions to the Secretary a.s.a.p.

Joe Gerrath, Bulletin Editor

RESEARCH STAFF FIRINGS AT CANADIAN MUSEUM OF NATURE

We have learned from the press and from colleagues in Ottawa that the Director of the Canadian Museum of Nature (CMN), Dr. Alan Emery, has approved the firing of 11 members of the Research Division and of several members of the Public Programming Division. The cuts in the Research Division include both animal and plant systematists. The CMN will no longer have an ornithologist (Dr. Henri Ouellet) or a mammalogist (Dr. Stan van Zyll de Jong). In a published interview Dr. Emery (an ichthyologist specializing on the ecology and behaviour of coral reef fishes) stated that there is little taxonomic activity in ornithology and mammalogy, so the CMN has to move in other directions.

Of special interest to members of CBA/ABC are the firings of Dr. Robert Ireland (Bryology), Ms. Linda Ley (assistant in Bryology) and Dr. Erich Haber (vascular plants). Dr. Ireland has a well-deserved, international reputation for excellent work in bryology and is the author of several books and major works. Ms. Ley has 22 years of devoted and excellent service as a research assistant in the (former) Botany Division, and made herself even more valuable by becoming an expert in hepatics (almost no one else in Canada has that expertise). Dr. Haber has recently built up an important unit in computerized mapping and published a paper in *Taxon* describing the system. He is very active in COSEWIC and in rare plants work in Canada. He has also served CBA/ABC for several years as Archivist and as the "permanent address" of the Association.

The Botany Division has been abolished and the new Research Division and Collections Division have been established across organismal lines. No research scientist is now in charge of a collection. Collections will be managed largely by former technicians, now advanced to curatorships and "collections managers". Researchers are supposed to cooperate with them and give advice (when asked).

Dr. Emery has given the job of Chief of the Collections Division (i.e. manager of all the national collections) to Mr. Gerry Fitzgerald, a former technician in Paleobiology. Mr. Fitzgerald has expressed publicly and in print his opinion that the researchers have almost ruined the collections and, if left in charge, would continue to ruin them. He claimed that many of the previously assigned collections managers were incompetent and untrainable.

Researchers were assured that they would not lose research assistance with the reorganization, but experienced research assistants were made curators and are not permitted to help researchers except with special permission for specific projects, all arranged in advance and regulated by the Collections Managers. Three research assistants remain in the Botany building to serve the remaining four scientists, Dr. Michel Poulin (diatoms; appointed head of the Research Division), Dr. Irwin Brodo (lichens), Dr. George Argus and Dr. Susan Aiken (both vascular plants).

The Director, Dr. Emery, has stated publicly his pride that the Museum signed the Rio Accord on Biodiversity, presumably involving some research commitments, yet fired many of his research staff doing biodiversity research. He also has stated that one of the main objectives of the CMN should be research in the arctic, yet he fired two of his main arctic researchers, Dr. David Gray and Mr. David Gill, both vertebrate ethologists.

Dr. Emery claims that the CMN is a leader in the computerization of museum collections, even sending the chief of Computer Services to Kenya to help them develop computerization. However, the system at CMN has not operated for over two years, and when it becomes functional, it will serve only the collections function since report writing from the database is very cumbersome. The system will be of virtually no use for researchers.

Canadian botanists should be very concerned with these developments at the CMN. There will no longer be any expert identifications (or verifications of identifications) of bryophytes and we do not know yet the implications for use (if any) of the remaining collections by foreign or Canadian systematists.

At the recent Annual Meeting of CBA/ABC in Ames two emergency resolutions (printed on the next page of this Bulletin) were presented to members at the Annual General Meeting and approved unanimously. Our President will draft letters to appropriate members of the government and opposition parties, and to national and international organizations with interests in systematic research.

Although we realize that there is little chance of reversing the decision to fire Museum staff, we would like to encourage individual members of the Association who may wish to write their own letters of protest. We recommend that, as a minimum distribution, they be sent to:

Honourable Monique Landry, Minister of Communications, House of Commons, Ottawa, ON K1A 0A6 [no postage required],

with copies sent to:

Prime Minister Kim Campbell, House of Commons, Ottawa, ON K1A 0A6 [no postage required],

and to:

Mr. Norman Wagner, Chairman, Canadian Museum of Nature Board of Trustees, Alberta Natural Gas, 2900-240 4th Ave. SW, Calgary, AB T2P 4L7.



EMERGENCY RESOLUTIONS PRESENTED AT AMES

In accordance with By-Law 71, both Resolutions were moved by Paul Catling and seconded by 4 members in good standing: Randy Bayer, Joe Gerrath, Doug Larson and Keith Winterhalder. Both Resolutions were unanimously approved by members attending the Annual General Meeting of CBA/ABC, August 4, 1993, in Ames, Iowa.

RESOLUTION 1: ON SPLITTING COLLECTIONS & RESEARCH AT THE CANADIAN MUSEUM OF NATURE

WHEREAS national research collections of preserved plant specimens in Canada are beginning to change in ways that do not represent the best national interest, and

WHEREAS national research collections of preserved plant specimens are not only objects preserved for posterity, and

WHEREAS these collections of plants (1) have supported scientific research in many disciplines, (2) provide for expert training in plant systematics and (3) provide service through contributing to expert identification by scientists, along with extensive information associated with expert identifications, and

RECOGNIZING that these functions (1) relate directly to research, and (2) require a level of expertise associated with research, and (3) can only be adequately addressed by research scientists;

BE IT RESOLVED that the Canadian Botanical Association/l'Association botanique du Canada advises that:

(1) Researchers rather than non-researchers should possess the direct responsibility for all aspects of the management and growth of national research collections of preserved plant specimens.

(2) National research collections of preserved plant specimens cannot function in the best national interest without resident systematic research staff utilizing and controlling them.

(3) Splitting collections and research, although it may conveniently set the stage for progressive reduction in research staff at a particular centre, bears a tremendous cost to the people of Canada as a consequence of inadequate capability to respond to issues relating to environment, biodiversity and sustainability.

Finally, the Canadian Botanical Association/l'Association botanique du Canada urges the Canadian Museum of Nature to restore the close relationship between research and collections that evolved over decades to ensure the adequate protection and utilization of a national treasure belonging to the people of Canada.

RESOLUTION 2: ON BOTANICAL STAFF CUTS AT THE CANADIAN MUSEUM OF NATURE

WHEREAS the significant cuts in research scientists at the Canadian Museum of Nature (CMN), totalling 1/3 of the systematics staff, have included the entire loss of unique expertise relating to mosses, a major component of Canadian ecosystems, and the loss of one of the two plant systematists documenting vascular plants at risk in Canada and invasive species of natural habitats, and

IN VIEW OF the Museum's specific mandate to study, document and interpret the natural history of Canada and preserve for posterity the collections on which this work is based, and

RECOGNIZING the significant effects the staff cuts will have in reducing the Museum's ability (1) to respond on behalf of the people of Canada to national undertakings such as those dealing with Endangered Plants and Invertebrates in Canada (EPIC) by the Canadian Wildlife Service and the Canadian Nature Federation, the conservation of species and habitats at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and national efforts documenting Canadian biodiversity required by Canada as a signatory to the Rio Convention, and (2) to provide support for numerous provincial initiatives aimed at protection of natural features and biodiversity, and enhancement of a sustainable environment, and (3) to provide support for applied and pure research at universities and government agencies across Canada;

BE IT RESOLVED that the Canadian Botanical Association/l'Association botanique du Canada deplores the staff cuts by the Museum's Board of Trustees and strongly urges that the Board and the Government of Canada:

(1) reverse its decision in the light of recommendations made by a recent Task Force on Research at the CMN recommending:

- ☐ an increase in the research staff over the next decade by at least 10 new positions,
- ☐ an increased focus on groups that are not well-studied and are of vital importance to studies of biodiversity,
- ☐ an increase in the research budget, and

(2) in consideration of the fact that the Museum has evolved and developed through contributions from the Canadian public and professionals within and outside Canada, to initiate an independent task force to review, on a broad basis, the current needs and directions required of Canada's national natural history Museum to adequately address scientific and environmental issues.



REPORTS FROM THE ANNUAL MEETING - AMES, IOWA

NOMINATING COMMITTEE

In the absence of nominations from the membership, the Nominating Committee, acting in accordance with By-Law 41, produced the following slate of capable members to serve in the offices indicated:

Treasurer (1993-1995)

Christian R. Lacroix
University of P.E.I., Charlottetown, PEI

Directors (1993-1995)

Melissa Farquhar,
University of Guelph, Guelph, ON

David Garbary
St. Francis Xavier University, Antigonish, NS

Hugues Massicotte
University of B.C., Vancouver, BC

The Board of Directors has appointed Vipen Sawhney, University of Saskatchewan, to a one-year term as Director (to fill the position vacated by Christian Lacroix).

Paul Catling, Past President & Committee Chair

MEMBERSHIP COMMITTEE

A new brochure for potential members was produced with the help of Melissa Farquhar and Jean Gerrath. An error was discovered after the first batch was printed; this will be corrected before the second run. I will continue to solicit memberships from new graduate students and others by personal letters, as I become aware of names.

R. Larry Peterson, Committee Chair

DEVELOPMENT COMMITTEE

The Committee enlisted the support of Melissa Farquhar in the design of a "permanent" T-shirt, based on our logo. The sales of this T-shirt have been quite successful. Within three hours of delivery 17 were snapped up at the University of Guelph and more than 50 were sold (with many complimentary remarks about the design) at Ames. Anyone wishing to purchase one of the remaining T-shirts [sizes still available are extra-large only in "oatmeal" (cream colour), and large only in grey] can do so by sending Can\$15.00 (plus \$3.00 for packing/postage) to me [address on page 34 of this Bulletin]. Since next year's meetings will be held in Canada, that seems to be the appropriate time to begin a fund-raising auction. Members will be solicited for help and donations. Details will appear in the Bulletin.

All CBA/ABC members are welcome to participate as members of the Development Committee. I would like to appeal to those interested in helping to build up our funding base to contact me [address on page 34 of this Bulletin].

Jean Gerrath, Committee Chair

CONSERVATION COMMITTEE ANNUAL REPORT 1992-1993

1. Nature Conservancy of Canada

The Chair of the Committee continues to serve on behalf of the CBA/ABC as a member of the NCC Scientific Advisory Committee. Program Review Workshop was held March 28-29, 1993.

2. World Wildlife Fund

The Chair is a member of the Scientific Advisory Committee of the World Wildlife Fund, Canada, and twice in the past year reviewed grant applications to WWF, including all those with botanical content.

3. Canadian Council of Ecological Areas

We are members of the CCEA but it was not practical to send a representative to the meeting, July 29-Aug. 1, 1992, on long-term monitoring of ecological reserves. The Chair is a member of the Scientific Advisory Committee.

4. Canadian Museum of Nature

The Committee prepared an Association response to the plans of the Museum's director to curtail research and collections development, both of which are essential to conservation work in Canada. Copies of a radio interview with the director were sent to working botanists in the U.S.A. and Canada to encourage individual responses.

5. Environmentalism/Federalism Research Project

CBA/ABC contributed information for a study by an Australian, on leave in Calgary for a year, comparing systems in the two countries.

6. Reserve System in New Brunswick

The Committee prepared a letter for the President of the Association to sign, which advocated the development of a nature reserve system comparable to those in other provinces.

7. Mount Broadwood Conservation Area, B.C.

A congratulatory letter was agreed upon for the Association to send to Shell Canada, after Shell donated 22,000 acres of prime conservation lands, including an entire mountain plus surrounding grasslands.

8. Carolinian Canada

In November, 1992, the Association re-enforced our earlier efforts regarding protection for Carolinian sites in southern Canada and contacted the Minister of Natural Resources of Ontario to request his cooperation, even though the first 5-year program has ended. No further support has been forthcoming. Our representative is J.K. Morton.

Continued on next page

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9. Size and Integrity Standards for Natural Areas

The Chair attended a conference on this topic organized by the Ministry of Natural Resources of Ontario.

10. Biosphere Reserve Designation

The Association objected to the proposed "temporary suspension" of the Biosphere Reserve designation previously awarded to the Niagara Escarpment, Ontario.

11. Oriskany Sandstone Site, Ontario

The Chair consulted by phone regarding choice of some lands adjacent to the biologically and geologically most important parts of the outcrop. These will probably be purchased or donated for conservation.

12. CBA/ABC Position Papers on Conservation

The three finished papers have been sent to regional representatives in all parts of Canada for dissemination among those who need them locally.

13. Paper on Conservation Biology and Restoration Ecology of Fragmented Landscapes

The Chair reviewed a manuscript by John Riley of the Ministry of Natural Resources, Ontario.

14. Conservation Land Tax Rebate Program (Ont.)

Another letter was prepared objecting to the proposed termination of the land tax rebate, as it will probably mean that landowners will now clear forests that have been held in the natural state, in order to get the partial rebate offered for agricultural land. Conservation Authorities would have to pay taxes also.

15. Class Environmental Assessment of Ontario Provincial Parks

The Chair sent a response on behalf of the Committee.

16. Natural Heritage League, Ontario

P.F. Maycock attended the meeting Nov. 26, 1992, to represent the Association. On behalf of the CBA/ABC, he moved that the League support the Carolinian Canada program, and the motion was approved.

17. Wood Buffalo National Park, Alberta

The Association wrote a letter to the Canadian Park Service in support of preserving natural features of the park, in the face of a threat from economic development.

18. Deer Culling

The Association supported deer culling in provincial parks in southern Ontario, where overgrazing by burgeoning populations of deer has destroyed understory plants and tree reproduction.

19. Significant Natural Areas

Attempts are being made to obtain funding under Section 25 (national) to continue the Significant Natural Areas series in the Canadian Field Naturalist.

20. Nottawasaga Valley Conservation Authority (Ont.)

We advocated use of vegetation cover, rather than engineered solutions to flooding, as a watershed conservation strategy.

21. Upper Thames Region Conservation Authority (Ont.)

We responded on behalf of the Association regarding a request for a description of the nature of our conservation activities.

22. Advisory Committee on Environment, London, Ont.

The Chair was asked to represent the CBA/ABC on a municipal advisory committee, and this was done for one year.

23. Old Growth Upland Forest, London, Ont.

The Chair advised that a small, but old, forest be signed to discourage trampling; it will be fenced if necessary to maintain it in good condition.

24. CBA/ABC sent a representative to a joint meeting of the Natural Heritage League and the Conservation Authorities of Ontario. At this meeting the desperate financial situation of Conservation Authorities was discussed, as well as the possibility that they may have to sell holdings in the face of new taxes.

25. Enquiries were received from the Mennonite Central Committee regarding the possibility of sustainable forestry on Indian reserves near Kenora (Ontario). Information is being compiled.

26. The Muskoka Heritage Foundation has requested information related to reestablishment of natural vegetation in the Muskoka area (Ontario). Materials will be mailed.

27. We received news of the largest commercial donation of mineral rights in Canada. As a result, Vuntut National Park will be established in the Yukon (435,000 ha) and a further 272,000 ha will follow. The federal government paid a nominal sum for mineral rights, but most of the value was donated by six companies.

28. The Committee has received the following reports, most of which invite comment:

- ☐ Dana-Jowsey Lakes Provincial Park Management Plan
- ☐ LaVerendrye Provincial Park Management Plan
- ☐ World Wildlife Fund Annual Review, 1992
- ☐ Wetlands Policy Statement, Ontario, Nov. 1992
- ☐ Class Environmental Assessment for Remedial Flood and Erosion Control Projects
- ☐ Save Algonquin Park package, 1992
- ☐ Reports from the Working Group on Heritage Legislation for Ontario, 1992
- ☐ Final report and summary, Commission on Planning and Development Reform in Ontario, June 1993
- ☐ Interim reports and draft final report for Wildlife Strategy for Ontario, 1992-1993.
- ☐ Metropolitan Toronto's new Waterfront Plan.

29. The Committee has received notification of the following meetings, many of which an Association representative has been invited to attend:

- ☐ Conference on restoring diversity and re-introduction of endangered plants, Missouri Botanical Garden
- ☐ Inter-provincial land trust conference
- ☐ Conservation of working landscapes conference
- ☐ Humber Park (Ontario) Heritage Day
- ☐ Parks Association Training Institute
- ☐ Ontario Provincial Parks centenary program
- ☐ North American Prairie Conference

30. The Committee also received numerous other publications, including the Northern Forestry Program Newsletter, The Green Sward (Ontario Parks Association), Canadian Council of Ecological Areas Newsletter, Land matters (Private Owners of Natural Heritage), Delta (Canadian Global Change Program), Carolinian Canada Newsletter, etc.

31. We acquired information on the Niagara Escarpment Grants Program.

D. Fahselt, Conservation Committee Chair

Note: At the Ames meeting, Dianne Fahselt tendered her resignation as Chair of the Conservation Committee to the CBA/ABC Board of Directors. The Board passed a motion thanking Dianne for her many years of devoted service on this committee. The Board will appoint a new Chair as soon as possible.

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**CBA/ABC Conservation Committee
Members - 1992-1993**

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**CBA/ABC Conservation Committee
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ARCHIVIST'S REPORT

No new initiatives have been undertaken as archivist. With the release of the new information leaflet and the inclusion of my name and Museum address as a contact point for our Association, I have received several inquiries from students wishing to become members. As always, I am interested in receiving photographs of CBA/ABC events and members with names of individuals present in the photos identified.

Erich Haber, CBA/ABC Archivist

Note: The President of the Association received a FAX from Erich Haber on July 30, in which Erich submitted his resignation as Archivist in view of the loss of his position at the Canadian Museum of Nature. During the meeting of the Board of Directors at Ames it was suggested that the Board investigate the deposit of archival materials in the library of the University of Guelph and that a local member be approached to accept appointment as Archivist.

CANADIAN JOURNAL OF BOTANY EDITOR'S REPORT - AUGUST 1993

CJB has had another busy year during which:

- ☐ Dr. Paul G. Harrison served as Editor pro-tem while Iain Taylor was on sabbatical leave,
- ☐ manuscript acceptance time fell to 143 days in 1992 but is up to 154 days so far in 1993,
- ☐ publication time fell to 314 days (down 33 from 1991),
- ☐ we continue to publish a comprehensive subject index,
- ☐ the Commentary section aired its first controversy,
- ☐ we continued to battle to publish in the "cover" month,
- ☐ we continued to work for the highest possible photographic quality (April 1993 issue was sent back for reprinting),
- ☐ we continued to conduct publishing workshops,
- ☐ we have E-mail; the address is:

CANJBOT@UNIXG.UBC.CA

As always, failures are the responsibility of the Editor and improvements are the result of the efforts of the Vancouver and Ottawa staff and the Associate Editors. The Associate Editors work to reduce the decision time but time with reviewers remains the uncontrollable variable. We try not to overload those of you who are the conscientious reviewers, and thank you all for your continuing support of the Journal.

It is clear that survival of a modern journal will soon depend on ability to publish within 6 months of submission. We also have to address issues arising from the advent of electronic publishing. If you have suggestions, please contact me or any other Editorial Board member.

1992-93 saw several changes in the Editorial Board. I thank André D'Aoust, Luc Brouillet, Mark Dale, Vipen Sawhney and Ed Yeung for their work over the years, and welcome Jim Basinger (Palaeobotany), Jim Rahe (Plant Pathology), Roger LeBlanc (French language Physiology and Biochemistry), David Garbary (Phycology) and Jean Gerrath (Structure and Development). I know that you can look forward to their excellent contributions to CJB.

Each year I ask the question "how well does CJB serve your needs?". Only you can answer that question, so please drop us a note or tell one of the Editorial Board members. The most effective method for change is publication of your papers, so please keep considering CJB as a target for your submission, especially when you hope to reach an audience outside your speciality.

The 1993 workshop on "Illustrations for publication" was presented at Ames in collaboration with Dr. Nels Lersten (Editor of American Journal of Botany). Unfortunately the CSPP/SCPV and CBA/ABC meetings this year are concurrent.

Iain E.P. Taylor, Editor, CJB

Table 1. Manuscript Processing 1992-1993

	1992	1993
Papers received	474	202
No decision yet	17	126
Decision Complete	457	197
Accepted	256	100
Rejected	195	93
Withdrawn	6	4



Table 2. Acceptance by Subject Area

	1992	1993
Overall	56%	51%
Cell Biology	1/2	0
Ecology	50/109	23/41
Molecular Biology	6/10	2/2
Mycology	75/121	26/52
Phycology	6/9	1/3
Physiology	32/74	17/45
Structure	48/79	20/37
Systematics	36/52	11/17



Table 3. Time with Associate Editors [days]

	1992	1993
Overall	143	154
English Papers	140	151
French Papers	171	191
<u>Sub-Discipline</u>		
Cell & Molecular	102	122
Ecology	128	137
Mycology	122	136
Phycology	114	230
Physiology	130	169
Structure	164	148
Systematics	206	217



TREASURER'S REPORT - MAY 31, 1993

Balance of Funds (1 June 1992) 26,069.48

Net Revenue

Memberships	10,910.00
Bulletin subscr.	310.00
Transfers from endowments	4,500.00
Edmonton AGM profit	3,118.00
Truro AGM profit	4,916.00
Interest	1,626.29
Donations	546.63
	25,926.92

Net Expenditures

CFBS Levy [1992+1993]	15,169.00
Bulletin	2,644.43
Directory	1,611.27
To Endowment Funds	22,066.97
Awards	875.00
Conservation Committee	322.99
Secretary's Expenses	1,865.33
Treasurer's Expenses	782.53
Bank Charges	170.75
	45,508.27

Balance of Funds (31 May, 1993) 6,488.13

CBA/ABC Budget - 1993-1994

Net Revenue

Memberships	8,000.00
Bulletin subscriptions	810.00
Interest	1,500.00
	10,310.00

Net Expenditures

Awards	1,875.00
Bulletin costs	3,400.00
Conservation Committee	500.00
Secretary's expenses	500.00
Treasurer's expenses	800.00
Calgary Seed Money	500.00
Other expenses	400.00
	7,975.00

Surplus/(Deficit) 2,335.00

Revenue estimates from Memberships and Bulletin subscriptions assume that the new dues structure [Regular = \$45.00; Student and Retired = \$25.00] will be approved by the mail ballot sent to the members. Membership revenue estimates are conservative to allow for loss of members who do not wish to renew at the new rates [150 Regular Members, 50 Student and Retired Members].

Nancy Dengler, CBA/ABC Treasurer

RECONCILIATION OF ASSETS OF CBA/ABC

1. General Account

Assets as of 31 May, 1993

Chequing account balance	4,520.34
G.I.C.	21,050.00
Term Deposit	12,309.66
Petty Cash and stamps on hand	120.17
Funds in Weresub term deposit	212.33

Surplus of Assets over Liabilities 38,212.40

2. Macoun Fund

Assets (31 May, 1993)

Savings account balance	976.23
Three G.I.C.'s	5,775.95

Liabilities nil

Surplus of Assets over Liabilities 6,752.18

3. Weresub Fund

Assets (31 May, 1993)

Savings account balance	1,214.23
Two G.I.C.'s	19,102.58

Liabilities - General Account funds in T.D. (212.33)

Surplus of Assets over Liabilities 20,104.48

4. Porsild Fund

Assets (31 May, 1993)

Savings account balance	1,848.95
Liabilities	nil

Surplus of Assets over Liabilities 1,848.95

5. Other Endowment Fund

Assets (31 May, 1993)

Savings account balance	1,176.21
Liabilities	nil

Surplus of Assets over Liabilities 1,176.21

APPOINTMENT OF AUDITORS

At the Annual General Meeting of the Association in Ames, Iowa, the Treasurer moved that the following members, who both have served terms as Treasurer, be appointed as Auditors for the coming year:

Timothy Dickinson, University of Toronto
Joseph Gerrath, University of Guelph

The motion was passed unanimously.

REPORTS OF SECTIONS

At press time no reports were available from the General and Ecology Sections - Editor.

MYCOLOGY SECTION - R.S. Currah, Univ. of Alberta

Weresub Award: Chairmanship was transferred from K. Pirozynski to R. Currah this year. A notice of availability of the award was sent to people on the old mailing list and to some new names in March and April, but only two applications were received. The award was made to P.D. Premdas. A new mailing list is being prepared and will be used for canvassing for applicants starting in January 1994.

Mycology Section at 1993 Annual Meeting: At the time of writing this report the chair of the Mycology Section is not aware of any Canadian mycologists attending the CBA/ABC meeting at Iowa. The Mycological Society of America meeting was in Georgia in June and the North American Conference on Mycorrhizae is in Guelph in early August. It is unlikely that a sectional meeting will take place at Iowa.

Mycology at Calgary CBA/ABC Annual Meeting, 1994: Shannon Berch is organizing a symposium on plant-fungal interactions at the molecular level and we anticipate the attendance of enough mycologists to hold a sectional meeting. Dr. R.M. Danielson will be the Weresub lecturer at the Calgary meeting. It should be noted that the International Mycological Congress will be later during the summer in Vancouver (August 14-21, 1994).

Directory of Canadian Mycologists: Several years ago, summaries of mycological activities were prepared for Western Canada, Quebec and the Maritimes. I'd like to get someone in Ontario to finish the series. Any volunteers? Please contact me for particulars.

SYSTEMATICS AND PHYTOGEOGRAPHY SECTION Randy Bayer - Univ of Alberta

The section is attempting to raise additional funds for the Porsild Award endowment. I have sent out letters to organizations such as Lane Scientific, Ward Scientific, Herbarium Supply Company, National Audubon Society, Lubrecht and Cramer Publishers, Dioscorides Press, Timber Press, etc., to solicit donations toward our capital endowment for the fund. We now have \$1848.95 in the Porsild Fund. We will need to raise about \$1150.00 more before we will have enough capital (ca. \$3000) to make the first award.

I have spent some of my time organizing the papers that were the result of our Systematics and Phytogeography Committee's "mini" symposium on "Systematics in the Economy of Canada" last year in Truro. These papers will appear in the Canadian Journal of Botany (in fact, one has already appeared in the last issue of CJB). I am also compiling and updating our list of systematists in Canada.

STRUCTURE AND DEVELOPMENT SECTION

Christian Lacroix - Univ. of Prince Edward Island

I have prepared a proposal for a Structure and Development Award, based on a similar document submitted to the AGM last year in Truro by the Ecology Section. The proposal was accepted at the sectional meeting held in Ames and was approved by the incoming Board of Directors at their meeting in Ames. The award is to be called "The Taylor Steeves Award" and an endowment fund will be established to accept contributions to support the award. *[Editor's note: Full details of this award will appear in the next issue of the Bulletin]*

I have also prepared a brief letter to NSERC outlining our suggestion as the Structure and Development Section of CBA/ABC for highly qualified and esteemed colleagues to serve on granting committees. This letter is meant as a starting point for further discussion at the section meeting. The overall tone of the letter follows that of the first goal of the CBA/ABC Membership pamphlet, which I have quoted. I have included a list, but it is only a beginning and very obviously incomplete.

The schedule and list of participants for the symposium, "Leaf development: morphology to molecules" was finalized and presented at Ames. I, along with Nancy Dengler and Denis Barabé (symposium organizing committee), would like to thank BSA, CBA/ABC and the individual grant holders for their financial contributions to the symposium.



EDITOR'S REPORT

The routine of producing issues of the Bulletin is now firmly established and no problems in production of camera-ready pages are foreseen. The 100% recycled stock used is no longer being produced, and we have had to change to paper with a lower recycled content. The cost of printing will be slightly higher during the coming year, but the number of Bulletins printed will be decreased because we will be removing members from the mailing list who are 6 months or more in arrears of dues payment (in accordance with By-Law 10 of the Association). Because of University funding problems across Canada, there will probably be few paid advertisements for positions available placed in the Bulletin (we published just one last year). The total cost of producing 4 Bulletins during the last fiscal year (July 1992 through April 1993) was \$2894.96. This figure includes the printing costs of the Membership brochure and does not match the amount in the Treasurer's Report because the bills for April 1993 arrived after the end of the fiscal year. The preparation of a membership directory supplement (to be mailed with the October Bulletin) is progressing. This supplement will include a copy of the By-Laws of the Association, which have not been distributed to the membership for several years.

Joe Gerrath, Bulletin Editor

Science Fair Winner

Each year CBA/ABC presents a Special Award, which includes a cheque for \$250, to the outstanding Plant Science exhibit at the annual Science Fair organized by the Youth Science Foundation. At the 32nd Annual Canada-Wide Science Fair, held in May in Rivière-du-Loup, Québec, the CBA/ABC Special Award for the best botanical presentation was presented to Kim Nguyen, a grade 10 student from Charles Hays Secondary School in Prince Rupert, B.C.

Miss Nguyen's presentation was called, "Artificial environments: An exploratory study on the possibilities of lunar botany". The project involved observations on the survival and growth of seedlings of several agricultural plants and of *Chlorella* under a number of artificial environments simulating lunar conditions. The study concluded that "lunar botany is both fully possible and economically viable".

We also note that Tariq Remtulla, a Calgary student who is obviously the brother of last year's CBA/ABC Special Award winner, received the award for the Best Intermediate Project. His presentation, "Nitrogen Metabolism in Plants", used NMR spectroscopy [!] to compare ammonium versus nitrate (labelled with different nitrogen isotopes) as fertilizers. Tariq recommended using ammonium-rich materials such as cow manure as more effective and environmentally friendly substitutes for nitrate fertilizers.



CBA/ABC Special Award Winner - KIM NGUYEN
Canada-wide Science Fair 1993 - Rivière-du-Loup, Québec

CBA/ABC AWARDS AT AMES, IOWA

Medaille George Lawson Medal

Category B: [lifetime achievement]

R. Larry Peterson, University of Guelph

Prix Mary E. Elliott Award

Irwin M. Brodo, Canadian Museum of Nature

Prix Luella K. Weresub Award

P.D. Premdas, Queen's University. The winning paper, "A new system to bioassay pesticides present in the surface microlayer using floating propagules of an aero-aquatic hyphomycetous fungus *Pseudoaegerita matsushimae*." [Environmental Monitoring and Assessment 22: 169-180], is based on research in the laboratory of W.B. Kendrick, University of Waterloo.

Prix Lionel Cinq-Mars Award

Heather Stewart, University of Guelph, for the paper (co-authored by J. Canne-Hilliker): "Evidence of selfing in *Agalinus neoscotica*."

Honourable Mentions/Mentions honorables:

Jill L. Bubier, McGill University
Kathleen M. Pryer, Duke University
Rudolph Serbet, Ohio University

Bourses John Macoun Bursaries

Kathleen M. Pryer, Duke University [Ph.D. student]
Jeanette Whitton, Univ. of Connecticut [Ph.D. student]
Connie L. Pottruff, University of Guelph [M.Sc. student]
Christine M. Kampny, Univ. of Toronto [M.Sc. student]

Editor's Note: Citations and photographs will appear in the next issue of the Bulletin.

PROF. VLADIMIR J. KRAJINA (1905-1993)

Professor Vladimir Krajina died on May 31, 1993, at the age of 88, in Vancouver. Born on January 30, 1905, in Slavice near Trebic (now Czech Republic), he received his doctorate degree from Charles University in Prague in 1927. During his student days he described *Pinguicula bohemica*, a new species endemic to central Bohemia.

In 1934 Krajina was appointed Associate Professor in Geobotany and Plant Systematics at Charles University in Prague. His habilitation work, "Die Pflanzengesellschaften des Mlynica-Tales in den Vysoke Tatry ...", was published in the Beihefte zum Botanischen Centralblatt in 1933 and 1934. "Though a product of a single scholar, this monograph excels in its (1) universal view of subalpine and alpine plant life, (2) balanced evaluation of both phanerogamic and cryptogamic plants, (3) year-round observations and measurements of climatic and soil factors, and (4) integrated phytosociological synthesis ... of plant communities in the territory under study." (Jenik, 1992).

During the Second World War universities in Bohemia and Moravia were closed and Krajina became one of the leaders of the Czech underground resistance movement. He was the first one to establish radio contact with the Czech government in exile (based in England). During his underground activity he supplied the Western Allies with vital intelligence information. He was captured by the Nazis in 1943 and barely escaped execution.

After the war Krajina became a Full Professor at the Charles University in Prague and the Head of the Geobotany Department. He was also elected to the Czechoslovak parliament. As the General Secretary of the main opposition party he fought against the Communist Party and their intrigues. After the communist takeover of Czechoslovakia in February, 1948, Krajina had to flee Czechoslovakia and seek political refuge in Canada. The first note about the communist coup that was published in Time Magazine mentioned Vladimir Krajina and the note clearly illustrates the danger Krajina was facing. "Armed police raided and sacked headquarters of the National Socialist Party, seeking the party's secretary general, Vladimir Krajina. But Krajina, who still had parliamentary immunity, was not arrested just yet." (Time, March 1, 1948)

Krajina was sentenced (*in absentia*) to 25 years of imprisonment, and some of his close allies (most notably Dr. Milada Horakova) were executed.

Dr. Krajina started to teach in the Department of Botany at the University of British Columbia in Vancouver as a Special Lecturer in 1949, and became Assistant Professor in 1951, Associate Professor in 1954, and Full Professor in 1958. In 1973 he retired, but as Professor Emeritus he continued his scientific work.

Two main themes can characterize Krajina's broad and varied botanical interests in Canada:

1. Botanical exploration of British Columbia, especially the study of plant communities and ecosystems, and
2. Nature conservation in British Columbia.

The first theme culminated in Krajina's system of biogeoclimatic zones. Krajina and his many students sampled and studied vegetation and ecosystems all over British Columbia, stressing the close tie between plants, soils and climate. The biogeoclimatic classification forms a framework for any regional natural history study, and, most importantly, a framework for improving forestry practises in British Columbia and putting forestry on a sound ecological base.

In the second theme, nature conservation, Krajina combined his scientific background with political skills. Based on principles drawn by the International Biological Program, Krajina called for the practical application of conservation ideas and his effort resulted in the Ecological Reserves Act passed by the British Columbia Legislature in 1971. Using this Act, a wide range of natural areas can be set aside and protected as ecological reserves. Krajina's goal was to protect at least one percent of British Columbia's area in ecological reserves. At this moment, 134 ecological reserves have been created that protect about 160,000 ha (one-third of which are marine waters). Yes, we have still a long way to go in order to fulfil Krajina's vision.

In 1972 Krajina was awarded the George Lawson Medal by the Canadian Botanical Association and in 1981 he received the Order of Canada. In 1990 Vladimir Krajina visited Czechoslovakia and was decorated with the "Order of the White Lion", the highest honour reserved for a foreign [!] citizen by the Czech government. During the same visit, Prof. Krajina was granted the "Foreign [!] Honorary Membership" in the Czech Botanical Society. One issue of the Czech Botanical Society journal, *Preslia*, was dedicated to Prof. Vladimir J. Krajina and both Krajina's biography and his botanical bibliography were published in that issue by Jan Jenik (Jenik, 1992).

Vladimir Krajina fought all his life to advance science and the quality of life of his fellow men and women.

"We all thank him for inspiration and for setting an admirable example showing that a scientist's professional career can be linked with citizen's honourable life in which absolute values of democratic society get priority, regardless of personal risks." (Jenik, 1992)

Reference: Jenik, J. 1992. Professor Vladimir J. Krajina - Honorary Member of the Czechoslovak Botanical Society. *Preslia*, Praha 64: 291-311.

Adolf Ceska
Botanical Electronic News, June 6, 1993
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MEMORIES OF THE FIRST CBA/ABC MEETING IN THE U.S.A.

This summer's meeting of the CBA/ABC with the Botanical Society of America in Ames, Iowa, recalled some memories of our first meeting with the Americans under the AIBS umbrella. The year was 1974, the meeting location was Tempe, Arizona, and the time of the year was June. Even those members who suffered through the heat and humidity of the AIBS meeting in North Dakota ten years later would have to agree that Tempe was the hottest locale ever for a CBA/ABC meeting.

In their original invitation the Botanical Society of America asked us to suggest possible topics for symposia at the meetings. The CBA/ABC executive took up this suggestion enthusiastically, putting forward ideas from all of our sections as well as more general topics such as wide-ranging species and the teaching of Botany. To our considerable shock, most of our suggestions were accepted and we were asked to organize these symposia! This led to much more work than expected for the entire executive, especially André Fortin (Laval), who was the CBA/ABC Program Chairman for the Tempe meetings. We also had to co-ordinate planning with the Mexican Botanical Society. One of the outcomes of our extensive involvement in symposia was the greater than expected participation of Canadian scientists in major symposia. This was a real plus as it enabled the Americans and Mexicans to learn a great deal about Canadian Botany.

On the down side, the heavy Canadian participation led to a scheduling nightmare for André Fortin. Somehow, through meetings in Washington with AIBS and long hours of planning, he managed to avoid most problems of one person giving two papers in two different locations at the same time. However, the meetings of society executives were not scheduled until after the program had been approved. As a result I found that I was to chair the annual meeting of the CBA/ABC at the same time that I was scheduled to chair the Ecology Section symposium on plant population dynamics. Other people had similar experiences.

Several other glitches appeared once we had studied the program in more detail. For example, there was one very distinguished CBA member who always was scheduled to give the final paper of a contributed paper session. He was noted for never keeping to the allotted time and it became common policy to schedule him last so that he would not interfere with speakers scheduled after him. This was a bit hard on the chairpeople of the sessions but at least everyone else could (and often did) walk out when they wished. We noted on arrival at Tempe that this gentleman had been slotted in the middle of a session and realized that we had another problem. The solution was to appoint the husband of the next-but-one scheduled speaker as the session chair. This latter gentleman, very tall and very large, was then persuaded to approach Dr. X to tell him that he was chairing the session and that his wife was speaking immediately after Dr. X. He then suggested mildly that he knew that Dr. X would finish his talk on time! When the session took place, the longwinded speaker was just nicely launched into his talk when the chairman stood up and looked down at him intently. Within one minute the talk was finished; the first occasion we could remember this speaker finishing within his allotted time.

Another interesting event was the joint banquet of the CBA/ABC and the BSA. We had known from the Edmonton joint meeting in 1971 that the Botanical Society always had a quite lengthy list of awards whereas at that time the CBA/ABC only awarded Lawson medals. Normally two Lawson medals were awarded, one for a special achievement and one for lifetime contributions to Canadian Botany. Unfortunately, in 1974 the winner for lifetime contributions, Dr. John G. Coulson of McGill University, died about one month before the Tempe meetings so we were left with only one direct award, to Dr. Rolf Sattler for his very fine book entitled "Organogenesis of Flowers". Since the CBA/ABC had only the one living recipient of an award, several members of the BSA suggested to me during dinner that I might like to stretch out the CBA/ABC portion of the program by telling a joke or two. I made the decision to offer a couple of Newfie revenge stories, one of which was about the man jumping on the manhole cover in Toronto (details supplied on request). The second one concerned the Texan who visited the Newfie farmer, was shown over the farm and then said, "Let me tell you about my farm in Texas; why, I can get in my car, drive all day in the same direction and never leave my property". The Newfie thought about this for a minute and then said consolingly, "Yes, I had a car like that once myself, but I sold it". Immediately after telling this joke I turned over the podium to Dr. Delevoryas, President of BSA, whose first words were, "I'm from Texas".

One of the strangest evenings of my life occurred in the very large Grady Gammage Auditorium at Arizona State University during the AIBS plenary session. The moderator, the President of AIBS, led all of the Presidents of the participating societies out onto the stage. After we were introduced we could only sit and watch as the President's opening remarks offended several women in the audience. These people heckled him severely and completely rattled him, so that the rest of his speech degenerated into one mistake after another. He even managed, inadvertently, to insult the recipient of an award for Distinguished Service in Biology. Immediately after this session all the Presidents were taken to a large ranch out in the desert for an AIBS reception. During the reception Dr. José Sarukhan, President of the Mexican Botanical Society, and I had a very useful but concentrated discussion of work on plant population dynamics. Eventually we looked around and found that all remaining AIBS people had become quite drunk (a response to the plenary session) and there was no one in a fit state to drive back to Tempe. Eventually two very late arrivals came in, looked around and, at about 3 a.m., offered us a ride back to town.

There are many other memories of a most interesting meeting: the opening reception in an amusement park with several eminent Canadian botanists zipping down the water slide, one after another; the visit to the Saguaro Cactus Gardens in searing heat (>125°F) and the camera that didn't work; the plane taking off from Phoenix airport, but returning to the ground as soon as possible because the rear door had fallen off; noticing a familiar-looking camera in the middle of Toronto airport and, on closer examination, noting the tag that read J.B. Phipps (he had just departed for London, Ontario, and was surprised the next morning to have his lost camera presented to him at work). Despite the many concerns and problems it was a successful meeting, and a wonderful opportunity to meet botanists from all over North America.

*Paul Cavers, University of Western Ontario
CBA/ABC President during the Tempe meetings*

Book Reviews / Évaluations

Arctic and Alpine Fungi. by Beatrice Senn-Irlet, Kolbjørn Mohn Jenssen and Gro Gulden. Soppkonsulenten A/S, Ås, Norway. 1990. 58pp. NOK 200.

This slim little volume is the third instalment in a series of beautifully illustrated books on the larger fleshy fungi found in arctic environments and alpine environments above the tree line. The first volume describes and illustrates 25 species from the mountains of southern Norway, the second offers 25 species from the Svalbard archipelago, and this third volume presents 25 species from the Swiss Alps. The series maintains very high standards in descriptive and photographic documentation, and continues to provide field guide material for mushrooms that is as sophisticated as the very best illustrated manuals on plants.

Like the others in the series, this third volume has been prepared as a fascicle of 16.5 x 24.0 cm sheets of heavy, glossy paper with a single species presented on each sheet. Sheets are bound with a removable plastic spine clamp and come in a clear vinyl cover so that each fascicle can be taken apart and rearranged according to the user's interest and inclinations. Also, like the first two volumes, this one deals exclusively with basidiomycetes.

The first 4 pages of volume 3 provide the reader with very good notes on the ecological conditions specific to arctic and alpine regions that affect the mushroom flora, and a quick summary of the main vegetation types of the Alps. Here we learn, among other things, that alpine meadows are in general poor in macrofungi while grass heath tundra and heath tundra are rich collecting areas. As in the previous two volumes, notes are then provided on the genera represented by the following 25 species, although exclusive of those already discussed in volumes 1 and 2.

For each species, after the title (scientific name) and synonymy at the top of the page, there is a good sized (usually about 9 x 13 cm) photograph displaying fruit bodies from several angles, and taken *in situ*, showing features of the mushroom and characteristics of the natural habitats. The colour reproduction is excellent and the compositions are superb. Each photograph is provided with a caption that includes detailed collection data and lists collection number, location, and habitat details. For example, the photograph of *Rickenella mellea* has the caption "BSI 89/294, Switzerland: Berne, Guttannen - Oberaar, 2330 m, on *Philonotis* on a (sic) oligotrophic fen community of the mid alpine zone on granitic bedrock, 1. September 1989". Detailed descriptions of macroscopic features follow with notes concerning fine details that are often left out of other manuals (e.g. taste and smell). The next section includes notes on ecology and distribution which are good reading. Substrate characteristics include details concerning pH and community type.

On the back of each species sheet, the descriptions continue with simple line drawings of microscopic structures, including cystidia, basidiospores, cutis types, etc. I do wonder why, after so much care has been invested in the photographic material, the authors would use "letraset" rub-on shading on these drawings (e.g. page 28 on the apices of the caulocystidia; page 32, on the cheilocystidia). In some cases the pictures are a bit untidy as, for example, on page 10, where "fig" appears for no apparent reason among a cluster of basidiospores. These illustrations are followed by detailed descriptions of the microscopic features which include variability among spore dimensions given and the type of mounting media used for making observations. Finally, each species is provided with taxonomic notes and a short list of details, concerning things such as nomenclatural history, combinations and the disposition of types.

My most serious criticism is that there are numerous typographical and grammatical errors throughout the text and these seriously detract from what is otherwise a beautiful piece of work. Nevertheless, this book, with its two forerunners and planned subsequent volume on discomycetes, should be a valuable addition to the libraries of both professional and keen amateur mycologists. The third volume is offered for sale at NOK 200 or about \$40.00.

R.S. Currah, University of Alberta

Editor's note: For anyone who wants to order these volumes directly from the publisher, the address is: Soppkonsulenten A/S, Lyngvn. 3, N-1430 Ås, Norway.



Distribution and ecology of stipitate hydneous fungi in Norway, with special reference to the question of decline. by G. Gulden and E.W. Hanssen. Sommerfeltia 13: 58pp. 1992. NOK 180.

Stipitate hydneous fungi are easily recognized with their tough-fleshed basidiomata that bear needle-like projections under the cap in place of gills. I have seen many amateur mycologists intrigued by these slow growing mushrooms that sometimes incorporate fallen twigs or conifer needles in their body.

Sommerfeltia is a series of botanical monographs named in honor of the Norwegian botanist Søren Christian Sommerfelt (1794-1838). Based at the Botanical Garden and Museum of the University of Oslo [complete address is given at end of review - Editor], this series has published since 1985 sixteen monographs in plant taxonomy (including mycology and lichenology), phytogeography, phytosociology, plant ecology, plant morphology and evolutionary botany. The monograph by Gulden and Hanssen is the 13th of this series.

Mycological papers dealing with biogeography, ecology and the use of fungal species as indicators of ecological change are rather scarce. Therefore, this monograph is indeed welcome. The authors have compiled, from either herbarium

and published records, both the frequency of collection and the distribution of the 26 species of stipitate hydnaceous fungi occurring in Norway. Frequency of collection is presented in histograms for each species in each decade from 1950 to 1989, and also for all species as a group. The histograms are used to "test" the hypothesis that, like in Central Europe, the abundance of many species of stipitate hydnaceous fungi has declined since the last two decades. This decline is usually attributed to acid deposition. Most of the species considered here are ectomycorrhizal on conifers and are affected before any sign of dieback in their tree hosts can be detected. Overall, the histograms show no obvious decline in the frequency and abundance of hydnaceous fungi in Norway. The only exceptions are *Hydnellum aurantiacum*, *H. suaveolens* and *H. peckii*, for which chi-square tests were applied to compare the proportion of observations in the 1980's with those before 1980.

After a general presentation of methods, results and discussion, each species is treated separately. This section comprises a dot map of the range of the species in Norway along with notes on the taxonomy, distribution, ecology (preference of some vegetation types, trees, types of bedrock), temporal trends and extra-territorial occurrences.

As a conservation biologist I was particularly interested by the classification of species as "common", "not common", or "rare". Species in the first category are those with more than 120 observations, occurring in 5 vegetation regions and in all parts of the country. The second category contains species with 30-120 observations, occurring in 3-4 vegetation regions. In the rare category are those species with fewer than 30 observations. I also learned that red data lists of fungal species presently exist for Austria, Denmark, Germany, The Netherlands, Poland and Sweden. When are we likely to produce a list of the rare fungi of Canada? Unfortunately, fungal species are rarely considered by conservationists in North America. The situation seems different in many parts of Europe where people and mushrooms are more closely associated. As a statistically inclined ecologist, I found the numerical treatment of the data a little weak, but overall, the work is nicely done and informative. It is well-written and the distribution maps, tables and graphs are neat.

Patrick Nantel, Département de sciences biologiques
GREF, Université du Québec à Montréal

Editor's note: The *Sommerfeltia* series can be obtained directly from: Botanical Garden and Museum, University of Oslo, Trondheimsveien 23B, N-0562 Oslo 5, Norway.



Seaweed Flora of the Maritimes. 1. Rhodophyta - The Red Algae. by Carolyn J. Bird and Jack L. McLachlan. Biopress Ltd., Bristol. 1992. 177pp. Price: £39.50 + £4 p&p; CAN\$90 + \$9 p&p.

This book is the first of several volumes which are meant to serve as an aid for the identification of common seaweeds

growing on the coasts of the Maritime Provinces [N.S., N.B. & P.E.I.], although it should be useful far beyond its limited geographical terms of reference. Rather than being a book for specialists in red algae, this relatively non-technical manual is meant to be used by the interested amateur phycologist and by teachers and students not specializing in algal research. The book does not include all red algae recorded from the Maritimes (some are doubtful records requiring verification). Of the 77 genera and 128 species listed for the Maritimes, 55 genera and 73 species are described and illustrated in detail.

The introductory pages give a very brief historical account of floristic research on marine algae in the Maritimes, along with a list of relevant published papers, manuals, checklists, etc., and a description of the Rhodophyta, including life histories of the *Porphyra* and *Polysiphonia* type. The list of 128 species and a key to the genera of reds covered by the authors are also presented. At the end of the book there is a 6-page Glossary and a page index to all species covered.

The bulk of this manual deals with the red algal species included, which are generally presented with the descriptive account on an even-numbered page and the illustrations on the facing odd-numbered page. The descriptions are kept short, including brief accounts of morphology, size, key characters, reproductive structures and ecological notes such as substrates, zones of occurrence, seasonal occurrence and geographical distribution (both in the Maritime Provinces and elsewhere). The illustrative plates are all black-and-white photographs. At least one "habit" photo is given for each species, usually of detached specimens, and the remaining pictures on each plate are photomicrographs (often of sectioned material) showing cell structure, branching patterns and various details of reproduction. To a phycologist, the pictures are superb, but to the interested amateur there would be a serious problem in attempting to reproduce sections of similar quality for comparison with those in the book. Certainly the users of this manual will need a reasonably good microscope to make their identifications and be familiar with techniques for making and staining slides.

As a whole I was very impressed by this manual. It may still prove to be pitched a bit too high on the scale of technical complexity for the targeted amateur to use without being frustrated. However, the book is handsomely printed, liberally illustrated and represents good value for the relatively high price. Even students in marine phycology would find many useful and instructive details in its pages. I look forward to the publication of the remaining volumes of the series.

Joseph F. Gerrath, University of Guelph

Editor's Note: Biopress Ltd. is a small publisher specializing in books and journals in phycology. It publishes the specialist journal, *Diatom Research*, and the review series, *Progress in Phycological Research*. The reviewed book, *Seaweed Flora of the Maritimes. Volume 1*, may be ordered directly from: Biopress Ltd., "The Orchard", Clanage Road, Bristol BS3 2JX, Avon, England.



The Plant Press / La Presse Botanique

These pages are intended as a chronicle of news items about plants (or about CBA/ABC members) appearing in newspapers or in the popular science magazines. Contributions from your local newspapers are invited. Send the editor a clipping, photocopy or simply a note about the item and don't forget to indicate the source and date.

Ces pages sont consacrées aux nouvelles concernant les plantes (ou certains membres de l'ABC/CBA) qui paraissent dans les journaux. Les contributions en français sont également encouragées. Faites parvenir vos soumissions au rédacteur en chef ou au rédacteur adjoint, section francophone, et n'oubliez pas d'indiquer la source de l'article et la date de publication.



Aztec Food Comes Back

Dishes based on food eaten by the Aztecs have become the latest exotic trend in some of Mexico City's posh restaurants. Imagine being served the following dishes: squash flowers and a slightly gooey corn fungus called *cuitlacoche* (both fried with onions and garlic and folded into corn tortillas), maguey (cactus) flower cakes, or stews containing chrysanthemums or rose petals. Yum-Yum!! [I won't go into any detail about the fried honey ants and beetles, the broiled iguana tails or puma (mountain lion) steaks].

Kitchener-Waterloo Record, Apr. 14, 1993



Ancient Silk

Scientists at Vienna University have identified a fragment of silk fabric from a female Egyptian mummy which has been dated to between 1070 B.C. and 945 B.C. Since the woman is described as a "retainer to the pharaoh", egyptologists think that silk fabrics at that time were not luxury items confined to royalty. The finding also means that the silk trade with China and the widespread use of silk occurred in Egypt 600 years earlier than previous evidence had indicated.

China Daily, April 1, 1993



Beans, beans ... the musical fruit

Flatulence is the polite term for what we experience after eating beans. This surfeit of intestinal gas is traced to the presence of several oligosaccharides (such as raffinose, stachyose and verbascose) in the cotyledons of bean seeds. The human gut cannot produce the enzymes required to break down these compounds, but bacteria in the colon can do so. The enzymatic breakdown of the oligosaccharides results in the production of biproduct gases, which we must get rid of as unobtrusively as we can. The commercial product, Beano, which contains the enzyme α -galactosidase (produced commercially from *Aspergillus niger*), is supposed to help reduce gas production if eaten with the first mouthful of beans.

New York Times, April 20, 1993

"Horizontal Wood" has risen

Sladden Wood, between Dover and Folkestone in southeastern England, is an ancient woodland renowned for its flora (especially orchids) and fauna. Traditionally the Wood had been coppiced to provide saleable wood (coppicing is the harvesting of a few trees at ground level each year). Its recent history illustrates the success of conservationists in the face of adversity. In 1951 this privately owned woodland had been declared a "Site of Special Scientific Interest", which made it subject to legally sanctioned protection. The owner, a Mr. Batchellor, had long wanted to turn the Wood into beautiful, flat, more profitable, arable land. In November 1977 he ordered in the chainsaws and cut down all the trees. The public uproar that followed referred to the devastation as the "Horizontal Wood". Dover District Council chased down Mr. Batchellor and served him a tree-preservation order. He replied, "What trees?", but the Council was ready with an answer. They said that what he had done was equivalent to coppicing the whole of Sladden Wood. The stumps were still considered to be living trees since, given sufficient time, they would regenerate new trees. Now, after several years, the wisdom of the Dover Council's ruling is there for all to see -- a forest (now publicly owned) of trees about 20 feet tall which will soon be ready to resume the traditional coppicing rotation. As for Mr. Batchellor, after selling Sladden Wood he has continued to "tidy up the Kent countryside" by cutting down other woodlands and has twice served prison terms for illegal felling of protected trees.

The Observer, April 18, 1993



A fungus among us!

In plants of the mustard family (*Arabis*) the rust fungus, *Puccinia monoica*, creates structures which resemble yellow flowers. Botany students (and some profs, too) can be fooled by the bogus flowers. The fungus attracts insect pollinators to transfer spermatia between individuals. Studies show that the insects often spend more time on the fake flowers than on the real ones, because the fungus provides them a sugary exudate.

China Daily, April 8, 1993



More news on yews (and taxol, too)

The hunt continues in order to find a cheap way to produce large amounts of taxol and, at the same time, to stop having to destroy yew trees to get it. Andrea Stierle and Gary Stobel of Montana State University, in a blaze of research activity after their grant was cut off, have discovered a fungus (isolated from yew tree bark) that can produce taxol by itself. Visions of huge fermentation vats producing copious amounts of taxol will flash before the eyes of current cancer patients, who must pay about US\$1,000 for each treatment with taxol (and may have to endure up to 10 separate treatments).

The Observer, April 18, 1993

Is There a Perfect Potato?

The answer is emphatically NO, according to Michael Wilkinson of the 12-year-old Scottish Crop Research Institute, which has a gene bank of more than 1600 varieties of 71 potato species. "There is no cultivar on the market now that does not have at least one problem.", says Wilkinson. "The cultivated potato is a bit of a wimp, really. Disease comes along and blows them over." That is why breeders continue to try to produce new cultivars which incorporate genes for pest resistance from wild species. Current projects at the Scottish Institute are trying to produce cultivars which don't need expensive sprays (for India), ones which are heat-tolerant (for Mediterranean countries), and ones which produce better chips. The article notes that the North American potato crop is dominated (more than 80%) by one cultivar, Russet Burbank, which is what you get as chips at McDonald's.

K.-W. Record, April 26, 1993



Dangerous Foods

About 50,000 Canadians risk death because they have severe allergic reactions (anaphylaxis) to bee stings, drugs, certain foods, plants or inhaled chemicals. Peanuts account for about 65% of anaphylaxis from foods and "tree nuts" (e.g. walnuts) are high on the list of dangerous foods. A few people have unusual sensitivities to such products as celery, honey, soybeans, paprika and kiwi fruit. Anaphylaxis is very rapid in some persons and cases are known where death occurred in the time taken to recognize the allergic reaction and to administer a shot of epinephrine from an automatic syringe called an "epipen", which all of these patients carry with them.

Animal research at Denver suggests that humans who have severe allergic reactions to foods might be able to lessen the effect by immediately consuming activated charcoal. This treatment would tie up the molecules causing the allergic reaction and give the person enough time to get to a hospital for emergency treatment. Don't try it now, however; it has worked in animal experiments, but human tests have not yet been done.

K.-W. Record, March 18; Toronto Star, May 1, 1993



"Tut's tippie" or "Nefertiti's nip"

You may soon be able to drink the beer of the Pharaohs. Researchers at Cambridge and Heriot-Watt Universities are trying to duplicate the methods and recipes of ancient Egyptian brewers. Using DNA techniques on beer residues they have pinpointed the yeasts used and have located most of the other ingredients in ancient texts and paintings. Emmer wheat was the main grain used (along with some barley), honey was probably used as a sweetener, and flavourings included coriander, radish root and other aromatic herbs and spices. Large amounts of dates were also included in the recipe. It will be another couple of years before a drinkable duplicate of Pharaoh's favourite brand is brewed.

The Observer, April 25, 1993



"I yam what I yam"

Supermarket workers often confuse sweet potatoes and yams. The true yam is the starchy rhizome of *Dioscorea esculenta*, a tropical plant hardy only to about North Carolina. The sweet potato is the swollen storage root of *Ipomoea batatas*, a plant which originated in Central and South America, and which can be grown as far north as southern Ontario. To confuse things further, there is *Dioscorea batatas*, which is known either as Chinese yam or Chinese potato.

New York Times, April 27, 1993



A matter of thyme

Thyme has long been associated with health, strength and courage and the poet, William Blake, wrote that a little thyme would "help the aged". Recently a Scottish research team has found that the steam-distilled extract from thyme contains a large number of antioxidant compounds. The team was trying to produce antioxidants for the food industry, but became involved in experiments on animal aging when they supplied some of their extract to a Hungarian research team. The Hungarians fed rats the extract and found that it prevented the degenerative breakdown of polyunsaturated fatty acids that is associated with aging. Other projects are currently studying whether the thyme extract maintains youthful behaviour in the rats. Naturally, several teams are contemplating tests with humans, since people living around the Mediterranean, where a lot of thyme is eaten, have a low incidence of degenerative diseases. However, the extract "smells alarmingly like disinfectant" and will have to be made into capsules for human testing. In the meantime, however, it wouldn't hurt to include thyme in your diet (as well as oregano, fennel, celery and peppermint, which are also high in antioxidants). One researcher commented, "We're not necessarily claiming to put years in your life, just more life in your years."

Globe & Mail, March 20, 1993



Anti-AIDS Vine

This story provides good ammunition for those trying to slow the destruction of the world's tropical rainforests. In 1987 in the remote Korup National Park of Cameroun botanist Duncan Thomas discovered a broad-leaved vine which he tentatively named *Ancistrocladus korupensis*. Researchers at the U.S. National Cancer Institute think that this vine could provide the "magic bullet" against the AIDS virus. The leaves contain an alkaloid, michellamine B, which inhibits the replication of the virus in *in vitro* experiments. It is encouraging to note that if a commercial drug is eventually developed, the University of Yaoundé will share in the royalties.

Toronto Star, May 8, 1993



More endangered plants

Three plants have been added to Canada's list of endangered species. The yellow-flowered wood poppy and the American columbo, with greenish-white flowers, grow in southern Ontario. The western prairie fringed orchid is endangered because of the draining of wetlands, its preferred habitat.

K.-W. Record, May 1, 1993

Recent Graduates Gradué(e)s récemment

University of Manitoba Department of Botany

M.Sc. - 1992-1993

Suzanne Diamond - "Disturbance effects from hydro line maintenance on ectomycorrhizal fungi." Supervisor: T. Booth.

André Dufresne - "Aspects of embryogenesis in *Brassica napus* L. cv. Regent: A light and electron microscopic investigation from anthesis to the quadrant stage of proembryo development." Supervisor: M. Sumner.

Rosemary Muggide - "Changes in phytoplankton primary productivity and biomass in Lake Victoria (Uganda)." Supervisor: R. Hecky.

Michael Shaw - "Spatio-temporal dynamics of the vegetation and seed bank of Beaver Meadows in Riding Mountain National Park, Manitoba." Supervisor: N. Kenkel.

Ph.D. - 1992-1993

Georg Hausner - "Molecular taxonomy of the genus *Ceratocystis sensu lato*." Supervisor: J. Reid.

David Huebert - "The effect of biological and chemical factors on the uptake and toxicity of cadmium in *Lemna trisulca* L." Supervisor: J. Shay.

Our thanks to Mike Sumner for this list of graduates.

University of Manitoba Department of Plant Science

M.Sc. - 1992

Kedar Adhikari - "Pollination biology and determination of yield in buckwheat (*Fagopyrum esculentum* Moench)." Advisor: C. Campbell.

Mervin Empey - "Field performance of several seedlots of three spring wheat cultivars under two crop management levels." Advisor: E.H. Stobbe.

Sharon Gubbels - "Localization of barley alpha-amylase/subtilisin inhibitor, alpha-amylase and starch granules in developing and germinating barley kernels." Advisor: R.D. Hill.

Peter Kipkemoi - "Effect of intercropping pea with canola or yellow mustard." Advisor: E.H. Stobbe.

Harry Ngoma - "Field performance of weathered spring wheat and barley." Advisor: E.H. Stobbe.

Heather Norquay - "Characterization of the leaf rust (*Puccinia recondita* f.sp. *tritici*) resistance genes Lr24 and Lr26, and the stem rust (*Puccinia graminis* f.sp. *tritici*) resistance genes Sr24 and Sr31, in wheat (*Triticum aestivum*)." Advisor: A.L. Brûlé-Babel.

Joseph Wolukau - "Effect of nitrogen and cane density on cane architecture and fruit yield in primocane bearing red raspberries." Advisor: W.R. Remphrey.

Our thanks to Bill Remphrey for this list of graduates.



CAROLINIAN CANADA PROGRAMME

The Carolinian Canada Programme was set up in 1987 to protect the most significant remaining sites of Carolinian vegetation in southern Ontario. It is a partnership between private and public sector agencies with strong interests in conservation in this important life zone. The CBA/ABC is a member of this partnership and is represented on the Carolinian Canada Steering Committee and on several of the subcommittees.

The initial mandate for the programme was for five years and the programme was funded by the Ontario Government with matching funds from private agencies. Thirty-eight sites were identified in the Carolinian life zone as being of critical importance and efforts were undertaken to protect these and their significant biota through a combination of land purchase, private stewardship agreements with land owners, research on species and habitats directed towards species recovery, and habitat management, together with education and communication to increase public awareness of the importance of the Carolinian life zone. As a result of these initiatives 66% of the land in the 38 designated sites is now protected through public ownership or private stewardship.

Recent efforts to obtain a renewal of government funding were unsuccessful but the Carolinian Canada Steering Committee has resolved to continue its activities in the realization that much remains to be done to ensure continued and extended protection for species and habitats in this life zone. Also it is looking at ways of increasing, through cooperation, the effectiveness of the government and private agencies that are members of the Carolinian Canada Programme. One of the ways in which members of the CBA/ABC can assist is by identifying additional sites that may be in need of protection and by reporting any threats to existing Carolinian sites. This information should be sent to your current CBA/ABC representative, who is **Dr. J.K. Morton, Department of Biology, University of Waterloo, Waterloo, ON N2L 3G1 [Tel.: (519) 885-1211, Ext. 2564; FAX: (519) 746-0614]**, from whom further information can be obtained.

MEETINGS - CONGRÈS

Economic Botany

The 40th annual Systematics Symposium of the Missouri Botanical Garden bears the title **Economic Botany** and will be held **October 8-9, 1993** in St. Louis. Organizer Mick Richardson has put together a program covering topics such as:

- ☐ Plants found in archaeological digs
- ☐ Cures for diseases of modern society [incl. AIDS]
- ☐ Native uses of plants in the Americas
- ☐ Medicinal plants as sources of new therapeutics
- ☐ Improving crops with biotechnology
- ☐ Economic botany in international development
- ☐ Wise use of forest resources.

Abstracts of papers are available in advance and full copies of the papers will be available at (or shortly after) the symposium. For further information, contact: **Janine Adams, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299. Telephone: (314) 577-9540.**

Plant Molecular Biology

The 4th International Congress of Plant Molecular Biology is to be held in Amsterdam, the Netherlands, **June 19-24, 1994**. For information, contact: **Secretariat, 4th International Congress of Plant Molecular Biology, c/o RAI Organisatie Bureau, Amsterdam by Europaplein 12, 1078 GZ Amsterdam, The Netherlands. FAX: 31 20 6464 4469.**

Genetics of Industrial Microorganisms

The 7th International Symposium on the Genetics of Industrial Microorganisms will be held at the Palais des Congrès in Montréal, from **June 26 to July 1, 1994**. Information: **Secretariat, GIM 94, National Research Council Canada, Ottawa, ON K1A 0R6.**

Phycological Congress

The Fifth International Phycological Congress will be in Qingdao, China, from **June 26 to July 2, 1994**. Several symposia and workshops, ranging from molecular biology and physiology of algae to systematics and phylogeny of algae, are planned. Anyone wishing to receive the Second Circular should contact: **The Secretariat, 5th I.P.C., Experimental Marine Biology Laboratory, Institute of Oceanology, Chinese Academy of Sciences, 7 Nanhai Road, Qingdao, P.R. China 266071. FAX: 86 532 279235.**

Carbohydrate Symposium

The 17th International Carbohydrate Symposium will be held in Ottawa, ON, **July 17-22, 1994**. For information, contact: **Doris Ruest, Executive Secretary, 17th International Carbohydrate Symposium, National Research Council, Ottawa, ON K1A 0R6.**

Plant Nutrition Symposium

The Fifth International Symposium on Genetics and Molecular Biology of Plant Nutrition will be held at the University of California, Davis, **July 17-24, 1994**. For information contact: **D.W. Rains, Dept of Agronomy and Range Science, University of California, Davis, CA 95616. FAX: (916) 752-4361.**

Compositae Conference

An International Conference on Compositae will be held at the R.B.G., Kew, from **July 24 to August 5, 1994**. Obtain further information from: **C. Jeffrey, Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AE, England.**

ASPP Annual Meeting

The 1994 Annual Meeting of the American Society of Plant Physiologists will be in Portland, Oregon, from **July 30 to August 5, 1994**. Information from: **ASPP, 15501 Monona Drive, Rockville, MD 20855. FAX: (301) 279-2996.**

Mycology Congress

The 5th International Mycological Congress will be held in Vancouver, B.C., **August 14-21, 1994**. Information may be obtained from: **A.J.F. Griffith, Department of Botany, University of B.C., 6270 University Blvd., Vancouver, BC V6T 2B1.**

Ecology Congress

The 6th International Congress of Ecology will be in Manchester, U.K., **August 20-26, 1994**. The Congress will celebrate the silver jubilee of statistical ecology with a series of special keynote speakers and invited papers, special awards to distinguished statistical ecologists and student papers, and a 10-volume set of books (to be published by Van Nostrand Reinhold) under the general Congress theme title: **Frontiers of Statistical Ecology and Ecological Statistics**. Information may be obtained from: **The Secretary, 6th International Congress of Ecology, Dept. of Environmental Biology, The University, Manchester, U.K. M13 9PL, or from the chair of the International Program Committee: G.P. Patil, Department of Statistics, Pennsylvania State University, University Park, PA 16802.**

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