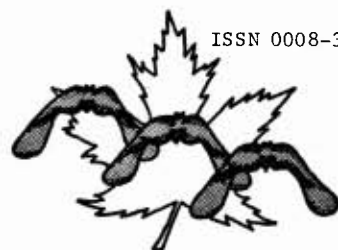


THE CANADIAN BOTANICAL ASSOCIATION

# BULLETIN

L'ASSOCIATION BOTANIQUE DU CANADA



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OCTOBER 1986

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NUMBER 4

VANCOUVER

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PATRON

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

PATRON

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

IMPRESSIONS OF THE SUDBURY MEETING

Notwithstanding the cool and at times moist weather we enjoyed during our stay and some slight problems linked with the hazardous task of obtaining dinner, the Sudbury meeting was a success. The campus of Laurentian University was aesthetically a pleasing setting and offered modern well equipped lecture rooms and other facilities. The sessions were well organized and the number of participants small enough that contact with all was possible. Again, the Lionel Cinq-Mars papers were of a very high caliber, which bides well for the future of botany in Canada, if they eventually can find jobs and funding. The symposia generated a great deal of interest and scientific interaction adding much to the meeting success. The field trips were of varied interest as to attract a good number of participants which in general expressed favourable comments regarding their organization.

The visit to the Science North Centre was a pleasant surprise: who would have thought that such a remote area more famous for its legendary barrens that are now becoming mythical by the work and efforts of local botanists, would hide such a nicely designed science museum, so obviously oriented towards the youngsters with its generous hands-on policy. The banquet was also a success, thanks in part to the sense of humour of our now (past) president, to the emotion displayed by Dr. Dansereau and Dr. Schofield when they received their Lawson Award, to the Ukrainian dancers that so energetically closed the evening. These last events were matched only by the fact that never before has one of our presidents paraded so grandly, to the sound of bagpipes, for the opening ceremonies.

One last word of appreciation must go to the organizers and volunteers that so generously helped to run the whole meeting smoothly. Particular mention should be made to the constant efforts of Keith Winterhalder that with a permanent smile seemed omnipresent to solve problems and answer questions. Overall, an enjoyable, busy meeting that should give all the members, even those who were not able to attend it, the incentive to seriously consider joining the Montreal 87 CBA/ABC (NOT EXPO) MEETING.

## CBA/ABC AWARDS 1986

### GEORGE LAWSON AWARDS

The George Lawson Award of the Canadian Botanical Association/L'Association Botanique du Canada was presented to Dr. Pierre Dansereau (University of Quebec at Montreal) at the Annual Banquet, June 25, 1986. The Award was made by Dr. Iain Taylor, President CBA/ABC. The citation read, in part, as follows.

The George Lawson Medal .... is awarded to Dr. Pierre Dansereau .... for his outstanding cumulative contribution to the advancement of Canadian Botany. Dr. Dansereau .... made major contributions to taxonomy, plant ecology and, lately, human and urban ecology. He is particularly well known for his conceptual contributions to plant ecology, notably for the concept of "coincement" and for the development of structural methods of analysis of the tropical forest. His book "Biogeography: an ecological perspective" has become a classic.

This scholar .... later involvement in the field of human and urban ecology has been significant to all its practitioners. .... His research contributions have had broad influence in both the human and natural sciences.

\*\*\*\*\*

The George Lawson Medal of the Canadian Botanical Association/L'Association Botanique du Canada was presented Dr. Wilfred B. Schofield (University of British Columbia) at the Annual Banquet, June 25, 1986. The Award was made by Dr. Iain Taylor, President CBA/ABC. The citation read, in part, as follows.

The George Lawson Medal .... is awarded to Dr. Wilfred Schofield .... for a single contribution to botanical knowledge of outstanding distinction, in the form of his book "Introduction to Bryology".

Dr. Schofield has made major contributions to systematics, morphology and phytogeography of the bryophytes both in Canada and throughout the world. He has established the U.B.C. Bryophyte Herbarium as one of the major collections in North America.

..... The "Introduction to Bryology" is the first real textbook in bryology and provides a firm foundation for novices and experts alike. .... The book was named the Most Outstanding Book on Life Sciences in 1986 by the Association of American Publishers.

\*\*\*\*\*

### LUELLE K. WERESUB AWARD

The 1986 winner of the Luella K. Weresub Award for the best mycological paper published during 1986 by a graduate or undergraduate student at a Canadian University, or by a Canadian student at a university abroad, is R. Currah. The award of \$1000 was given for the paper entitled "Taxonomy of the Onygenales: Arthrodermataceae, Gymnascaceae, Myxotrichaceae and Onygenaceae" published in Mycotaxon.

## CBA/ABC AWARDS 1986

### THE MARY E. ELLIOTT SERVICE AWARD

The Mary E. Elliott Service Award of the Canadian Botanical Association/L'Association Botanique du Canada was presented to Dr. Dianne Fahselt (University of Western Ontario) at the Annual Banquet, June 25, 1986. The Award was made by Dr. Iain Taylor, President CBA/ABC. The citation read, in part, as follows.

The Mary E. Elliott Award .... is awarded to Dr. Dianne Fahselt .... in recognition of her outstanding contributions to the conservation of plants in Canada and of her service as chairperson of the Conservation Committee of CBA/ABC.

.... Dr. Fahselt has been an aggressive, effective and scientifically rigorous champion in the cause of plant conservation. She is the only chairperson in the history of the Conservation Committee. .... Under Dr. Fahselt's guidance, the Conservation Committee has acquired an enviable reputation for accuracy and responsibility in conservation matters. ...., the committee has been consulted and/or made representations in more than 100 conservation issues. In 1985 the Conservation Committee received a grant for ecological studies of savannas in Ontario.

\*\*\*\*\*

### LIONEL CINQ-MARS AWARD AND FIRST BURSARIES AWARDED FROM THE CBA/ABC ENDOWMENT FUND

The first bursaries given to graduate students to attend the CBA/ABC annual meetings were awarded to:

Rosemarie A. DeClerck, Biology Department, University of Saskatchewan, \$300

Stephen R. Downie, Botany Department, University of Alberta, \$200

Laurie L. Consaul, Biology Department, University of Ottawa, \$100

All three presented papers in the Lionel Cinq-Mars Competition at Sudbury.

Stephen Downie was the winner of the Cinq-Mars Prize with the paper entitled The Biosystematics of Arnica subgenus Arctica (Downie and Denford).

The first three winners of bursaries provided clear evidence that CBA/ABC Endowment Fund is a valuable way of supporting student attendance at our meetings. Members are reminded that donations to the fund can be made at any time and can be added to your annual dues. All donations are tax deductible.

## BOTANY '86 PHOTO SALON

The winners of the 1986 Photo Salon held in Sudbury are:

### PRINTS - ULTRASTRUCTURE

Elaine P. Simons, Univ. Alberta.  
"Star Wars - Pollen Grain of Cichorium intybus L.", 1st Prize.

Elaine P. Simons, "Polliwog Marathon - Lower leaf surface of Cannabis sativa L.", Honorable Mention.

Ruth Stockey, Univ. Alberta. "Araucaria montana Brongn. et Gris., adult foliage, abaxial cuticle, inner surface.", Honorable Mention.

### PRINTS - BIOLOGICAL TEXTURES

Patricia L. Polowick, Univ. Saskatchewan.  
"Anther of Brassica napus." 1st

Ruth Stockey. "Araucaria heterophylla (Salisbury) Franco, adult foliage, abaxial cuticle, inner view of guard cell surfaces." Honorable Mention.

### BOTANICAL ILLUSTRATION - COLOUR

Irene McIlveen, Acton, Ontario.  
"Fireweed, Spreading Dogbane, Northern Willow-herb." 1st Prize.

### BOTANICAL ILLUSTRATION - BLACK AND WHITE

Sharon Orser-Smith, Hartland, N. B.  
"Heracleum lanatum Michx." 1st Prize

### TRANSPARENCIES

Peter Marchand, Johnson State College.  
"Ferns." 1st Prize

Larry T. Stevenson, Sudbury, Ontario.  
"Calypsos." Honorable Mention

## BOTANY '86 FIELD TRIP REGISTRANTS

Some Botany '86 registrants who joined (but did not pre-register for) the Tuesday afternoon field trips did not pay their field-trip fees. In order to cover lunch and literature expenses, the Botany '86 Committee would greatly appreciate receiving these fees as soon as possible. The fee schedule is as follows:

### Sudbury Basin Field Trip

Those who travelled in a van.... \$15.00  
... in someone else's car ..... \$ 7.50  
... in their own car ..... \$ 0.00

## Barrens and Reclamation Field Trip

Those who travelled in a van ... \$10.00  
... in someone else's car ..... \$ 6.00  
... in their own car ..... \$ 0.00

Please send your cheques, payable to "Botany '86" to:

Keith Winterhalder  
Department of Biology  
Laurentian University  
SUDBURY, Ontario P3E 2C6

## YOUNG SCIENTISTS WIN AWARD AT 1986 CANADA-WIDE SCIENCE FAIR

The Canadian Botanical Association recognized the work of three students at the recent Canada-Wide Science Fair. The Fair was a special 'silver anniversary' event which celebrated 25 years of science fairs in Canada. More than 370 students from across Canada attended to compete for \$55,000 worth of prizes.

Savita Chaudhari of Peterborough, Ontario tied for the award with Michael Spooner and Stephen Chen of Calgary, Alberta.

Spooner and Chen's project dealt with the revegetation of our diminishing forests. Working in the Bragg Creek area of Alberta, they determined that current lumbering processes were depleting one of Canada's greatest natural resources and may be permanently damaging the environment.

Savita Chaudhari received Honorable Mention in Senior Life Sciences for her work on Physarum polycephalum, a slime mold. These organisms are important, explains Chaudhari, because they demonstrate many of the phenomena associated with cellular differentiation processes which characterize the 'higher' plants and animals. Chaudhari's research focused on the effect of magnetic fields and electromagnetic waves on growth and development.

The Canada-Wide Science Fair was held this year in Calgary, Alberta, May 10-18. It is an annual event sponsored by the Youth Science Foundation. The YSF is a national non-profit organization funded by federal government grants, individual and corporate donations. YSF's programs include Canada Awards for Participation in Science, National Students' Science Council and two magazines -- Youth Science News and Flabbergast. Science Fairs are the largest program.

Janice Boyles

## OFFICERS OF CBA/ABC 1985-1986

President: Dr. Luc Brouillet  
Univ. de Montreal

Past-President: Dr. Iain Taylor  
Univ. British Columbia

Vice-President: M. Denis Barabe  
Jardin Botan., Montreal

President-Elect: Dr. K. E. Denford  
Univ. of Alberta

Secretary: Dr. A. G. Thomas  
Agric. Canada, Regina

Treasurer: Prof. K. Winterhalder  
Laurentian University

Directors: M. Denis Barabe  
Jard. Botan., Montreal

Dr. Barry G. Warner  
Univ. Waterloo, Ont.

Dr. Geraldine A. Allen  
Univ. Victoria, B. C.

Dr. Richard Hebda  
B.C. Prov. Museum

Dr. R. L. Peterson  
Univ. of Guelph

Dr. W. J. Crins  
Univ. British Columbia

Editor Bulletin: Dr. Luis Oliveira  
(ex off.) Univ. Br. Columbia

Archivist: Dr. Eric Haber  
Nat. Mus. Nat. Sci.

## NEWS FROM THE SECTIONS

### Ecology Section

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

Secretary:

### General Section

Chairman: D. R. Lee, Dept. Biology,  
Memorial Univ., St. Johns,  
Newfoundland,  
A1B 3X9

Secretary:

### Mycology Section

Chairman: J. E. Traquair, Harrow Res.  
Station, Harrow, Ont. N0R 1G0

Secretary:

### Phycology Section

Chairman: Lewis M. Brown, Dept. Plant  
Scis, Univ. Western Ontario,  
London, Ontario N6A 5B7

Secretary: Pamela Stokes

### Structure & Development Section

Chairman: N. G. Dengler, Dept. Botany,  
Univ. Toronto, Toronto,  
Ont. M5S 1A1

Secretary:

### Systematics & Phytogeography Section

Chairman: K. E. Denford, Dept. Botany,  
University of Alberta,  
Edmonton, Alberta T6G 2E9

Secretary:

## CBA/ABC REPRESENTATIVES TO BCC

### Executive

Member: L. Brouillet

### Council

K Denford  
I. Brodo

## CALL FOR NOMINATIONS OF OFFICERS AND DIRECTORS FOR CBA/ABC 1987-1988

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

1. President-elect (1987-1988)
2. Treasurer (1987-1989)
3. 3 Directors (1987-1989)

One of the Directors must reside east of the Ontario-Manitoba Provincial boundary, one west of the boundary, and one at-large.

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

Les membres sont invitees retourner chaque mise en nomination au secretaire pour le 31 decembre de cette annee. Toute nomination doit etre accompagnee du consentement ecrit de la personne nommee, laquelle doit etre membre regulier en regle. Chaque mise en nomination doit porter la signature d'au moins trois membres en regle.

All nominations must be delivered in writing no later than December 31, 1986, to the Secretary of the Association:

Dr. A. G. Thomas  
Agriculture Canada  
Research Station, Box 440  
Regina, Saskatchewan S4P 3A2

On behalf of Nominating Committee

Iain Taylor, Chairman

## CALL FOR NOMINATIONS - AWARDS 1987

Each year the CBA/ABC invites its entire membership to make nominations for the George Lawson Medals and for the Mary E. Elliot Service Award. The Awards Committee is now also responsible for forwarding nominations for two awards by other organizations. However, these other nominations have to be forwarded during late Fall, and the call for nominations from the membership was therefore published in the July issue of the Bulletin. Please refer to that issue for the terms of reference for the BCC Gold Medal and the John and Alice Tyler Ecology/Energy Prize.

### George Lawson Medal

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

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

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

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

### Mary E. Elliot Service Award

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

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

Nominations for the awards are kept on file for three years after submission, but nominators are requested to provide updated information for the second and third years. Will nominators of candidates for these Awards during the last two years (i.e., 1985 and 1986) please submit a curriculum vitae for their candidate if not included originally and also update the information as necessary.

Nominations for any of the above Awards (including the BCC Gold Medal and the Tyler Prize) should be submitted to the Chairman of the CBA/ABC Awards Committee before December 31, 1986, (October 31, 1986, for the outside awards) with all necessary documentation to:

Dr. Luc Brouillet  
Institut botanique  
Universite de Montreal  
4101 est rue Sherbrooke  
Montreal, Quebec H1X 2B2

### MEMBERSHIP RENEWAL

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

The Treasurer has requested that all members renew as soon as possible, particularly when wishing to subscribe to one of the NRC journals.

If you have not received a renewal form by the beginning of January 1987, please notify the Treasurer immediately: Prof. Keith Winterhalder, Dept. Biology, Laurentian Univ., Sudbury, Ontario P3E 2C6.

### FUTURE MEETINGS OF CBA/ABC

1987 - Montreal, Quebec, June 14-18  
1988 - Victoria, B. C.  
1989 - Toronto, Ontario  
1990 - B.C.C. Second Congress, Laval  
1991 - Edmonton, Alberta

# TREASURER'S REPORT

## CANADIAN BOTANICAL ASSOCIATION/L'ASSOCIATION BOTANIQUE DU CANADA

### FINANCIAL STATEMENT FOR FISCAL YEAR 1985/86

BALANCE OF FUNDS - JUNE 1986 .....	\$27,061.87
REVENUE .....	<u>22,146.61</u>
	\$49,208.48

EXPENDITURES .....	22,163.03
BALANCE OF FUNDS	
Chequing/Savings Account .....	16,207.45
Savings Account (Endowment) .....	838.00
Term Deposit .....	<u>10,000.00</u>
	\$27,045.45

#### REVENUE BREAKDOWN

Membership Dues		
Regular .....	\$5,736.00	
Student/Retired .....	<u>940.00</u>	\$6,676.00
BCC Dues .....		1,832.00
NRC Journal subscriptions .....		3,272.00
Bulletin Subscriptions & Advertisements .....		280.00
Premium on U.S. Cheques .....		73.06
Interest, Chequing/Savings Account .....		326.23
Interest, Term Deposit .....		840.82
Grant for Savannah Project .....		4,500.00
Return Can. Congress of Biology Loan .....		2,500.00
Repayment of Weresub Award .....		1,000.00
Nature Conservancy of Canada .....		5.00
Donations to Endowment Fund .....		<u>841.00</u>
		\$22,146.61

#### EXPENDITURE BREAKDOWN

BCC Dues .....	\$ 1,330.00
NRC Journal Subscriptions .....	3,228.50
Bulletin Expenses .....	2,004.65
Conservation Committee Expenses .....	390.06
Savannah Project Expenses .....	10,363.12
Secretary's Office Expenses .....	723.89
Treasurer's Office Expenses .....	335.13
President's Office Expenses .....	302.49
Botany '86 seed money .....	500.00
Systematics and Phytogeography Section .....	84.27
Awards (casting, engraving) .....	465.12
Student Bursaries .....	600.00
Cinq Mars Award .....	200.00
Youth Science Foundation Prize .....	158.00
Weresub Lecture Expenses .....	304.50
Weresub Award .....	1,000.00
Translation .....	29.90
NSF and PD Cheques .....	112.50
Miscellaneous .....	<u>30.90</u>
	\$22,163.03

#### RECONCILIATION

Assets (May 31, 1986)	
Chequing/Savings Account .....	\$16,207.45
Savings Account (Endowment) .....	838.00
Term Deposit .....	<u>10,000.00</u>
	\$27,045.45
Liabilities	
BCC .....	502.00
NRC .....	44.00
Savannah Project Expenses .....	1,136.00
Secretary's Office .....	558.44
President's Office .....	201.30
Treasurer's Office .....	278.53
Bulletin .....	510.18
Awards .....	326.94
Post-dated Cheque .....	( 80.00)
Botany '86 seed money .....	<u>(500.00)</u>
	\$ 2,977.39
Net Surplus .....	\$24,068.06

WERESUB FUND Net Surplus .....	\$13,705.21
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Keith Winterhalder, Treasurer

## KNOW YOUR OFFICERS

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

### LUC BROUILLET

**Position:** Professeur-adjoint; conservateur, Herbar Marie-Victorin  
**Where:** Institute botanique, Université de Montreal.

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

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

### IAIN E. P. TAYLOR

**Position:** Professor  
**Where:** Departement of Botany, Univ. of British Columbia.

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

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

### K. E. DENFORD

**Position:** Professor  
**Where:** Department of Botany, Univ. of Alberta, Edmonton

**Research Interest(s):** Chemical biosystematics. Biochemical adaptation of species in Arctic and Alpine environments, especially the genus Arnica. Effects of glaciation on the distribution of species in North America.

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

### DENIS BARABE

**Position:** Botanist.  
**Where:** Jardin botanique de la ville de Montreal.

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

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

## A. GORDON THOMAS

**Position:** Research Scientist.  
**Where:** Agriculture Canada, Regina Research Station.  
**Research Interest(s):** Population ecology of weedy species. Weed flora of Canadian crops.

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

### E. KEITH WINTERHALDER

**Position:** Associate Professor & Chairman.  
**Where:** Department of Biology, Laurentian University.  
**Research Interest(s):** Plant ecology, especially plant-soil relationships and specifically pollution and revegetation ecology.

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

### DENIS BARABE (85-87)

See under Vice-President.

### RICHARD HERDA (85-87)

**Position:** Head, Environmental Section  
**Where:** Archeology Division, B.C. Provincial Museum, Victoria  
**Research Interest(s):** Vegetation & vegetation listing of B.C.; origin & development of B.C. biogeoclimatic zones; pollen morphology (Apiaceae); relationship of environmental history to evolution of native culture; paleoethnobotany & ethnobotany of B.C.; quaternary paleoecology of coastal Veracruz, Mexico, Belize; paleoethnobotany & environmental history of eastern Crete; sea-level changes & curves for west Vancouver Island; environmental history of glacial refugia of coastal B.C.

### B. LAWRENCE (LARRY) PETERSON (85-87)

**Position:** Professor  
**Where:** Department of Botany, University of Guelph  
**Research Interest(s):** Development & structure of roots with emphasis on ectomycorrhizae vesicular arbuscular mycorrhizae and nodule development in actinorhizal plants



BARRY G. WARNER (86-88)

Position: Assistant-Professor  
Where: Dept. of Earth Sciences  
Univ. of Waterloo  
Research Interest(s): Palynology

GERALDINE A. ALLEN (86-88)

Position: Assistant-Professor  
Where: Dept. Biology  
Univ. of Victoria  
Research Interest(s): Plant taxonomy.  
Evolution and Population  
Biology. Polyploidy of  
Asters.

WILLIAM J. CRINS (86-88)

Position: Research Associate  
Where: Dept. of Botany  
Univ. of British Columbia  
Research Interest(s): Sedge systematics  
(numerical taxonomy/cytology)  
Compositae systematics  
(chemosystematics)

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

LUIS OLIVEIRA

Position: Assistant-professor  
Where: Dept. of Botany  
Univ. of British Columbia  
Research Interest(s): Plant Cell  
Biology (marine algae and  
higher plants)

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

ERIC HABER

Position: Assistant Curator of Vascular  
Plants  
Where: Botany Division, National  
Museum of Natural Sciences,  
Ottawa  
Research Interest(s): Systematics of  
Pyrola; floristics of Canada

#### CBA/ABC BOARD MEETING NOTES

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

A. Outgoing Board of Directors Meeting,  
June 25 (I. A. Taylor presiding).

The Treasurer distributed copies of  
the Budget for 1986-87 to those members  
attending the meeting. This is the  
first year that a budget has been  
prepared and presented to the Annual  
General Meeting for discussion. After  
some discussion, it was suggested that  
two additional income items would be  
added: (i) Bulletin subscriptions and  
(ii) the income from the sale of the  
Society pins. Because of the projected  
deficit every effort should be made by  
members to encourage other botanists to  
join the CBA/ABC since most of our  
income is generated by memberships.

The total membership at the time of  
the meeting was 363 which consisted of  
273 regulars, 61 students and 29 retired  
members. A breakdown of membership by  
location was not available at the time.

Position paper on Transplantation as  
a Means of Preservation - The President  
invited discussion of the position paper  
which have been distributed to all those  
who had registered for the meeting. R.  
Suffling indicated that the basic  
assumption was not documented, the form  
of the paper was too general, and  
transplantation was not defined. After  
discussion a motion was moved and  
carried to approve in principle the  
Position Paper and the Paper was  
referred back to the Conservation  
Committee who was instructed to tighten  
up the introductory and second paragraph  
and to simplify and shorten the length  
of the whole paper.

B.C.C. Report - B. Fenton briefly  
reviewed the history and indicated the  
that purpose of the Council is to  
represent member societies in the  
political arena where decisions are  
being made. The Council has recently  
published a report on government hiring  
policy, compiled a directory of  
field stations and organized the First  
Congress of Biology. He emphasized that  
we are getting a great deal of service  
for the small amount of money  
contributed by each member. The B.C.C.  
is asking member societies to consider  
paying the costs of their delegates to  
attend the two yearly meetings.

It was moved and approved that the  
Association would pay the travel  
expenses of our President and one other  
representative to attend the B.C.C.  
meetings.

Publication of Meeting Abstracts (I.  
Taylor) - The Canadian Society of Plant  
Physiologists has asked us to join them  
in preparing a proposal to have meeting  
abstracts published in a NRC journal.  
Some advantages would be that this would  
enhance the society standing and  
increase the impact of our research on  
the international scientific community.  
However, it was feared that publication  
of abstracts might encourage citation of  
unpublished material.

It was moved and approved that the President enter into negotiations with CSPP regarding this subject.

Timing of Meetings - J. Shay asked the organizers of future meetings to plan activities so that those attending can take advantage of savings on air fares. L. Peterson suggested that we consider holding shorter meetings and weekend meetings. K. Winterhalder indicated that some universities may have problems offering service on weekends. The subject was referred to the incoming executive for consideration.

Society Pin - Two designs were displayed at the registration desk during the meeting and comments were requested. The second design was favored and a motion passed and approved for its adoption as the official society pin.

Research on Canadian Shield - J. Shay indicated that a foundation was established to support research on the Canadian Shield and that anyone wanting more information should contact her.

Proposed Bruce Peninsula National Park - R. Suffling asked the Association to send a letter to various federal and provincial government officials urging them to press ahead with the creation of the Bruce Peninsula National Park.

A motion was passed and approved that such a letter be sent by the President of the Association.

B. Incoming Board of Directors Meeting, June 25 (L. Brouillet, presiding)

Past President I. Taylor will complete the preparation of a Manual on Policies and Procedures that will serve as a guideline for the Society to conduct its affairs. He will also contact potential industrial sponsors for the Endowment Fund and will assemble photographs of past presidents.

Montreal 1987 Meeting - A motion was passed and approved to provide \$500 in seed money for the 1987 Annual Meeting.

It was also suggested that D. Barabe prepare a poster advertising the next Annual Meeting. The poster will be distributed for display in departmental offices.

Several Symposia topics were also suggested for this meeting. The Ecology section suggested the topic "The Ecology of the Upper St. Lawrence". The Mycology section is planning a special contributed paper session. The session is being organized by Dr. S. Berch (UBC), who will be soliciting contributions from researchers on mycorrhizae. Dr. L. Peterson has agreed to give the keynote paper. A symposium on organ development is also being planned by the Structure & Development Section, while the Systematics & Phytog-

eography Section suggested two symposia: (i) current status of sedge systematics, (ii) phytogeography of Ontario.

#### Awards Committee Members:

Lawson and Elliot Awards - President (chairman), President-Elect and all Directors. A senior scientist (non-botanist) should also be named to the Lawson award committee.

Endowment Award - L. Brouillet (chairman) will use a local committee.

Cing-Mars Award - K. Denford (chairman), representatives from all sections still have to be appointed.

Paleobotany Section - The possibility of establishing a Paleobotany Section will be investigated by the Executive.

Biological Survey - E. Haber was asked to prepare a proposal of priorities for the Executive.

Publication of Symposia - K. Winterhalder will investigate the possibility of having the symposia at the Sudbury Meeting published.

#### INTERNATIONAL SUPPORT AND/OR SPONSORSHIP BY CANADIAN BOTANISTS

Have you any international connections? The Canadian National Committee of I.U.B.S., at its meeting a year ago, raised the question "how much involvement do Canadian biologists have in international matters?". I would like to obtain some answers for Botany, so please take a few moments to write me a note answering the following questions.

1. Do you routinely recruit or accept students from overseas for research training, with the intent that they will return to their home country afterwards?

2. Do you solicit or accept opportunities to provide research advice and technical expertise to Third World countries?

If so, please give a thumb-nail sketch of such work and indicate the agency through which you work(ed).

3. Do you believe that your research expertise would have value in the Third World?

If so, please give a thumb-nail sketch of one or two examples.

4. What is your general area of expertise?

5. Would you be willing to become involved in international collaborations if you could find out how to make the contacts?

Send your letters (backs of paper towels) or postcards to:

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

#### THE INTERNATIONAL ORGANIZATION OF PLANT BIOSYSTEMATICS (IOPB)

An open business meeting of the International Organization of Plant Biosystematists was held during the five day IOPB Symposium "Differentiation Patterns in Higher Plants" which was organized by Krystyna Urbanska and held at the Eidgenossische Technische Hochschule (ETH), Zurich, Switzerland, July 13-18, 1986.

The President (Prof. William F. Grant, McGill University, Montreal) told of the continued interest in the activities of IOPB and the many favorable comments he had received on the holding of IOPB Symposia. He also stated that he had been receiving very high praise for the fine production of the IOPB Newsletter under the Editorship of Krystyna Urbanska and for the information which she was gathering for the Newsletter from botanists around the world.

Dr. Liv Borgen, Secretary-Treasurer reported that membership was steadily increasing and stated that she looked forward to many more new members as additional activities were undertaken. Membership fees for the three years 1987-1989 (between Symposia and change of Executive) is U.S. \$20. New members and renewals of membership may be sent directly to Dr. Liv Borgen (Botanical Garden and Museum, University of Oslo, Trondheimsveien 23B, 0562 OSLO 5, NORWAY).

Prof. Krystyna Urbanska, Editor of the IOPB Newsletter, said that issue number 6 had just been distributed and that anyone with contributions for Newsletter number 7 should send them to her before November (Dr. K. Urbanska, Geobotanisches Institut, Stiftung Rubel, Zurichbergstrasse 38, CH-8044 Zurich, Switzerland). She stated that a report on the highlights of the Symposium with the summaries of the presentations by the Invited Speakers would be in the next issue. Members of the IOPB automatically receive the Newsletter.

Prof. C.A. Stace (Department of Botany, University of Leicester LE1 7RH, England) stated that the IOPB Newsletter would be an excellent place to report genomic and cytogenetic data, such as DNA density measurements, nucleotypic associations, species which have special chromosome markers, species on which chromosome banding are being carried out, species on which restriction mapping are being carried out, etc. in addition to chromosome numbers of species and hybrids. He offered to collect data and compile for the

Newsletter. Please send your data to Prof. Stace for inclusion in the next IOPB Newsletter.

An invitation has been accepted by the Japanese Botanists to hold the next IOPB Symposium in Japan. Prof. S. Kawano (Department of Botany, Kyoto University) stated that the Symposium would be held in Japan in 1989 and that he would be working with his botanical colleagues to make it a highly successful meeting. Details concerning "IOPB 1989" symposium will be published in the IOPB Newsletter.

Under future items for IOPB to consider, Prof. F. Ehrendorfer (Institut fur Botanik, Vienna) stated that IOPB might sponsor "Workshops on Techniques", such as advances in cytology, electrophoresis, etc., and that he would be willing to hold a one week workshop on cytological techniques at his Institute. Anyone interested in participating or holding a workshop is requested to write to Prof. Grant who will try to coordinate such a workshop.

A decision of the Executive and Council was to shorten the term of office of the Executive and Council from in between International Congresses of Botany (5 to 6 years) to between IOPB Symposia which are now being held every three years. As a result, a Nominating Committee was established to solicit names for a mail ballot for Vice-President and ten Council members (no more than two persons for any one country). The Nominating Committee consists of B.A. Barlow (Australia), E. Pogan (Poland), I. Fukuda (Japan), C.A. Stace (Great Britain), D. Cartier (France), K.L. Chambers (U.S.A.), C.C. Chinnappa (Canada) and the Executive ex officio. Suggestions of names should be sent to any member of the Nominating Committee. A ballot will be sent out prior to the International Botanical Congress and the names of the new Executive and Council Members will be announced at an Open Meeting of the IOPB during the Botanical Congress 24 July to 1 August 1987.

The Executive considered that an "Award" be presented to an outstanding "Biosystematist" at the next IOPB Symposium in Japan. The Nominating Committee was charged also with this task. Names for consideration should be sent to any member of the Nominating Committee or the Executive.

As there was no further business, the President turned the meeting over to the incoming President, Krystyna Urbanska.

#### RAVEN TO RECEIVE HORTICULTURAL AWARD

Peter H. Raven, director of the Missouri Botanical (Shaw's) Garden, has been unanimously nominated to receive the prestigious 1986 Hutchinson Medal, the premier award of the Chicago Horticultural Society. Raven accepted

the medal during the Horticultural Society's annual awards program June 22 at the Chicago Botanic Garden in Glencoe, IL.

The Hutchinson Medal recognizes an individual who, through great personal effort and sacrifice, has provided outstanding leadership of a professional or scientific nature, thus resulting in the significant presence of gardening or other horticultural progress, either locally or nationally. The medal was created in 1894 and named in honor of Charles Lawrence Hutchinson, a patron of the arts and civic leader.

#### LIBRARY RECEIVES GRANT FROM THE DEPARTMENT OF EDUCATION

The Missouri Botanical Garden's Library has been awarded a grant from the United States Department of Education to continue its ongoing project of recataloging and reclassifying its collection into an automated cataloging database (OCLC).

The grant award of \$240,044 for OCLC entry will be shared with the New York Botanical Garden. The Missouri Botanical Garden's share is \$104,370. The facilities boast two of the nations most comprehensive botanical libraries.

Effective from Oct. 1, 1986 to Dec. 31, 1987, the grant award enables the continuation of the project that began in Oct. 1978. Estimated completion of the project is 1990. The Department of Education will consider continued funding of the project based on satisfactory progress being made towards the goal of entering the remaining 6,550 titles and the availability of funds.

The continued entry of the libraries' holdings into OCLC is significant due to the over 6,000 OCLC participating libraries that possess terminals and rely heavily on access to the data. It is estimated that the two libraries hold more than 80 percent of the world's printed literature on the following: plant systematics; plant distribution and floristic studies; plant identification; history of botany and horticulture; herbal literature; pre-Linnean botany; and the biographies and bibliographies of botanists, plant explorers and horticulturists. The libraries also hold more than 65 percent of the world's significant published literature in other areas of botanical and horticultural science and gardening.

The Missouri Botanical Garden's library got its start in 1859 when Garden founder Henry Shaw organized his own book collection, and had George Engelmann, his scientific advisor, purchase books in Europe. The depth and importance of the collection today is the result of the strong foundation established during its early history, as well as the ongoing commitment to collect the taxonomic botanical

literature on a world-wide, comprehensive basis.

In addition to general book and journal collections of more than 90,000 volumes, other aspects of the library include a rare book collection, archives and bindery.

#### LIBRARY RECEIVES GRANT FOR THE PRESERVATION OF RARE BOOKS

The Missouri Botanical Garden's library has received a grant of \$10,000 from the National Endowment for the Arts. The grant will help finance the conservation treatment of selected books from the Garden's rare book collection between April 1, 1986 and September 30, 1987.

A total of 135 books will be preserved via rebinding or full restoration. Twenty-seven of the rare books will be preserved in the Garden's bindery, with the other 108 books sent to private conservators. The books are too valuable to send to commercial binderies.

The rare books to be preserved were selected based on their immediate need for treatment and their artistic importance. The best botanical illustrations of past centuries are represented, with much of the artwork and binding of the books hand-created, unique or otherwise significant. Many of the rare books are also early examples of woodcuts, with hand-colored plates and extraordinary paper quality.

The Garden's rare book collection contains over 4,000 volumes, 1,000 of which are pre-Linnean (pre 1753) books. The 127-year-old library is one of the world's most comprehensive libraries, with more than 90,000 total volumes in its collection.

#### BOOK REVIEWS

Handbook of Plant Cell Culture: Volume 2: "Crop Species". (Eds) W.R. Sharp, D.A. Evans, P.V. Ammirato, and Y. Yamada, 1984, pp. 644 and Volume 3: "Crop Species". (Eds) P.V. Ammirato, D.A. Evans, W.R. Sharp and Y. Yamada, 1984, pp. 620. MacMillan Publishing Company, New York. \$ 60.00 and 53.00 US

The objectives and format established, so successfully, for volume 1 in this series have been maintained for these two additions. The series now becomes a standard and perhaps the pre-eminent reference work in Plant tissue culture.

Each volume has an Overview Section in which general topics are reviewed, "Major foods and energy crops: Trends and Prospects" and "Cell culture methods for crop improvement" in volume 2;

"Plant Germplasm Resources", "Underexploited Crops" and "Development of new varieties via Anther Culture" in volume 3. These are followed by specialized articles on the use of tissue culture with individual crops. Volume 2 treats maize, oats, wheat, beans, red clover and additional chapters in the general areas of tropical, and subtropical fruits, temperate fruits, fiber and wood, extractable products complete volume 2.

The specialized chapters in volume 3 include discussions on tissue culture in forage grasses, millets, rice, alfalfa, peanut. Fourteen additional chapters on vegetables, tropical and subtropical fruits, temperate fruits, fiber and wood and extractable products complete volume 3.

As an additional bonus each volume begins with a "Special Essay". In volume 2, Melvin Calvin argues for the replacement of fossil fuels, especially coal, with renewal plant oils and polymers, particularly from desert xerophytes, as energy sources. The beneficial effect on world ecology would be achieved by decreasing the carbon dioxide level of the atmosphere, thereby reversing the average temperature increase which he argues, and documents, is a direct consequence of this carbon dioxide rise. In volume 3, E.C. Cocking summarizes "Hybridizations Past and Present" in which the contributions of Luther Burbank are highlighted.

Despite the large number of contributors, evidence of a strong and consistent editorial presence exists throughout. Each of the specialized chapters, with few exceptions, follows the same plan, is well documented and represents an up-to-date summary at the time of publication. Each volume has a full species and subject index. We have yet to spot any typographical or editorial errors. The bindings appear to withstand the usual rough treatment given to reference books.

In summary, these two additions make the series an invaluable and successful response to the present need for accurate, informed and up-to-date information in this rapidly growing area of botanical investigation.

#### NEW TITLE INFORMATION

A Synopsis of the Benthic Marine Algae of British Columbia, Northern Washington and Southeast Alaska, by R.F. Scagel, D.J. Garbary, L. Golden & M.W. Hawkes, 1986. Phycological Contribution Number 1, Dept. of Botany, Univ. British Columbia, Vancouver, 444 pages. \$15.00 Can. + mailing & handling.

This synopsis cites all new published records of benthic marine algae (Chrysophyta, Chlorophyta, Phaeophyta and Rhodophyta) from British

Columbia and adjacent areas in northern Washington and southeast Alaska since the first checklist was compiled for this area in 1957. In addition, some new records are included based on previously unpublished herbarium specimens, and the distributional data for each taxon updated. Currently accepted classifications and nomenclature are used, and basionyms are cited for all taxa. Acrosiphonia coalita (Ruprecht) comb. nov. is presented as a nomenclatural change. A bibliography of references relating to the local flora is included for the following subject areas: flora for the area, systematics, life histories, genetics, biogeography, ultrastructure, biochemistry and physiology, economic aspects and anthropology.

In the area encompassed by this synopsis, there are recorded 627 taxa in 270 genera as follows: chrysophytes (Chrysophyta), six taxa in three genera; green algae (Chlorophyta), 102 taxa in 45 genera; brown algae (Phaeophyta), 130 taxa in 66 genera; and red algae (Rhodophyta), 390 taxa in 157 genera.

A Synoptic Guide to the Genus Primula, by G.K. Fenderson, 1986. ISBS, Inc., Portland, 211 pp. \$40.00 U.S.

This book includes: taxonomic history of the genus Primula; origins and distribution; supraspecific subdivisions; alphabetic list of taxa; cultivation; growing Primulas from seed; pests and diseases; illustrations; index to scientific names; index to subjects.

Handbook of the Canadian Rockies, by Ben Gadd, Corax Press, Box 1557, Jasper, Alberta T0E 1E0. \$24.95 Can.

This is the first comprehensive naturalist's and recreationist's guide to the entire Canadian Rockies area, from Liard River on the Yukon boundary through Glacier National Park, Montana. Handbook of the Canadian Rockies is a multidisciplinary work with every section checked for accuracy by expert reviewers. The botanical section includes: individual listings for 660 species of trees, shrubs, wildflowers, grasses/sedges/rushes, ferns, mosses, lichens and fungi.

#### NEW PRODUCT NOTE

The Atomic Energy of Canada Research Company developed a new laboratory instrument that they consider to have potential interest for many of

our readers.

This instrument is an automatic colony counter that uses state-of-the-art computer and machine vision technology to make accurate counts of the number of bacteria on petri dish cultures. The accuracy stems from the development of special software designed to identify circular colonies even when they are overlapping and densely populated. This makes the colony counting a much easier task for laboratory personnel.

For more detailed information on the product please contact:

Miss Suzanne Smith  
Market Research Assistant  
Atomic Energy of Canada Ltd  
Research Company  
Chalk River  
Ontario, K0J 1J0

#### PERSONALIA

Prof. R.F. Scagel of the University of British Columbia, Department of Botany, retired on June 30, 1986.

Dr. Scagel joined the University in 1952. He obtained his B.A. (Hons. Botany) in 1947 and his M.A. (Botany) one year later from U.B.C. In 1952, he received his Ph.D. from the University of California at Berkeley and joined the U.B.C. faculty in the same year.

In his long academic career, he served the University in various capacities. He was Assistant Dean, Faculty of Science (1965-69); Associate Dean and Acting Dean (1971-72); Head of the Department of Botany (1971-85); member of the Senate (1971-73) and many more. He served as the editor of *Phycologia* and *Syesis*; Associate Editor of the *Canadian Journal of Botany* and *Phycologia*. He has many accomplishments to his name, so numerous that they can fill many pages.

His academic duties may have come to an end with his retirement, but not his scientific work. His scientific research has flourished much more now that he has time to spare. Proof of this is the recent publication of "A Synopsis of the Benthic Marine Algae of British Columbia, Northern Washington and Southeast Alaska" and many more on the way.

The CBA/ABC wishes Dr. Scagel a very enjoyable and productive retirement.

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Dr. William I. Illman of Carleton University (Ottawa), a founding member of the Association, retires from active academic duties and as the official archivist of 23 years with the CBA/ABC.

On this occasion the CBA/ABC recognizes his life long dedication to Botany and wishes him a happy and fruitful retirement.

#### CHANGES OF ADDRESS

The Bulletin is mailed to individual members according to the mailing labels provided by the Secretary. This is the officer in charge of, among other duties, updating the mailing list. Notices of changes in address must, therefore, be sent directly to the Secretary: Dr. Gordon Thomas

Regina Research Station  
Agriculture Canada  
Box 440  
Regina, Saskatchewan  
S4P 3A2

If you send these notices to me at the editorial office, I must still send them to the Secretary. This creates a delay in updating the list and may affect the regular mailing of the Bulletin to some of you. It also creates extra postage expenses for the Association and increases the workload of the editorial office.

#### LATE SUBMISSION

##### NEWS FROM THE SECTIONS - Mycology Section

##### Report on Business Meeting

Mycologists had no cause to feel neglected at the 1986 CBA/ABC meeting in Sudbury. There were several mycological offerings scattered among the various contributed paper sessions and symposia. The subject matter of these papers included the anatomy of endomycorrhizae and ectendomycorrhizae, isoenzyme patterns of lichen mycobionts, accumulation of heavy metals by ectomycorrhizal basidiomycetes, the role of yeasts as "venereal diseases" in milkweed pollination and the use of plant pathogens as mycoherbicides. The highlight, of course, was the Weresub Lecture on carnivorous mushrooms. Above all, fruiting-bodies of several mycorrhizal species such as Amanita muscaria and Laccaria laccata on the Laurentian campus and in surrounding areas were conspicuous evidence that fungi have been doing their part in the remarkable revegetation wasteland sites in the Sudbury area.

##### The 6<sup>th</sup> L. K. Weresub Memorial Lecture

Everyone was delighted by the Weresub lecture given on Tuesday evening, June 1986. The talk given by Mr. Greg Thorn was entitled "Carnivorous Mushrooms" and was lavishly illustrated by excellent slides. The audience was introduced to the great diversity of fungi that consume nematodes and to the variety of mechanisms by which they trap them. On screen, nematodes were snared by rings, nets, and sticky knobs on

fungus mycelium. In other examples nematodes were chased by flagellated spores which followed a chemical trail, were shot by microscopic harpoons fired from cannon-like cell structures or were poisoned and tracked down by the hyphae of other fungi. A remarkable revelation was the fact that various oyster mushrooms growing in nitrogen deficient substrates such as decaying wood, are nematode-destroying fungi.

This annual lecture is given in memory of Luella K. Weresub who enjoyed international recognition as a mycologist and who was an avid supporter of students of fungi. She was a champion of clear logic and the English language and would have heartily approved of Greg's lecture.

Greg Thorn is currently a Ph.D. student working on wood-decay fungi at the University of Toronto. He obtained his Masters' degree at the University of Guelph under the supervision of Dr. George Barron who is world famous for his studies of nematode- and rotifer-destroying fungi.

## FIRST YEAR - EDITORIAL RETROSPECTIVE AND THE FUTURE

This issue of the bulletin closes my first year in the editorial office. On this occasion, I wish to take time to express my sincere gratitude to those members that have contributed to my success as an editor. It will be impossible to mention all by name and then there is the risk of some important contribution going unnoticed. However, the help of Mrs Sylvia Taylor (former Editor), our now Past-President Dr. Iain Taylor, our former Secretary Dr. Paul Harrison, and our Treasurer Prof. Keith Winterhalder must not go unmentioned since without their continuous support it would have been difficult to maintain the high standards everyone got used to in our Bulletin. It is also time to express my sincere thanks to those of you that so generously agree to do book reviews for the Bulletin. To those of you who have not done so yet, a gentle reminder to submit your reviews soon.

In this issue some there some features, such as New Titles Information, New Products Information, and Late Submissions section. It is not the intention of this last item to place any of our contributors on the spot. The only objective is to accommodate items that arrive after the electronic pagination for a certain subject category has been completed and hence avoid extra work in repaginating the whole issue or delaying the publication of interesting information. I trust you approve of the inclusion of these new features. However, please feel free to send your comments about them and your suggestions for other possible improvements that can make our Bulletin a better and more efficient medium of communication among the CBA/ABC membership.



The bulletin of the Canadian Botanical Association

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

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

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

Inquiries about membership of the CBA/ABC should be addressed to the Secretary of the Association: - Dr. A. Gordon Thomas, Regina Research Station, Agriculture Canada, Box 440, Regina, Sask., S4P 3A2, (306) 585-0255.