THE CANADIAN BOTANICAL ASSOCIATION

BULLETIN

L'ASSOCIATION BOTANIQUE DU CANADA

Volume 3 Number 4 October 1970 Guelph

EXECUTIVE COMMITTEE MEETING NOTES

Replies have been received from the offices of the Prime Minister of Canada, the Minister of National Health & Welfare, and the Minister of Indian Affairs & Northern Development, regarding our resolutions on protection of the Arctic environment, oil pollution, and the Canadian population, and from the Editor-In-Chief of the National Research Council regarding French-speaking associate editors. Exerpts from these replies are printed elsewhere in this issue.

The Treasurer reported there are 412 full members in the CBA-ABC. A motion was passed that any library wishing to receive copies of the CBA-ABC BULLETIN must pay a regular membership fee of $6.00 per year.

A new by-law was passed to establish an Editorial Committee to have charge of the BULLETIN and making the editor an ex-officio member of the Executive Committee (Details below). Kendrick, Schofield, and Brodo were appointed. The costs of publishing the first three issues of the BULLETIN in 1970 were $0.333, $0.297, and $0.256, respectively. Kendrick stated that it is possible to publish a news letter much more cheaply by photo-offset, e.g., the PROBE from Pollution Probe. A motion was passed recommending to the Publication Committee that it consider moving from typeset to photo-offset printing for the BULLETIN. If the photo-offset method is to be used, certain considerations and precautions are suggested: the possibility of using various kinds of type-face; the use of an I.B.M. "Executive" typewriter; the retention of straight margins rather than the irregular right margin produced by the ordinary typewriter; and the use of good quality paper. There was concern that the professional quality of the BULLETIN should be retained. It was suggested that one issue of the BULLETIN be printed by photo-offset method.

On the Nominating Committee with Dr. Dale as Chairman, Dr. E. Rouleau was appointed to replace Dr. L. Cinq-Mars who has declined to serve. It was agreed that the chairman will ask for acceptance of nomination by each nominee and that there be an attempt to provide basic biographical details about each candidate.

There was considerable discussion and planning for the 1971 Annual Meeting in Edmonton and details are presented below.

Memberships were approved for Dr. Roger Jones of Trent University and Dr. John W. Grear of the University of Toronto.

Motions affecting by-laws 6a and 6b were passed to establish that the fiscal year shall be June 1 to May 31, and that dues are payable on or before the first day of the Calendar Year.

There was concern that the Biological Council of Canada had not taken up our suggestion of exploring inter-disciplinary meetings and it was agreed that we urge them to consider several new suggestions which would help make the BCC an effective voice for Biology in Canada.

Dr. Dale reported on the SCITEC Core Conference, "Heritage Tomorrow" in Halifax, Aug. 23 to 25, 1970, which he and Dr. P. Roberts-Pichette attended on behalf of CBA-ABC.

The following is extracted from Dr. Dale's report: The conference was attended to appraise the value of the SCITEC organization to the members of the CBA-ABC. As a scientific conference, it was a disappointment since a large part of the conference time was consumed in listening to familiar phrases from the establishment. However, both delegates agree that other members of the executive of this association attend future conferences for further assessment.

Pollution was treated in very simple terms without the complexity of the situation being brought out. Many resolutions apparently gave approval to present legislation or imminent legislation at provincial or federal level. Several important resolutions from the conference were referred to the executive of SCITEC. This could have been done without a conference and the tremendous expense of mounting this type of meeting. If the salaries of all the Heads of Industry, Deans of Universities and Civil Servants from the upper echelon are considered, the cost is horrendous.

Unfortunately many of the top pollution experts in biology were at the opening of the Huntsman Laboratory at St. Andrews, New Brunswick. Perhaps as a result the biologists and agriculturalists were not particularly impressed or impressive. The Chairman of Science Council of Canada was gratuitously rude to ecologists and he stated that there were only three or four good ecologists in Canada. (Each member of our ecology section should attempt to add two or three other names to his own to make up the complete list!). By the conference in general, ecologists were equated to undergraduate pollution activists. At one session it was stated by a sincere scientist that ecology was not quantitative. However, on being pushed, he admitted to being ignorant of the contents of the Journal of Ecology, Ecology, Oikos, the Journal of Applied Ecology, etc.

(At the November meeting of the Governing Board of the BCC, Hugh Dale gave a verbal report along the lines of the one immediately above and found that reports by other delegates were often similar in criticism. However the executive of SCITEC is aware of the situation. They anticipate the next conference will be an improvement. The CBA-ABC should continue to be represented on SCITEC.

ANNUAL MEETING 1971 IN EDMONTON

Nine Societies will be meeting jointly on the campus of the University of Alberta, Edmonton, from June 20 (Sunday) to June 24 (Thursday) 1971. These are: CBA-ABC, Botanical Society of America, American Fern Society, American Society of Bryologists and Lichenologists, American Society of Plant Taxonomists, American Mycological Society, Torrey Botanical Club, Phycological Society of America, and the Canadian Phytopathological Society. This joint meeting is sponsored by the American Institute of Biological Sciences and the CBA-ABC. The CBA-ABC and the Botanical Society of America will coordinate their meetings so that paper sessions, symposia and a banquet will be held jointly. The annual banquet will be Wednesday evening, June 23 and it is expected the speaker will be the President of the Botanical Society of America.

"Our Northern Plants: Their Importance in the World's Resources" will be the theme of the entire conference. There will be an opening plenary session on Monday morning — Dr. J. C. Ritchie is one speaker — and an all-society social evening (Klondike Days) on Monday evening, sponsored by the City of Edmonton. The CBA-ABC will sponsor one day-long symposium on the "Plants of Canada". It is being organized by Dr. D. B. O. Saville. Individual sections of CBA-ABC in cooperation with their counter-parts in AIBS may organize their own symposia. The Programme Director is Dr. Ron Eydt, our Vice-President. He will work with Dr. Sam Postlethwait, the Programme Director of the Botanical Society of America, to coordinate the two programs. Field trips are being planned by

DATE — LIMITE DU BULLETIN PROCHAIN: LE 15 JANVIER

CBA-ABC NEWS

1970-1971 Executive Committee

President ..... Janet R. Stein (University of British Columbia)
Vice-President ..... H. R. N. Eydt (University of Waterloo)
Secretary ..... P. B. Cavers (University of Western Ontario)
Treasurer ..... W. I. Illman (Carleton University)
Past-President ..... H. M. Dale (University of Guelph)
Directors: Retire in 1971: I. M. Brodo (National Museum, Ottawa); A. Cardinal (University of Laval); J. S. Rowe (University of Saskatchewan). Retire in 1972: W. B. Kendrick (University of Waterloo); W. B. Schofield (University of British Columbia); Jennifer M. Walker (University of Manitoba).

SECTION NEWS – ACTUALITIES DES DIVISIONS

This column regularly carries news as submitted to the Editor by each Section.

ECOLOGY SECTION

Chairman: Dr. M. M. Grandtner, Faculté de Foresterie et de Geodesie, Université Laval, Québec 10, P.Q.

Secretary: J. F. Alex, Department of Botany, University of Guelph, Guelph, Ontario.

GENERAL SECTION

Chairman: T. A. Steeves, Dept. of Biology, University of Saskatchewan, Saskatoon.

Secretary: R. I. Greyson, Dept. of Botany, University of Western Ontario, London.

MYCOLOGY SECTION

Chairman: Dr. Lorene L. Kennedy, Department of Botany, University of Alberta, Edmonton.

PALEOBOTANY SECTION

Chairman: Mrs. Margaret W. Steeves, Dept. of Geological Science, University of Saskatchewan, Saskatoon.

Secretary: H. R. N. Eydt, Dept. of Biology, University of Waterloo.

PHYCOLOGY SECTION

Chairman: H. C. Duthie, Department of Biology, University of Waterloo.

Secretary: L. D. Druehl, Department of Biology, Simon Fraser University, Burnaby 2, B.C.

A. Cardinal, Department de Biologie, Faculté des Sciences, Université Laval, as Member-At-Large, completes the section executive.

SYSTEMATICS AND PHYTOGEOGRAPHY SECTION

Chairman: J. B. Phipps, Department of Botany, University of Western Ontario, London 72, Ontario.

Secretary: P. Morisset, Dept. de Biologie, Université Laval, Québec 10, P.Q.

Notice To All Sections

Will all members of each section please note that they must send abstracts and titles of papers to be presented at the Edmonton Annual Meeting to the Secretary of their Section. These will be processed initially by the Secretary of the Section and then the Secretary will mail them to the Programme Chairman, Ron Eydt, Dpartment of Biology, University of Waterloo, Waterloo, Ontario.

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the American Society of Bryologists, the Ecologists, the Paleobotanists, the Phyctological Society, and the Taxonomists. Details will appear later.

Approximately 1500 delegates have already indicated they plan to attend. Accommodations in Edmonton include University residences, hotels, motels, trailer parks and tent parks. Registration materials will be sent out by the AIBS and they will handle the assignment of living accommodations plus publishing and mailing the initial programme. Because we hope this can be a "memorable family affairs", special events for wives, children and delegates include visits to Fort Edmonton, Story-land Zoo, Elk Island Park, Alberta Game Farm, the Provincial Museum, Botanic Garden, and the New Biological Science Complex.

A very warm invitation is extended to all members of the CBA-ABC to come to Edmonton next summer to help us host these first international meetings of North American Botanists.

CALL FOR PAPERS FOR ANNUAL MEETING

A call has been issued for Titles of Papers and Abstracts for presentation at the Joint Meeting of the CBA/ABC and AIBS, at the University of Alberta, Edmonton, June 20-24, 1971. Abstracts, not to exceed 200 words, are to be typed double-spaced and submitted with the title of the paper. Format is: Author's last name, first name, Institution, Title of paper, abstract text. Abstract and title are to be sent to the Secretary of the Section where the paper is to be presented (exception: Mycologists send to Chairman of Mycology Section). For addresses, see *Section News* on p. 14 of this issue. Deadline for receipt: February 1, 1971.

CALL FOR RESOLUTIONS

A call is issued for Resolutions to be considered at the 1971 Annual Meeting of CBA/ABC in Edmonton, June 20-24, 1971. This invitation is for *YOU* to prepare resolutions affecting any area or aspect about which we, as responsible Botanists in Canada, have a legitimate concern. Don't leave it to the Resolutions Committee! Send *your* proposals to Dr. Pat Roberts-Pichette, Chairman, Resolutions Committee, Department of Biology, University of New Brunswick, Fredericton, N.B.

NOMINATIONS FOR LAWSON MEDAL

Nominations are invited for recipients of the Lawson Medal for 1971. There are two categories of this award. One is for a single contribution to botanical knowledge of outstanding distinction. This may take the form of a published paper, or series of papers, or monograph, or book by a botanist at any stage in his professional career, reporting a contribution of singular significance to the discipline at large. The second category is for recognition of the cumulative distinguished contribution of a senior investigator, teacher or administrator who has notably influenced Canadian botany. (Details in BULLETIN 2 (3): 9, June 1969). The award has been given twice, but in the second category both times. It is important that the Association make this award in both categories, or at least in the first category at our next Annual Meeting. There are many Canadian botanists who could qualify under the first category. All that is needed is for *YOU* to nominate them. Send nominations to Dr. Jane Stein, Chairman, Awards Committee, Dept. of Botany, University of British Columbia, Vancouver 8, B.C.

BY-LAW CHANGES

The following changes or additions to the CBA-ABC By-laws were made at the October Executive Meeting:

New By-Law Moved Walker *Seconded* Kendrick "The Association will establish a publication, to be called the *CBA/ABC BULLETIN*. The Bulletin will publish timely articles and news of interest to the membership. An Editor shall be appointed by the Executive Committee to be in charge of the publication. The term of office shall be for 3 years and is renewable. An Editorial Committee composed of at least 3 of the Directors of the Association shall assist the Editor. Their term shall not exceed 2 years. The Editor shall chair the editorial committee and shall serve as an ex-officio member of the Executive Committee."

"L'Association va publier un journal, le *CBA/ABC BULLETIN*, traitant d'articles d'intérêts généraux pour les membres. Un editeur sera nommé par le Comité Exécutif chargé de publication. Le terme d'office sera d'une durée de 3 ans et sera renouvelable. Un Comité Editorial composé d'au moins 3 des Directeurs de l'Association sera chargé d'aider l'Editeur. Leur terme d'office sera d'une durée n'exédant pas

deux années. L'Editeur présidera de comité editorial et sera membre ex-officio du comité exécutif."
Addition to By-law 2 (d)

Moved Eydt *Seconded* Illman that "if the Secretary is a candidate for an office, the President shall appoint a Returning Officer who is not a current nominee for any office."

"Si le secétaire se porte candidat pour un poste quelconque, le Président désignera un officier d'élection qui n'aura pas posé sa candidature à aucun poste." *Carried.*

SCITEC CONFERENCE, "HERITAGE TOMORROW" 1970

Among many submissions to the SCITEC Conference in Halifax during August 1970, the following by Rowe and Dale are presented here because of their interest to members of CBA-ABC.

Education and The Environmental Crisis

There is general agreement that our environment is changing at an accelerating rate and there is good reason to believe that the change is mostly for the worse. Interactions between geometrically-increasing populations and technologic innovations are disorganizing a fixed earth space and its resources, and the worst is yet to come. In this situation, the traditional academic fence-sitting approach to education is passé; it is a betrayal of the young. The dangers of pursuing our present course must be pressed home.

As a beginning at all levels in education we ought to question the "Gee Whiz" approach to science and technology. To be honest we must begin teaching that science and technology will *not of themselves* rescue mankind from the environmental crisis. The fact is that the physical sciences and technology give with one hand and take away with the other, trading off vast quantities of such products as machines, synthetics, fertilizers and processed foods for equally vast quantities of wastes, pollutants, deteriorated air and water, and decreased living space. It is dishonest to equate progress with "growth", i.e. with more of what the contemporary techno-economic system is force-feeding us. The basis of wisdom, a lively sense of human values, coexists uneasily if at all with the "Ain't technology wonderful?" viewpoint expounded in many textbooks.

Next in importance to a sober distinction between the good life and the "ever-greater-technologic-growth" life is an understanding of the world environment as a functional ecosystem. The relatedness of life and its support systems, of populations and green plants, of energy and nutrient cycles, etc., should be taught with a sense of urgency. People must be made to understand in their vitals that they are of this earth, a part of it, and not separate creatures outside with a special dispensation that allows them to flaunt biological and physical laws. When the earth is recognized as "home" there will be some hope for the husbandry of it.

Statements for Discussion

1. Technology is the modern opiate of the masses, promising salvation to believers. By and large our education system accepts this specious postulate.
2. The two chief problems of the world today are population and environmental degradation. The significance of either, and the interactions of both, cannot be assessed without an understanding of the world as a biosphere, a life-support ecosystem in which energy flows, material cycle, and populations of organisms adapt.

J. S. Rowe

What Should We Teach Re The Changing Environment?

The literate public is aware that the value of tomorrow's heritage is doubtful. The need for education to insure the preservation of any heritage is pressing. However the extent of permissible modification of the environment is in question. Within the scientific community as represented by SCITEC affiliates there is no consensus as to how much disturbance is justifiable in order to achieve the cultural aims of man. Many agriculturalists hold the tenet that production of food has top priority and any reasonable means to increase yield are justified in order to feed the world population. Other scientists are absolutely convinced that man should fit into ecosystems as do other animals, with as little disruption as possible. They point out that in the past 25 years, the chemicals and methods used in agriculture, have so drastically loaded environments with pollutants that some claim this over-populated planet is doomed. Modern methods in food production and control of human disease go hand-in-hand as a system to increase the world population. Food production is a system of converting energy from our finite supply of fossil fuel into food. The world energy situation has suggested to some biologists that more quality of life for the world population is exclusive of more quantity.

The SCITEC role should be to insure that education is relevant to the present world situation. Education should emphasize that the pursuit of some expedient short term goals is not tenable in the global village; that the idealistic black and white view of formerly clear cut issues has now given way to costs-gain considerations and the greys of relativity; that motherhood itself is now considered an indistinct virtue by many Canadians; that much of our heritage may be jeopardized to accomplish doubtful gains in G.N.P., creature comfort or fashionable gadgetry.

How should we teach a suitable science to educate for the Changing Environment?

SCITEC should determine the type of science education which will best equip for decisions about our heritage. The simple science of single cause producing single effect is not suitable in the present environment. Multiple causes that produce a single effect, or a single cause that produces multiple effects, and feedback mechanisms that are positive and negative in their effect are the rule now. The systems approach with analysis of components, interactions and environments, is required. A modern educated man should possess an understanding of the complexity of biological systems.

SCITEC and its two immediate concerns in education

1. There is immediate need for a new philosophy regarding population increase, concept of progress, economic development and utilization of resources. This is an educational task to be directed towards government officials, executives of companies and the general public.
2. There is an immediate need for the systems concept to be taught at the elementary level. The systems approach to problems should be introduced at the grade 8 or 9 level.

Hugh M. Dale

Professional Association Role and Responsibility

The part of our heritage over which many biologists show concern is that delicate living material which is so susceptible to changes in environmental quality. Large changes have occurred in the past 25 years as the human population has increased. The fraction of the environment lying fallow from human use is now insufficient for the whole to cleanse itself and recover. Thus deterioration has occurred. The loss of certain types of habitat, the heavy-handed use of pesticides, the changes in quality of water and air, and the simplification of stands of varied vegetation into tree plantations or corn fields, all have resulted in less diverse, less resilient biotic communities.

All too frequently concerned biologists learn of destructive projects when it is too late to adequately present their estimate of the value of a resource. Members of the Canadian Botanical Association have expressed their concern about activities in the arctic and subarctic on several occasions. Unfortunately the idea of conservation appears to oppose "development" or "progress" and concern for the quality of the environment is then minimal. The executive of the Canadian Botanical Association has produced a list of plant ecologists who are experts on certain environmental matters. This list will be available for anyone requiring a consultant.

There are several projects aimed at the conservation of small samples of characteristic communities of plants and animals. Financing these projects has proved difficult. Not only is the purchase of the land area necessary but in addition some management and caretaking may be required. The International Biological Program is one body studying the acquisition of areas but progress is slow.

The Canadian Botanical Association as a member of the Biological Council of Canada is taking an active role in education at the High School level. Any new program in biology will survey such topical problems as pollution and over-population.

Hugh M. Dale

Necessity For Preservation Of "Nature"

Today we hear and read much about the threat of pollution to human health and survival, and of what must be done to clean up our deteriorating air, water, soil and food. Mostly the proposed solutions are remedial not preventive. Just as the doctor is usually called after the illness sets in, so as the environment sickens the public turns to the engineer with the expectation that he will provide a ready cure. But both in the case of medication and of sanitation some forethought, such as the prescription of a health-sustaining regime, will go a long way toward preventing infection and subsequent crises. Should not more attention be given now to preserving and maintaining a health-promoting proportion of our unspoiled outdoor areas; our lakes and streams, grasslands and forests?

Within towns and cities the values of parks and open spaces, gardens and treed boulevards are recognized. These bits of tamed nature introduced into the urban milieu help to make it tolerable. But still on holidays we flee the city in search of the real thing, driving perhaps to a favorite quiet spot in the country or to a lakeside cottage, escaping to the ancestral environment. What we seek is an uncluttered natural landscape, with fresh air, clean water and scenic variety; all the things that are scarce commodities in the city.

Even in the country however such natural areas are disappearing as industrialization, once confined to centers of population, extends to the agricultural and forestry economies. Heavy machinery is changing the earth's surface features. Now it is feasible to level the topography, to fill in or drain the potholes and marshes frequented by waterfowl, to completely remove the vegetation cover that shelters upland birds and deer. The depressing results are all around us; the landscape is simplified and loses much of its charm. Variety, the spice of life, diminishes.

When we consider our needs for re-creation, and contemplate the unattractive prospect of a world in which every area will be manipulated and humanized, then the preservation of at least some parts of the native landscapes with their fascinating assemblages of wild animals, plants and land forms seems to be something quite other than a waste of resources. A varied landscape, aesthetically pleasing, contributes in many ways to physical and mental health. We ought to ponder too an ethical question, little explored by philosophers and religious leaders; man has the power to remodel the entire world for his own narrow ends, exterminating if he wishes all other forms of life that evolved over millions of years with him, *but does he have the right?*

The more the world is rearranged the more environmental problems appear. It is an unforunate fact that the pathological condition called "pollution" is caused by the organism man. "We have identified the enemy and he is us". From outer space man's densely settled and industrialized areas have the appearance of a spreading fungal growth consuming the earth's green cover. Pollution is the by-products and poisons of man's metabolism, not only that of his body functions but, more seriously, those enormous externally-produced wastes that accumulate through the harnessing and application of enormous energy in modern industry. Pollution in other words is the normal result of massive populations and their massive, wasteful technologies. Since neither population nor technology is controlled, the sickness is epidemic and gaining ground. The Financial Post recently recommended that investors put their money in pollution control equipment firms, a piece of advice that accurately reflects the burgeoning future of pollution!

People are asking: How can we fight pollution? There are two complimentary answers; change social directions so that follies of the past are not repeated, and clean up the present mess. The first is long-term; it looks to the future and perhaps requires a cultural revolution whereby we begin to *care* for the earth, placing husbandry of it before purely economic goals (some of which are superfluous anyway). The second is short-term and immediate, relying on improved engineering such as better chemical water treatment, taller smoke stacks, control of particulate emissions, and so forth. On examination many apparent solutions turn out to be only transformations; the problem is shifted, to reappear somewhere else in a different form. For example, replacement of traditional fuels such as coal and oil by nuclear reactors will improve air quality, but the trade-off is heat pollution of water. Similarly, the incineration of garbage protects land and water, by transferring the problem to the air. Engineering solutions are useful but by themselves they are not enough. It seems likely that the long-term answer lies in the limiting of human numbers, in the fashioning of a controlled technology that mimics the earth's normal cyclic processes, and in a greater solicitude for the natural environment that up to this time has sustained us.

Earth Day was recently marked in the United States and Canada with activities designed not just to protest pollution but to begin a "Care" program for this planet. One obvious and creative goal is protection of the "wild" landscape. Why not then a program in Canada to preserve Natural Areas, tracts of the native prairies, forests and wetlands that are representative of the nation's remarkable geography? For example, around all our towns and cities there are still many interesting sites that should be marked for preservation now. We can turn attention to the "outback" later.

The idea of Natural Areas is not new; it has been in the minds of naturalists and teachers, outdoorsmen and resource managers for a long time. To some extent the parks people and recreationists have recognized that preservation of nature is an important aspect of first-class parks, but unfortunately there are too few of these. Where, for example, is Canada's grassland park, its sandhills park, or its aspen groveland park?

What has been lacking is widespread public concern for the world's outdoor treasures, but now there are hopeful signs of change. Deterioration of environment is sparking national and international action. Recently the International Biological Program endorsed a world-wide effort to set aside Natural Areas for future use as outdoor museums, for teaching and research. Canada is participating; the National Research Council is providing support; and in all regions of the country a preliminary program of inventory is underway. Candidate areas suggested by the public as worth saving are being examined by teams of ecologists and if such areas meet the required international standards, their preservation will be recommended to the government.

The assistance of interested persons and organizations in selecting areas and in making a case for their preservation is solicited. Here is an opportunity to save some attractive fragments of the fast-disappearing "old world", thereby taking a small but significant step toward the non-polluted planetary society!

J. S. Rowe

RESPONSE TO RESOLUTIONS

The following are exerpts from letters received in response to the resolutions sent as indicated in the July 1970 BULLETIN.

From Henry Alan Lawless, Secretary to Prime Minister Trudeau, ". . . In addition to being brought to Mr. Trudeau's attention, your letter is being communicated to the Ministers most concerned for further consideration."

From I. C. Inglis, Minister's secretariat, Honourable John Monro, Minister of National Health & Welfare: ". . . The Minister is particularly gratified at the importance given to pollution and welcomes the support of your organization in relation to the efforts which he and his colleagues in the Government of Canada are making with a view to remedying this very difficult problem."

From Jean Chretien, Minister of Indian Affairs and Northern Development: ". . . I note that in your first resolution, you call upon the Government of Canada to enact immediately the Land Use Regulations now being prepared by my Department. I would like to take this opportunity to assure you that we are making all possible haste in drafting these regulations and it should not be too long before they are ready for publication in the Canada Gazette.

"Under the stipulation laid out in Bill C-212 (an Act to amend the Yukon Act, the Northwest Territories Act and the Territorial Lands Act), I am required to wait for a reasonable period after publication of the proposed regulations to afford all interested persons an opportunity to make representations to me regarding the context of the regulations before implementation can take place. I believe that this will be a useful exercise which will enable the Government to put forward reasonable regulations regarding land use in the territories.

"I welcome your support with regard to our attempts to control Pollution in the Arctic Waters and I wish to thank you and your Association for your interest".

From C. T. Bishop, Editor-in-Chief, National Research Council. ". . . From my position as Editor-in-Chief, I see, and am concerned about, all nine journals published presently by the National Research Council and can perhaps bring a broader perspective to bear on this matter.

"As you know, all of the Canadian Journals of Research will publish papers in either English or French. The papers are published in the language as submitted to us. However,

over the nine journals, only 1% of the papers published are in French. It is clear that many of our francophone authors are publishing their work in English following a world-wide trend. It is therefore not a sound policy to base the selection of Associate Editors, for any journal, solely on linguistic capabilities. However, the scientific standards of our journals is another and most important matter. There is no point in publishing journals unless they can meet the standards of the best journals in the world. The Editors of our journals are selected very carefully for high standards in their own research and their prime responsibility is to maintain high standards for the journals. Most of them do so by calling upon various scientists to serve for a period as an Associate Editor to help in assessing the *scientific* merits of papers that are submitted. In this endeavour, linguistic capability is much less important than scientific ability. Practically all scientists can read in several languages and are perfectly capable of assessing the scientific content of papers in a foreign language.

"As indicated above, the Associate Editors rotate from time to time and I am certain that Michael Shaw will be concerned to have the best people available on his Editorial Board."

A correction was necessary in respect to the resolution sent to the Canadian Committee of the International Biological Program, as indicated in the July 1970 BULLETIN. The Canadian Chairman is Dr. T. W. M. Cameron, P.O. Box 110, Ste. Anne de Bellevue, P.Q., rather than Dr. F. C. McIntosh, as previously indicated.

ERIC O. CALLEN (1912-1970)

Eric O. Callen, Associate Professor in the Department of Plant Pathology at Macdonald College of McGill University died suddenly of a heart attack on August 22, 1970, while on an archaeological expedition in the Andes Mountains of Peru. Dr. Callen had developed methods of analyzing mummyfied remains found in caves high on the mountains of Mexico and South America. His studies have greatly extended modern knowledge of pre-historic diets in the Americas, and of the use and domestication of wild plants by primitive peoples, and of the beginnings of agriculture. He was recognized as a world authority in his field of Enthobotany.

It was largely because of his pioneering work in the development of methods for the identification of both plant and animal materials in coprolites that Dr. Callen was elected secretary to the Council for Canadian Archaeology at its founding meeting in 1961, and to his appointment as Chairman of the Coprolite Analysis Symposium for the annual meetings of the Society for American Archaeology in Mexico in 1970. He had also been appointed Consulting Scientist to the Ayacucho Archaeological Botanical Expedition in Peru. He was working in this capacity in the high altitudes of the Andes at the time of his death.

His interest in students was even deeper than his interest in Science, and he was constantly involved in student activities at their request. He was chief examiner in Biology for the Protestant Schools in the Department of Education in the Province of Quebec.

He was a Fellow of the Botanical Society of Edinburgh and a Fellow of the Linnaean Society of London and contributed numerous articles in scientific journals and books.

Dr. Callen is survived by his wife Leila Anne, and two sons; Thomas Robert and Robert Gordon. We extend our sympathies to his family.

NOMINATIONS REQUESTED FOR AMERICAN MEN OF SCIENCE — 12th EDITION

Work has begun on the 12th edition of AMERICAN MEN OF SCIENCE with publication of the first volume of the set planned for mid-1971. As in the 11th edition, the general plan is an alphabetic arrangement of biographies of scientists in the Physical and Biological Sciences, and it will be published over a three year period.

The criteria of former editions will be followed:

1. Achievement, by reason of experience and training, of a stature in scientific work at least equivalent to that associated with the doctoral degree, coupled with presently continued activity in such work;

or

2. Research activity of high quality in science as evidenced by publication in reputable scientific journals; or, for those whose work cannot be published because of governmental or commercial or industrial security, research activity of high quality in science as evidenced by the judgment of the individual's peers among his immediate co-workers;

or

3. Attainment of a position of substantial responsibility requiring scientific training and experience of approximately the extent described for (1) and (2).

Nominations of names for consideration are currently being invited. Proposed names and addresses should be sent to: The Editors, American Men of Science, Jaques Cattell Press, P.O. Box 5001, Tempe, Arizona 85281.

CREM — NEW IN MONTREAL

Another important but more encouraging event took place recently in Montreal. Mr. Roger Gaudry, rector of the Université de Montreal, Mr. Leo Dorais, rector of the Université du Quebec (Montreal section) and Mr. Lucien Saulnier, president of the Executive Committee of the City of Montreal have signed a document establishing a new Centre de Recherches Ecologiques de Montreal (CREM). The headquarters of this center will be at the Montreal Botanical Garden and its purpose will be to initiate and coordinate research in all fields of ecology and to contribute to the academic formation of a new generation of ecologists. The Institut Botanique de l'Université de Montreal will probably disappear as such. Research and teaching in botany (with emphasis in ecology) will be under the joint responsibility of the universities while the city of Montreal will provide laboratories, offices, greenhouses, and technical personnel.

INTERNATIONAL SYMPOSIUM ON IDENTIFICATION & MEASUREMENT OF ENVIRONMENTAL POLLUTANTS

An International Symposium on Identification and Measurement of Environmental Pollutants will be conducted at the National Arts Centre, Ottawa, from Monday June 14th to Thursday June 17th, 1971. The programme will consist of invited papers by prominent speakers from around the world, to assess the "State of the Art" and to present the latest techniques for identifying and measuring air, water and land pollutants, and such related topics as noise pollution, heating effects, economics of pollution abatement, biological indicators, and others. The Association of Official Analytical Chemists is the prime sponsor and cosponsors are the International Union of Pure & Applied Chemistry, the Chemical Institute of Canada, the Agricultural Institute of Canada and the National Research Council of Canada. Details of programme and arrangements for technical tours and social events will be announced in their Bulletin No. 2 available by Dec. 1, 1970. Address all the correspondence and requests for bulletins or other information to Mr. M. K. Ward, Executive Secretary, International Symposium on Identification and Measurement of Environmental Pollutants, c/o National Research Council of Canada, Ottawa 7, Ontario. (telephone (613) 993-1421).

Editor's note

This International Symposium on a very timely topic deserves support in the form of personal attendance by Canadian Botanists. Although there were no botanists among the 21-man organizing committee, this must not prevent us from contributing to, as well as benefiting from, the discussions in these most important areas.

NEW MEMBERS

Applications for membership from the following people have been approved by the Executive during the 1969-1970 year: **Mr. Thane W. Anderson,** Waterloo University. **M. André Asselin,** Abitibi Est, Qué. **Dr. Gilbert J. Banville,** Saguenay, P.Q. **Dr. Chas. E. Beil,** Acadia University. **F. Guy Bernard,** Institut Botanique, Montréal. **Carolyn J. Bird,** Atlantic Regional Laboratory N.R.C., Halifax. **Mrs. Christine Bimpong,** University of Western Ontario. **M. Jean D. Brisson,** Université Laval. **David W. Caplan,** Montreal. **Dr. Arthur C. Costonis,** Dept. Energy & Resources Management, Toronto. **Miss Margaret Czuba,** University of Toronto, **Dr. R. W. Delbridge,** Nova Scotia Department of Agriculture, Kentville. **Laurent Deschamps,** Repentigny, P.Q. **Pierre-André Dubé,** Guelph. **Mr.**

Albert Dugal, Jr., Greeley, Ontario. **Ralph Howard Estey,** Macdonald College. **P. J. R. Fischer,** Toronto. **Mr. Valentin Furlan,** Montréal. **M. Léopold Gaudreau,** Abitibi, Rang. 6, P.Q. **M. Benoit Gauthier,** Kénogami Cté Lapointe, C.P. 85, P.Q. **M. Camille Gervais,** Institut de Botanique, 2000 Neuchàtel, Suisse. **M. Claude Hamel,** Université de Sherbrooke. **Dr. D. H. Hamly,** Hawkesbury, Ontario. **Dr. Vernon Harms,** University of Saskatchewan Saskatoon. **Miss Teresa Ho,** University of Saskatchewan, Regina Campus. **Dr. T. C. Hutchinson,** University of Toronto. **,Dr. Robert Joyal,** Université du Québec. **Dr. J. H. Bernard Julien,** Trois-Rivieres, P.Q. **Dr. E. Silver Keeping,** University of Alberta, Edmonton. **S. Estelle Lacoursière,** Université du Québec à Trois-Rivieres. **Mr. Martin S. Lapp,** York University. **Y. K. Leong,** University of Western Ontario. **Dr. R. A. Lubke,** University of the Witwatersrand, Johannesburg, South Africa. **Mr. Henry Mann,** Regina. **Dr. Chris Marchant,** University of British Columbia. **Dr. Mary Masters,** University of Western Ontario. **Dr. John McNeill,** Plant Research Institute, Ottawa. **Miss Helen Morrison,** Regina. **Hermann Muhle,** University of Ottawa. **Gerald Myslik,** University of Toronto. **Dr. Gyorgy-Miklos Olah,** Université Laval. **Prof. J. Fernand Pauzé,** Université Laval. **M. Gilles Pelletier,** University of Guelph. **Mr. J. G. Perras,** Quebec. **M. Georges-Henri Poirier,** Ste-Foy, Québec. **Usher Posluzny,** McGill University. **B. Venkata Reddi,** University of Western Ontario. **Dr. Robert Reed,** University of Ottawa. **Mr. M. I. Shafi,** Scarborough College. **Dr. Ernest Small,** Plant Research Institute, Ottawa. **Mrs. R. G. Mannada Rani Sreenivasa,** University of Waterloo. **Mr. B. A. Sreenivasa,** University of Waterloo. **P. M. Taschereau,** Nova Scotia Museum, Halifax. **E. M. Turbayne,** Queen's University. **Prof. Edmund A. Turnau,** Baie d'Urfe 850, Québec. **Dr. Joachim Vieth,** Institut Botanique, Université de Montréal. **Prof. M. A. Viswanathan,** Macdonald College. **Miss I. vonTeichman,** Carleton University. **Freek Vrugtman,** Royal Botanical Gardens, Hamilton. **Shiow Y. Yeh,** University of British Columbia.

PERSONALIA

Dr. Guy R. Brassard defended his Ph.D. thesis with great honours at the University of Ottawa. His subject was: The Moses of Northern Ellesmere Island: Floristics and Bryogeography. He is now at Memorial University, St. John's, Newfoundland, where he is on a post-doctoral fellowship to study the bryophytes at Churchill Falls, Labrador.

Dr. R. H. Estey, Mycologist-Nematologist in the Department of Plant Pathology, McGill University, has been appointed Chairman of his Department, effective September 1st, 1970.

Dr. John W. Grear, Jr., has joined the Vascular Plant Taxonomy Section of the Department of Botany, at the University of Toronto. His graduate work on the genera *Eriosema* and *Rhynchosia* was done at the New York Botanical Garden and Columbia University. Dr. Grear has done field work in South America, and has spent the past two years teaching at Louisiana State University in New Orleans.

Dr. John W. Green, M.Sc. (Western Australia), Ph.D. (Australian National University), has been appointed Assistant Professor of Biology at Laurentian University, Sudbury, Ontario. Dr. Green previously worked with the Foresrty and Timber Bureau (Federal Research Institute) in Canberra. He plans to continue his work on experimental taxonomy in Canada.

John G. Laut, formerly Forest Disease Survey Officer, Canada Department of Fisheries & Forestry, Winnipeg, Manitoba, is now Staff Forester, Insect and Disease Investigations, Colorado State Forest Service, Colorado State University, Fort Collins, Colorado.

Dr. Satoshi Nakanishi, Professor of Botany at Kobe University, Japan, has paid a two week visit to the Department of Biology at the University of Ottawa, to study the epiphytic vegetation of Beech.

Dr. Riel-L. Pelletier, who was Chairman of the Department of Plant Pathology at Macdonald College for the past two years, has been seconded by McGill University to the Canadian International Development Agency, so that he may teach Plant Pathology at the Institut Agronomique Hassan Ii in Rabat, Morocco.

Erika Rempel completed the M.Sc. degree in which she studied the ecology of wild carrot at the University of Guelph and now has a teaching post in the Biology Department of Bishop's University, Lennoxville, P.Q.

NEXT DEADLINE FOR CBA-ABC BULLETIN:

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