THE CANADIAN BOTANICAL ASSOCIATION

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BULLETIN

L'ASSOCIATION BOTANIQUE DU CANADA

October 1978 Volume 11 Number 4 Waterloo

REPORT ON THE ANNUAL MEETING

What a breath of allergy-free air it was to hold our annual meeting in Newfoundland! For several days in August over one hundred botanists and many wives had the opportunity to appreciate the setting of our easternmost province. A very successful pre-conference field trip was held in the magnificent scenery of the Gros Morne National Park*. Topography, vegetation and a host of rare plants provided fascination and interest to all who went on the trip. Oh yes, many members now understand what windy means! The Plenary Session on the Subarctic was, by most accounts, a solid start to the meeting proper, with the speakers fulfilling the expectations of the audience for a thorough and incisive examination of this extensive zone that spreads across Canada and beyond. Dr. Teuvo Ahti (Helsinki) applied broad-brush strokes to the problems of classifying such an entity as the 'subarctic', yet managed to convey a feeling for the factors that should be included or excluded in assessing a particular region. One of the features of the subarctic, bogs, was succinctly summarized by Dr. Damman (Connecticut), especially bog growth and the nutrient status of bogs. (In fact, several professors will probably adapt Damman's précis on bog development to their own lecture material!) Subarctic lakes were shown by Dr. Hamish Duthie (Waterloo) to be very diverse systems, more so than temperate lakes. The contemporary view of nutrient cycling in these lakes was also summarized and Dr. Duthie offered his own hypothesis of the mechanisms involved in nutrient cycling when such lakes are impounded. Palynological evidence was used by Dr. J. Ritchie (Toronto) to depict the diversity of major vegetation types in the subarctic. The approach served to emphasize how recently (7,000 years) postglacial development started in the general subarctic region. Dr. Ritchie's presentation also stressed how difficult it is to use indicator species to identify whether a geographic region is subarctic or not. Certainly the identification of specific sites along the southern limit of the 'subarctic' remains a ticklish problem.

The contributed papers in systematics, phytogeography, general botany, ecology, mycology, and phycology were given on the following three days and most sessions were well attended and, in the main, of superior quality. An afternoon visit to the Oxen Pond Botanic Park afforded participants an opportunity to view a botanical project designed to help inform the local citizenry of their natural heritage. Most members attended another afternoon field trip to either an area of arctic vegetation in Hawke Hills or to the Marine Sciences Research Laboratory. I know that the fresh fruit was greatly appreciated by the berry pickers who climbed the hills!

Two Lawson medals and one Mary Elliott award were presented at the banquet. Certainly the dinner was a screeching (!) success and, together with Dr. Rouleau's reminiscences of his twenty-odd years of research in Newfoundland, was greatly enjoyed by mainlander and Newfoundlander alike.

We thank Memorial University for hosting the meeting, one which rated as an outstandingly successful event. Personally, I felt that the sessions exhibited both the disciplined debate expected in a scientific conference and some of the informality of our own 'friendly Commonwealth Games'. As good as we have been in the past, it is encouraging to see that the Newfoundland meeting continued the momentum in the CBA to create an exciting conference environment.

Wayne Hawthorn

* Participants who collected specimens under the permit provided to Dr. Mann are reminded to send lists of their collections to him in compliance with the requirements of the permit. Address: Department of Biology, Memorial University Regional College, Corner Brook, Newfoundland A2H 6P9.

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		J.K. Morton
MAB/FNA		J.M. Gillett
		J.K. Morton

GEORGE LAWSON MEDALS AWARDED TO DRS. R.D. GIBBS AND TAYLOR A. STEEVES

The Canadian Botanical Association annually considers the award of the George Lawson medal to those men and women who have been nominated for their contributions to Canadian botany.

The Association's George Lawson medal honours the memory of one of the significant pioneers of Canadian science*. George Lawson was not the first noteworthy Canadian botanist, but he was one of the first to have extensive academic and professional training. He founded the first Botanical Society of Canada in 1860 and the first botanical garden. He was a founding member of the Royal Society of Canada and its sixth president. Under the aegis of the Royal Society of Canada he founded and was the first president of the Botanical Club of Canada which flourished for 20 years, from 1890 to 1910, and had a membership of about 200.

A graduate of the University of Edinburgh and of the University of Giessen, made famous by the laboratory of Justus von Leibig, Lawson obtained his Ph.D. in 1857. In 1858 he was appointed as the first professor of chemistry and natural history at Queen's University, Kingston, Ontario. He founded the first botanical garden in Canada at Queen's. He was the first professor of chemistry and natural history at Dalhousie University and taught botany at the Halifax Medical College and the Technical Institute in Halifax after moving there in 1863. He was the first Secretary of the Agricultural Board of Nova Scotia, the first Secretary (Deputy Minister) of Agriculture of Nova Scotia, a founder of the Nova Scotia Agricultural College at Truro and of the School of Horticulture at Wolfville.

At the time of his death in 1895, at the age of 68, the list of his publications contained 107 titles, 94 in botany, four in zoology, and five in chemistry. He was a specialist in the ferns, the Ranunculaceae and the Nymphaeaceae. His 143-page manuscript, "Flora Canadensis", listing the plants and their distribution, remains unpublished. He left a herbarium of some 10,000 sheets.

The Canadian Botanical Association had its beginnings at an invitation meeting held at Lawson's old University, Queen's. This was arranged under the auspices of the Royal Society of Canada and the Canadian Society of Plant Physiologists, in 1964. At this meeting a provisional committee was elected to draft an appropriate constitution and convene the founding meeting which took place at Carleton University, Ottawa, one year later.

As the successor organization to the Botanical Society of Canada and the later Botanical Club of Canada, it is most appropriate that the Canadian Botanical Association/L'Association Botanique du Canada should honour the memory of this pioneer of Canadian science, George Lawson, Ph.D., L.L.D., F.R.S.C., for his distinguished contributions to the advancement of botany in Canada through his teaching, research and policy-making in government by naming its merit award after him.

As your President, I have the pleasant duty of announcing that for 1978 the Association has decided to make two George Lawson medal awards for distinguished contributions to Canadian botany.

R. DARNLEY GIBBS

For a single contribution to Canadian botanical knowledge of outstanding distinction the George Lawson medal is awarded to Professor Emeritus R. Darnley Gibbs of McGill University in recognition of his 4-volume work "Chemotaxonomy of Flowering Plants" published by McGill-Queen's University Press in 1974.

Darnley Gibbs, better known to many of us as Ronnie Gibbs, attended University College, Southampton, as Isle of Wight County Scholar and obtained his B.Sc. (Hons. Botany) from the University of London in 1925. He obtained his M.Sc. from McGill University in 1926 and his Ph.D. from the University of London in 1933. He started at McGill by serving as a demonstrator in botany, assisting two world-renowned plant physiologists, Professor F.E. Lloyd, and Professor G.W. Scarth. He was appointed professor at McGill in 1955 and Macdonald Research Professor 10 years later. He was elected a Fellow of the Royal Society of Canada in 1939 and served as President of Section V (Biological Sciences) in 1953-54. In that same year he was elected a Fellow of the Linnean Society of London. In 1964 he was made a life member of the American Society of Plant Physiologists. He played a prominent role in the organization and administration of the Ninth International Botanical Congress held in Montreal in 1959 and was an Honorary Vice-President of the Eleventh International Botanical Congress held in Seattle in 1969, the year of his retirement.

Darnley Gibbs served McGill in other ways than by teaching and research. He was at one time or another President of the Sigma Xi chapter, the Faculty Club, and the Fraser, later the Fraser-Hickson, Institute. For many years he was the McGill University Gardenmaster.

Darnley Gibb's early publications were in the field of tree physiology. He first became known for a series of papers on seasonal patterns of water and gas changes in Canadian forest trees and the ascent of sap and movement of water before and after death that he published from 1930 to 1958. He was also known for his text with E.J. Holms "A Modern Biology" which appeared in a series of editions from 1937 to 1953, including a Japanese translation in 1950. In 1950 he published another text "Botany. An Evolutionary Approach" which was widely adopted.

* See: "L'Oublie de l'histoire de la Science Canadienne - George Lawson, 1827-1895" par Jacques Rousseau, M.S.R.C. et William G. Dore in Pioneers of Canadian Science/Les Pionniers de la Science Canadienne. Symposium presented to the Royal Society of Canada in 1964. Ed. by G.F.G. Stanley. Published for the Society by the University of Toronto Press. 1966. Studia Varia Series No. 9.

As early as 1929 he published a paper with G.W. Scarth and Jane D. Spier on cell walls in wood, entitled "The structure of the cell wall and the local distribution of the chemical constituents". It was not until 1944 that he published another paper of a similar nature, entitled "Alkaline nitrobenzene oxidation of plant materials and application to taxonomic classification". In view of current research on isolated plant protoplasts it is of interest to note that in one of his publications with J.S. Levitt and G.W. Scarth (1936) on "Water permeability in isolated protoplasts in relation to the volume change" he reported a technique for isolating protoplasts and maintaining them alive for sufficient time to carry out physiological experiments.

Darnley Gibbs' interest in plant chemistry led to his interest and development of his expertise in chemotaxonomy. In 1945, he published a paper entitled "Comparative chemistry as an aid to the solution of problems in systematic botany" and this established him as a pioneer in the modern revival of chemotaxonomy which took place in the 1950's and 1960's. Among his most outstanding achievements was the compilation of 50,000 cards containing the crossindexed details of a meticulous literature search that he made on the chemical constituents of flowering plants. This data, together with his own research results, formed the basis for his monumental 4-volume work "Chemotaxonomy of Flowering Plants" for which we are honouring him today.

Darnley Gibbs' fame has spread far beyond Canada. He is widely recognized as one of the founding fathers of modern chemotaxonomy. By his enthusiasm and example he has inspired many younger scientists to enter this field of endeavour. His "Chemotaxonomy of Flowering Plants" is a unique contribution, not only because of the vast amount of information it contains but also because it throws out so many ideas for future development. It is bound to be consulted for many years to come.

On behalf of the members of the Association it gives me great pleasure to present you with the George Lawson medal and congratulate you for your outstanding contribution to Canadian botany.

TAYLOR A. STEEVES

For cumulative distinguished contributions to Canadian botany of a senior investigator the George Lawson medal is awarded to Taylor A. Steeves of the University of Saskatchewan at Saskatoon.

Taylor Steeves has made such an impact on the field of plant morphogenesis that one simply cannot discuss this field of plant science without referring to his publications and those with various different students and colleagues. He has made an impact, too, as an inspiring teacher, gifted speaker, able administrator, effective editor, and a driving force in the affairs of The Canadian Botanical Association/L'Association Botanique du Canada and of its General Section.

Taylor Steeves received his B.Sc. in Botany from the University of Massachusetts in 1944 and his M.A. and Ph.D. in Biology from Harvard University in 1949 and 1951, respectively, under the noted Professor R.H. Wetmore. He held a Sheldon Travelling Fellowship of Harvard University to Manchester University in 1950-51. He was first Junior Fellow, then Assistant Professor of Botany at Harvard from 1951 to 1959. In the latter year he joined the Department of Biology at the University of Saskatchewan. He was made Professor in 1964 and Head of the Department in 1976. He has spent study leaves with Dr. Georges Morel at the Institute National des Recherches Agronomiques, Versailles, with Professor Winslow R. Briggs at Stanford University, and at Yale University, and the Institute Botanique, Montreal.

Professor Steeves has served, with distinction, as Chairman of the General Section of both the Canadian Botanical Association and the Botanical Society of America, Inc. He has also served as a Director, Vice-President and President of the Canadian Botanical Association/ L'Association Botanique du Canada. He served as the editor of Botanical Gazette for six years. He has been and is currently an advisory editor of Phytomorphology and an Associate Editor of The Canadian Journal of Botany. He was elected a Fellow of the Royal Society of Canada in 1971. For his services to Canadian botany he was awarded the Centennial Medal in 1967 and the Silver Jubilee Medal in 1977.

Together with his colleagues and students, Taylor Steeves has published some 63 articles, seven chapters and two books on descriptive and experimental studies of developmental morphology of ferns and higher plants. His book with Ian M. Sussex, "Patterns of Plant Development", published in 1972, effectively brought together the experimental approaches to plant morphogenesis and the accepted disciplines of plant morphology and anatomy for the first time. His text on "Botany", written with C.L. Wilson and W.E. Loomis and now in its fifth edition, is regarded as one of the best available.

Taylor Steeves' work on fern has illuminated the conditions which control the growth and development of the crozier and also the conditions which control the relationship between the apex of a leaf and the apex of a shoot. His interests have always been directed to basic problems of how plants work. He has utilized regional problems to develop generalizations of significance elsewhere, and has combined anatomy and physiology so skillfully that his work forms the foundation for all future developments in his field of research.

Taylor Steeves has had a strong influence on a series of excellent students, many of whom now occupy significant positions in academic institutions in Canada and the United States of America.

On behalf of the members of the Association it gives me great pleasure to present you with the George Lawson medal in recognition of your cumulative contribution to Canadian botany during the last two decades. I congratulate you on this well-merited award.

MARY E. ELLIOTT SERVICE AWARD

The recipient of the first Mary E. Elliott Award for meritorious service to the Canadian Botanical Association is John K. Morton.

John Morton joined the Canadian Botanical Association shortly after his arrival in Canada in January, 1968, has attended every Annual Meeting and has worked actively for the Association since that time.

Presentation of awards at the Annual Meetings

Top left, Top right & Bottom left:- Our retiring President, Dr. Gorham, presenting George Lawson Medals to Dr. Gibbs and Dr. Taylor Steeves and the Mary Elliott Award to Dr. Morton.
Bottom right:- Our incoming President, Dr. Walker-Shay, presenting the Cinq-Mars Award to Suzanne Forget.

President in 1974/75; Editor of the Bulletin since July 1971; Executive Committee Member of the Systematics and Phytogeography Section since 1972; member of the Committee for Rare and Endangered Species in the Canadian Flora and instrumental in organizing and chairing the Endangered Species Workshop at the Lennoxville Meeting in 1976; he was a member of the organizational committee for a National Botanic Gardens System for Canada and an invited speaker at the symposium on "Man's Impact on the Canadian Flora" at London in 1973 where he gave an excellent lecture on "Recent changes in the Canadian Flora". He subsequently edited the symposium papers for publication as a supplement to the Bulletin.

His creative output and editorial expertise have made the Bulletin a very effective organ of the Association and if only for this contribution alone I can think of no one more deserving of this award.

So, on behalf of the members of the Canadian Botanical Association I present you, John Morton, with the Mary E. Elliott Award for meritorious service to the Association and offer you my sincere congratulations.

THE CINQ-MARS AWARD

This award, created to honour the late Dr. Cinq-Mars, is for the best paper presented by a student at our annual meetings. This year it was awarded to Suzanne Forget of the Institut Botanique, Université de Montréal, for a paper entitled "La flore vasculaire du Lac Kaiagamac". The judges for the award were Prof. Legault and Drs. Stewart, Thomas and Walker-Shay.

THE PHOTOGRAPHIC COMPETITION

Winners of awards in this year's competition at the St. John's meetings were:-

Colour prints			
	members	1st & 2nd	Jim Ritchie
		3rd	Guy Brassard
	non-members	1st	Ian Emerson
		2nd	Glen Ryan
Black & White prints			
	non-members	1st	Bernard Jackson
Slides			
	members	1st, 2nd and 3rd	Guy Brassard
	non-members	1st	Bernard Jackson
		2nd & 3rd	Keith Mayoh

The judges were Peter Bell, Marshall Laird and Roy Ficken.

FUTURE MEETINGS

The 1979 Annual Meetings

CBA/ABC returns to the site of its first annual meeting at Carleton University, Ottawa, for next year's conclave.

Registration will be from noon Sunday, June 17, at the main residence desk. Early arrivees will be welcomed to an informal open house of Carleton's ELBA greenhouse complex during the afternoon and it is hoped that all delegates will be able to assemble for an evening reception.

Under the general theme of "Plants for Man: Plant Science in the Service of Society", an exciting program of symposia, workshops, and visits to centres of botanical activity in the Ottawa area is in preparation. Early input of suggestions from sections of the Association would be welcomed by the local committee.

It is hoped that we might offer a pre-Conference four-day field trip which would permit registrants to study the natural and managed plant resources of Central and Eastern Ontario from the Carolinian of the Niagara through the agricultural heartland to the Haliburton Highlands of mixed forest and through Algonquin Park to the Petawawa Forest Experimental Station before swinging down the Valley to Ottawa. Other field trips of less extensive nature are being considered as well.

An early expression of tentative interest in the proposed pre-Conference trip is required before we engage in detailed planning, which will involve considerable work on the part of local committees along the way. Please indicate your interest now by dropping a note to:

Professor W.I. Illman
ELBA
Carleton University
Ottawa, Ontario K1S 5B6

One innovation, for our Association, will be an option available to those contributing papers of presenting their work in the form of a poster display as an alternative to the usual verbal reading of a paper. The call for papers should be published in the next number of the Bulletin. It is not too early for members to begin thinking of what they would like to contribute to make the 1979 meetings the best ever.

ABC 1979

Le congrès annuel de l'ABC aura lieu le 17 au 21 juin 1979 à l'université Carleton, Ottawa.

Notre programme varié, composé de colloques, d'ateliers de travail et de visites aux divers centres botaniques de la région, intéressera beaucoup tous les participants.

Nous espérons pouvoir organiser pour nos participants une excursion de 4 jours (du 13 au 17 juin) qui leur permettrait d'étudier la flore sauvage et la flore cultivé de l'Ontario central et oriental.

Si vous voulez participer à cette excursion, veuillez bien nous l'indiquer dès que possible. Adressez-vous à:

Professeur W.I. Illman
ELBA
Université Carleton
Ottawa, Ontario
K1S 5B6

Format nouveau cette année: les congressistes auront la possibilité de présenter leurs communications soit en les lisant soit en les "affichant".

Gordon Robinson being "Screeched-In" by Jeff Driscoll at the banquet.

The 1980 Annual Meetings

These are planned for Vancouver at the University of British Columbia from July 11 to 16th. They will be held jointly with those of the Botanical Society of America. They will be followed by the International Congress of Evolution & Systematic Biology (July 17-24).

The 1981 Annual Meetings

These are planned to be held at the University of Guelph in Ontario between June 7 and 11.

CALL FOR NOMINATION OF OFFICERS FOR CBA/ABC, 1979-80

The By-Laws for incorporation were adopted and became effective on August 15, 1978. The officers, their eligibility and terms, and the procedures for their nomination and election are fundamentally the same as specified in the old constitution. The by-laws dealing with nominations and elections are as follows:

By-Law 41. "A call for nominations shall be made at the annual meeting of the Association for 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 this annual meeting of the Association. All nominations must be delivered in writing to the Secretary of the Association by December 31st [changed from November 30th]. Nominations must be signed by not less than three (3) members [changed from 6] in good standing. If the membership does not provide a sufficient number of nominations by the deadline of December 31st, then it should be the duty of the Nominating Committee to complete the slate of nominations".

By-Law 43. "All nominations must be accompanied by the consent of the nominee".

By-Law 44. "A ballot bearing the names of the nominees 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".

At the annual meeting in St. John's, Nfld., a call for nominations for the following members of the Board of Directors was made:

1. President-elect (1 yr.)
2. Treasurer (2 yr.)
3. 3 Directors (2 yr.)

The continuing directors will be:

Dr. Keith E. Denford, Edmonton, Alta.
Dr. Jack R. Maze, Vancouver, B.C.
Dr. Iain E.P. Taylor, Vancouver B.C.

The outgoing directors will be:

Prof. Albert Legault, Sherbrooke, Que.
Dr. James Phipps, London, Ontario
Dr. Pearl Weinberger, Ottawa, Ontario

Les membres sont invitées retourner chaque mise en nomination au secrétaire pour le 31 decembre de cette année. Toute nomination doit être accompagnes du consentement écrit de la personne nommée, laquelle doit être membre régulier et en règle.

Members are requested to return nominations accompanied by the written consent of the nom-

inee prior to December 31, 1978 to the Secretary:

Dr. David D. Cass
Secretary, CBA/ABC
Department of Botany
University of Alberta
EDMONTON, Alberta
T6G 2E9

On behalf of the Nominating Committee.
Paul R. Gorham, Chairman

NEWS FROM THE SECTIONS

Report from the Mycology Section

The Mycology Section assembled for the first time in several years at Memorial University of Newfoundland in St. John's. We were fortunate in having Dr. Illman present to explain the proposed plans for the CBA meeting at Carlton University in Ottawa next year. In view of the location for the meeting in 1979, we look forward to an active participation by mycologists.

We were pleased to note that mycologists were included in the list of proposed symposium speakers and were able to make a few suggestions with regard to further mycological input into the programme for next year. In addition to contributed papers (oral presentations or poster sessions), an evening workshop that would appeal to a broad spectrum of conference participants was suggested.

The section also plans to prepare a directory of mycologists working in Canada. This directory, to be published in the Bulletin, will give a brief statement of the mycologist's research area. Information in this regard should be mailed as soon as possible. Hopefully, the directory will be useful to all CBA members and will promote greater communication, activity and membership in the mycology section.

A foray during the Ottawa meeting seems unlikely because of the time of year. However, regional workshops and forays sponsored by CBA members throughout the year are encouraged. The possibility of holding a mycological foray in Alberta in late August will be investigated. Further particulars as to time, place and cost will appear in the Bulletin. Moreover, I welcome any suggestions or inquiries about activities organized by mycologists at the annual meeting or at other times of the year.

Chronic apathy is diagnosed but the mycology section is not dead. I like to think that mycologists, like the organisms they study, are most active under the surface! Hopefully, the development of some sort of fructification can be stimulated for the CBA meeting next year.

James A. Traquair

Report From the General Section

Seven members of the General Section of the Canadian Botanical Association met in Room 148 of the Science Building, Memorial University at 7:00 p.m. on August 14, 1978. T.A. Steeves, who was designated acting Chairman last year, chaired the meeting.

The Chairman reported that his attempts, via the Bulletin, to obtain suggestions for future activities of the section as well as nominations for five new directors had received no response from the membership. The possibility of disbanding the section was again raised but was rejected for two reasons:

1. Nearly one-half of the members of CBA indicate their wish to be members of the section.
2. As long as the CBA has a sectional organization, it is necessary to have a general group for the many members who do not have a natural affinity for the more specialized sections.

It was decided that an effort will be made to participate more actively in the 1979 Annual meeting at Carleton, possibly by organizing a symposium on Environmental Stresses. Dr. Pearl Weinberger was asked to make contact with the local committee in this connection.

The 1980 meeting in Vancouver, jointly with the Botanical Society of America, was judged to be an auspicious occasion for a symposium on botanical teaching. This suggestion was recorded for the next executive to consider and bring to the 1979 meeting.

The election of new directors presented a problem since there had been no nominations. The only remaining elected director is Dr. Alistair Macdonald, whose term extends for another year. As an interim measure, two directors were appointed for one-year terms from among those present. These were David Cass and T.A. Steeves, the former to be Secretary-Treasurer and the latter to be Chairman.

The directors were instructed to prepare a revision of the General Statutes with the aim of simplifying the administration of the section, and to submit this to the membership as specified in the Statutes. It was proposed that there should be only two directors, a Chairman and a Secretary-Treasurer, elected by those present at the annual meeting for a one-year term with no limit on the renewal of term. The membership at large, however, would be invited, via the Bulletin, to submit nominations.

The meeting adjourned at 8:10 p.m. and the participants departed in a hopeful frame of mind.

Taylor Steeves

PROCEEDINGS OF THE 1976 ANNUAL MEETINGS

Members will be receiving the Proceedings with the current issue of the Bulletin. Dr. Langford and his colleagues at Lennoxville are to be congratulated on this excellent production. Dr. Langford and his wife are currently in Swaziland for a third year's contract with C.I.D.A. He is teaching Botany and serving as Head of the Department of Biology in the Kwaluseni campus of the University College of Swaziland. Editorial duties relating to the Proceedings were divided between Kwaluseni and Lennoxville.

TREASURER'S REPORT

1. Attached is a statement of the financial standing of the Association. At first glance there is a significant increase in the Association's balance of funds compared with that of last year ($1,013.89). However, this is due to the large refund from the B.G.T.'77 meeting in Winnipeg ($500 - meeting seed money and $630 = $1,130). Subtracting this from this year's balance leaves $5,852.68 which is slightly less than last year. If similar funds are not forthcoming in future years the Association should anticipate financial losses.

2. The Bulletin expenses continue to rise ($1,119.69). This is an increase of $403.33 compared to last year.

3. The Association's paid-up membership has grown by 13 and now stands at 402 comprising 335 Regular Members, 18 Retired Members and 49 Student Members. The breakdown by province is as follows:-

British Columbia	- 44
Alberta	- 41
Saskatchewan	- 23
Manitoba	- 10
Ontario	- 160
Quebec	- 54
Nova Scotia	- 19
New Brunswick	- 10
Northwest Territories	- 1
Newfoundland	- 17
U.S.A.	- 14
Outside North America	- 9
	Σ 402

4. The B.C.C. fee is paid by 312 of the Association's membership, and 164 persons subscribe to the Canadian Journal of Botany (this is 8 less than last year). As the new subscription rate for 1979 will be $29.00 (1978 = $18.00) I would imagine a fair proportion of people will be relinquishing their subscriptions.

5. Finally, the mean income to the Association is $9.00 per member.

CANADIAN BOTANICAL ASSOCIATION/L'ASSOCIATION BOTANIQUE DU CANADA

STATEMENT OF FINANCIAL STANDING - 1977-1978

BALANCE OF FUNDS - 1976-1977			$5,968.79
RECEIPTS			
Membership dues			
Full	$3,540.00		
Retired	76.00		
Student	224.00		
	$3,840.00	$3,840.00	
Canadian J. Botany subscriptions		2,952.00	
Biological Council Fees		1,105.00	
Bank Interest		169.18	
CBA advance to BGT '77 (Winnipeg) returned		500.00	
Balance from BGT '77 in proportion to registrants		630.00	
Miscellaneous		508.27	
		$9,704.45	$ 9,704.45
			$15,673.24
EXPENDITURES			
Bulletin expenses		$1,119.69	
Canadian J. Botany subscriptions		2,952.00	
Biological Council Fees		1,105.00	
Travel (includes executive & other)		1,641.62	
Postage/Stationery/Xeroxing		352.77	
Medal expenses		274.00	
Newfoundland Meeting Advance		500.00	
Student Award		50.00	
Miscellaneous		10.25	
Nelligan/Power (Lawyers)		522.00	
Advance to Dr. Gordon Thomas		150.00	
Cheque Books		3.23	
Refunds		10.00	
		$8,690.56	$ 8,690.56
		BALANCE OF FUNDS	$ 6,982.68

Auditors: Dr. K.E. Denford
Dr. D.D. Cass

Michael Hickman, Treasurer

CANADIAN JOURNAL OF BOTANY

Members who subscribe to this are informed that the price will be increased from the current $18 per year to $29 in 1979.

CANADIAN JOURNAL OF BOTANY BACK ISSUES

We have learned from "a usually reliable source" that a large quantity of back issues of the C.J.B. has been deliberately destroyed so that now it is only possible to obtain these issues on microfiche or microfilm. This appears to be a piece of incredible and well nigh criminal stupidity on the part of some bumbling bureaucrat. Surely, if storage space was the problem, it would have been better to make them available to students or institutions in the Third World, free or at bargain prices, rather than dispose of them in such a wasteful manner. We recently received a letter from a former colleague in a Third World university saying that their library had been forced to stop all purchases of books and journals since 1973 because of lack of funds. The recent actions of the National Museum in reducing its stocks of some older publications by sending them free of charge to people requesting them stands out in refreshing contrast to this imbecilic waste on the part of those responsible for the C.J.B.

A CANADIAN INSTITUTE OF BIOLOGY

Just over a year ago, in April, 1977, the Biological Council of Canada ratified a Prospectus for a Canadian Institute of Biology and authorized the Executive to take the appropriate steps in presenting the proposal to the biological community of Canada (see the Bulletin Oct. 1977, p. 40).

The proposal was jointly supported by the BCC/CCB and the Canadian Committee of University Biology Chairmen (CCUBC/CUDBC). The unique features of such an Institute were that it would be based on individual membership and, secondly, had as its goal the legal recognition of biology as a profession in all of the provinces of Canada.

Five thousand, five hundred copies of the Prospectus were printed and distributed as follows:

1. Based on the membership figure submitted to the BCC, the secretary of each of the member societies of the BCC received sufficient copies to include one for each member in the next society mailing. The Canadian Society of Cell Biology also distributed copies to its members.
2. The chairmen of all biology departments affiliated through CCUBC similarly received sufficient copies to distribute to all faculty members and to the Graduate Union.
3. The Canadian Federation of Biological Societies received copies for all their directors.

The proposed Institute was specifically discussed at all of the 1977 AGM's of the member societies of the BCC/CCB. In addition, a number of societies arranged to have a forum discussion on the concept of an Institute as part of the programme for their annual meeting. Similarly, a number of Biology Departments invited members of the BCC/CCUBC executives to visit and speak on the Institute.

The Prospectus, in inviting potential members to register, clearly indicated that if, by December 31st, 1977, less than 500 applications had been received, the BCC and CCUBC would discontinue their sponsorship of the Institute and all monies collected would be returned.

On December 31st, 1977, one hundred and thirty three (133) registrations had been received. In agreement with the Prospectus, registration fees for those applicants have been returned in full.

The purpose of this memorandum is to place on record the efforts of the two sponsoring organizations to promote the proposed Institute. Secondly, to inform the biological community of Canada of the outcome of the proposal and, thirdly, to make it clear to everyone that neither the BCC nor the CCUBC is continuing their sponsorship of the proposal and are taking no further steps to develop a professional organization for Canadian biologists.

D.F. Mettrick, President, BCC/CCB
K.G. Davey, Chairman (1977), CCUBC/CUDBC
6th June, 1978

LICENSING AND PERMIT REQUIREMENTS FOR BOTANISTS IN THE NORTH

A number of CBA/ABC members have encountered difficulties with, and have expressed concern about the impeding effects that the Scientists' Ordinance and the Territorial Land Use Regulations have had or are tending to have on botanical research and teaching programs in the Yukon and the Northwest Territories.

The Scientists' Ordinance (Yukon and N.W.T.) and the Territorial Land Act (administered by D.I.A.N.D.) require all non-resident scientists to apply once a year for a license for a specified term (Yukon) or the calendar year (Northwest Territories). In addition, they may be required to apply for and obtain a Permit under the Territorial Lands Act (P.C. 1977-532, 3 March 1977) in accordance with Territorial Land Use Regulations. The latter have been formulated with an eye to mining and engineering rather than botanical research on floristics, systematics, phytogeography or ecology!

The territorial and federal governments are concerned about preserving the environment, preventing pollution, protection of migratory waterfowl and large mammals, avoiding accidents and expensive rescue operations (especially at remote camp sites) and in minimizing the impact of social, economic, and medical surveys as well as geological mining and engineering operations on community settlements, and on the current negotiations over land claims.

The regulations apply to non-residents from government, industry, and university. So far, they do not clearly make allowances for the different impacts associated with different professions. This has to be assessed in each case and depends on the composition of the review panels and the knowledge and good judgement of the members and of the governmental officials who are charged with the responsibility for deciding whether or not to grant the licenses and permits applied for.

CBA/ABC needs to discuss this topic in sufficient depth to arrive at a position that the Executive can approve and the Association present to the various governments directly or indirectly through the Biological Council of Canada, A.U.C.N.S., etc.

The Systematics and Phytogeography Section and the Ecology Section, as the sections most affected, and the executive committees of these sections have been asked to consider the matter and report to the CBA Executive on what further study and discussion is necessary to develop a position on the matter (including any well-considered recommendations for change) for the Association to adopt.

From what is known, the following points should be among those considered:-

1. Should CBA/ABC endeavour to get botanical exploration exempt from Territorial Land Use Regulations?

2. Should CBA/ABC endeavour to get the requirement for annual returns (reports) to the Commissioner(s) (Scientists' Ordinance) on scientific work carried out modified (e.g., brief annual progress report with each application for renewal plus a final report (or reprint of journal publication)?

3. Should CBA/ABC endeavour to get the requirement that specimens collected may have to be submitted to the Commissioner(s) modified (e.g., deposit duplicates in the National Herbarium or in the nearest approved regional herbaria, where proper curation would be available)?

4. Should CBA/ABC make representations to have changes made in licensing and permit legislation and regulations by itself, with other biological societies, or through B.C.C., A.U.C.N.S., the Arctic Institute of North America, Sci. Tec., etc.?

Members are asked to discuss amongst their colleagues and to think about these regulations. You are invited to send your views to the chairmen of either the S & P or Ecology sections or to our President.

INCREASED FUNDING FOR UNIVERSITY RESEARCH INTO AREAS OF NATIONAL CONCERN

In 1977-78 the NRC launched a strategic grants program financed from additional funds made available by the government for this purpose. This program enabled NRC to begin to expand that part of its university support directed to areas of particular importance and concern to Canada. The Federal Government had designated six areas as national priorities:- oceanography, energy, environmental toxicology, agriculture, transport and space. NRC chose the areas of energy, oceanography, and toxicology. The program elicited strong support from the academic community. In accordance with its policy of encouraging further efforts in the universities in areas of national concern, the Natural Sciences and Engineering Research Council (NSERC) will now receive $5 million, the Medical Research Council (MRC) $3 million, and the Social Sciences and Humanities Research Council (SSHRC) $2 million, for the purposes of strategic grants in 1978-79. These sums are in addition to the $196 million already provided for in the estimates.

FORTHCOMING MEETINGS

Plant Development Workshop - The University of Toronto, Scarborough College campus, Saturday, October 28th, 1978. A full day of presented papers and associated discussion is planned, together with a poster session. The meeting will take place in the Humanities Wing from 9:30 a.m. to 5 p.m. Anyone interested is invited to attend. For more information please contact Dr. R. Dengler, phone 416/284-3218.

V International Symposium of Tropical Ecology, Kuala Lumpur, Malaysia 16-21 April, 1979.

The scientific programme of this Symposium will be on the theme "ECOLOGY AND DEVELOPMENT". For more information write to:-
Prof. J.I. Furtado, General Secretary, Organizing Committee, V International Symposium of Tropical Ecology, c/o Department of Zoology, University of Malaya, Kuala Lumpur, Malaysia.

Canada/MAB Biomass Strategy Workshop to be held at the National Conference Centre, Ottawa, February 26-28, 1979

The Man and the Biosphere Program is actively concerned with the impacts on man and the environment of new management strategies. With increasing demand for biomass, there is the question not only of whether the appropriate ecosystems can be managed to provide a sufficient, continuous supply of biomass but also whether they can continue indefinitely to provide the other services expected of them. It is these problems, the impacts and implications (for man and environment) of increasing demands on plant productivity (especially from forests) and of more intensive utilization of plant biomass that are the concerns of the Biomass Strategy Workshop.

In order to contribute to the development of a sound basis for the harvest of plant biomass from appropriate ecosystems without unduly alientating their other uses and benefits, the Canada/MAB Workshop will provide a forum to:

i) assess the consequences of increasing plant biomass utilization on the long term productivity of the forest and other ecosystems;
ii) assist the development of management strategies to meet the diverse needs expected of forested and other lands;
iii) make recommendations for the amelioration of present or projected adverse environmental or social impacts under conditions of increased demands for plant biomass utilization; and
iv) identify critical knowledge gaps and make recommendations as to how they may be filled.

The main emphasis of the overall workshop would be on the policy, environmental, societal and economic consequences of such research and management strategies and the means by which adverse social and environmental impacts can be minimized. Detailed attention will not be given to the technologies of biomass conversion, except for the environmental or social impacts of the technologies or of the use of the end products of conversion.

This Canadian workshop will permit a comprehensive Canadian input to an International MAB Workshop entitled Biological and sociological basis for a rational use of forest resources for energy and organics, which is being organized by the MAB committees of the USA, Canada and Mexico at Michigan State University, East Lansing, May 6-11, 1979.

The Workshop will be organized with an opening plenary session where three theme lectures will be given, a day of workshops and a final morning plenary wrap-up session. The theme topics are:

I Impacts of current forestry management practices - outlook for the future

II Alternate Canadian Energy Futures - Role of biomass in Canadian energy diet

III Strategies and consequences of increasing biomass production and utilization in Canada

For more information contact Dr. Patricia Roberts-Pichette, Executive Secretary, Canadian MAB Programme, Environment Canada, Ottawa, Ontario K1A 0H3.

REPORTERS AND RESEARCHERS

Scientists should receive, as part of their formal scientific training, a course that will help them to understand how the media work and what to expect when being interviewed by reporters.

Such training is essential in view of the increasing public interest in science and technology and the increasing political demand for socially relevant research. Both of these trends dictate that scientists will find themselves more and more often being interviewed for news stories -- and most of them have very little idea how to cope with this. Although they often complain about the incompetence of the media, it is just as often their own lack of understanding that creates many of the problems which exist between scientists and the press. Many scientists do not in fact even know the basic ground rules.

Moreover, researchers often do not recognize the important role that science writing plays these days in promoting public knowledge and understanding -- not only of scientific developments but of the methods and goals of science. Some scientists seem to feel that dealing with the press is simply a waste of time, but this, I suggest, is a self-destructive attitude.

Having said this, however, it is necessary to point out that science in writing in the Canadian media still leaves a great deal to be desired. The major problem is a lack of good full-time science writers. Science is not one of the traditional "beats" -- as politics and sports are -- and many newspapers and radio and TV stations are reluctant to employ a staff member full time to cover science. One consequence of this is that science stories -- if they are done at all -- are often glib and superficial, error-prone and sometimes sensationalized.

Scientists can do their part to help correct this problem by writing letters to the editor to correct errors (instead of simply shrugging their shoulders and saying the newspapers got it wrong again) and by letting media managers know that there is a readership for science stories. But perhaps most important, a little time and effort expended on helping reporters to get the story right will go a long way.

From Great Lakes Focus 4:2 July 1978, based on a speech by Lydia Dotto.

WHAT'S ON IN SYSTEMATICS AND PHYTOGEOGRAPHY IN CANADA - continued from the July Bulletin

NATIONAL HERBARIUM OF CANADA (Contact: J. Gillett)

The Botany Division conducts floristic research on Canadian plants and taxonomic research on selected plant groups. Although the staff is rather small it is frequently supplemented by contractees to carry out specific tasks. In addition to research, the staff is involved in other duties such as the planning and organization of displays, cooperation with other units within and outside the museum, and a variety of other activities.

Four separate national herbaria are maintained. The vascular plant herbarium (CAN) numbers 415,000 sheets, chiefly Canadian, with emphasis on Arctic but with a reasonably good representation of European and United States collections. The herbarium is rich in types. The algae section is currently inactive due to lack of a curator but the herbarium is still available (CANA) and consists of ca. 20,500 chiefly marine collections. The national lichen herbarium (CANL) includes approximately 64,500 collections and the bryophyte herbarium (CANM) about 170,500 collections. The total collections number approximately 670,000 for all groups.

The staff members' current activities are as follows:

J.H. Soper, Chief Botanist, is completing the shrubs of Ontario with M.L. Heimburger of Victoria. He is also collaborating with D.R. Given and C.E. Garton on the flora of the north shore of Lake Superior.

I.M. Brodo is engaged in a floristic and vegetational study of lichens of The Queen Charlotte Islands, a taxonomic revision of the Lecanora subfusca group for North America, a popular flora on the lichens of the Ottawa District and a checklist of the lichens of Bathurst Island, N.W.T.

R.R. Ireland is involved in a floristic study of the mosses of Nova Scotia, New Brunswick and Prince Edward Island. He is also collaborating with W.C. Steere of the New York Botanic Garden and G.S. Morgensen of the University of Copenhagen on the Arctic Moss flora of North America.

Gilda Trucco, a student at the University of Ottawa who is associated with the Bryology Section, is studying the genus Dicranum in Québec.

G.W. Argus is completing the Salix of Alberta for J.G. Packer's flora of Alberta and writing a monograph of the vegetation and flora of the Lake Athabaska sand dunes in collaboration with Hugh M. Raup. He is also doing flavanoid studies of artificial Salix hybrids. He is directing The Rare and Endangered Plant Project, preparing lists of the rare plants of Saskatchewan, Manitoba, Newfoundland, New Brunswick and Nova

Scotia. Mapping of rare plants of Ontario has begun. R.V. Maher and D.J. White are engaged full-time on this project.

J.M. Gillett is finishing off the St. John's Worts of Canada and a paper on Trifolium taxonomy. His interests run to Leguminosae in general with emphasis on the American species of Trifolium and Calliandra. Also well advanced is a flora of Gatineau Park, Québec.

E. Haber is currently devoting most of his time towards the editing of texts and preparation of displays for the Botany Hall. In this work he has the assistance of A. Dugal and F. Muhammad. His research time is largely taken up with these duties but he and J.H. Soper are collaborating on a checklist of the flora of Glacier national Park.

UNIVERSITE DE SHERBROOKE (Contact: A. Legault)

1) Under the direction of Professor A. Legault, all the local botanists, both amateur and professional, are cooperating in the floristic exploration of the eastern townships of Quebec.

2) In connection with a special study on the arctic and subarctic put forward by the Centre d'études Nordiques of Laval University, Phillippe Forest has worked on the phytosociology and floristics of the Great Whale River which flows into Hudson Bay.

3) Dr. A. Legault is collaborating with Dr. Robert Brooks and Dr. Roger Reeves of Massey University, New Zealand, in a survey of the nickel accumulating ability of Canadian serpentine plants.

UNIVERSITE LAVAL

L'Herbier Louis-Marie (Communiqué par: R. Gauthier)

L'Herbier Louis-Marie de l'Université Laval a entrepris les travaux suivants:

A - Flores locales
1) Flore du comté de Témiscouata par M. Gildo Lavoie.

2) Flore du Campus de l'Université Laval, Québec par M. Jean-Paul Bernard.

3) Flore de la région de Mont-Joli, comté Matapédia par Mlle Nicole Charest.

4) Flore de la colline de Québec occupée par les villes de Québec, Sillery et Sainte-Foy; Etude de l'impact de l'urbanisation par M. Guy Baillargeon.

5) Flore de la Station Agronomique de l'Université Laval, Saint-Augustin, comté Portneuf par M. Lionel Cinq-Mars.

6) Flore de Nomininge, comté Labelle par M. J.P. Bernard.

B - Genres à l'étude
1) Le genre Lycopus au Québec, habitat, distribution et taxonomie par M. Jacques Cayouette.

2) Le genre Sphagnum au Québec, habitat et distribution par M. Robert Gauthier.

C - Autres domaines
L'habitat de 34 espèces vasculaires des milieux ouverts du secteur calcaire de la rivière Shipshaw, Saguenay par M. Jacques Cayouette.

All ces projets sont actuellement en cours et exécutés sous la direction du Professeur Gauthier, à la exception de la flore de la Station Agronomique laissée presque totalement achevée par L. Cinq-Mars et celle de Nomininge qui s'est poursuivie avant de l'entrée de Prof. Gauthier en fonction comme conservateur.

Département de Biologie (Communiqué par P. Morisset)

Les projects sur lesquels Prof. Morisset travail actuellement sont:
1) Etude de la flore des falaises du Parc national Forillon, dans le but de préciser l'abondance et l'habitat des espèces arctiques-alpines ou à aire disjointe.

2) Etude de la morphologie et de la distribution d'Empetrum nigrum S. str. dans l'Est du Canada (avec M. Robert Gauthier).

3) Anatomie foliaire comparée des espèces canadiennes d'Eriophorum.

4) Etude biosystématique de Carex sect. cryptocarpae (avec M. Jacques Cayouette).

INSTITUT BOTANIQUE DE L'UNIVERSITE DE MONTREAL (Communiqué par A. Bouchard)

1) La flore de la région de l'Abitibi (nord-ouest québécois) fait présentement l'objet d'étude, de même que la région des Cantons de l'Est.

2) Nous avons terminé, pour le moment, nos recherches sur la côte ouest de Terre-Neuve dans le cadre de recherches sur l'environnement.

3) Nous faisons aussi des études sur la distribution des Potamogeton à grandes feuilles, au Québec pour comprendre leur biogéographie.

Bouchard A. 1974. The Coastal Plain Vegetation of the Gros Morne National Park. Contract 71-186 with the Department of Indian Affairs and Northern Development, National and Historic Parks Branch, Ottawa, Ontario, Canada. 171 pp. Requests for copies should be sent to:

Applied Research Division
Parks Canada
400 Laurier Ave. West
Ottawa, Ontario K1A 0H4

THE UNIVERSITY OF NOVA SCOTIA?

Our apologies to members from Nova Scotia for designating a university for their province in the July issue of The Bulletin (p. 43). The caption should, of course, have read Dalhousie University, Nova Scotia.

LES COLLECTIONS DE PLANTES VIVANTES

Cette année, le congrès annuel de l'AABGA (American Association of Botanical Gardens and Arboreta) a eu lieu à Hamilton du 28 mai au 1er juin 1978. L'hôte était le Royal Botanical Gardens et les réunions se tenaient à l'Université MacMaster. Dans une atmosphère propice à la discussion et à la recherche, environ 250 congressistes se sont interrogés sur le rôle, l'Utilisation, le développement et le maintien des collections de plantes vivantes, sujet fort pertinent en période de récession économique. Les collections peuvent-elles et doivent-elles grossir indéfiniment? Peut-on rêver posséder toutes les espèces qui existent ou tous les cultivars qui apparaissent sur le marché? Y-a-t-il des collections plus utiles que d'autres? Comment présenter les collections au public? Voilà les quelques questions qui ont été posées à l'auditoire et auxquelles les conférenciers ont tenté de trouver une réponse.

Il n'est pas dans notre intention de résumer chacune des communications qui ont été présentées. Nous essayerons plutôt de faire une synthèse des principales idées qui nous ont apparues intéressantes.

Discuter du rôle des collections de plantes vivantes dans une institution, n'est-ce pas entrevoir directement celui des jardins botaniques et des arboreta? Ici, tout le monde semblait unanime. Ces institutions scientifiques occupent une place privilégiée et doivent jouer un rôle important dans la société. Car l'éducation du public, l'enseignement et la recherche, sont trois domaines qui participent à la vie intellectuelle d'une ville, d'une région et d'un pays et qui font partie intégrante de leurs fonctions. Alors comment organiser les collections pour qu'elles satisfassent à toutes ces exigences en même temps?

Une collection de plantes vivantes, malgré son apparence, n'est pas statique. Elle peut dégénérer, s'améliorer ou se stabiliser. Aussi, seuls une mise à jour constante par l'homme de science et un entretien par du personnel spécialisé permettent-ils à cette dernière de jouer un rôle éducatif adéquat. Si, dans l'aspect scientifique des collections, on veut tenir compte des travaux taxonomiques récents, cela nécessite une mise à jour fréquente pour tout ce qui touche les questions de nomenclature. Naturellement, les commandes et les échanges de plantes seront d'autant plus appropriés que le ou les groupes auxquels les institutions s'intéressent auront été bien identifiés. Bien connaître les espèces que nous avons, est encore le meilleur moyen de connaître celles qui nous manquent. La recherche doit donc être considérée comme une activité nécessaire à l'établissement et à l'existence des collections. Ceci s'applique à toutes les catégories de collections: systématiques, médicinales, écologiques, physiographiques, etc. En plus des ouvrages publiés, il est nécessaire de posséder un bon herbier de plantes indigènes et cultivées, celui-ci est un outil indispensable pour les travaux d'identification. N'oublions pas qu'il est préférable d'avoir une collection moindre où les plantes sont identifiées correctement que d'en avoir une complète où il n'y a que quelques individus de bien identifiés, car la valeur d'une collection reflète la vitalité scientifique d'un jardin et lui confère une bonne réputation.

Comme la situation économique des jardins botaniques est un des facteurs limitants dans l'établissement et le maintien des collections, il a été fortement suggéré d'établir, pour chacune d'elles, les coûts réels d'aménagement et d'entretien s'échelonnant sur une période pouvant aller jusqu'à dix ans. Ceci permet jusqu'à un certain point de faire une relation entre le coût total et le potentiel éducatif d'une collection.

Pour qui et pourquoi entretient-on des collections de plantes vivantes? Voilà une question sujette à de nombreuses controverses. En fait, il y a presque autant de raisons d'avoir des collections qu'il y en a de construire des jardins botaniques. Actuellement, il existe deux orientations différentes: certaines collections sont destinées à l'enseignement spécialisé et à la recherche, d'autres exclusivement au public. Les deux premiers types de collections dépendent généralement d'universités. Ces institutions, auparavant, en enterdisaient l'accès; aujourd'hui, elles ouvrent de plus en plus leurs portes aux visiteurs. On s'aperçoit que les collections, même si elles sont organisées en fonction de la recherche et de l'enseignement, peuvent être profitables au public, du moins à un public quelque peu initié.

Le problème des collections de recherche a aussi suscité des discussions fort intéressantes. Doit-on les considérer comme permanentes ou sont-elles appelées à disparaître une fois le travail de recherche terminé? En fouillant l'histoire de certains jardins botaniques, il apparaît que plusieurs collections scientifiques imposantes ont été amassées au hasard, suivant les intérêts d'un botaniste dans un domaine précis ou la curiosité d'un horticulteur pour un groupe de plantes. Malheureusement, s'il n'y a pas au départ un plan d'ensemble, ces collections, qui exigent une attention continue, dégénèrent très rapidement après quelques années. De plus, comme elles ne sont pas destinées en premier lieu à l'éducation du public, il est souvent difficile pour les institutions gouvernementales de leur consacrer une part du budget suffisante pour les maintenir.

Dès lors, la question se pose quant au choix des collections les plus intéressantes à garder et à développer. Est-il possible, théoriquement et concrètement, de maintenir des collections qui servent à la fois à l'enseignement, à la recherche et à l'éducation du public? Quoique cet aspect n'ait pas été discuté en détail, on reconnaît l'existence d'aménagements esthétiques où l'on a réuni des plantes qui servent à l'enseignement et à la recherche et qui jouent, en même temps, un rôle éducatif important, par exemple les collections où les plantes sont réunies en associations végétales.

Aussi, dans le cas des jardins public, les nouvelles collections seront-elles choisies en fonction de leur potentiel éducatif, tant horticole que botanique, des intérêts scientifiques du personnel et du type de recherche que l'on projette de faire dans les années à venir.

Une fois les collections appuyées sur une base scientifique solide, l'aspect vulgarisa-

tion, qui est essentiel, devient facile. A ce point de vue, les jardins botaniques et les arboreta se rapprochent des musées. Ils devraient même s'inspirer de ces derniers afin de mettre au point des méthodes de vulgarisation adéquates. Il importe principalement de capter l'attention, non pas du professionnel ou de l'amateur averti, mais plutôt celle du visiteur ordinaire, du "looker" qui porte peut-être en lui le germe d'un futur naturaliste. Ceci implique forcément des aménagements spéciaux.

De plus en plus, la tendance est à délaisser les arrangements traditionnels, où les plantes sont alignées côte-à-côte, pour profiter au maximum des espaces naturels disponibles, et pour recréer, lorsque cela est possible, de nouveaux habitats qui présentent les plantes selon un aménagement paysagé. Il ne faut pas pour autant abandonner complètement les jardins traditionnels, car une des premières fonctions d'un jardin botanique sera toujours de présenter au public la diversité du règne végétal dans des cadres plus ou moins élaborés. D'après quelques congressistes, les étiquettes ne contiennent pas assez de renseignements pour permettre une vulgarisation efficace. Pour remédier à cette situation, un conférencier a suggéré d'inscrire les items suivants sur l'étiquette: le nom latin, le nom vernaculaire, la famille, le lieu d'origine, la date de floraison, les noms des insectes visiteurs, ou tout autre renseignement jugé utile. Pourtant, malgré l'importance de l'aspect vulgarisation, aucune méthode didactique précise ne fut apportée. Il reste donc aux institutions concernées de faire un effort plus grand afin de se rapprocher du public visiteur.

L'enregistrement des plantes sur ordinateur s'avère un instrument fort utile pour le maintien des collections. Ce procédé permet de connaître rapidement les différentes données accompagnant une plante de collection: l'emplacement dans le jardin, la famille, la provenance, la date d'arrivée, etc. Encore faut-il avoir l'équipement et le personnel nécessaires à sa disposition sans que cela ne gruge une trop grande partie du budget.

Aujourd'hui, on confie aux jardins botaniques la protection des plantes rares et des plantes en voie d'extinction. La mise sur pied de "banques de graines" régionales s'avère presque indispensable. Faciles d'entretien et exigeant peu d'espace, elles permettent de conserver facilement des graines pendant plusieurs années sans que leur pouvoir de germination en soit affecté.

Malgré de légères divergences d'opinions sur certains points précis, tous les congressistes sont arrivés à la conclusion qu'une collection de plantes vivantes, élément essentiel de l'activité intellectuelle d'une société, ne peut grossir indéfiniment sans tenir compte des facteurs suivants: l'espace, le coût, la recherche et la valeur éducative. Et, dépendant de l'orientation que l'on veut donner à un jardin, on choisira d'accentuer la recherche ou l'éducation du public.

Bien sûr, lors de ce congrès, plusieurs problèmes fondamentaux furent soulevés, sans qu'on soit parvenu pour autant à des solutions pratiques. Il n'en demeure pas moins que les thèmes généraux discutés ont fourni, aux presonnes présentes, le cadre nécessaire pour aborder les problèmes particuliers qu'elles rencontreront dans leurs jardins respectifs.

Denis Barabé and Normand Cornellier

RESEARCH AND DEVELOPMENT IN CANADA

Canadian businessmen are tired of carrying the fight to regain the scientific capability in Canada while the scientific community remains awkwardly silent. So argued Mr. Walter Light, President of Northern Telecom on May 29, 1978, at the annual meeting of the Canadian Research Management Association. Funds must be made available to support research and development (R & D) in Canada. Far from being a leader in world science, Canada's contribution to technology, the medical sciences, agriculture, fisheries, pulp and paper etc., is lagging behind. In terms of financial commitment, Canada ranks 9th, 10th or 11th of 12 western countries (usually ahead of Finland and Spain). Scientists have not argued forcibly and convincingly to counteract the government's de-emphasis of R & D. Individual scientists and scientific associations were encouraged by Mr. Light to articulate the point of view that Canada must become more competitive on the international economic scene and that the best way of staying ahead was to foster a greater commitment to R & D. One of Mr. Light's partial solutions would be to encourage long-term tax-based incentives, such as 25% tax credits for 10 years. What can botanists do? An important contribution would be to wake up and communicate with the rest of society on the beneficial results of R & D to regions and all of Canada, and to point out the necessity of a healthy scientific community. Otherwise, we shall surely lose both professionally and as a nation if we refrain from active debate. Mr. Light also stated that failure to invigorate R & D will lead to increased trade deficits, economic downturn, and loss of senior managers and scientists.

Wayne Hawthorn

AN URGENT APPEAL FROM THE ELORA GORGE DEFENCE FUND

The Ontario Municipal Board has now ruled in favour of the construction of a bridge and highway through two parks and over the Elora Gorge, a scenic landform unique in southern Ontario. A coalition of conservationist groups -- including the Ontario Federation of Naturalists, the Canadian Environmental Law Association, the Canadian Wildlife Federation, and the National and Provincial Parks Association -- has fought a long and expensive legal compaign against the bridge, but without success. The Ontario Cabinet will make the final decision in late September.

The 25 meter high dolomite walls of the 1.5 km long Elora Gorge shelter the finest known rock fern communities west of the Niagara escarpment. Botanical surveys have identified 11 ferns that are rare or scarce in the area, and some unusually large white cedar grow in the park areas along the gorge.

The Defence Fund believes that the bridge will result in noise pollution, road salt damage, and severe visual disruption in a beautifully quiet natural area tucked out of sight of the surrounding farmland and the nearby town.

We appeal to you to write directly to Premier William Davis, Queen's Park, Toronto and your Member of Provincial Parliament (letters from outside Ontario are most welcome!), requesting that an environmental impact assessment be made before any decision. Contact the Elora Gorge Defence Fund at Suite 303, 1 Spadina Cr., Toronto M5S 2J5, or phone (416) 978-7156 for further information.

PUBLICATIONS

Edible Garden Weeds of Canada by Adam F. Szczawinski and Nancy J. Turner, published by the National Museums of Canada, price $8.95. For those ardent gardeners who wage a ceaseless war against weeds, your problem is solved -- eat them! If you didn't know you could, or which are edible, or how to prepare them, this useful little book will provide the answers. It really is an excellent little book, moderately priced for the mine of information it contains. After a general introduction about weeds and how to identify and prepare them for the table, together with several general recipes, the bulk of the book is devoted to an account of some 40 weeds, or groups of related weeds, which are edible (or so the authors claim!). Against each weed can be found information on alternative names, identification, where to find it, preparation for the table and suggested recipes. Where appropriate, cautionary notes on similar unpalatable or poisonous species are given. There is also, for most species, a paragraph devoted to "More for your interest" -- miscellaneous information ranging from the origin of the names to folk lore associated with the plant and to various other uses to which it may be put. Each weed is illustrated, 12 by excellent full page colour photographs, and the remainder by small, adequate but, for the most part, not very inspiring line drawings. Considering the large amount of unused space on most pages of the book these line drawings could, with advantage, have been produced on a larger scale. The attractive glossy and waterproof cover and the spiral binding enable the book to be used safely in the kitchen. Though the reviewer is not very adventurous when it comes to food, he is tempted to persuade his wife to prepare some of these recipes. In fact, this book would make an excellent small present for one's wife, girl friend or mother -- just the thing for a stocking stuffer or a Mother's Day present!

J.K. Morton

Wallaceana - an ecology newsletter

If you work in a tropical region and want to establish a more effective means of communication between yourself and scientists in developing and developed countries, then you might consider the following: Wallaceana, an ecology newsletter for South East Asia, that was created a few years ago by Professor Jose Furtado, University of Malaya, to promote contact among tropical ecologists in that region. Wallaceana contains information on meetings, research activities, recent papers relevant to the tropics and feature articles. The March 1978 issue, for example, is 110 pages, with reports 1-2 pages long on topics such as Brazil's solar program, Thailand's fish protein production from sewage oxidation ponds, and coconut power in the Philippines. A feature article, reprinted from Ecodevelopment News, dealt with ecologically viable systems in agriculture with several examples cited for various tropical regions. Members interested in subscribing to this newsletter (≃ $10.00 per year with 3-4 issues) should contact Dr. F.B. Golley, Institute of Ecology, University of Georgia, Athens, Georgia 30602,USA. If sufficient interest warrants it, certain sections may be modified for the North American version, so that such a newsletter would be suited more to the needs in this hemisphere. The newsletter hopefully will be distributed on a world basis by the International Society of Tropical Ecology.

PERSONALIA

Dr. "Jim" C. Ritchie has started the second year of a 2-year award for the Canada Council as Senior Killam Scholar. He is working on the modern and late Pleistocene vegetation of the Northern Yukon and initiating a new similar project in North Africa.

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