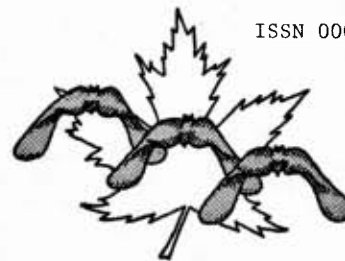


BULLETIN



L'ASSOCIATION BOTANIQUE DU CANADA

January 1978

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Waterloo

ANNUAL MEETING - 1978 - CONGRES ANNUEL

August 13-17, Memorial University, St. John's, Newfoundland

Schedule

- 9-13 August (Wed.-Sun.): Pre-meeting field trip in western Newfoundland --
See details below
- 13 August (Sun.): p.m. Registration and informal evening reception
- 14 August (Mon.): a.m. Registration; Opening ceremonies; Plenary session
(symposium "The Subarctic")
- p.m. Plenary session
- eve. Section business meetings; Informal talks on early
Newfoundland botanists
- 15 August (Tues.): a.m. Contributed papers
- p.m. Oxen Pond Botanic Park: Tour of the Park and its
building and propagation facilities; reception
- eve. Annual business meeting
- 16 August (Wed.): a.m. Contributed papers
- p.m. Local field trips -- See details below
- eve. Cocktail hour and Banquet
- 17 August (Thurs.): a.m. Contributed papers

Horaires

- 9-13 août (mer.-dim.): Excursion dans l'ouest de Terre-Neuve -- voir
informations ci-bas
- 13 août (dim.): a.m. Inscription et réception
- 14 août (lun.): a.m. Inscription; Cérémonie d'ouverture; Réunion plénière
(symposium: Le Subarctique)
- p.m. Réunion plénière
- soir Réunions d'affaires (sections); Présentations
informelles sur trois botanistes de Terre-Neuve
- 15 août (mar.): a.m. Communications
- p.m. Oxen Pond Botanic Park: Visite au parc et
réception
- soir Assemblée générale
- 16 août (mer.): a.m. Communications
- p.m. Excursions locales -- voir informations ci-bas
- soir Heure sociale et Banquet
- 17 août (jeu.): a.m. Communications

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Pre-Meeting Field Trip (9-13 August)

A 5-day pre-meeting field trip in western Newfoundland is being organized. Participants will meet in Corner Brook (at the Memorial University Regional College) on the evening of 8 August and the trip will begin on the morning of 9 August. Three days will be spent in the Gros Morne National Park area: the calcareous bogs and fens of the Western Brook Pond region; the serpentine tablelands with their unique flora; the alpine tundra of Gros Morne and well developed forests in the lowlands. The fourth day will be spent driving from western Newfoundland across the central part of the island to Terra Nova National Park, on the east coast, with an overnight stop near the Park. The field trip will end on the fifth day in St. John's at about noon (13 August), giving participants a chance to register and sightsee on their own that afternoon. Those intending to participate on the pre-meeting field trip should plan to arrive in Corner Brook on the 8th of August. The most convenient flights are those of Eastern Provincial Airways from Halifax to Deer Lake (about 30 miles from Corner Brook), where field trip participants will be met. Those driving to Newfoundland should take the Gulf ferry from North Sydney to Port-aux-Basques (138 miles from Corner Brook).

Local Field Trips

Two local field trips are being organized to areas near St. John's. The first will be a primarily marine trip along the coast and will include stops at Cape Spear, the easternmost point in North America, to examine rather typical coastal heath and barrens vegetation, and at a small outport village along the rocky coast to examine typical marine algal flora and vegetation. Scuba divers will be available to collect subtidal algae. The second local field trip will visit the Hawke Hills, ca. 600 m alt., where well developed alpine tundra occurs, with sorted frost polygons and species such as *Diapensia lapponica*, *Loiseleuria procumbens*, and the Pink Crowberry, *Empetrum nigrum*.

The herbaria at Memorial University will be available for drying of plants collected on the field trips.

Transportation to Newfoundland

Participants in the pre-meeting field trip should plan to arrive in Corner Brook (via Deer Lake if flying) and leave from St. John's. Those not taking part in the pre-meeting trip should fly directly to St. John's. Newfoundland is serviced by two airlines. Air Canada flies from Halifax, Montreal, and Toronto to St. John's (direct flights from Halifax and Toronto daily). Eastern Provincial Airways flies from all centres in the maritime provinces and from Montreal to all localities in Newfoundland.

The CN Gulf ferries have daily runs from North Sydney (N.S.) to Port-aux-Basques and to Argentia. Port-aux-Basques is on the southwest tip of Newfoundland, and 565 miles from St. John's. Argentia, on the Avalon Peninsula, is only 80 miles from St. John's. Reservations on the ferries are necessary and should be made well in advance (no later than May).

Programme

The theme of the 1978 meeting at Memorial University is "The Subarctic". In accordance with the main theme the plenary session will

Excursion principale (9-13 août)

Une excursion dans l'ouest de Terre-Neuve est en train d'être organisée pour les cinq jours avant le congrès. Les participants se rencontreront à Corner Brook, au collège régional de l'Université Memorial, le soir du 8 août, et l'excursion commencera le lendemain matin. Trois jours seront alloués aux environs du parc national Gros Morne: aux tourbières calcaires et environs de Western Brook Pond; aux pentes et plateaux de serpentine avec leur flore si intéressante; à la toundra de Gros Morne et aux forêts bien développées dans les basse-terres. Le 12 août l'excursion traversera l'île de Terre-Neuve et se rendra au parc national Terra Nova, sur la côte est. Le lendemain l'excursion se terminera à St. John's, vers midi, donnant aux participants un après-midi libre à St. John's. Les membres qui veulent participer à l'excursion principale devraient se rendre à Corner Brook le 8 août. L'aéroport le plus convenient est celui de Deer Lake, à 30 milles de Corner Brook (vols direct de Halifax). Ceux qui désirent se rendre à Corner Brook en auto doivent prendre le traversier du CN de North Sydney (Nouvelle-Ecosse) à Port-aux-Basques (138 milles de Corner Brook).

Excursions locales

Il y aura deux excursions locales durant le congrès. L'une sera le long de la côte Atlantique, avec arrêts à Cape Spear, la limite est de l'Amérique du Nord, qui a une végétation arbustive, et aussi à un petit village typique pour examiner la flore d'algues maritimes et végétation des côtes rocheuses. Des plongeurs pourront collectionner les algues d'eau profonde. L'autre excursion locale visitera les Hawke Hills, à ca. 600 m d'altitude, où il y a une végétation de toundra alpine avec, par exemple, le *Diapensia lapponica*, le *Loiseleuria procumbens*, et l'*Empetrum nigrum*.

Les herbiers du Département de Biologie à Memorial seront disponibles aux botanistes qui veulent faire sécher leur plantes collectées pendant les excursions.

Voyages à Terre-Neuve

Les participants à l'excursion principale avant le congrès devraient se rendre à Corner Brook (voir ci-haut) et, à la fin du congrès, partir de St. John's. Terre-Neuve est desservie par Air Canada et Eastern Provincial Airways. Il y a des vols d'Air Canada direct à St. John's de Toronto et de Halifax, et, avec arrêt à Halifax, de Montréal et de plusieurs autres villes. Les vols d'Eastern Provincial Airways desservent tout les régions de l'est du Canada.

Les traversiers du CN partent de North Sydney (Nouvelle-Ecosse) et voyagent une fois par jour à Port-aux-Basques (à 565 milles de St. John's), et à Argentia (à 80 milles de St. John's). Il faut faire les réservations de bonne heure, au plus tard au mois de mai.



Memorial University Campus

Ben Hansen

take the form of a symposium on the Subarctic. The keynote address will be delivered by Dr. Teuvo Ahti, Department of Botany, University of Helsinki, Finland. Dr. Ahti has had extensive experience in subarctic regions in Europe as well as in North America. Other participants in the symposium will include Dr. A.W.H. Damman, University of Connecticut, Storrs, Ct., U.S.A., Dr. Hamish Duthie, University of Waterloo, Ontario, Dr. J.C. Ritchie, Scarborough College, University of Toronto, and Dr. R.T. Wilce, University of Massachusetts, Amherst, Mass., U.S.A. The topics covered by the participants will reflect their various interests and disciplines, from phytoplankton of subarctic lakes, to vegetation history of the Subarctic, to the development and flora and vegetation of subarctic bogs.

This announcement is the first call for papers for the 1978 CBA meeting. The deadline for submission of papers is 31 March 1978. Contributed papers on all aspects of botany are requested, and will be grouped by discipline into several contributed paper sessions. Students are particularly urged to submit papers; the student paper competition will be held as in the past, with the best paper presented by a student winning a prize of \$50.

A special informal session on early Newfoundland botanists is also planned. Come and hear about the lives and contributions to Newfoundland botany of A.B. de la Pylaie, the French botanist who visited Newfoundland in the early 1800s, Rev. A.C. Waghorne, Newfoundland and Labrador botanist and missionary, and Agnes Marion Ayre, whose Newfoundland plants are supplemented by several hundred drawings.

Oxen Pond Botanic Park

A special tour is being organized for participants at the CBA meeting to Oxen Pond Botanic Park, being developed by Memorial University into an area where as many native Newfoundland and Labrador plants can be grown in as near natural conditions as possible. The Botanic Park, which opened to the general public in July 1977 consists of a large number of nature trails through various habitats represented in Newfoundland, and a building with interior displays, lecture room, workshop, and offices. Included in the CBA tour will be the special propagation facilities which have been used to successfully propagate numerous native species for eventual transplantation into the Botanic Park habitats. A large rock garden has also been designed to show many native plants, and among the rarities that are now well-established are Salix reticulata, Saxifraga caespitosa, and Saxifraga oppositifolia. A special area has also been set aside for native ericaceous shrubs. A small reception hosted by Oxen Pond Botanic Park is also planned.

Social Programme

The banquet presentation of awards will be followed by some lively Newfoundland entertainment. A number of informal receptions are also planned during the meetings. Trips to local places of interest are being organized for spouses.

Registration

Registration forms will be mailed early in 1978. The registration fee is likely to be about \$30.00 for regular members and \$20.00 for students.

Programme

Etant donné que le thème du congrès de 1978 est "le Subarctique", la réunion plénière consistera d'un symposium qui traitera de ce sujet. L'adresse principale sera donnée par le Dr Teuvo Ahti, Université de Helsinki, Finlande, qui connaît bien la zone subarctique tant en Europe qu'en Amérique. Quatre autres conférenciers prendront part au symposium: Dr A.W.H. Damman, Université de Connecticut, E.-U., Dr H. Duthie, Université de Waterloo, Dr J.C. Ritchie, Université de Toronto, et Dr R.T. Wilce, Université de Massachusetts, E.-U. Les diverses disciplines que représentent ces conférenciers y comprennent la végétation post-glaciale dans le subarctique, le développement et la flore des tourbières, et le phytoplancton de lacs subarctiques.

Cette annonce constitue le premier appel pour communications. La date limite pour retour des résumés est le 31 mars 1978. Les communications peuvent traiter aucun sujet botanique et seront organisées en groupes par disciplines. Les étudiants sont surtout priés de soumettre des communications; nous vous rappelons du prix Lionel Cinq-Mars (\$50.) décerné à la meilleure communication présentée par un étudiant.

Une soirée spéciale sera allouée aux contributions à la botanique de Terre-Neuve de trois botanistes négligés: A.B. de la Pylaie, A.C. Waghorne, et Agnes Marion Ayre.

Oxen Pond Botanic Park

Il y aura une excursion accompagnée au parc botanique "Oxen Pond" près de St. John's. Ce parc, que l'université est en train de créer, et qui est ouvert au public que depuis le mois de juillet 1977, a pour but de mettre en vue, dans des habitats aussi naturels que possible, les plantes de Terre-Neuve et du Labrador. Un nouvel édifice contient des étalages intérieurs, une salle de lecture, ainsi que des bureaux. On verra aussi les méthodes de propagation des plantes indigènes, qui ont déjà contribué plusieurs espèces aux habitats du parc. Parmi les plantes maintenant établies dans le jardin de rocaille sont le Salix reticulata, le Saxifraga caespitosa, et le Saxifraga oppositifolia. Un endroit est réservé pour les éricacées indigènes.

Programme Social

Le banquet sera suivi de divertissements à la mode de Terre-Neuve. Durant le congrès il y aura aussi quelques réceptions informelles. Pour les épouses/époux il y aura des visites à plusieurs endroits d'intérêt autour de St. John's.

Inscription

Les formules d'inscription seront postées vers le mois de février 1978. Il est tout probable que les frais d'inscription seront d'environ \$30.00 pour membres réguliers, et \$20.00 pour étudiants.

Accommodation and meals

On-Campus. Participants are urged to take advantage of the package plans offered in the Memorial University residences. Total costs will be about \$80.00 for single room and meal plan; \$72.00 for double room and meal plan. The above estimates include all meals except the banquet, maid service, and rooms will be provided with towels, soap, ice, coffee.

Off-campus. For those who may wish to stay off-campus, a list of convenient hotels and motels will be sent with the registration forms. There is only one trailer site near St. John's - details will also be included with the registration package.

Photo Salon

The photo and botanical illustration competition will take place and will be held in the Arts and Culture Centre, just off campus. Details will be included with the registration package.

Logement et repas

Les délégués sont priés de prendre avantage du plan commode offert par l'université. Les taux seront approximativement comme suit: \$80.00 pour chambre simple et repas; \$72.00 pour chambre double et repas. Ces taux comprennent tout les repas sauf le banquet, ainsi que les serviettes, savon, glace, et café dans la chambre.

Hors-campus

Pour ceux qui désirent s'établir ailleurs qu'au campus, il y a plusieurs hôtels et motels près de l'université. Il n'y a qu'un seul terrain pour roulottes près de St. John's. Les détails seront inclus avec les formules d'inscription.

Concours de photos

Le concours de photos et d'illustrations botaniques se tiendra au Arts and Culture Centre de St. John's, tout près du campus. Les détails seront inclus avec les formules d'inscription.

GOVERNMENT SCIENTISTS AND CONFERENCES

For at least two years there has been considerable concern at apparent Federal Government policy on limiting attendance of government scientists at non-governmental conferences. This has had a serious impact on scientific societies such as our own, for an important part of our membership who normally support and attend our annual meetings are government personnel. Representations were made to Government both from our Regional Annual Meeting and again last year from our Winnipeg meeting with a cable sent by our President to Mr. Andras, President of the Treasury Board. Two letters of reply from Mr. Andras are printed below with his permission. These indicate that our concerns were effectively expressed and have had some impact, for a change in Government policy is announced in the letters.

Dear Dr. Gorham:

I refer to the telex of June 30, 1977 sent jointly by the Canadian Botanical Association and the Genetics Society of Canada, advising of the resolution adopted at the joint conference of the two bodies held in Winnipeg during the last week of June. The resolution expressed concern about attendance of public servants at non-governmental conferences and requested the withdrawal of this specific restraint measure to allow government scientists to participate in at least one scientific meeting per year.

The restraint measure to which you refer was one of a number introduced in January 1976 as a means of reducing federal government administrative expenditures. Each of the measures introduced at that time was carefully reviewed to determine the negative impact it might have on the achievement of departmental objectives.

It was the decision of the Treasury Board that these measures, including a tightening of attendance at non-governmental conferences, could lead to significant savings in administrative expenditures without adversely affecting normal government program objectives.

The Treasury Board recognized, however, that such a limitation on attendance at non-governmental conferences would not be appropriate in all cases. As a result, departments may request Treasury Board authority to send additional representatives if, in view of the special circumstances surrounding the conference or meeting, increased representation is necessary to contribute to the goals of the department. Reasons considered acceptable by the Treasury Board for exceeding the limit of one representative per department include: to participate in an official capacity; to present a paper; to cover concurrent sessions of interest to the department; to provide specialized expertise for reporting purposes; to participate in program planning and/or implementation of specialized areas of direct interest to program objectives; and to provide regional representation essential to achieving program objectives. I believe that the above criteria provide the necessary flexibility to allow multiple attendance where such attendance is necessary and, therefore, that the policy does not have the negative effect on the scientific community envisaged in your telex.

Acceptance of the resolution of the two organizations that all government scientists be permitted to attend at least one scientific meeting per year would defeat the purpose of the restraint on two accounts. First, attendance at any meeting should relate to a program-oriented need and therefore should continue to be at the discretion of the employer. Second, where the need for attendance exists, those best qualified to attend should participate and not merely be chosen on a rotational basis to ensure that each

individual scientist obtains his minimum quota of one meeting per year.

While Treasury Board is not prepared to relax the restrictions on attendance at non-governmental conferences at this time, its effect on government operations is being reviewed to ensure that it does not impair the achievement of departmental objectives. When a relaxation can be introduced without impairing the overall objectives of the restraint program, such action will be taken. In the meantime, individual exceptions will continue to be considered on their own merit.

I appreciate the interest expressed by the Canadian Botanical Association and the Genetics Society of Canada in maintaining a well-informed science community within the Federal Public Service. I can assure you that the Treasury Board shares this interest. I believe, however, that this common goal can be achieved within the current program of administrative restraint.

Yours sincerely,
Robert Andras
July 18, 1977

Dear Dr. Gorham:

I refer to your letter of October 5, 1977, requesting permission to publish in the forthcoming issues of the Canadian Botanical Association Bulletin and the journal of the Genetics Society of Canada, the full text of my letter of July 18, 1977, explaining the Treasury Board policy with respect to the attendance of more than one public servant at a non-governmental conference.

I have no objection to your request and consider that it might be of interest to your members to understand both the reasons behind the restraint measure and the flexibility of the Treasury Board policy in ensuring that, while restraint is practised, normal departmental program objectives are not being sacrificed. There has been a common belief by various national organizations that the Treasury Board restraint measure was being implemented without consideration of the possible adverse effects of not having multiple representation at their conferences. I believe my letter of July 18, 1977 sets aside the concern, where the need for multiple attendance can be justified.

In my previous letter, I indicated that the Treasury Board was not prepared at that time to relax the restrictions on attendance at non-governmental conferences. While this major theme remains in effect, I am pleased to advise you that the Treasury Board has recently approved the promulgation of a revised conference directive, effective January 1, 1978. The criteria for multiple attendance at non-governmental conferences, as set out in my previous letter, will remain in effect, however, the authorization of multiple attendance will be returned to departmental control. This action will place the decision for attendance in the hands of those who are responsible for program performance. This action is considered appropriate at this time because

departmental practices in this area have been brought into alignment with the Treasury Board's concern for restraint.

Your desire to acquaint members of your organization and the Genetics Society of Canada with the Treasury Board policy in this area is appreciated. I believe that your efforts will enable the members of both organizations to understand the position that the federal government has taken to balance restraint with achievement of program objectives.

Yours sincerely
Robert Andras
November 2, 1977

NATIONAL BOTANICAL GARDEN SYSTEM

A resolution was adopted at last summer's annual general meeting endorsing the NBGS and requesting the Federal Government to implement the programme without further delay. The following letters were received by our President from Mr. Faulkner and Mr. Whelan. It is apparent that the proposals must remain in cold storage until such time as Government considers the financial climate to be more favourable.

Dear Dr. Gorham:

Thank you for informing me in your July 8 letter of the resolution of the Canadian Botanical Association supporting implementation of the National Botanical Garden System for Canada.

As you are aware, MOSST has been interested in, and has supported the concept of, the National Botanical Garden System for Canada since it was officially proposed to us in 1973. This situation has not changed, and we still hold the view that implementation of this proposal could offer unique scientific, social and cultural benefits to Canadians.

Implementation of the proposal, however, is the responsibility of the Department of Agriculture and, in the course of events, will be subject to the government's budgetary allocation processes in the same way as all other departmental programs. Although MOSST has no jurisdiction in these matters, we will support the proposal on such occasions as it is appropriate for us to do so. In this connection, I am sending a copy of this letter to my colleague, the Minister of Agriculture.

Yours sincerely,
J. Hugh Faulkner
September 15, 1977

Dear Dr. Gorham:

Thank you for advising me of the resolution adopted by your Association on the implementation of the National Botanical Garden System for Canada. I note that your Association had passed a similar resolution in recent years.

As you are probably aware, Agriculture Canada has the jurisdiction for liaison and

funding of any such system. I am very much aware of the merits and the desirability of such a system and I have supported the concept since it was first introduced.

I reviewed the proposal again just a few weeks ago with my senior officials. Although the proposal is still sound and worthy of support, I feel that it would be very difficult to ask Treasury Board for the funding of a new program at this critical stage of government restraint on the spending of public funds.

You have my assurance that when the government's financial restraint policy is more favourable, I will ask for another review and possible implementation. Please ask your membership to understand our position under current conditions.

Yours sincerely,
Eugene Whelan
Minister of Agriculture
August 10, 1977

BCC

The following notes are taken from the report submitted by the President, Dr. D.F. Mettrick to the Fall meeting.

In mid-June, Council was informed of the proposal by the Treasury Board that the NRC should transfer, by April 1st, 1978, responsibility for the publication of their science journals to the new Natural Sciences and Engineering Research Council, who in turn would contract out to the private sector complete responsibility for editorial work and publishing. Canadian scientific journals play a vital role in the transfer of information and ideas originating in Canada to the national and international scientific community, and Council was very concerned about the future of these journals if they were transferred to the private sector at such short notice. Indeed, many of the papers that will appear in the April volumes next year had already been submitted or accepted when the Treasury Board made this proposal.

Council submitted a Brief to the Prime Minister calling for an extension of time for the transfer so that there could be discussions between the government, the NRC and the scientific community on the matter, including a consideration of the commissioned Royal Society report on Scientific Publishing in Canada. On November 1st, Mr. Buchanan gave his assurance that the Treasury Board had agreed to our request, and that no action would be taken until this consultative process had taken place. There appears, however, to be a strong feeling in government that the separation of the journals from the NRC responsibility will eventually occur.

A continuing area of concern is the establishment and membership of the new granting council and of the new developments in funding philosophies. The Minister and his advisors have assured us that the establishment of the new council is their first priority, but it is obvious that the change in Ministers and the Assistant Secretaryship (Universities) has resulted in delays so that there is now talk of

'early in 1978' instead of 'Fall 1977'. We are continuing to push hard for substantial biological representation on the new council, and for a clear separation of responsibility between the new council and MOSST, so that we do not have a repetition of last February when the NRC was 'instructed' on matters such as the number of grants to be awarded, and the % of equipment requests to be funded. These should rightly be the prerogative of the council and the granting committees. However, questions which the biological community will soon have to answer include: "How many grants in biology should there be?; Is the present figure of about 1000 appropriate?; Is the distribution between the different areas of biology representative?; How far could the number be reduced without critically affecting the breadth and/or depth of our research capability?".

CANADIAN INSTITUTE OF BIOLOGY

The proposals to create the institute have not received the necessary support from a large enough number of biologists. Hence it is now unlikely that the institute will be formed. The Executive Committee of the CBA/ABC at its October meeting passed the following motion "If the C.I.B. is not successful, CBA/ABC go on record for continuation of support for B.C.C. with substantially increased financial support to enable it to accomplish the lobbying tasks originally proposed for the C.I.B." The Genetics Society of Canada has also indicated that they are prepared to double their present per capita fee to B.C.C. for the same purpose.

THE RARE AND ENDANGERED PLANTS PROJECT OF THE NATIONAL MUSEUM

The Rare Vascular Plants of Ontario, by George W. Argus and David J. White, has just been published by the National Museum of Natural Sciences in Ottawa. The list contains 611 species of vascular plants which are candidates for rare plant status. Some of these plants may require protection in order to insure their continued existence. Although the list is based on the best available information all of the listed plants require confirmation of their rare status by detailed mapping, field-checking and information from persons with special knowledge. The assistance of all naturalists and botanists is solicited in this work.

The list contains those vascular plants which occur either in a small geographical area within Ontario or which occur sparsely over a wider area. For each plant the following information is given: references supporting its inclusion on the list, its distribution in northern North America, references to distribution maps, its rare status in Canada and the adjacent United States, and legal protection that is given to the plant in Canada and the United States.

Similar lists for Alberta and Nova Scotia have also been prepared and publication is expected in February.

Copies of the lists may be obtained by writing to: The Rare and Endangered Plants Project, Museum of Natural Sciences, Botany Division, Ottawa, Ontario, K1A 0M8. - George W. Argus

CBA/ABC SPONSORSHIP OF LOCAL OR REGIONAL ONE-DAY WORKSHOPS

Your Executive wishes to encourage the membership (student as well as regular) to organize one-day workshops on specific botanical topics for the benefit of CBA/ABC members (and invited non-members) at their own university or government laboratory and those at nearby (100-200 km.) universities or government laboratories. These workshops are for the purpose of promoting discussion of on-going and projected research by staff and students with some time devoted to discussion of plants and pertinent techniques, as well as of hard data and firm conclusions, and to do this in a less-formal manner than at the Annual Meetings.

Organizers of such workshops can do the Association a service by publicizing them as CBA/ABC-sponsored activities and using them to promote new memberships.

Provided such workshops are held at a time and place that doesn't conflict with the Association's annual meeting, that CBA/ABC members in the locale or region in question are notified in advance (so they have a chance to attend if they are interested) and that a notice and report are published in the Bulletin, your Executive feels that they will help to promote interest in the Association and should be designated and publicized as CBA/ABC workshops.

To obtain approval for a one-day CBA/ABC workshop the following guidelines will apply; Organizer(s) should:

- (1) Write to the President of CBA/ABC (copies to the Secretary and Editor of the Bulletin) for approval, enclosing a copy of the Notice intended for publication in the Bulletin (deadlines -- 1st of December, March, June and September for publication in the January, April, July and October issues respectively).
- (2) Request the Editor to send him the CBA/ABC membership address list. This may be available on individual gummed labels.
- (3) Select the addresses of all members in the locale or region in question and send them a copy of the Notice.
- (4) Undertake to submit a small report on the highlights of the workshop, including the attendance, to the Editor (copies to the President and Secretary) for publication in the Bulletin.
- (5) Actively solicit memberships in CBA/ABC at the Workshop or meeting.

PLANT DEVELOPMENTAL WORKSHOP

At the 1977 annual meeting, in Winnipeg, it was decided to hold an informal workshop in plant development sometime towards the end of the year. The objective was to bring together workers interested in this area and, it was hoped to stimulate interaction between them. The first workshop was held on 29 October and was organized by Dr. D. Davidson (McMaster University).

In the initial discussions, it was decided to limit the meeting to one day and to hold it at a central location, in order to minimize the

time spent in travelling. The first notices for the meeting, therefore, were sent to universities in southeastern Ontario; subsequently, notices were also sent to Carleton and Lakehead. The response to the notices was enthusiastic and the first workshop was held on 29 October in the Biology Department at McMaster; 36 people attended.

The papers presented in the two sessions, 9.20 to 12.30 and 2.00 to 4.30 were as follows:

1. Dr. R.L. Peterson. Root cap structure in the fern, Ophioglossum.
2. Dr. N.G. Dengler. The effect of light intensity on the processes of cell division and cell enlargement during leaf development.
3. Mr. J.E. Thomas. Nuclear growth in root cells during germination of Vicia faba.
4. Dr. U. Posluszny. Dichotomous branching in apical meristems.
5. Mrs. M. Scott. Development of the endodermis in Ranunculus.
6. Dr. W. Newcomb. Development of nitrogen-fixing root nodules.
7. Mr. R.L. White. Differential growth of sister nuclei in binucleate microspores of Tradescantia paludosa.
8. Dr. R.I. Greyson and Dr. D.B. Walden. The ABPHYL syndrome in Zea mays.
9. Mr. S.W. Armstrong. Caffeine effects on cell proliferation in roots of Vicia faba.
10. Dr. W.E. Rauser, Mr. G.D. Hogan and Mr. A.B. Samarakoon. Phytotoxic burdens of heavy metal ions: relative tolerance in Agrostis gigantea and early responses in Phaseolus vulgaris.
11. Dr. R.F. Horton and Ms. J. Fregean. Growth regulations and assimilate transport.

Shoot meristem organization and how it changes during the initiation of branching was discussed by Posluszny, Greyson and Walden. Their data indicated how meristem structure would be affected by changes both in the relative spatial distribution of actively proliferating and non-proliferating cells and in the orientation of division. The sporadic occurrence of branching in Flagellaria (Posluszny) suggested genetic polymorphism for this character though it was clear from the ABPHYL syndrome that careful screening is necessary (Greyson and Walden).

Variation in rates of cell proliferation and cell enlargement were also considered during leaf development (Dengler). Difference in cell number and cell size occur in response to different light regimes and they underlie the morphological differences between leaves of sun and shade plants.

The onset of DNA replication and cell division was described for germinating roots of Vicia faba (Thomas). In the first cell cycle, which lasts about 70 hours, the cells show semi-synchrony and large nuclear volumes; subsequently roots revert to an asynchronous condition and

this is accompanied by a reduction in nuclear volume. Cell progress through the first cell cycle is being followed using gel electrophoresis. Effect of physiological changes on cell proliferating and growth (Dengler and Thomas) were also considered from another aspect, that of infection. The onset of proliferation of root cells following infection with Rhizobium was described by Newcomb. He related cell proliferation to the invasion of root hairs by the microorganism and the subsequent stimulation of mitosis in nearby cortical cells. He also discussed the subsequent development of the nodule as a system engaged in nitrogen fixation.

Further evidence on nuclear growth in proliferating cells was provided for V. faba roots (Armstrong) and for microspores of Tradescantia paludosa (White). In the roots, binucleate cells were induced by treatment with caffeine. The proliferative ability of these cells was severely impaired by exposure to caffeine; only 10% of the cells underwent DNA replication and subsequently divided. Furthermore, mean nuclear volume showed a progressive reduction over 14 hours (Armstrong). Binucleate microspores were induced by heat shocks; the nuclei grew throughout interphase but the two sister nuclei did not grow at the same rate. The difference in mean volume between the larger and smaller nucleus of each cell suggested that differential growth was regulated by a nuclear factor, not by a difference in the cytoplasmic microenvironment of each nucleus (White).

The problems of gradients in cells, raised by some of the papers, was also implied in the analysis of cell-proliferation and development in the root cap of Ophioglossum (Peterson). Significant physiological changes occur over 2-3 cell cycles in the roots of this fern; they lead to the synthesis of starch and of polyphenolic compounds. A variety of techniques were applied in order to determine the site of synthesis of the phenolic compounds within cells and their mode of export (Peterson). This led to a discussion of differential gene activity in lineages of proliferating cells and to the question of the mode of synthesis of specialized components of cells' walls. This was analysed further in terms of the formation of the casparian strip of cells of the endodermis of roots of Ranunculus.

The mature endodermis of Ranunculus roots has a complex wall structure; it includes cellulose, suberin and lignin (Scott). The stages in the development of the tertiary wall complex was described from studies that have used SEM, TEM and histochemistry. The intracellular source of the wall components, their export and their mode of deposition were also described; the results illustrated the importance of the golgi apparatus in a regulated pattern of synthesis and export of the constituents used in the formation of specialized cell walls.

Physiological aspects of development were discussed in two papers. The basis of tolerance to heavy metals was studied by comparing the responses of different ecotypes of Agrostis gigantea to heavy metal treatments (Rausser, Hogan and Samarakoon); the results showed that neither differential binding of copper by root cell walls nor differential absorption could account for tolerance to copper. Parallel studies on leaves of Phaseolus showed that exposure to solutions of heavy metals resulted in

an accumulation of sugars and starch; together with an increase in the level of soluble phenolic compounds.

Transport of photosynthetic assimilate was also discussed by Horton and Fregean. The part played by growth regulators in altering the rate of phloem translocation was tested using primary leaves of Phaseolus vulgaris; phloem translocation is one component of the postulated process of hormone directed transport of assimilate from leaves to sinks. Four growth regulators were tested; none had detectable effects on phloem translocation.

The papers stimulated considerable discussion, which was carried over into coffee and lunch breaks. In that respect, and in terms of bringing together a number of plant developmental biologists, the meeting was obviously successful. It also provided the opportunity for the presentation of one paper specifically designed to pose an experimental problem (Lott) and the response to that paper showed that an informal workshop has a great deal to offer in the way of discussion.

It was decided to meet again in April 1978. The forthcoming meeting will be held at the University of Western Ontario and will be organized by Dr. R.I. Greyson. Details of the April meeting will appear in a subsequent issue of the Bulletin. D. Davidson

RESOLUTIONS

Resolutions for consideration at the next Annual General Meeting should be submitted to:- Dr. Janet Dugle, Secretary, CBA/ABC, Environmental Research, Whiteshell Nuclear Research Establishment, Pinawa, Manitoba, ROE 1LO. They should be submitted at least ten weeks prior to the meeting. Each resolution requires a mover and four seconders, all members in good standing of the CBA/ABC. To be admitted to the agenda, each resolution must specify to whom it will be addressed, and must be accompanied by a supporting brief. (See by-law 13 of our constitution).

MARY ELLIOTT SERVICE AWARD

The CBA executive has voted unanimously to establish a new award named in honour of the late Mary Elliott, president of the Association 1975-1976. This award is for meritorious service to the CBA/ABC and will be awarded at the annual meeting on a discretionary basis.

Nominations should be submitted to the chairman of the awards committee, Dr. Paul Gorham, Department of Botany, University of Alberta, Edmonton, Alberta T6G 2E9 by March 1, 1978. A citation of about 100 words should be included with the nomination.

NOTES FROM THE SYSTEMATICS & PHYTOGEOGRAPHY SECTION

One of the difficulties of working in a large country, particularly in times of limited travel money, is finding out what is going on away from one's own home base. In an attempt to alleviate this problem several members were asked to give a quick run down on the activities in their own area. A synopsis of the information we received is given below. Any reader who knows of other activities which would be of interest to the members of the section are asked to write or phone either J. Gillett¹ or M. Barkworth² so their information can be included in the next bulletin, together with that which we have received but been unable to incorporate this time around.

¹Dr. J. Gillett, Curator, National Herbarium, National Museum of Natural Sciences, Botany Division, Ottawa K1A 0M8 (613-995-9252)

²Dr. M. Barkworth, Biosystematics Research Inst. Central Experimental Farm, Ottawa, Ontario K1A 0C6 (613-994-9608)

Memorial University, Newfoundland (Contact: Dr. P. Scott)

Ross Wein is working on the taxonomy of Epilobium, using primarily comparative morphology and cytotaxonomy.

Craig Green is studying the arctic-alpine bogs of the island.

Teuvo Ahti, of the University of Helsinki, has been examining the lichen flora of the island. Some of his papers may be found in the *Annales Botanici Fennici*.

Sandy Robertson has written a Key and Manual for the sedges of Newfoundland.

Glen Ryan has written a book on the Shrubs of Newfoundland which he is expanding to include the trees.

Robin Day is conducting an autoecological study of Diapensia lapponica.

Peter Scott is working on a Flora of Newfoundland. The key to the families is complete as well as many of the keys to genera and species. He has already published illustrated books on the Edible Fruits and Herbs of Newfoundland and is writing the textual material for a book on Newfoundland plants which will be illustrated by reproductions of 250 (or more) water color paintings by Dorothy Black. Hopefully it will be published next summer, in time for the CBA meetings.

And on this last topic: preparations for the meeting are well underway. Those with good botanical photographs will be interested to know that arrangements have been made to hold the Photo Salon in the Arts and Culture centre of St. John's where it will be possible to display the entries to their advantage. The display will be up for a period of three weeks.

Acadia University, Nova Scotia (Contact: Dr. S. VanderKloet)

D.W. Grund and K.A. Harrison have just completed a study of the Nova Scotian Boletes and are preparing the Algal Flora of N.S.

G.R. Daborn, Editor (1977) *Fundy Tidal Power and the Environment*. Proceedings. The Acadia University Institute Publisher. \$10.00 from the University Book Store.

Sam VanderKloet is preparing a monograph of Vaccinium and Cyanococcus (the North American Blueberries).

Lakehead University, Ontario (Contact: Dr. D. Lindsay)

Doug Lindsay is looking into environmental factors affecting weeds, particularly those of railway yards and has a student examining the reproductive biology (both sexual and vegetative) of Clintonia borealis.

British Columbia (Contact: Dr. T.C. Brayshaw)

A checklist of plants of Mount Robson Provincial Park, prepared by the late Dr. C.C. Chuang, is being printed by the B.C. Provincial Parks Branch, Dept. of Recreation and Conservation, and should soon be ready for distribution. Contact Mr. J.E. Underhill of that branch.

In connection with the B.C. Provincial Museum, T.M.C. Taylor is preparing handbooks on Cyperaceae, Cruciferae and Boraginaceae. G.W. Douglas is studying the Compositae with a view to preparing a handbook. L.E. Pavlick, Assistant Curator of Botany, is starting a revision of the Grasses of B.C. T. Brayshaw hopes to re-start work on the Helobiae next year, after some years of activity diverted elsewhere.

Various ecological studies have been prepared in connection with the Ecological Reserves in the province as well as the Environment and Land Use Commission. Further information concerning the reports of these studies has been sought and will be published in a later bulletin.

PERSONALIA

Erling Porsild. Members will be saddened to learn of the death of Dr. Porsild in Vienna on November 13th. He was a distinguished Canadian botanist and recipient of our George Lawson medal. A fuller appreciation will appear in the next issue of the Bulletin.

Tikvah Edelstein 1926-1977 Dr. T. Edelstein died of cancer on October 7. She was born in Israel, and received her Ph.D. degree in 1961 under Professor T. Rayss at the Hebrew University. Her dissertation was on the benthic marine algae of the Haifa Bay area. She had been a lecturer at the Technion-Israel Institute of Technology from 1955 to 1962, when she came to the United States. She spent a year both at Cornell University and Michigan State University, and in 1964 was appointed to the staff of the Atlantic Regional Laboratory as an algal taxonomist. During the subsequent 13 years, Dr. Edelstein studied the benthic marine algae of the Maritime Provinces and particularly Nova Scotia, her interests being especially in floristics and life histories. She published about 60 papers, of which more than 50 were on her investigations at the Atlantic Regional Laboratory. As a result her work represents a major contribution to the knowledge of the marine algae of this region. She was largely responsible for building up the Marine Algae Herbarium of the Atlantic Regional Laboratory to become one of the major herbaria in the country, and on the east coast of North America. Dr. Edelstein was a member of numerous professional societies, and had been an Associate Editor of the Canadian Journal of Botany since 1970 - J. McLachlan.

THE DARBAKER PRIZE IN PHYCOLOGY

The Committee on the Darbaker Prize of the Botanical Society of America will accept nominations for an award to be announced at the Annual Meeting of the Society at Virginia Polytechnic Institute and State University, Blacksburg, in June 1978. Under the terms of the bequest, the Award is to be made for meritorious work in the study of microscopical algae in all its facets. At present, the Award is limited to residents of North America, and only papers published in the English language will be considered. The value of the prize for 1978 is expected to be about \$425. The Committee will base its judgment primarily on the papers published by the nominee during the last two full calendar years, i.e., papers dated 1976 and 1977. Nominations for the 1978 award, accompanied by a thorough statement of the merits of the case and by reprints of the publications for 1976 and 1977 supporting the candidate, must be received by March 1, 1978 by the Chairman of the Committee, Dr. Larry R. Hoffman, Department of Botany, University of Illinois, Urbana, Illinois 61801. For further information write the Chairman or call him at (217) 333-0048 or 344-3466.

DOBZHANSKY MEMORIAL PRIZE

The Society for the Study of Evolution is instituting the Theodosius Dobzhansky Memorial Prize, to be awarded annually to a young scientist for support of field or laboratory research in evolution. Contributions are being solicited by a committee of Dobzhansky's friends, but should be made payable to the Society for the Study of Evolution and mailed to: Dobzhansky Memorial Committee, c/o Prof. Howard Levene, Room 619 Mathematics, Columbia University, New York, New York 10027, U.S.A.

CONFERENCES & MEETINGS

The Canadian Land Reclamation Association Third Annual Meeting will be held at Laurentian University, Sudbury, Ontario, 29-31 May, 1978 (with an optional field trip on 1 June). For more information contact Professor K. Winterhalder, Department of Biology, Laurentian University, Sudbury, Ontario P3E 2C6.

Preliminary programme of the Second International Congress of Ecology.

The Congress (INTECOL 1978) will be held in Jerusalem, Israel, 10-16 September, 1978 and the themes are : structure and function of desert and semi-desert ecosystems; structure and function of tropical forest ecosystems; ecological effects of development projects; and recent advances in ecological theory. Other topics of interest to Canadians include: Ecological basis for coastal zone management (MAB project); aquatic ecological indices; microbe-mediated transformation in biogeochemical cycles.

There remains the possibility that interested Canadians might obtain funds from the Ecological Society of America - National Science

Foundation (see the last issue of the Bulletin 10(4) : 42). Participants might also consider the substantial savings offered by Lawson, McKay Tours for special group fares. Thirty ecologists have already booked reservations. Dr. H.A. Regier, Institute of Environmental Studies, University of Toronto, and a member of the Steering Committee for INTECOL 1978 has helped arrange this offer. Reservations for accommodations are currently being finalised in Israel by Lawson, McKay. Further information may be obtained from either Dr. Regier or Mr. J.P. Schweizer, Sales Manager, Conference Division, Lawson, McKay Tours Ltd., 11 Adelaide St. West, Suite 903, Toronto, Ontario M5H 1L9 (416-364-0622).

International Congress for Energy and the Ecosystem. The Congress will be held at the University of North Dakota, Grand Forks, North Dakota on June 12-16, 1978. It is expected to attract scientists, public officials, industrialists, educators, environmentalists and others involved in aspects of surface coal mine development and reclamation. Although reclamation aspects will be stressed, the Congress will also focus on planning and economics. Persons interested should write for fuller information to International Congress Headquarters, Box 8122, University Station, Grand Forks, North Dakota 58202, U.S.A.

PUBLICATIONS

Ecology Field Glossary: a Naturalist's Vocabulary, by Walter H. Lewis. Greenwood Press, Westport, Connecticut and London, England, 1977. xi + 153 pp. U.S. \$15.00

Ecology and evolutionary biology interact extensively with such fields as geology, climatology, and limnology, yet little of the vocabulary of the latter disciplines has hitherto been included in biological dictionaries. Ecology, moreover, has greatly enriched its vocabulary in recent years. Some of its new terms, especially those related to environmental quality and contamination, are frequently encountered in the popular press. Yet because so many supposedly new scientific dictionaries have been scarcely more than reprints of outdated works, definitions of the more recently introduced terms have been hard to find.

Walter Lewis's Ecology Field Glossary, in welcome contrast to other biological dictionaries, brings together in one compact volume terms encountered in many diverse aspects of ecology; agamospermy, for example, is followed by agate, chinook by chitin. It should be useful not only in studies of biological communities, physiological ecology, and population dynamics, but also in such fields as ethology, biogeography, systematics, and morphology.

This is an up-to-date glossary recognizing the role of biology in social concerns, and includes terms pertaining to conservation, pollution, and occupational diseases. Value judgments are usually avoided in the definitions themselves, but examples are often drawn from current problem areas and controversies.

An innovation in format that should prove convenient as well as space-saving is the grouping of related terms under one main entry, al-

though each term is cross-referenced alphabetically. For example, such terms as monomictic and meromictic are defined under lake classification -- by circulation; this heading is followed by lake classification -- by nutrition, where oligotrophic and eutrophic lakes are contrasted. There is also an introductory section in which terms pertaining to major and subordinate subject areas are listed.

Dr. Lewis emphasizes that this book is a "primer." He restricted its size so that it could be purchased by students rather than only by their university libraries, but at U.S. \$15.00 (set type, hard cover) student purchases may be few. Biologists will be able to find some ecological terms omitted, and some terms are defined so briefly that a student will require more information before being able to use them correctly. For its purpose of enabling beginning students in ecology, and interested non-biologists, better to understand ecological literature and research, however, this glossary should prove to be well designed and useful.

- James S. Pringle

Ciba-Geigy Weed Tables.

Over a period of several years, Ciba-Geigy has published a series of page size colored drawings of the most important cropland weeds in Europe. The drawings make excellent identification illustrations for those species that are also a problem in North America. They are arranged according to the genera in which the species are found and there is a description and line drawings of leaves, flowers, and seedling appearance. There is also detailed information about flower parts, life cycle, habitat, and geographical distribution. Among the 300 species described about 160 are illustrated by water color reproductions with the text printed on the back. Each synoptic table is preceded by short introductory text stating among other things the number of adventive species compared with the total number of species of the same type of the same family. The edition is sold in a cloth bound box 32 x 22 cm in size. The tables are available for \$70 from Societe Francaise du Livre, 57, rue de l'Universite, 75007 Paris, France.

The Flora of Canada by Dr. H.J. Scoggan is being published by the National Museum of Natural Sciences of Canada in four parts at a total price of \$131. The flora provides keys for the identification of the 3269 species of vascular plants native to Canada, Alaska and Greenland, and the 884 established aliens. For each species information is provided on ecology, distribution and variation, and extensive references to the taxonomic and phytogeographic literature are given. The flora may be ordered from The Director's Office, National Museum of Natural Sciences, Ottawa, Ontario, K1A 0M8.

The History of the Botany Department at the University of Toronto by Dr. Dorothy F. Forward has been printed as a short book by the University of Toronto Press. It is an informative and highly readable account of a department that many members of the C.B.A. know from first hand experience. Copies of the book may be obtained by writing directly to Dr. Forward.

Nancy Dengler

Guide to Graduate Study in Botany for the United States and Canada. 1977.

This Guide lists 123 plant science departments in the U.S. and 19 in Canada which offer the Ph.D. degree in some area of the plant sciences. Each departmental listing includes the name and address of the institution, name of the department with number of faculty, current graduate enrollment, fields of specialization represented in the department, and name, academic background, area of specialization, and titles of recent Ph.D. theses directed for all botanical faculty in the department. 136 pages. Price \$4 (US) obtainable from Patricia K. Holmgren, Secretary, Botanical Society of America, New York Botanical Garden, Bronx, New York 10458, U.S.A.

Seeds and fruits of plants of eastern Canada and Northeastern United States by F.H. Montgomery.

University of Toronto Press, 232 pp. price \$25.00.

Professor Montgomery has done it again! He has produced another invaluable aid to the identification of our flora which is well keyed and extensively illustrated. Until the appearance of this book botanists and others who wanted to identify a seed, and did not have the rest of the plant, had nowhere to turn and were dependent on the good offices of knowledgeable colleagues, or they had the tedious task of comparing the specimens to be identified with ones in a herbarium or seed collection. Professor Montgomery's book will simplify the process and make seed and fruit identification available to all who have a modicum of botanical expertise.

The book employs a novel and apparently original key based on gross morphology, and shape in longitudinal and cross sections. The seeds (or the fruits if these are indehiscent and the means of dispersal of the plant) are, for each of the species, keyed, described and illustrated. 1100 species, both native and introduced, belonging to 118 families are included. The illustrations are all black and white photographs of the whole seed or fruit, usually shown in several views. They vary considerably in quality but most are at least adequate for their purpose. It is unfortunate that details of surface structure are not shown, for only whole seeds or fruits are illustrated. The use of scanning electron microscope photographs to illustrate these details would have made a most useful addition, for in many species they are diagnostic. Diagrammatic illustrations to show the precise meaning of the major botanical terms used in describing the seeds and fruits removes any possibility of ambiguity, and a full glossary covering almost all the terms used in the account is included. A good index to both English and Latin names enables the user to locate information rapidly. The book is well produced on a stout semigloss paper, and bound so that the pages lie flat wherever the book is opened. It is a business-like production well suited for use on the laboratory bench, with the illustrations appearing alongside the description of each species. This is a book which will be indispensable to all whose work or interests require the identification of seeds and fruits of plants from eastern North America.

J.K. Morton

INCORPORATION OF THE CBA/ABC

For some time now the Association has been looking into the question of incorporation. Dr. Patricia Roberts-Pichette and our President have, in particular, been involved in determining the necessary changes in our by-laws to enable us to incorporate. Our by-laws have had to be re-written and the proposed revised version is published below. Members are asked to consider this carefully and to submit any recommendations for alterations or amendments to our President, Dr. Paul R. Gorham, Department of Botany, University of Alberta, Edmonton, Alberta T6G 2E9 before March 1st, 1978. After that date final approval of the revised by-laws by the membership will be sought either at the next annual meeting or by referendum.

THE CANADIAN BOTANICAL ASSOCIATION

L'ASSOCIATION BOTANIQUE DU CANADA

BY-LAWS

CORPORATE SEAL

1. The seal, an impression of which is stamped in the margin hereof, shall be the seal of the CANADIAN BOTANICAL ASSOCIATION-L'ASSOCIATION BOTANIQUE DU CANADA.

MEMBERSHIP

2. Membership in the corporation shall be limited to persons having a scientific interest in Botany and shall consist of anyone whose application for admission has been accepted by the Board of Directors on behalf of the Association.

3. There shall be the following classes of membership:

- (i) Regular members
- (ii) Student members
- (iii) Retired members
- (iv) Life members

4. Regular members shall consist of persons who pay full annual dues. Regular members shall have full privileges of the Association.

5. Student members shall consist of persons registered in undergraduate or post-graduate programs in botany or biology at a recognized institution of higher learning. Student members shall have full privileges of the Association except eligibility for nomination and election to the Board of Directors of the Association. Student members shall be automatically eligible for regular membership at the end of the Association's fiscal year in which the individual ceases to be a registered student. Applicants for student membership must be sponsored by a supervising professor.

6. Retired members shall consist of those regular members who have retired from formal professional employment. They retain all privileges of a regular member.

7. Life members shall consist of those regular members who have elected to pay a one-time fee. The size of this fee shall be proposed by the Board of Directors and ratified by means of a mail ballot submitted to the membership and may be changed in amount from time to time. Life members shall have all the privileges of a regular member but are released from the payment of annual dues.

8. All applications for membership shall be submitted to the Secretary of the Association.

9. Any member may withdraw from the Association by transmitting his resignation in writing to the Secretary of the Association. Any member who has resigned is eligible for reinstatement upon payment of the current year's annual dues.

10. Members who are six months in arrears in payment of their dues shall be removed from the membership but may be reinstated upon payment of current dues.

11. Any member may be required to resign for just cause by a resolution signed by two (2) regular members and approved by a vote of three-quarters of the members at an annual meeting or a special general meeting of the Association.

HEAD OFFICE

12. Head Office of the Association shall be as follows:

BOARD OF DIRECTORS

13. The affairs of the Association shall be governed by the Board of Directors of the Association.

14. The following shall be members of the Board of Directors: The president, the immediate past-president, the president-elect, the vice-president, the secretary, the treasurer and six (6) Directors at least two (2) of whom shall reside west and two (2) east of the Ontario-Manitoba provincial boundary.

15. The Applicants for incorporation shall become the first Directors of the Association whose term of office on the Board of Directors shall be until they are replaced at the first annual meeting of the Association.

16. Membership in the Board of Directors automatically terminates if a member of the Board:

- (i) dies;
- (ii) resigns his office by delivering a written resignation to the Secretary of the Association;
- (iii) is declared a lunatic or becomes of unsound mind;
- (iv) becomes bankrupt or suspends payment of accounts with his creditors;
- (v) is removed from office by a resolution signed by two (2) members and passed by three-quarters of the members present at an annual meeting or a special general meeting of the Association;

Provided that if any vacancy in the Board of Directors shall occur for any reason contained in this paragraph, the Board may, by appointment, fill the vacancy with a member of the Association, other than a student member. The Appointee shall hold office until the next annual meeting of the Association when any unexpired term shall then be filled by election.

17. A retiring Director shall remain in office until the dissolution or adjournment of the meeting at which his retirement takes effect.

18. Directors shall not receive any stated remuneration for their services nor directly or indirectly receive any profit from their position as Directors; but, by resolution of the Board of Directors, Directors may be paid reasonable expenses incurred by them in the performance of their duty. Nothing contained in this paragraph shall be construed as precluding any Director from serving the Association in any other capacity and receiving compensation for so doing.

19. The Board of Directors may appoint such agents and engage such employees as it shall deem necessary from time to time and such persons shall have such authority, perform such duties and receive such remuneration as shall be prescribed by the Board of Directors at the time of such appointment.

20. The remuneration of all officers, agents and employees shall be fixed by the Board of Directors by resolution. Such resolution shall have force and effect only until the next annual or special general meeting of the Association when such resolution shall be confirmed by a resolution of the members, or in the absence of such confirmation by the members, then the remuneration to such officers, agents or employees shall cease to be payable from the date of such annual or special general meeting of the Association.

MEETINGS OF THE BOARD OF DIRECTORS

21. Meetings of the Board of Directors may be held at any time and place to be determined by the Directors provided that two (2) days clear notice of such meeting shall be given to each Director by the Secretary of the Association.

22. No error or omission in giving notice of any meeting of the Board of Directors, or any adjourned meeting of the Board of Directors, shall invalidate such meeting or make void any proceedings taken thereat and any Director may at any time waive notice of any such meeting and may ratify, approve and confirm any or all proceedings taken thereat.

23. There shall be at least one meeting of the Board of Directors held each year.

24. A quorum of the Board of Directors shall be six (6) members of the Board or one-half of its members whichever is the lesser.

MINUTES OF THE BOARD OF DIRECTORS

25. The Minutes of the Board of Directors shall not be available to the general membership of the Association but shall be available to the Directors, each of whom shall receive a copy of such minutes.

POWERS OF MEMBERS OF THE BOARD OF DIRECTORS

26. The Directors of the Association may administer the affairs of the Association in all things and may make, or cause to be made for the Association, in its name, any kind of contract which it may lawfully enter into and, save as hereinafter provided, may exercise all such other powers and do all such other acts and things as the Association is by its letters patent or otherwise authorized to exercise and do.

27. The Directors shall have power to authorize expenditures on behalf of the Association from time to time and may delegate by resolution to an officer or officers of the Association the right to employ and pay salaries to employees. The Directors shall have the power to enter into a trust arrangement with a Trust Company for the purpose of creating a trust fund in which the capital and interest may be made available for the benefit of promoting the interest of the Association in accordance with such terms as the Board of Directors may prescribe.

28. The Board of Directors shall take such steps as they deem advisable to enable the Association to acquire, accept, solicit or receive legacies, gifts, grants, settlements, bequests, endowments and donations of any kind whatsoever for the purpose of furthering the objects of the Association.

INDEMNITIES TO DIRECTORS AND OTHERS

29. Every Director or officer of the Association or other person who has undertaken or is about to undertake any liability on behalf of the Association and his heirs, executors, and administrators, and estate and effects, respectively, shall from time to time and at all times be indemnified and saved harmless out of the funds of the Association, from and against;

- (i) all costs, charges and expenses whatsoever which such Director, officer or other person sustains or incurs in or about any action, suit or proceedings which is brought, commenced or prosecuted against him, or in respect of any act, deed, matter or thing whatsoever made, done or permitted by him, in or about the execution of the duties of his office or in respect of any such liability;
- (ii) all other costs, charges and expenses which he sustains or incurs in or about or in relation to the affairs thereof, except such costs, charges or expenses as are occasioned by his own wilful neglect or default.

OFFICERS

30. The Officers of the Association shall be a President, Past-President, President-Elect, Vice-President, Secretary and a Treasurer.

31. The President shall be the chief executive officer of the Association. He shall preside at all meetings of the Association and of the Board of Directors. He shall have the general and active management of the affairs of the Association. He shall see that all orders and resolutions of the Board of Directors are carried into effect.

32. The Vice-President shall, in the absence or disability of the President, perform the duties and exercise the powers of the President and shall perform such other duties as shall from time to time be imposed upon him by the Board of Directors.

33. The Treasurer shall have the custody of the funds and securities of the Association and shall keep full and accurate accounts of all assets, liabilities, receipts and disbursements of the Association in the books belonging to the Association. He shall collect and disburse all funds of the Association except for those for which other provisions shall have been made in the by-laws. He shall deposit all monies, securities and other valuable effects in the name and to the credit of the Association in such chartered bank or trust company, or, in the case of securities, with such registered dealer in securities as may be designated by the Board of Directors from time to time. He shall disburse the funds of the Association as may be directed by the President or Board of Directors, taking proper vouchers for such disbursements, and shall render to the President and Directors at any meeting of the Board of Directors, or whenever they may require it, an accounting of all the transactions and a statement of the financial position of the Association. The Treasurer shall maintain a list of members in good standing. He shall also perform such other duties as may from time to time be directed by the Board of Directors.

34. The Secretary shall keep the records of the Association and shall attend all meetings and act as clerk thereof and record all votes and minutes of all proceedings of the Board of Directors and of the Association in the books to be kept for that purpose. He shall give or cause to be given notice of all meetings and shall perform such other duties as may be prescribed by the Board of Directors or President, under whose supervision he shall be. He shall be custodian of the seal of the Association, which he shall deliver only when authorized by resolution of the Board of Directors to do so and to such person or persons as may be named in the resolution.

35. The duties of all other officers of the Association shall be such as the terms of their engagement calls for or the Board of Directors requires of them.

TERMS OF OFFICE OF MEMBERS OF THE BOARD OF DIRECTORS

36. The President, Past-President, President-Elect and Vice-President shall hold office for one year.

37. The Secretary, Treasurer and other Directors shall hold office for two years.

38. The Secretary and three (3) Directors shall be elected in any one year; the Treasurer and other three (3) Directors shall be elected the following year.

NOMINATION AND ELECTION OF MEMBERS OF THE BOARD OF DIRECTORS

39. A call for nominations shall be made at the annual meeting of the Association the year prior to that in which the nominees will serve. A call for nominations shall also appear in the Association's Bulletin immediately following the annual meeting of the Association. All nominations must be delivered in writing to the Secretary of the Association by November 30th. Nominations must be signed by not less than three members in good standing. If the membership does not provide a sufficient number of nominations by the deadline of November 30th, then it shall be the duty of the Nominating Committee to complete the slate of nominations.

40. The Nominating Committee shall be composed of the three (3) members in good standing. The term of appointment for each member of this Committee shall be for three (3) years. Their appointments shall be made by the Board of Directors in such a way that only one member of the Nominating Committee will be retired each year. In a given year, one member will be appointed by the Board of Directors for a three (3)-year term. This appointment is to be made within four (4) weeks following the annual meeting of the Association.

41. All nominations must be accompanied by the consent of the nominee who shall be a regular, retired or life member in good standing.

42. A ballot bearing the names of the nominees listed in alphabetical order by office with their addresses shall be mailed to each member in good standing not less than four (4) weeks in advance of the annual meeting of the Association. Ballots must be returned to the Secretary of the Association prior to the closing date which will be established fourteen (14) days before the date of the annual meeting of the Association. If the Secretary is a nominee, the President shall appoint a returning officer who is not a current nominee.

MEETINGS OF THE ASSOCIATION

43. Thirty (30) members present at a meeting shall constitute a quorum. Each member present at a meeting shall have the right to exercise one vote.

44. Meetings of the Association shall be held at any place and at such time as the Directors shall determine after due consideration of any advice given by members at previous meetings.

45. There shall be three (3) types of meetings of members:

- (i) Annual meetings;
- (ii) Scientific meetings;
- (iii) Special general meetings.

(i) Annual Meeting

(a) Notice of the annual meeting of members, general program details and the call for papers for scientific sessions shall be mailed to all members at least sixteen (16) weeks in advance of the annual meeting.

(b) At every annual meeting, in addition to any other business that may be transacted, the report of the Directors, the financial statement and the report of the auditors shall be presented and a Board of Directors elected and auditors appointed for the ensuing year.

(c) A Chairman for local meeting arrangements shall be appointed not later than ten (10) months prior to the next annual meeting by the Board of Directors after consultation with local members of the Association.

(ii) Scientific Meetings

(a) Notice of scientific meetings shall be mailed to all members at least thirty-two (32) weeks in advance of the meetings.

(b) A paper shall be eligible for presentation at a scientific session or meeting of the Association if at least one author is a member of the Association. A paper submitted by one or more non-members may be accepted for presentation, at the discretion of the Board of Directors, if the authors are introduced in writing by a member when the paper is submitted. The name of the member who is sponsoring the paper must appear in the program and on the abstract.

(c) A Chairman for local meeting arrangements shall be appointed not later than ten (10) months prior to the next scientific meeting by the Board of Directors after consultation with local members of the Association.

(iii) Special General Meeting

(a) The Board of Directors shall have the power to call, at any time, a special general meeting of the Association.

(b) Fourteen (14) days prior written notice shall be given to each member of any special general meeting of members.

46. No error or omission in giving notice of any meeting of the Association shall invalidate such meeting or make void any proceedings taken thereat and any member may at any time waive notice of any such meeting and may ratify, approve and confirm any or all proceedings taken or had thereat. For the purpose of sending notice to any member, Director or officer for any meeting or otherwise, the address of the member, Director or officer shall be his last address recorded on the books of the Association.

VOTING AT MEETINGS

47. At all meetings of the Association every question shall be determined by a majority of votes unless otherwise specifically provided by statute or by these by-laws.

FINANCES

48. Unless otherwise ordered by the Board of Directors, the fiscal year end of the Association shall be May 31st.

49. The annual dues for regular, student and retired members shall be set from time to time by the Board of Directors and ratified by a majority of returned ballots sent to all members in good standing. Dues for the calendar year are payable on or before the 1st day of each year. The annual dues shall include indentified assessments occasioned by cooperative or affiliation agreements with or corporate membership in other organizations as approved from time to time by the Association.

50. When the Treasurer is unable to sign cheques and pay all accounts, the President shall perform the duties.

51. The members shall, at each annual meeting, appoint two (2) members as auditors to audit the accounts of the Association. The auditors shall hold office until the next annual meeting of the Association provided that the Board of Directors may fill any casual vacancy in the office of auditor. The remuneration of the auditors shall be fixed by the Board of Directors.

52. An annual audit shall be made at the end of the fiscal year and reported at the next annual meeting of the Association.

53. At the annual meeting of the Association, the Treasurer shall present a report on the current status of the Association's finances.

54. The Treasurer shall be bonded by the Association.

55. An out-going Treasurer shall have thirty (30) days grace in which to close the books, have them audited and transfer all financial business to the in-coming Treasurer.

EXECUTION OF DOCUMENTS

56. Contracts, documents or any instruments in writing requiring the signature of the Association shall be signed by the president and secretary or by any two other officers authorized by specific resolution of the Board of Directors and all contracts, documents and instruments in writing so signed shall be binding upon the Association without any further authorization or formality. The Board of Directors by resolution may give or revoke the Association's power of attorney to any registered dealer in securities for the purpose of the transferring of and dealing with any stocks, bonds and other securities of the Association. The seal of the Association when required may be affixed to contracts, documents and instruments in writing and signed as aforesaid.

SECTIONS

57. The organization of groups to be known as Sections may be authorized by the Board of Directors. The Sections may be dissolved by the Board of Directors at such time as the Section becomes inactive or for sufficient reason at any other time with the consent of two-thirds of the members of the Section.

58. A member may belong to any number of Sections.

59. The members and duly elected officers of such Sections shall be responsible to the Board of Directors for the conduct of the affairs of their Section and shall render to the Board of Directors an annual report from their Sections. Each Section shall be known as "The _____ Section of the Canadian Botanical Association/L'Association Botanique du Canada."

60. Although the Board of Directors, at its discretion, may contribute Association's funds to a Section, the Sections shall not commit any Association funds for any purposes without the authorization of the Board of Directors.

61. Each Section, may, with the approval of the Board of Directors, make its own arrangements for the raising of the necessary funds for the proper conduct of its operations. Accounting of all such funds shall be rendered to the Treasurer of the Association at the end of each fiscal year.

COOPERATION WITH OTHER ORGANIZATIONS

62. The Board of Directors may arrange for cooperation, not inconsistent with the Letters Patent and by-laws of the Association, with other organizations having similar interests for mutual benefit and for the further advancement of botany and biology.

AMENDMENT OF BY-LAWS

63. The by-laws of the Association may be repealed or amended by by-law enacted by at least two-thirds of the Directors at a meeting of the Board of Directors. Each such amendment, if a referendum is requested by thirty (30) members, may be repealed by a majority vote of the returned ballots from the members of the Association.

THE ASSOCIATION BULLETIN

64. The Association will maintain a publication, to be called the C.B.A./A.B.C. Bulletin. The Bulletin will publish timely articles and news of interest to the membership. An Editor shall be appointed by the Board of Directors to be in charge of the publication. The Editor's term of office shall be for three (3) years and is renewable. An Editorial Committee composed of at least three (3) of the Directors of the Association shall assist the editor. Their term shall not exceed two (2) years. The Editor shall chair the editorial committee and shall serve as an ex officio member of the Board of Directors.

RESOLUTIONS

65. With the exception of the "housekeeping" resolutions (such as the expression of thanks to the host institution of the Association) a resolution declares the policy of the Association on a matter or matters that shall be forwarded outside the organization, i.e. to the public or to responsible government departments, agencies or individuals.

66. Resolutions should be carefully and precisely worded since, when passed, they represent an expression of the collective opinion of the Association. They should, as a general guideline, deal primarily with subjects of obvious relevance to the objectives of the Association as stated in the Letters Patent, or to the reasonable professional concern of the members.

67. Resolutions shall be called for each year in the January issue of the Bulletin.

68. Resolutions require a mover and four (4) seconders, all of whom shall be members in good standing of the Association.

69. Resolutions are to be handled by the Board of Directors.

70. Resolutions shall be submitted to the Secretary of the Association at least ten (10) weeks prior to the annual meeting of the Association. To be admitted to the agenda, each resolution must specify to whom it will be addressed, and must be accompanied by a supporting brief. The Board of Directors will then decide whether such a resolution conforms to the guidelines. If so, it will be admitted to the agenda; if not it will be returned to its sponsors with a request that specific revisions be made. Such specifically revised resolutions must be submitted to the Secretary for admission to the agenda six (6) weeks prior to the annual meeting of the Association.

71. Resolutions acceptable to the Board of Directors, together with their supporting briefs, should be mailed to all members of the Association before the annual meeting, preferably along with the program and other information about the meeting.

72. Each resolution must be presented at the annual meeting by at least one person from among its sponsors.

73. Recognizing that an emergency situation may occur, however, from time to time, "emergency resolutions" may be submitted to the Board of Directors at any time before the annual meeting. The Board of Directors will then decide whether to admit them to the agenda.

74. All resolutions require the approval of the two-thirds majority of the members present and voting at the annual meeting.

AWARDS

75. The Association may establish awards, the purpose of which is to foster botanical excellence in Canada and/or to provide a collective, formal expression of the admiration and respect of the members of the Association and, thereby, of botanists in Canada for the excellence of the contribution of an individual to Canadian botany.

76. Possible categories of botanical excellence are set out below.

- a) A single contribution to botanical knowledge of outstanding distinction. Commonly this would take the form of a published paper, monograph or book, reporting a contribution to knowledge of singular significance to the discipline at large.
- b) (i) Recognition of the cumulative, distinguished contributions of a senior investigator who has worked in Canada for the greater part of his career.
(ii) Recognition of an academic career of distinction in teaching and inspiring students in a Canadian institution at both undergraduate or graduate levels, and in training scientists to meet the basic and applied needs of botany in Canada.

- (iii) Recognition of significant contributions to the growth and development of botany in Canada by service to the Association or by administrative, policy-making initiative in government or other agencies.

77. Any professional botanist working permanently in Canada is eligible for consideration for awards established by the Association. For the present at least, the awards should not be available to Canadians who have made distinguished contributions to botany but who reside permanently in another country.

78. A Selection Committee will be responsible for proposing candidates for the awards and receiving from the membership-at-large nominations for the awards on an annual basis. The Selection Committee will consist of:

The President of the Association, Chairman

One other Director of the Association,

Three (3) members chosen from the community of Canadian botanists, named by the Board of Directors annually.

One senior scientist from a discipline related to botany, named by the Board of Directors annually.

The three (3) botanical members should include as closely as possible a range of age, specialization and professional affiliation of the membership as a whole.

79. The Selection Committee will consider the list of nominees, each supported by a concise statement of meritorious contribution, proposed by the Selection Committee and by members of the Association. From the list, from one to three candidates will be selected on the basis of the merit of the contribution and the committee will then be circulated with the following documentation on each of these candidates:

The published contribution(s), where appropriate;

A condensed curriculum vitae;

An assessment of the merit of the contribution, by an established, non-Canadian authority, where appropriate (category a, b (i) above).

80. The Selection Committee shall recommend which candidates merit awards to the Board of Directors. The Board of Directors will decide and announce the recipients of the awards.

81. Two awards can be made annually, one in each of categories (a) and (b) above, but the Selection Committee may recommend at its discretion that one award or no awards be made in any year. An award will consist of a medal or other memorial to be presented at the annual meeting of the Association. A recipient, where appropriate, may be invited to give a special lecture at the annual meeting.

BOOKS AND RECORDS

82. The Directors shall see that all necessary books and records of the Association required by its by-laws and by any applicable statute or law are regularly and properly kept.

RULES AND REGULATIONS

83. The Board of Directors may prescribe such rules and regulations not inconsistent with these by-laws relating to the management and operation of the Association as they deem expedient, provided that such rules and regulations shall have force and effect only until the next annual meeting of the members of the Association when they shall be confirmed or failing such confirmation at such annual meeting of members, shall at and from that time cease to have any force and effect.

WINDING-UP

84. Upon the dissolution of the Association any assets remaining after the payment and satisfaction of the debts and liabilities shall be transferred to an organization or organizations having cognate or similar objects which carry on their work solely in Canada.

INTERPRETATION

85. In these by-laws and in all other by-laws of the Association hereafter passed unless the context otherwise requires, words importing the singular number or the masculine gender shall include the plural number or the feminine gender, as the case may be, and vice versa, and references to persons shall include firms and corporations.

SPECIES POLLUTION

An international programme "Species Pollution at World Scale" has been launched by Fundación Bariloche in 1976. One of its main objectives is to draw a map with the number of introduced or exotic species in different regions. Man is increasingly modifying the floras and faunas, mixing all the natural biogeographical regions and producing all kinds of disturbances. An assessment of the real situation at present times is necessary, hence the attention of botanists is called to give valuable collaboration to this project.

People experienced in floristics or botanical surveys, or having bibliographical data are kindly asked to send the following information: (i) place; (ii) area surveyed (in km² or sq.mi.); (iii) covered taxa (all the vascular plants? all the flowering plants?); (iv) how many native species?; (v) how many introduced species, in the widest possible terms, i.e. including ephemerals or rarely seen invaders; (vi) a complete bibliographical reference for quotation; (vii) any other supplementary information as the list of species, the dates of arrival in the new country, economic losses, etc., if available.

Collaborators will be mentioned in the report and will receive the printed map. Letters must be addressed to: Dr. Eduardo H. Rapoport, Fundación Bariloche, c.c. 138, Bariloche 8400, R.N., Argentina.

POSITIONS AVAILABLE

University of Guelph. The Department of Botany and Genetics requires a Botanist. Possible areas of specialization include aquatic biology, field botany, plant evolution, population genetics, or other. The candidate is expected to pursue an active research program in his/her area of specialization and to be involved in teaching at both the undergraduate and graduate level. The position will be filled as soon as a suitable applicant is found. Ph.D. required, rank and salary negotiable. Submit curriculum vitae, resumé of research and names of three referees to: The Chairman, Department of Botany and Genetics, College of Biological Science, University of Guelph, Guelph, Ontario. N1G 2W1.

The Bulletin of the Canadian Botanical Assoc.
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To ensure prompt delivery of the Bulletin please notify the Editor of any change of address as soon as possible.

Enquiries about membership of the CBA/ABC should be addressed to the Secretary of the Association Dr. Janet R. Dugle, Environmental Research, Whiteshell Nuclear Research Establishment, Pinawa, Manitoba R0E 1L0.