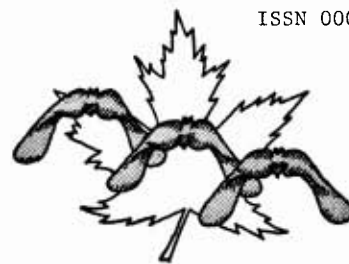


# BULLETIN



L'ASSOCIATION BOTANIQUE DU CANADA

July 1977

Volume 10 Number 3

Waterloo

LIST OF OFFICERS C.B.A./A.B.C. 1977-78

<u>President:</u>	Dr. Paul Gorham, Department of Botany, University of Alberta, Edmonton, Alberta T6G 2E9.	<u>Directors:</u>	Miss Julia O. Hrapko, 11816-135th Street, Edmonton, Alberta T5L 1W6.
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<u>Treasurer:</u>	Dr. Michael Hickman, Department of Botany, University of Alberta, Edmonton, Alberta.		Professor James Phipps, Department of Plant Sciences, University of Western Ontario, London, Ontario N6A 5B7.

Editor of Bulletin:

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Ottawa, Ontario  
K1S 5B6.

# STATEMENT OF FINANCIAL STANDING - 1976-77

Balance of Funds - 1975-76 \$ 3,866.99

## Receipts:

### Membership dues:

Full .....	\$3,608.00	
Retired ..	61.00	
Student ..	258.00	
Other ....	32.00	
	\$3,959.00	\$3,959.00

Can. J. Bot. Subscriptions	3,246.00	
Biological Council Fees ..	1,091.00	
Bank Interest .....	272.52	
Miscellaneous .....	104.45	
	\$8,672.97	\$ 8,672.97
		\$12,539.96

## Expenditures:

Bulletin Expenses .....	716.36	
Can. J. Bot. Subscriptions	3,192.00	
Biological Council Fees ..	1,083.00	
Travel .....	361.48	
Postage/Stationery .....	174.27	
Medal expenses .....	352.46	
B.G.T. '77 Advance .....	500.00	
Student Award .....	50.00	
Dues overpayments .....	64.00	
Miscellaneous .....	77.60	
	\$6,571.17	\$ 6,571.17

Balance of Funds - 1976-77 \$ 5,968.79

J.F. Gerrath, Treasurer.

To the best of our knowledge this represents an accurate statement of the finances of the C.B.A./A.B.C.

D.W. Smith and Hugh M. Dale, Auditors.

Dr. Gerrath reported that at present we have a membership of 386, which consists of 317 regular members, 13 retired members and 55 student members.

## REPORT ON THE ANNUAL MEETING

This year's Annual Meeting was held 26-30 June at the University of Manitoba in Winnipeg. It was a joint meeting with the Genetics Society of Canada and the Canadian Tree Improvement Association and was well attended by 110 of our members. The meetings, dubbed "BGT 77", were opened with a plenary lecture by Dr. Peter Raven, Director of the Missouri Botanical Garden, who compressed many comments about the species concept, hybridization and speciation into his presentation. Biosystematics, like the perennials he reviewed, exhibits few barriers to crossing; with ecology, genetics and entomology all relevant to a fuller understanding of the origin and integrity of species. Dr. Raven's lecture was followed by one on the genetic control of chromosome pairing in common wheat, given by Dr. E.R. Sears who received the Genetics Society Award of Excellence for his pioneer work on resistant strains of wheat. These presentations were practically the only visible signs of the joint nature of our meeting. No overlap (real or imagined) appeared to occur with the human geneticists, and the potential overlap with the Tree Improvement Association largely failed to materialize.

At the Awards Luncheon, Dr. Harold Brodie was presented with the CBA/ABC Lawson Medal to acknowledge his accomplishments as a researcher, scholar and teacher. Dr. Brodie is internationally known for his investigations on the cup fungi, a study which recently culminated in the publication by the University of Toronto Press of a book, entitled "The Bird's Nest Fungi".

The CBA/ABC symposium, with its highly attractive title "prairie destiny - use, conservation, reclamation" did not meet expectations. Long preambles prior to each speaker were unnecessary as they reduced the time for audience participation. The four independent presentations on the land, water, genetic and economic resources failed to unite naturally, so that one was left with a disjointed impression of the status of the prairie ecosystem. Unfortunately the audience was submitted at times to "man-in-the-street" concepts and overly simplified conclusions that appear to have been used before in some Science course for General Arts students.

To punctuate the presentation of papers ("punctuated equilibria" *sensu* Dr. Raven's presentation!), three day-long Field Trips were run concurrently on the second day of the conference. Sunny and breezy weather allowed participants to view the landscape. For a newcomer to Winnipeg, the trips emphasized the unique geographical position of that city to areas of grassland, prairie, sandhills, marsh, and mixed boreal forest.

A total of 45 contributed papers were given in the General, the Systematics and Phytogeography, and the Ecology sections, with topics ranging from "the use of the camera for scientific and teaching purposes in forest botany" to "a remarkable subfossil deposit of the moss *Aplodon wormskiodii* from the High Arctic". The Phycology section held a successful symposium on "Marine and Freshwater Phycology" with 8 invited speakers discussing the productivity and taxonomy of systems from Switzerland to British Columbia. Members were also able to attend concurrent sessions in genetics and tree breeding.

The year's banquet was held aboard the "Paddlewheel Queen" cruising on the Red River, with the Manitoba sky providing a setting for a most enjoyable experience, which will be remembered by many of our members as a climax to a very successful conference.

Wayne R. Hawthorn.

## Winner of the Student Award

Mr. James F. Basinger, Department of Botany, University of Alberta, Edmonton was the winner of the award by unanimous decision of the judges - Drs. Joe Gerrath, Paul Gorham and Patricia Roberts-Pichette.

### Winners of Photo Competition

#### Color Prints -

- 1st - Dr. O. Sziklai,  
Faculty of Forestry,  
University of British Columbia,  
Vancouver, B.C.
- 2nd - Mr. Arthur T. Lightfoot,  
Research Station,  
Agriculture Canada,  
Kentville, N.S.
- 3rd - Dr. S.S. Badour,  
Department of Botany,  
University of Manitoba,  
Winnipeg, Manitoba.

#### Scientific Illustrations -

- 1st - Dr. M.J. Harvey,  
Department of Biology,  
Dalhousie University,  
Halifax, N.S.

#### Color Slides -

- 1st - Dr. R.E. Longton,  
Department of Botany,  
University of Manitoba,  
Winnipeg, Manitoba.
- 2nd - Dr. Janet R. Dugle,  
Whiteshell Nuclear Research  
Establishment,  
Pinawa, Manitoba.
- 3rd - Dr. D. Punter,  
Department of Botany,  
University of Manitoba,  
Winnipeg, Manitoba.

### NOMINATION OF OFFICERS FOR THE CBA/ABC

This is a formal call for nominations to the Executive Committee for 1978-79.

Our constitution requires that nominations must be signed by not less than six regular members in good standing, and be returned to the secretary by November 30th of this year. The proposed office for each nominee shall be clearly indicated.

*Notre constitution exige que chaque mise en nomination doit porter la signature d'au moins six membres réguliers et en règle, et doit être retournée au secrétaire pour le 30 novembre de cette année. Chaque soumission doit stipuler clairement pour quelle fonction le candidat est proposé.*

All nominations must be accompanied by the written consent of the nominees, who shall be regular members in good standing.

*Toute nomination doit être accompagnée du consentement écrit de la personne nommée, laquelle doit être membre régulier et en règle.*

Positions to be filled this year:

1. President-elect
2. Vice-President
3. Secretary
4. 3 Directors (Continuing Directors will be Dr. Pearl Weinberger (Ottawa, Ontario), Professor Albert Legault (Sherbrooke, Quebec) and Professor James Phipps (London, Ontario).

Please return your nominations by November 30th, 1977 to:-

Dr. J. Dugle  
Secretary, CBA/ABC  
Environmental Research  
Whiteshell Nuclear Research Establishment  
Pinawa, Manitoba  
ROE ILO

### CALL FOR NOMINATIONS FOR LAWSON MEDALS

Each year the C.B.A./A.B.C. invites its entire membership to make nominations for the George Lawson Medal. The purpose of the award is "To provide a collective and formal expression of the admiration and respect of botanists in Canada for the excellence of the contribution of an individual to Canadian Botany". Any botanist working permanently in Canada or having spent the greater part of his career here is eligible.

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

1. A single contribution to botanical knowledge of outstanding distinction. Commonly this would take the form of a published paper, a series of papers, a monograph or a book by a botanist at any stage in his professional career. The contribution should be of singular significance to the discipline at large.

2. Recognition of the cumulative, distinguished contributions of a senior investigator and/or teacher and/or administrator who has worked in Canada for the greater part of his career, and whose influence has contributed notably to the advancement of Canadian Botany.

In order that the Awards Committee may learn of botanists who are eligible for these awards, all members of the Canadian Botanical Association are invited to submit nominations and to consult with their colleagues for suggestions. Nominations should be accompanied by a clear statement of the nominee's contribution to botany in Canada and as much documentation as possible. Letters by others who support the nomination would also help the Awards Committee in reaching its decision. Nominations should be sent to the Chairman of the Awards Committee - Dr. Paul R. Gorham, Department of Botany, The University of Alberta, Edmonton, Alberta T6G 2E9 as soon as possible.

### PERSONALIA

Dr. Ichiro Fukuda, Tokyo Woman's Christian University, Tokyo, is spending a sabbatical year at McGill University as a Visiting Professor at the Genetics Laboratory, Macdonald Campus of McGill University, Ste. Anne de Bellevue, Quebec HOA 1C0, with Dr. William F. Grant. Dr. Fukuda will be continuing his studies on the genus Trillium.

Professor L. Orlóci, Department of Plant Sciences, The University of Western Ontario, London, delivered four invited lectures April 12-16, 1977, at the Istituto per le Applicazioni del Calcolo (IAC), Consiglio Nazionale delle Ricerche, Rome.

Titles of the lectures were:

"Multivariate Analysis: Scope and Objectives in Vegetation Research"

"Data Structures and Method Selection"

"Analysis of Continuous Data Structures"

"Automatic Classification and Identification".

The institute is principally concerned with the application of statistical and other mathematical methods. A program has been developed to provide service to biological users. Dr. Orlóci was invited to provide assistance in further visits to the institute.

H.L. Sawyer,  
University of Western Ontario.

## BIOLOGICAL COUNCIL OF CANADA

The following extracts are taken from the minutes of the April meetings of the BCC:-

### Lobbies

The Chairman made it clear that with regard to government policies lobbying has unfortunately become a necessity of life, and not the least with respect to federal policies on research. Science was unlikely to receive adequate funds without the lobbying process.

### Biology and Government

"Here Today; Gone Tomorrow?", a statement by the BCC on biological research in Federal laboratories. The BCC is the only organization to make a statement regarding Biological research in Federal laboratories. The BCC is attempting to produce a statement regarding both basic and applied research that falls within the responsibilities of science-based government institutions, a statement that will parallel that contained within "Tomorrow's Biology" directed mainly at University based biological research.

It was moved by D. Walden and seconded by D. Barr that the BCC identify Biology in government as an area of immediate concern with regard to the future progress of biology in Canada. Carried.

### Canadian Institute of Biology

The Chairman informed members that the BCC will publish a bilingual booklet providing details of a Canadian Institute of Biology. It is hoped that the booklet will be available by May 9. (It is now available from:- Canadian Institute of Biology, c/o Department of Zoology, University of Toronto, Toronto, Ontario M5S 1A1.) A target date of December 31 was set for 500 applications for membership in the CIB. If the target is achieved the CIB will become a reality; it will, of course, be entirely separate from the BCC.

### N.R.C. Grants

It was observed that in comparison with other grant application committees, biology is doing reasonably well; it seems that the biology committees are more rigorous in their selection of grantees than are the other committees.

## CANADIAN COMMITTEE ON FINANCING UNIVERSITY RESEARCH

The Minister of State for Science and Technology, the Hon. J. Hugh Faulkner, and the Hon. Ben Hanuschak, Minister of Continuing Education and Manpower of Manitoba and Chairman of the Council of Ministers of Education, Canada, announced in November the formation of the Canadian Committee on Financing University Research.

The conduct of university research affects the education and training of students at all levels, the numbers and specialization of scholars and scientists, and the generation of knowledge which may be applicable to problems in every sphere of life. The appropriate financing of university research is a complex matter. Expenditures on research affect and are affected by expenditures in other areas. Therefore, it is essential that the level and methods of financing university research reflect the needs of the universities and the scientific enterprise as well as the priorities of both federal and provincial governments.

To achieve the desired level of consultation and collaboration among provincial governments, universities and the federal government, a committee, to be known as the Canadian Committee on Financing University Research, will be established to exchange information and to develop recommendations on policies, programs and procedures affecting the financing of research in universities.

The Committee will be composed of 20 members. The Secretary of the Ministry of State for Science and Technology will be the Chairman; nine other federal officials, including the heads of the three granting research Councils, will complete the federal representation. The provincial members will include deputy-ministers responsible for universities, university presidents or principals or vice-presidents or vice-principals and representatives of university councils or commissions. There will be a regional balance in the provincial contingent.

The establishment of this Committee marks the achievement of a new level of understanding and cooperation between the federal government and provincial governments in the matter of university research.

From SCITEC Bulletin, January 1977.

## RESEARCH LOBBY

On December 7 and 8, a research lobby was held on Parliament Hill in Ottawa, with some three dozen researchers from across Canada participating: they represented ten (10) national organizations, including SCITEC. The lobby was initiated by the Canadian Federation of Biological Societies and included the following organizations:

Canadian Association of Physicists  
Canadian Association of University Teachers  
Canadian Federation of Biological Societies  
Canadian Society for Civil Engineering  
Canadian Society for Clinical Investigation  
Canadian Society for Mechanical Engineering  
Chemical Institute of Canada  
Humanities Research Council of Canada  
Social Sciences Research Council of Canada  
SCITEC.

The researchers met with Members of Parliament of all parties and stressed the following urgent needs of research in Canada:

1. The development of national policies for continuity and stability in the support of research.
2. The immediate restoration of 1970-71 levels of research funding as a minimum level for the survival of Canada's research capability.
3. Regular consultations with the organized scientific community on federal research funding policies and priorities.

The researchers, who met with MP's in groups of three, with a client of each of the three granting councils present in each group when possible, were received sympathetically and their concerns gave rise to several questions in the House of Commons.

It became apparent that this type of lobbying in the interest of research would have to become a regular activity of scientific organizations if they wanted their situation to improve significantly.

SCITEC was represented by Michel Bergeron, Second Vice-President, Jan Loubser, Chairman, Science Policy Committee and Ernest Holmes, Secretary of the same committee.

In an assessment session after completion of the lobby, most participants agreed that it was a worthwhile activity, thanks to the effective organization provided by the CFBS. While it was too early to assess impact or achievements, it was felt that the lobby would undoubtedly create greater awareness among MP's of the plight of researchers in Canada.

From SCITEC Bulletin, January 1977.

#### CORRESPONDENCE

Letter dated 7 April 1977 to:-  
M. Jean-Jacques Blais,  
Ministre des Postes,  
Ottawa, K1A 0B5.

Cher monsieur,

Je me demande si vous ne pratiqueriez pas un peu une sorte de favoritisme à l'égard de mes collègues du département de zoologie. La question pourrait vous sembler un peu farfelue ou ridicule, mais j'ai devant moi des exemplaires du timbre de la dernière émission courante. Sur ce timbre représentant un cougar, on y retrouve outre la désignation courante (cougar), la désignation de l'espèce (Felix concolor). J'ai aussi l'annonce publicitaire de 6 timbres à motifs floraux, timbres promis pour le 22 avril. Quel changement: l'on n'y retrouve aucune désignation ou indication d'espèce. Un bon botaniste connaissant la flore canadienne dans son ensemble pourrait peut-être connaître toutes les espèces illustrées, mais combien sont capables de le faire? Personnellement, je ne puis mettre un nom définitif que sur la valeur de \$0.03, le Lilium canadense, mais je suppose que l'on n'a pas répété la farce de la plante cultivée, soit le Lilium tigrinum. Pourriez-vous les différencier avec les critères illustrés? Les botanistes se souviendront amèrement et pendant longtemps du fait que le ministère des postes avait imprimé comme fleur emblématique de la Province de Québec, donc par définition une fleur commune croissant partout ou presque, une espèce que très difficilement cultivable, le Lis blanc, alors que toutes les provinces du Canada, sauf le Québec, avaient une fleur emblématique vraiment représentative. Quant aux autres dénominations, le \$0.01 pourrait être une Gentiana, mais laquelle? Andrewsii? possible mais fort restreinte dans sa distribution; le \$0.02 est une Aquilegia, mais sûrement pas l'espèce canadensis... certaines personnes non-botanistes pourraient la connaître! Le \$0.04 est une Hepatica, mais je doute que ce soit acutiloba car les bractées de l'involucre de cette espèce sont aigues alors que le dessin les représente obtuses; le \$0.05 m'est inconnu (jamais vu) mais quel nom le dessin sonne-t-il dans votre tête? Quant au \$0.10, il pourrait représenter le Cypripedium passerinum si le pourpre y était présent, mais savez-vous où retrouver cette espèce au Canada?

Si l'on conçoit que les timbres voyagent d'une région à l'autre, alors pourquoi permettez-vous aux zoologistes que leur timbre deviennent un instrument d'éducation en portant les inscriptions scientifiques et communes, alors que vous refusez ce privilège aux botanistes? De plus, je suis convaincu que le dépliant qui accompagne des émissions nouvelles

(le pamphlet qui explique le pourquoi ou l'historique du (des) timbre(s) émis) ne dira pas un seul mot à propos des fleurs émises, des régions où elles croissent, etc. Votre attitude de favoritisme m'est inconcevable et comment pouvez-vous la justifier? Je suis certain qu'un ministre des postes qui aurait eu la moindre considération pour la botanique ne permettrait une telle attitude de favoritisme à l'égard des zoologistes.

Sincèrement,

Jean D. Brisson,  
Department of Botany and Genetics,  
University of Guelph.

(Editor's note:- another set of stamps, this time dealing with Canadian trees is about to appear. I understand that these also will bear no identifying names!)

#### PUBLICATIONS

Vascular Plants of British Columbia - a descriptive resource inventory, by R.L. Taylor and B. MacBryde published by the University of British Columbia Press, 1977, price \$28. This is a bulky computer print out of some 750 pages listing all the known vascular plants of the region which number 3137 taxa. Information is supplied relating to status (native, endemic, naturalized etc.), distribution within the 12 biogeoclimatic zones of B.C., longevity, flower and fruit colour, fruit structure, chromosome number (from B.C. material only), economic and horticultural uses or potential and endangered status within the flora of B.C.

In the absence of any comprehensive account of the B.C. flora this is an invaluable reference work. It is well indexed to provide access to current scientific names, synonyms and English names, and there are good bibliographies. As with most computer print outs it is not as easy to refer to or aesthetically pleasing as normal printed material and the bulk of the work is greatly increased. Keys to the flora are not included and this clearly reduces its value to many users, but as "the first step towards the development of a major floristic work concerning the plants of British Columbia" it is a most important contribution, for it puts into the hands of would-be users the wealth of data assembled by the authors. The book is an essential reference volume for anyone interested in the flora of B.C. and should be valuable to botanists throughout North America. Also the section dealing with the computer programme will interest those concerned with data processing of floristic information. The authors are to be congratulated on the preparation and presentation of this inventory of data relating to the B.C. flora and it is to be hoped that the production of a full, keyed and illustrated flora will follow in the not too distant future.

J.K. Morton.

The Flora of Manitoulin Island and the adjacent islands of Lake Huron, Georgian Bay and the North Channel by J.K. Morton. Published by and obtainable from Department of Biology, University of Waterloo, Waterloo, Ontario N2L 3G1 Canada. Price \$4.50 post free. University of Waterloo Biology Series No. 15. 62 pages plus fold out map. 1977.

This is a flora of the Manitoulin limestone of the Lake Huron region of Ontario. It lists over 900 species, some 214 of them being considered as introductions to the region. A brief note on distribution within the area of the flora is given against each species, together with common name, and where appropriate, observations on synonymy and taxonomy. In the introduction the geology, glacial and post glacial history of the region are discussed together with the phytogeographic composition of the flora. It is noted that the region has been a cross roads and meeting point in plant migration since glacial times and this, together with the great diversity of habitats present on the islands, and the influence of the Great Lakes on local climates, accounts for the presence of many interesting species. The flora is a preliminary one, published in the hope that it will stimulate further work in the region and bring to light additional records and information from the many botanists who have visited the region in the past.

Author's account.

#### POSITIONS VACANT

##### Plant Evolutionist - University of Guelph

Applicants are invited for a faculty position in Plant Evolution. Preference will be given to applicants with the ability to employ field and laboratory techniques to the analysis of evolutionary mechanisms in plants and the control of population structure. The successful candidate will be expected to develop a strong research program and participate in undergraduate and graduate teaching. 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: Chairman, Department of Botany and Genetics, College of Biological Science, University of Guelph, Guelph, Ontario N1G 2W1, Canada.

*The Bulletin of the Canadian Botanical Assoc.*

Editor:- Dr. J.K. Morton

Department of Biology

University of Waterloo

Waterloo, Ontario. N2L 3G1

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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.