THE CANADIAN BOTANICAL ASSOCIATION

BULLETIN

L'ASSOCIATION BOTANIQUE DU CANADA

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PATRON

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

PATRON

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

PRESIDENT'S MESSAGE

The founding meeting of the Canadian Botanical Association was held 20 years ago, at Carleton University, Ottawa, May 26-28, 1965. Since that time, CBA has returned to a meeting place only twice — to Carleton University (1965 and 1979) and the University of British Columbia (1966 and 1980). During this period, we will have met both alone and with the Canadian Society of Plant Pathologists, the Canadian Phytopathological Society, the XI International Botanical Congress, the American Institute of Biological Sciences, the Botanical Society of America, the Entomological Society of Canada and the Genetics Society of Canada. This year we will participate in the first meeting of all Canadian non-medical biologists at the Canadian Congress of Biology, London, Ontario. The meeting will be held from June 23-28, 1985, at the University of Western Ontario under the auspices of the Biological Council of Canada. The Program includes 6 Congress lectures, 12 Congress Symposia, 12 Societal Symposia, 50 Societal contributed paper sessions, daily poster paper sessions and commercial exhibits. It is an excellent opportunity for our members to meet and exchange ideas with other Canadian biologists. I urge you to attend. For registration, abstract information and accomodation reservation cards, write to:- Congress Canada, Suite 603, 250 University Ave., Toronto, Ontario M5H 3E5.

I also want to take this opportunity to wish you all Seasons Greetings and best wishes for the New Year. I hope to see you in London.

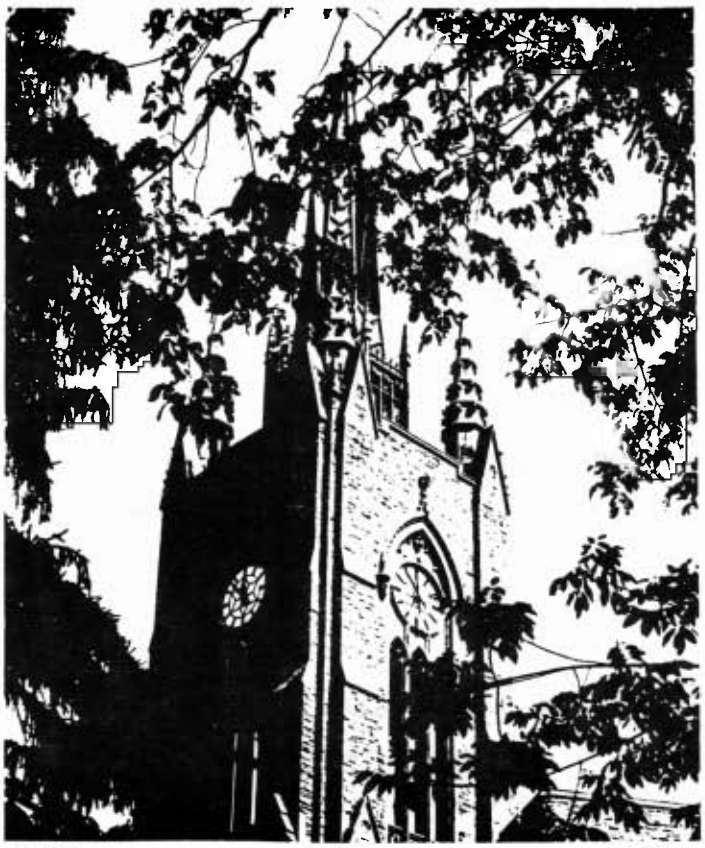
G.A. Mulligan

MESSAGE DU PRESIDENT

La réunion de fondation de l'Association botanique du Canada s'est déroulée, il y a vingt ans, a l'Université Carleton, du 26 au 28 mai 1965. Depuis, l'A.B.C. ne s'est réunie que deux fois au même endroit — à l'Université Carleton (1965 et 1979) et l'Université de la Colombie-Britannique (1966 et 1980). Durant ce temps, l'Association aura fait ses réunions seule ou avec la Société canadienne de phytopathologie, le 11^{e} Congrès international de botanique, the American Institute of Biological Sciences, the Botanical Society of America, la Société entomologique du Canada et la Société de génétique du Canada. Cette année, nous participerons à la première assemblée de tous les biologistes canadiens non médicaux, a l'occasion du Congrès canadien de biologie qui aura lieu à London (Ontario). Ce congrès se déroulera du 23 au 28 juin 1985, à l'Université de l'Ouest de l'Ontario sous les auspices du Conseil canadien de biologie. Au programme figurent 6 conférences plénières, 12 colloques pléniers, 12 colloques de société, 50 exposés de société, des séances quotidiennes de présentation montage et des expositions commerciales. Il s'agit là d'une excellente occasion pour nos membres de rencontrer d'autres biologistes canadiens et d'échanger des idées avec eux. Je vous invite ardemment à assister à ce congrès. Pour vous inscrire, recevoir des résumés d'information et des cartes de réservation d'hôtel, écrivez à: Congrés Canada, pièce 603, 250 avenue University, TORONTO (Ontario), M5H 3E5.

Je saisis cette occasion pour vous souhaiter un joyeux Noël et une bonne année et j'espère vous voir à London.

G.A. Mulligan



Middlesex College Tower, University of Western Ontario

UPDATE ***** UPDATE ***** UPDATE ***** UPDATE

CANADIAN CONGRESS OF BIOLOGY

June 23-29, 1985
University of Western Ontario
London, Ontario

BY NOW YOU WILL HAVE RECEIVED THE FIRST ANNOUNCEMENT FOR NEXT SUMMER'S CONGRESS. MANY OF YOU WILL ALREADY HAVE RETURNED THE REQUEST CARD FOR THE REGISTRATION PACKET AND CALL FOR PAPERS.

NOTE: IF YOU HAVE NOT YET REQUESTED THE REGISTRATION FORMS AND THE CALL FOR PAPERS WRITE IMMEDIATELY TO:

CONGRESS CANADA
SUITE 603
250 UNIVERSITY AVENUE
TORONTO, ONTARIO
M5H 3E5

PHONE 416-591-1498

QUESTIONS CONCERNING THE CONGRESS AND ITS PROGRAM CAN BE DIRECTED TO THAT ADDRESS.

MORE SPECIFIC QUESTIONS RELEVANT TO THE CBA/ABC PROGRAM SUCH AS FIELD TRIPS ETC. MAY BE SENT TO:

DR. DICK GREYSON, CHAIRMAN, LOCAL CBA/ABC ORGANIZING COMMITTEE
DEPARTMENT OF PLANT SCIENCES, UNIVERSITY OF WESTERN ONTARIO
LONDON, ONTARIO N6A 5B7 (519) 679-3107

OFFICERS OF CBA/ABC 1984-1985

President:	Mr. Gerald A. Mulligan Biosystematics Res. Inst.
Past-President:	Dr. W. George Barker Univ. of Guelph
Vice-President:	Dr. Richard I. Greyson Univ. of Western Ontario
President-Elect:	Dr. Iain E.P. Taylor Univ. of British Columbia
Secretary:	Dr. Paul G. Harrison Univ. of British Columbia
Treasurer:	Prof. Keith Winterhalder Laurentian University
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	Dr. C.C. Chinnappa Univ. of Calgary
	Dr. Keith E. Denford Univ. of Alberta
	Dr. Erich Haber Nat.Mus.Nat.Sci., Ottawa
	Dr. Richard Hebda B.C. Prov. Museum
	Dr. Anton A. Reznicek Univ. of Michigan
Editor *Bulletin*: (ex off.)	Mrs. Sylvia Taylor UBC Botanical Garden
Archivist:	Dr. W.I. Illman Carleton Univ.

Conservation Committee

NEWS FROM THE SECTIONS

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

General Section
Chairman: Joanne E. MacDonald, Dept. of Forest Resources, Univ. of New Brunswick, Bag Service #44555, Fredericton, N.B. E3B 6C2

Mycology Section
Chairman: James A. Traquair, Harrow Research Station, Harrow, Ont N0R 1G0

Phycology Section
Chairman: Gordon G.C. Robinson, Dept. of Botany Univ. of Manitoba, Winnipeg, Man R3T 2N2

Structure & Development Section
Chairman: Richard I. Greyson, Dept. of Plant Sciences, Univ. of Western Ontario, London, Ont N6A 5B7

Systematics & Phytogeography Section
Chairman: Keith E. Denford, Dept. of Botany, Univ. of Alberta, Edmonton, Alta T6G 2E9

CBA/ABC REPRESENTATIVES TO BCC

Executive	Member:	G.A. Mulligan
Council		I.E.P. Taylor
		I. Brodo

L. Brouillet

John McNeill

CALL FOR RESOLUTIONS OF POLICY TO BE PRESENTED TO THE ANNUAL MEETING

Resolutions for presentation to the Annual Meeting of CBA/ABC to be held in London, Ont, in June 1985, MUST BE DELIVERED TO THE SECRETARY OF THE ASSOCIATION NO LATER THAN MONDAY, APRIL 15, 1985.

Members are referred to the Association's By-laws 68-77 for details of the nature and preparation of such resolutions.

All resolutions for presentation:-

a) should declare the policy of the Association on matter(s) that shall be forwarded outside the Association,
b) should be carefully worded,
c) require a mover and 4 seconders, all of whom must be members in good standing,
d) must be accompanied by a supporting brief,
e) must be accepted by the Board of Directors before presentation to the Annual Meeting,
f) must be presented in person by one of its sponsors,
g) require the approval of two-thirds of the members present and voting at the Annual Meeting.

Send resolutions and accompanying material to:- Dr. Paul G. Harrison, Secretary, CBA/ABC, Dept. of Botany, Univ. of British Columbia, Vancouver, B.C. V6T 2B1

Paul G. Harrison

LIONEL CINQ-MARS AWARD

The following regulations will apply to the judging for the Award:-

1. The Lionel Cinq-Mars Award shall be given for the best student paper presented at the Annual Meeting of the CBA/ABC.
2. Any *bona fide* student enrolled at any Canadian institution of higher learning is eligible.
3. Guidelines to competitors:-
   a) The paper will be presented orally during the appropriate session as determined by the program committee.
   b) Adjudication will be on the basis of: Content, 60% (originality, technical expertise, and associated subject knowledge), and Presentation, 40% (lucidity and logical flow, value of visual aids if appropriate, audibility and 'presence').

The Lionel Cinq-Mars Award is presented at the Banquet at the Annual Meeting of the CBA/ABC based on a decision made by a judging panel chaired by the President-Elect. The award is $200 and the winner will also become an honorary member of the Association for the next year. The panel is somposed of one member from each of the Sections of the Association, and one member must be a francophone.

A student member wishing to compete and be considered for the Award must so indicate on the Abstract Form when submitting it to the organising committee for inclusion in the program of contributed papers. Failure to indicate the decision to enter the competition by checking the appropriate box on the Abstract Form, even though unintentional, cannot be corrected later.

I.E.P. Taylor, Chairman
Judging Panel, Lionel Cinq-Mars Award

JAMES MAURICE NAYLOR (1920 - 1984)

The sudden death of Professor James N. Naylor on September 5, 1984, has deprived Canada of an outstanding plant scientist who was widely recognized for his research contributions. Dr. Naylor's original field was cytogenetics but his research activities extended over a much broader range. He will be remembered for his classic study on the cellular mechanisms which maintain shoot meristems in a state of growth inhibition and for his extensive investigation of the cell biology of seed dormancy and germination. Most recently he had turned to population genetics and, at the time of his death, was exploring the role of dormancy in the evolution of weed populations. Members of CBA/ABC will recall his fine presentation of this work in the CBA - CSPP joint symposium on Seed Biology in Regina in 1982.

Dr. Naylor grew up in rural Saskatchewan and throughout his life was dedicated to the welfare of that province and its people. It is significant that some of his most important work was centred on wild oats, a major problem for agriculture in western Canada. Following service in the RCAF in World War II, he took the B.S.A. and M.Sc. degrees at the University of Saskatchewan in 1949 and 1950 respectively and went on to obtain his Ph.D. in 1953 at the University of Wisconsin. He then returned to Saskatchewan to a position in the College of Agriculture and in 1961 transferred to the Department of Biology. He was Head of the Department of Biology from 1969 to 1973, and served as Director of the Division of Life Sciences from 1975 to 1981. He was President of the Genetics Society of Canada in 1971-72, and was elected a Fellow of the Royal Society of Canada in 1972.

Those who knew Jim Naylor personally and worked with him will remember him with admiration and affection. He was a scholar dedicated to the highest standards of academic excellence and he worked very hard to impart this ideal to his students. He was an effective and demanding teacher who expected much of his students and, in return, gave them inspired guidance and thoughtful personal consideration. To his colleagues he was a wise counsellor and a warm friend whose integrity and sensitivity, coupled with a fine sense of humour, were highly valued. His committment to social justice for all people led him into many public involvements which he willingly accepted in spite of demanding academic responsibilities.

His untimely death is deeply regretted by all who knew him.

Taylor Steeves
Dept. of Biology
Univ. of Saskatchewan

CBA/ABC EXECUTIVE MEETING NOTES

The Executive took part in the annual Conference Call on December 3, 1984. The call connected 7 members of the Executive and 1 committee chairman at telephones between Vancouver and the eastern part of Ontario. Following are extracts from the Minutes of this call.

The President reported that CBA/ABC has loaned BCC $2500 for the 1985 meeting. The membership of the CBA/ABC Conservation Committee is D. Fahselt (Chair), G. Argus, V. Harms, P. Maycock and G. Ledingham (unanimously approved by the Executive). This committee has been very active in the conservation of natural resources.

The President-Elect requested approval of the English version of the revised CBA/ABC Membership Brochure and of a budget for printing (approved). The text will be translated into French by Luc Brouillet. Some informal enquiries have been made re possible monetary support from industries etc. for various CBA/ABC activities.

The Vice-President reported that matters are well in hand for the 1985 Canadian Congress of Biology. The local arrangements committee includes CBA/ABC members Paul Cavers, Anwar Maun, Dick Greyson, Dianne Fahselt and Lewis Brown. Several field trips are planned for CBA/ABC.

The Secretary reported that CBA/ABC publicity is in hand, and our listings are up-to-date in several publications. It was suggested that CBA/ABC meetings be advertised in newsletters of other societies — directors were encouraged to pursue this matter with the societies to which they belong.

The Treasurer was appointed as a committee of one to investigate the feasibility of CBA/ABC contributing an annual prize to the Canada-wide Science Fair of the Youth Science Foundation. He will report at London.

The Botanical Society of America has accepted an invitation to meet with CBA/ABC in Toronto in 1989.

The President and President-Elect reported on the BCC November meeting. The Field Station policy document was approved, Taylor Steeves is preparing a report on Forestry in Canada, and Alan Paterson (Royal Botanical Gardens, Hamilton) is to revise the brief on the National Botanic Garden netwrok.

The Chairman of the Conservation Committee reported that they would like to formally challenge the intention of the Ontario Minstry of Transportation and Communications to build a road through Keswick Marsh, and requested some funding for travel, phone bills, etc. After some discussion, the Committee was awarded a budget of $500 for 1985. They will also seek funding from outside sources in the form of tax-deductible donations to CBA/ABC earmarked for conservation items. They were in the process of preparing a letter re closure of the Wildlife Interpretation Centres.

RESTORATION ECOLOGY CONFERENCE

Paul Maycock attended the Restoration Ecology Conference and submitted the following report.

A conference on Restoration Ecology was held at the University of Wisconsin, Madison, on October 11-12, 1984, to commemorate the half-century anniversary of the research arboretum founded by Aldo Leopold in the 1930's and greatly extended by John Curtis in the 50's.

I was hopeful of learning of the progress that may have been made in the restoration of partially or moderately degraded communities, particularly with respect to the re-establishment of extirpated species by transplantation, seeding or other methods. However, many of the presentations were concerned with the revegetation of sites massively devastated by mining, gravelling, logging, etc., and few were concerned with what specifically could be termed restorative ecology. In fact, it became quite clear that most of the participants were involved in intricate life history studies of organisms that offered significant possibility for the redevelopment of degraded habitats — mycorrhizae on roots of *Atriplex confertifolia* (R.M. Miller); regeneration of short-lived perennial herbs (K.L. Gross); restoration of a *Drosophila* laboratory community (M.E. Gilpin); building communities imitating old field tropical ecosystems in Costa Rica (J.J. Ewel); effects of population size and species involved on habitat quality and selection (M.L. Rosenzweig); natural successional processes vs. agricultural practices in the reclamation of mined lands (J.A. MacMahon); fire influences in longleaf pine forests as a possible tool in restoration (W.J. Platt) — but not in the actual process of attempting the redevelopment of a natural ecosystem.

One of the worrisome aspects, at least from the viewpoint of this ecologist, was the caution of most presentations to emphasize that one is fortunate if it is possible to restore any kind of permanent living cover to the majority of the degraded situations with which ecologists must deal. The possibility of establishing any type of vegetation approaching any previously existing, or even comparable, natural community is well nigh impossible, economically out of the question, in fact remote. This was not only alluded to but clearly admitted by participants over and over again as the proceedings continued.

The most successful re-establishment of a natural ecosystem was that of the Curtis and Greeene prairies in the University of Wisconsin Arboretum. The slow progress of redevelopment was impressively documented and presented by Grant Cottam. A field trip to the area at the end of the conference left participants highly impressed by these efforts, which were admitted by the personnel involved to come only within certain distances of establishing a truly natural prairie system — and yet this work has been proceeding for almost 40 years. Impressive papers on attempts to re-assemble fish communities and those on clay pits were presented by E. Werner and A. Bradshaw respectively.

This ecologist, with a bias toward community ecology, came away from these proceedings with the conviction that our efforts to conserve and protect existing surviving examples of our natural ecosystems must be intensified and expanded. Even the personnel directly involved in restoration research convinced us that there are really no other alternatives to retaining existing ecosystems necessary for teaching, research, practical necessity, recreation and other critical purposes. Certainly, statements by some planners, developers, politicians, and a few mis-led biologists that these natural systems can be re-created by transplanting, seeding or re-established artificially, restored or duplicated by artificial means, seem now very hollow and poorly founded.

Paul F. Maycock
Erindale Campus
Univ. of Toronto

INTERNATIONAL SYMPOSIUM ON WHOLE-PLANT PHYSIOLOGY

The International Union of Forestry Research Organizations (IUFRO) is sponsoring a symposium on the "Coupling of carbon, water and nutrient interactions in woody plant soil systems" on October 6-11, 1985, at Knoxville, Tennessee, USA. The meeting will promote the synthesis of research on physiological processes at the whole-plant level. Four sessions of invited and contributed papers will address the linkages between water-nutrient, carbon-nutrient, carbon-water, and carbon-water-nutrient interactions of forest, orchard and plantation tree or shrub species.

The scope of the symposium includes source-sink-storage relationships of carbon, water and nutrients; diurnal and annual cycles of physiological variables; photosynthesis, translocation, transpiration, nutrient and water uptake, and nutrient utilization; enzymatic and hormonal regulation; influence of soil and aerial environment and the rhizosphere on plant growth and development; physiological characteristics influencing the competition between individuals for resources from the environment; experimental and modelling methods of whole-plant research.

Contributed papers on the above themes are welcomed. Authors should submit an abstract of 200-300 words (FOUR copies) to the Organizing Committee as soon as possible but no later than May 15, 1985 for program planning. Please ensure that your name and full address for correspondence appears on the abstract. Send to: R.J. Luxmoore, Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, USA. Telephone contact at (615) 574-7357.

RECLAMATION OF LAND

A gas works in Oxfordshire, England, was demolished 30 years ago and the ground left derelict. Oxford city council is now spending about £500,000 to turn this polluted site into a riverside walk and playing fields. A layer of heavy clay was spread over the site to isolate the pollution before landscaping began.

DOES THIS MEAN THAT BOTANISTS ARE ROMANTIC?

A survey by Interflora showed that flowers are the most romantic gift for a woman.

I.U.B.S.

DID YOU KNOW THAT YOU ARE A MEMBER OF I.U.B.S.?

WHAT IS THE I.U.B.S.?

The International Union of Biological Sciences (I.U.B.S.) is a non-governmental, non-profit organization established in 1919. Its objectives are:

1. to promote the study of biological sciences,

2. to initiate, facilitate, and coordinate research and other scientific activities that require international cooperation,

3. to ensure the discussion and dissemination of the results of cooperative research,

4. to promote the organization of international conferences and,

5. to assist in the publication of their reports.

CURRENT ACTIVITIES OF IUBS

The major concern of the IUBS is twofold: to advance and expand our knowledge of biological systems and phenomena, and to help develop scientific research oriented to the satisfaction of human needs in such areas as health, nutrition, food, resources management; it is also concerned with the resolution of environmental problems.

IUBS makes most of its contributions through the sponsoring of symposia and congresses and through the dissemination of information by publication of proceedings of international workshops, the IUBS general assemblies and a news magazine. All are published by IUBS with financial assistance of UNESCO. The news magazine, Biology International (ISSN 02532069), generally reports on IUBS activities. It publishes feature articles, news highlights of symposia and congresses and a calendar of meetings currently spanning 1984-86.

IUBS MEMBERSHIP

The membership of IUBS presently consists of 47 national members, each cpuntry adhering through its Academy of Science, National Research Council, national science associations or similar organizations, and of 55 scientific members, all of which are international scientific associations, societies or commissions in the various biological disciplines.

NRCC AND THE CANADIAN NATIONAL COMMITTEE FOR THE IUBS

In Canada, the National Research Council (NRCC) assumes Canadian representation in non-governmental International Unions (or Organizations) which are not full members of the International Commission of Scientific Unions (ICSU). It does so upon the request of interested national societies or groups of individual scientists.

NRCC services our Canadian National Committee (CNC) for IUBS by payment of annual affiliation dues, re-imbursement of travel expenses of delegates to the IUBS general assembly.

The CNC is made up of representatives from various adhering societies (see list below).

The CNC is appointed by Council and consists of not less than two members for each major area of biology. Members are nominated by Canadian biological societies and other members named by Council. A chairperson and a secretary is appointed by Council from among the members of the Committee on recommendation of the Committee. A representative of the Office of International Relations of NRCC acts as an observer. Term of office is normally six years. Terms of office are staggered to provide continuity. The CNC meets at least once before and after an IUBS General Assembly. One-half of the membership constitutes a quorum.

The current CNC membership and their areas of representation are as follows:

Animal

Dr. G. Brisson
Nutritional Res. Cen.
Univ. of Laval
Quebec, Que
G1K 7P4

418-656-2439 (187/9)

Dr. K.G. Davey
Dept. of Biology
York Univ.
4700 Keele St.
Downsview, Ont
M3J 1P3
416-667-2316 (186)

Plant

Dr. J. McNeill
Dept. of Biology
Univ. of Ottawa
Ottawa, Ont
K1N 6N5
613-231-2336

Dr. Iain Taylor
Dept. of Botany
Univ. of B.C.
Vancouver, B.C.
V6T 2B1
604-228-2340 (175/9)

Environment

Dr. Frank Maher
Can.Soc.Environ.Biol.
88 Westwood Lane
Thornhill, Ont
L4J 1P9
416-965-7885 (186)

Dr. W.A. Fuller
Dept. of Zoology
Univ. of Alberta
Edmonton, Alta
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403-432-3633 (176/9)

Cellular and Molecular Biology

Dr. Verner L. Seligy
Molecular Genet. Sec.
Div. of Biol. Sci.
Nat. Res. Council
Ottawa, Ont
K1A 0R6
613-992-6055
Secretary

Dr. Margarita O. Krause
Dept. of Biology
Univ. of New Brunswick
Fredericton, N.B.
E3B 6E1

506-453-4695 (173/9
Chairperson

NRCC Observer: Dr. Claude Gauvreau
International Relations
S-139, M-58
National Research Council
Ottawa, Ont
K1A 0R6
613-993-0987

PARTIAL LIST OF CNC AFFILIATED SOCIETIES

Canadian Society of Zoologists
Genetics Society of Canada
Canadian Society of Environmental Biologists
Canadian Society of Plant Physiologists
Canadian Society of Cell Biology
Canadian Botanical Association
Entomological Society of Canada

THE CNC CAN HELP PROMOTE CANADIAN SCIENCE ABROAD

The main objectives of the Committee are:

1. to advise Council on Canadian participation in the activities of the IUBS and to keep Council informed of IUBS activities and Canadian participation,

2. to receive reports from Canadian delegates to IUBS general assemblies and to other international conferences and meetings sponsored by IUBS,

3. to act as a channel of communications between IUBS and Canadian scientific societies and scientists interested in the activities of IUBS,

4. to inform Council of the CNC activities.

FUTURE ACTIVITIES

The last General Assembly of IUBS was held in Ottawa in August 1982. The next assembly and scientific syposium will be held in Budapest, Hungary, in September 1985. In 1988, Canada will host the International Congress of Cell Biology to be held in Montreal, Quebec. With more enthusiasm and input, Canada could host Congresses on other topics of interest to Canadian Biologists.

NRCC has asked the CNC to help improve interactions between our Scientific Societies and the IUBS which links global scientific communities. This needs the cooperation and contributions of individual Canadian biologists and the Societies to which they belong. The CNC will soon be preparing a report for the 1985 IUBS General Assembly. Any input in the way of descriptions of projects, meetings and goals would be beneficial in ensuring that Canadian biology was projected effectively in international science.

Please pass on any information or queries concerning the IUBS to your Society's Executive or directly to one of the CNC members whose addresses are provided.

Vern Seligy
Secretary CNC

THE CANADIAN NATIONAL COMMITTEE

Report to the XXIst General Assembly of IUBS, August 1982

In our 1979 report we referred to new initiatives in the fields of animal taxonomy and faunistics. We are now pleased to note that the program is active and productive and is under the aegis of the National Museum of Natural History. A biological survey of the insects is underway and specialists in other groups have been invited to submit proposals.

Canada has played an important role in developing an International Polar Network of biological and social scientists. The first suggestion for such a network was made in May 1981 at a conference on people and renewable resources in circumpolar countries that was jointly sponsored by UNESCO/MAB and the Association of Canadian Universities for Northern Studies (ACUNS).

The Federal Department of the Environment has agreed to fund the secretariat for a Canadian Committee for Ecosystem Conservation (CCEC). The function of CCEC is to coordinate efforts by the Federal, Provincial and Territorial governments to complete a national system of Ecological Reserves by building on the base provided by IBP/CT.

The Royal Society of Canada and the National Academy of Sciences of the USA have established a joint committee on acid rain which, though tempered by lack of funds, is now actively working.

The general subject of Biotechnology has been examined, particularly in terms of appropriate policies for the Canadian context. Of several symposia on this general subject, perhaps the most prominent were those sponsored by the Biological Council of Canada and the Canadian Council of Biology Chairmen. At the Federal Government level, a Task Force created by the Ministry of State for Science and Technology produced its report which received wide circulation. There is general agreement that development in Canada should be highly selective, concentrating on food production, waste management and, in a more limited way, on the production of pharmaceuticals. Recommendations are currently being considered by Cabinet.

A proposal to transport liquefied natural gas, and perhaps other petroleum products, from the high arctic in ice-strengthened tankers (The Arctic Pilot Project) is now before the National Energy Board. Heavy ice-breaker traffic through the northwest passage could have serious effects on marine organisms, and human populations, and less profound effects on terrestrial ecosystems. An integral part of the proposal is a 20-year program of research and monitoring with a budget of $220 million. This would represent a considerable infusion of funds for biological research in the Canadian arctic.

Canada has recently hosted the Vth General Assembly of SCOPE (Ottawa, June 1982) and the International Congress of Parasitology (Toronto, July 1982), and will host the Cell Biologists in 1986.

B.R.I. NEWS

Sandra Needham B.Sc. (University of Ottawa) was recently appointed Curator of the Canadian Culture Collection of Fungi and Non-medical Bacteria, housed at the Biosystematics Research Institute, Agriculture Canada, Ottawa. This is a new position in the Mycology Section. The position of Curator was previously a part-time responsibility for one of the B.R.I. mycologists.

NEW PUBLICATIONS

The International Atomic Energy Agency announces the publication of two new books.

Cereal Grain Protein Improvement. Proceedings of the final Research Co-ordination Meeting of the FAO/IAEA/GSF/SIDA Co-ordinated Research Programme on the Use of Nuclear Techniques for Cereal Grain Protein Improvement, Vienna, 6-10 December, 1982. Price: 760 Austrian Schillings.

Selection in Mutation Breeding. Proceedings of a Consultants Meeting organized by the Joint FAO/IAEA Division of Isotope and Radiation Applications of Atomic Energy for Food and Agricultural Development, Vienna, 21-25 June, 1982. Price: 360 Austrian Schillings.

Please contact either International Atomic Energy Agency, Division of Publications, P.O. Box 100, A-1400 Vienna, Austria, or UNIPUB, P.O. Box 1222, Ann Arbor, MI 48106, USA if your local bookseller is unable to obtain these books.

NSERC GRANTS

The following item was written for the Plant Physiologists newsletter, but was thought to be good advice for CBA/ABC members also. Just replace the words "Plant Physiologist" with "Botanist".

NSERC Grants: Strategic Grants in Food and Agriculture

Every year people are stunned when the sweepstakes are announced. "What a nil - and that was a really good grant I wrote." The competition is severe. Only about one quarter of the grants are funded in any one competition. I hasten to add, however, that it is not always the best grants that are the winners, a fact which I find really distressing. I have been trying to improve the situation, but it is a difficult task.

The problem that many Plant Physiologists face is the task of defining a project rather than a program. A project represents an effort to solve a specific problem, ideally something that should take up to three years to complete. A program, such as Operating grant funding, has no real end - and that is the kind of proposal that most of us are used to. One problem this year, and probably every year, was that a scientist had an idwa of something that could be strategically beneficial but had not done preliminary tests to see whether the idea was, in fact, a good idea. There are two ways to do the required feasability studies: a) to piggy-back on funds from other sources, or b) to ask NSERC for funds for one or two years to see whether the idea is a good idea. In several instances this year the committee did award partial funds to carry out the feasability studies. It would, I think, be looked on favourably to apply for short term funds to test the validity of an idea.

A second problem, and one particularly difficult for people in science faculties, is to develop a real contact with Agriculture Canada laboratories, scientists in Crop Science or Agronomy Departments or in industry. It is quite acceptable to do basic work, but it is necessary to make those contacts so that, when you have found something of potential strategic importance, you can then cooperate with scientists who are qualified to do the required field studies.

A third problem is the definition of basic research and its relation to socio-economic relevance. If a project deals with cloning or those other things that are of contemporary interest to many plant physiologists, it is very difficult for the one or two people on the Panel to argue for the socio-economic relevance if the applicant has not spelled it out in the grant. It is clear to me, for example, that many of the projects in the 1984 competitions had great merit. However, if the applicant had misjudged timing (as it might really take six or ten years to get to the place where the project would have a positive contribution to agriculture or industry) or had not made appropriate contacts with breeders or industry, then my hands were tied.

A fourth and final problem had to do with reviewers. Panel members have a great deal of freedom in choosing referees. It is of great importance to have a candid critical review (positive as well as negative comments) from an expert in the field. Quite frankly, I was disappointed in the efforts of several reviewers that I had selected.

In conclusion, let me urge you not to get discouraged. Write to NSERC for comments on your "failed" proposals - sharpen up the application and try again next spring. If the idea is really a good one, you must learn to be persistent!

Ann Oaks
McMaster Univ.

WWF GOLD MEDAL AWARDED TO BOTANIST

Dr. R.E. Schultes, Director of the Harvard Botanical Museum, has been awarded the World Wildlife Fund's highest award, the Gold Medal, "in recognition of his unique contribution over four decades to the discovery, classification and conservation of rare plants, especially in the Amazon region; and in particular for his pioneering work in ethnobotany." It is the first time that the WWF Gold Medal has been awarded to a botanist.

ENDANGERED PLANTS STAMPS

Stamp collectors (and others) may be interested to know that Mauritius has issued a set of 5 stamps depicting endangered palms. The date of issue was July 23, 1984.

U.S. PLANTS RECEIVE PROTECTION

The following U.S. plants have recently been formally listed inder the Endangered Species Act.

Agave arizonica, Arizona Agave; *Cowania subinegra*, Arizona Cliff Rose; *Senecio franciscanus*, San Francisco Peaks Groundsel; *Torreya taxifolia*, Florida Torreya; *Styrax texana*, Texas Snowbells.

Plants proposed for protection include:- *Amsinckia grandiflora*, Large-flowered Fiddleneck; *Townsendia aprica*; *Cirsium vinaceum*; *Solidago spithamaea*, Blue Ridge Goldenrod; *Dicerandra immaculat*, Lakela's Mint; *Pityopsis ruthii*, Ruth's Golden Aster; *Hoffmanseggia tenella*, Slender Rush-pea; *Gardenia brighamii*, Hawaiian Gardenia; *Acanthomintha obovata duttonii*, San Mateo Thornmint; *Solidago shortii*, Short's Goldenrod.

Spiranthes parksii (Navasota Ladies' Tresses) was listed as endangered in 1972 when it was thought to be reduced to 150 plants and the rarest North American orchid. A 1983 search, caused by the possible effect of a proposed highway, has discovered at least 1800 individuals. The highway project was allowed to procedd, and an "orchid refugium" established to re-locate some of the plants.

Seventy-six plants have now been given legal protection since the signing of the Endangered Species Act in 1973. There are 1800 plants actually under threat in the United States.

Plant Biosystematics, edited by William F. Grant. 1984. Academic Press Canada, Toronto, Ont. xv + 674 pp. $49.50 Can.

This publication is one of a new series produced by Academic Press through rapid manuscript reproduction. This process enables conributions to a symposium to be published quite quickly and, thus, make proceddings available and relevant to the date of presentation.

One cannot but help be concerned about the rapidity of publication, since part of the text is actually lacking on page 519. One wonders whether this is the fault of Academic Press or whether the authors have been using modern word processing and realigned their right margin too quickly without realizing that part of the text was lost. At any rate, the publishers should have caught this error and corrected what is an obvious mistake in the text.

Plant Biosystematics is the proceedings of a four-day symposium held at McGill University, Montreal, in July 1983. The symposium was sponsored by the International Organization of Plant Biosystematics. The publication was edited by Dr. William F. Grant and contains 37 contributions, with an introduction on "The Status of Biosystematics 1983" by Dr. Robert K. Vickery Jr. The contributions are divided into various subject areas: cytology and cytogenetics; breeding systems and hybridization; plant reproduction and production isolation; methodologies in biosystematics; plant population biology and biogeography; biosystematics of mosses and ferns; biosystematics and its practical applications; and, two summary papers lumped into the section called Overview.

The publication provides an up-to-date evaluation of a number of aspects of biosystematic studies. One cannot but wonder why systematics, which is all encompassing and includes biosystematics, has been subjected to the development of small specialized areas of study such as biosystematics. As Lincoln Constance said in 1964, "systematics is an unending synthesis". It is also clear from the information presented in this volume that plant biosystematics is basically restricted to vascular plants and does not include the large group of non-vasculars, such as the algae and fungi. However, such comments do not detract from the importance of having a modern base point from which to work in this specialized field of systematics and, for this reason, the text provides not only many fine review papers but also an excellent bibliography for anyone interested in working in this field.

This is a text which is designed primarily for distribution to members of the symposium and for a reference book for libraries. It will obviously be used extensively in upper division graduate classes that may wish to study in detail one of a number of specific areas of systematics as it relates to higher plants.

Dr. William F. Grant is to be congratulated on obtaining the papers from the many contributors and putting this publication out so close to the date of the symposium so that it can be used by students of systematics. The price may inhibit many people, but it is certainly a recommended book for reference libraries.

Roy L. Taylor
Botanical Garden
Univ. of British Columbia

Past and Present Vegetation of the Far Northwest of Canada, by J.C. Ritchie. 1984. University of Toronto Press, Toronto, Ont. xi + 251 pp. $35.00 Can.

At last we have a book which clearly defines the development of our vegetation of the northwest of Canada. The book is a welcome addition to the literature on geography for that region. It is clear that Professor Ritchie has had fun with his subject and his cryptic notations and summaries reflect much experience and a sense of competence within an oft muddled and diffused field of plant ecology. It is refreshing to have an easily understood presentation about northern ecology without being bogged down with new terminology and difficult language, or being bombarded with charts and tables that do little to rationalise a conclusion.

Professor Ritchie presents his case clearly, concisely, and with a refreshing sense of honest criticism for the pitfalls and concerns of the area under study. He poses many questions and these should provide a new stimulus to the reader or student in this interesting field.

The book is divided into seven chapters: an introduction, the physical setting, vascular palnt floristics, modern vegetation, vegetation history, paleo-environmental reconstruction, and concludes with current problems and future trends. Four appendices complete the volume, including (1) a list in taxonomic order of the species of vascular plants that have been recorded for the study area, (2) a tabular summary of the vegetaion composition of the main community types, (3) field and laboratory methods that have been used, and finally (4) a listing of the radiocarbon age determinations of samples from sites referred to in the text.

The task of presenting the work is no small task, since the approximate total area is 220,000 square kilometers and represents an area that is not easily surveyed or conducive to easy travel and sampling methods. The 28 plates, which are found in a separate section at the end of the book, give a quick but important view of many of the geographic areas that have been studied in this text and help to define the difficult task of trying to interpret and evaluate the area in question. It is unfortunate that the plates were not printed on better quality paper, which would have made it easier to view and analyse them, but would undoubtedly have added to the cost and weight of the book.

There is an extensive list of references and there are a number of figures that are associated with each area of the chapters. The reader found only a few discrepancies in the text. On page 43 mention is made of a map of Figure 11, but the map seems to be missing. On page 34, mention is made of Cooper (personal communication), and one wonders who this person is as no mention is made in the acknowledgements.

I would strongly recommend this book as a useful text for anyone working in the northwest as it provides both a good insight into the study area and an excellent reference to work that has been completed to date. It is a most worthwhile publication that has made a significant contribution to our understanding of the north, and is highly recommended.

Roy L. Taylor
Botanical Garden
Univ. of British Columbia

Atlas de biologie végétale. 2. Organisation des plantes à fleurs, par J.-C. et F. Roland. 1983. 3ième édition. Masson, Paris. 118 pp., ill. 119 Francs.

Destiné d'abord aux cours introductoires en biologie végétale, cet ouvrage vient compléter un tome premier consacré aux plantes sans fleurs. L'approche choisie est globale et permet tant à l'étudiant qu'à l'amateur d'accéder à une connaissance moderne de cette discipline. Ainsi, on s'intéresse à l'appareil végétatif et aux organes reproducteurs, dans leurs aspects structural et fonctionnel, et l'on décrit le développement des organes et des tissus. Le texte est simple et clair, bien que très concis car l'essentiel, seul, est son objet. De plus, on fait ressortir en caractères gras ou en italiques les termes et sentences importants (mais selon quelle règle?), bien que de façon parfois en peu erratique (par ex., p. 81, cyme est souligné, mais non grappe). Le texte s'accompagne d'abondantes illustrations: dessins, schémas, ou photographies, en général très clairs. Quelques photos ne sont cependant pas au point. Des références techniques sont fournies pour les microphotographies en Microscopie photonique et électronique, à balayage ou par transmission. On pourrait regretter l'absence des noms latins des espèces représentées sur les photos. On donne enfin une amorce bibliographique qui se compose de quelques précis généraux et documents de base. Aucune référence plus récente que 1978 n'y figure. On s'interroge cependant sur ce qui a présidé au choix des revues importantes.

En ce qui a trait au contenu, on peut regretter la confusion créé autour de la notion de fleur. Aux pages 68 et 70, on parle de strobiles ou cônes pour les Gymnospermes, et de fleurs chez les angiospermes. Mais déjà, identifier carpelle et sporophylle ♀ de *Cycas* en p. 69 surprend. D'ailleurs, dès la préface, on fiat l'adéquation entre Phanéroganes et Spermaphytes; cette synonymie (selon les auteurs) est reprise en p. 70. Cela semble éloigné à la fois de l'usage traditionnel et de la systématique contemporaine. D'ailleurs, puisque l'ouvrage traite aussi de Gymnospermes (Conifères surtout), n'eut-il pas mieux valu changer le titre en: "Organisation des plantes à graines"?

L'Atlas progresse de l'appareil racinaire au système reproducteur. Comme il est impossible de répertorier l'ensemble de la variabilité qui se trouve chez ces végétaux, on a généralement choisi des examples classiques. C'est le cas pour la sporogenèse et l'embryogenèse où sont représentés, resepctivement, les structures du lis et de la capselle. Au chapitre de la reproduction sexuée, on fait une très brève comparaison des Ptéridophytes, Gymnospermes et Angiospermes. Au niveau de la fleur et du fruit, les descriptions sont sommaires, ce qui pourrait s'expliquer par l'étendue et la variabilité du sujet. Chaque type de fleur est illustré d'un diagramme floral et d'une photographie; cette dernière d'aide malheureusement pas à mieux comprendre la premier. Quant aux inflorescences, elles ne font l'objet que d'une mention. On conclut l'ouvrage par un survol très concis des principales caractéristiques des Gymnospermes (on s'attarde aux seuls Conifères) et Angiospermes. Les auteurs caractérisent les dernières par l'angiospermie, en mentionnant la double fécondation. Ce ne sont pourtant pas là les seuls traits (ni même le principal en ce qui concerne l'angiospermie) à définir ce groupe. Monocotylédones et Dicotylédones sont décrits dans leurs grandes lignes, à l'aide des caractères généraux bien connus. On divise les Monocotylédones selon le mode de pollinisation, en donnant quelques exemples de familles appartenant à chaque type, une approche qui rejoint certaines analyses contemporaines sans pour autant constituer une classification. Quant aux Dicotylédones, leur séparation en Apétales, Dialypétales et Gamopétales, simplificatrice à l'extrême aux yeux des systématiciens contemporains et semble-t-il obsolète, n'en aide pas moins à réduire l'énorme variabilité de ce groupe à des proportions plus faciles à illustrer et à appréhender par le néophyte.

En conclusion, on pourrait recommander cet Atlas pour l'approche holiste choisie et pour la qualité des illustrations. Bien que sans glossaire, le botaniste canadien y trouvera de nombreux termes qu'il ne voit souvent qu'en anglais. Enfin, malgré les quelques aspects relatés ci-haut, cet ouvrage représente une excellente introduction à la biologie végétale, en français.

Luc Brouillet
Institut botanique
Université de Montréal

Flowers of the Wild. Ontario and the Great Lakes Region, by Zile Zichmanis and James Hodgins. 1982. Oxford University Press (Canada), Toronto, Ont. xiv + 272 pp. $35.00

This is presently an unusual book, but one that I hope will be copied for other regions in at least some of its aspects.

Zile Zichmanis is a talented botanical artist who did the drawings for the Weeds of Ontario in 1976. She and James Hodgins discovered what so many of us have found — many different books have to be consulted to discover basic information about plants. This basic information covers such aspects as ecological factors, edibility, toxicity, common names and horticultural use. This book includes such information for wildflowers growing mainly in the southern third of Ontario. An appendix gives Ojibway and French common names.

There are 127 species included in the book, each illustrated with a black and white line drawing and a colour habitat shot. The information given includes: genus (number of species, distribution and number in Ontario); etymology; habitat; range (in and outside Ontario); longevity; flowering; special features (very brief); fruit; height; ecology (e.g., seeds eaten by goldfinch); uses; horticulture; notes (where applicable); and, similar species.

Having been involved in finding such information for British Columbian plants, I can appreciate the amount of work that was involved in this book.

The book is generally well presented, although some of the habitat photographs are not as clear as they might be, due either to focusing problems or because too much has been included. The latter is notable in the photograph of the habitat of *Echinocystis lobata* or Wild Cucumber. It is a beautiful shot of a wildflower habitat, containing flowers of at least six different hues — but I could only assume that the Wild Cucumber is the somewhat blurred greeny-white object trailing across the dark foreground.

My main objection to the book is in the fact

that the plants are arranged alphabetically by common name, using the adjective as the crucial part. Thus, Bittersweet Nightshade is listed under B, Canada Mayflower under C, Wild Cucumber under W, etc. There is an index to scientific names, as well as an index of common names. However, this system seems far more suited to the coffee-table book than to the professional botanist. This is despite the claim that the book "will amaze both flower-lovers and professional and amateur botanists".

Overall, the book pulls together a lot of information, albeit in scanty form, on plants of southern Ontario, and provides excellent line drawings and poor to good habitat shots for each plant. Other books will still have to be consulted for detailed information. A good coffee-table book that contains some interesting information, and one that would also be useful as an extra reference book.

Sylvia Taylor
Botanical Garden
Univ. of British Columbia

Handbook of Plant Cell Culture, Vol. I: Techniques for Propagation and Breeding, edited by D.A. Evans, W.R. Sharp, P.V. Ammirato & Y. Yamada. 1983. Macmillan Publishing Co., Inc., New York. xiv + 970 pp. $49.50 US

Is there a current explosion of publications on plant tissue culture?? It certainly seems that way and, as with explosions generally, a wide array of products arise. Fortunately, the present book is a good one and should prove to be the standard in the field for some time to come.

The volume covers the background information of the field in five initial chapters (Basic Procedures) and then proceeds to a series of specific applications (Specialized Cell Culture Techniques) in 16 chapters. A further section, Modifications and Applications (13 chapters), completes this very hefty 970 page handbook. In addition, and opening "Reflections on Aseptic Culture" by F.C. Steward helps to provide the very interesting setting and thoughtful introduction to the work.

Each chapter, besides its review of the literature relating to each subject, presents in most cases a detailed protocol section in which sample exercises and procedures are outlined in detail. This is particularly useful for, besides the wealth of data and discussion available for information, the text can be used as a ready source of well-documented laboratory procedures. Thus it appears that it can be used directly as a textbook for an upper undergraduate or graduate course.

The present volume is the first of three volumes. Subsequent volumes, issued bi-annually, will continue to provide and up-to-date source of data and interpretation in this rapidly expanding field.

Because plant tissue, cell and organ culture are presently exploited by many researchers in plant genetics and biotechnology, the present text, and presumably the rest of the series, will provide a ready point of entrance to the field for many future researchers.

Richard I. Greyson
Univ. of Western Ontario

A Checklist of the Rare Vascular Plants in Alberta, by John G. Packer and Cheryl E. Bradley 1984. Natural History Occasional Paper No. 5. Provincial Museum of Alberta, Edmonton. vi + 111 pp. Softcover. Free.

The National Museum of Natural Sciences in Ottawa began preparation of provincially based rare plant lists in its Syllogeus series in 1973. The Rare Vascular Plants of Alberta by G.W. Argus and D.J. White was published in 1978 (Syllogeus No. 17). This publication included about 350 species but did not contain any distribution maps. John Packer and Cheryl Bradley produced A Checklist of the Rare Vascular Plants of Alberta with Maps in 1978 for the Alberta Provincial Parks. The definition of rare, as specified by APP, was wider than that used by Argus and White, and therefore about 450 species were listed. This list has never been published as it was intended for internal use in the Parks Division.

The book reviewed here results from a request by the Provincial Parks Division to edit the 1978 list for publication by the Provincial Museum. Errors have been corrected, up-to-date information included, and common names added by Julie Hrapko, Curator of Botany at the Museum. This list also means that the Alberta list conforms with the more recent Syllogeus lists because distribution maps have been included.

The checklist includes a total of 360 species and excludes all infraspecific taxa, hybrids and introduced species. The definition of a rare species is the same as the Syllogeus series:- "one that has a small population within the province ..... It may be restricted to a small geographical area or it may occur sparsely over a wide area".

The checklist is annotated in that synonymy is given where necessary, a brief description of the habitat is provided, and North American and world distributions are given.

This publication is a very worthwhile addition to the rare plants lists published by the National Museum of Natural Sciences, and fills a gap in our knowledge. It may be obtained by writing to: Provincial Museum of Alberta, Alberta Culture, 12845 - 102 Avenue, Edmonton, Alta T5N 0M6.

Sylvia Taylor
Botanical Garden
Univ. of British Columbia

FOR YOUR INFORMATION

The American Horticultural Society is offering cash rewards up to $250 U.S. to non-profit organizations and up to $100 U.S. to individuals who are the first to find and document plants that are presently believed to be extinct in America.

The Wildflower Rediscovery Project Rewards coincides with publication of the AHS's 1985 Endangered Wildflowers Calendar, and will be funded by the proceeds from the sale of the calendar. The calendar costs $5.95 U.S. and can be ontained from Jeanne Eggeman at the address below.

A list of plants thought to be extinct, compiled by state, can be obtained from Wildflower Rediscovery Project, AHS, P.O. Box 0105, Mount Vernon, VA 22121. Enclose a stamped (37¢ U.S.) self-addressed envelope.

POSITION OPEN

University of New Brunswick, Fredericton, N.B.

Assistant Professor, Department of Biology — The Department of Biology at the University of New Brunswick, Fredericton campus, has a position for a Botanist who will be required to teach elementary Genetics, to contribute to teaching in the Botany program and to carry out a vigorous research program. A candidate is sought who will strengthen existing areas of research and teaching in the Department.

Assistant Professor, two-year term appointment possibly leading to tenure track, to start July 1, 1985 or sooner, by arrangement. This position has budgetary approval.

Apply, giving full curriculum vitae, a letter indicating the nature of a proposed research program, and a statement indicating how the candidate would contribute to strengthening existing areas of the Departmental program. Please provide the names of three academic referees to: Dr. M.D.B. Burt, Chairman, Department of Biology, University of New Brunswick, Bag Service 45111, Fredericton, N.B. E3B 6E1

Closing Date: As soon as an acceptable candidate is identified.

In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents.

NOTICE OF PUBLICATION

The National Museum of Natural Sciences in Ottawa has now published a third installment of the Atlas of the Rare Vascular Plants of Ontario, edited by G.W. Argus and C.J. Keddy. Part 3 treats over 160 species in 25 families, including the Brassicaceae, Ericaceae, Fabaceae, Poaceae and Rosaceae.

The Atlas is published in unbound fascicles at irregular intervals. The fascicles are not bound in order to permit you to integrate the family pages from all the parts in either alphabetical or taxonomic order. The first and second parts were published in 1982 and 1983 and were edited by G.W. Argus and D.J. White. The final part in the series (Part 4) should be available in early 1986 and will automatically be sent to those on the mailing list.

The Atlas is available free-of-charge from: The Rare and Endangered Plants Project, Botany Division, National Museum of Natural Sciences, Ottawa, Ont K1A 0M8

Copies of Parts 1 and 2 are still available for new recipients of the Atlas.

INTERNATIONAL ORGANIZATION OF PLANT BIOSYSTEMATISTS

The Executive and Council of the International Organization of Plant Biosystematists (IOPB) will meet during the Third International Congress of Systematics and Evolutionary Biology, University of Sussex, Brighton, U.K., 4-10 July 1985. Anyone wishing to place an item on the agenda for discussion should write to: Dr. Liv Borgen, Secretary, IOPB, Botanical Garden and Museum, Trondheimsveien 23B, N-Oslo 5, Norway.

IOPB is holding a symposium "Differentiation Patterns in Higher Plants", Zurich, Switzerland, July 13-18, 1986. Information on participation may be obtained from the Chairperson, Dr. Krysyna Urbanska, Geobotanisches Institut, ETH, Stftung Rubel, Zurichbergstrasse 38, CH-8044 Zurich, Switzerland.

IOPB publishes the IOPB NEWSLETTER. Information for the IOPB Newsletter may be sent to the Editor, Dr. Krystyna Urbanska (address above).

Application forms for membership in IOPB may be obtained from the President of IOPB, Dr. William F. Grant, Department of Plant Science, P.O. Box 282, Macdonald College of McGill University, Ste. Anne de Bellevue, Que H9X 1C0, or by sending $25 US (for the period 1983-1987) direct to the Secretary-Treasurer of IOPB, Dr. Liv Borgen (address above).

MEMBERSHIP RENEWAL

Membership renewal forms were mailed in November 1984. Please renew NOW if you have not done so. The mebership list is corrected at the end of February and all non-renewals are deleted from the files.

ARE YOU LISTENING?

A pesticides expert from Penn State University is reported to have advised home gardeners not to spray plants when nude. Naked gardeners can pick up 16 mg of chemicals on their bodies, or 15 mg more than when clothed.

The Bulletin of the Canadian Botanical Assoc.
Editor:- Mrs. Sylvia Taylor
Office of The Botanical Garden
University of British Columbia
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Issued quarterly in January, April, July and October, and sent to all members of the Association. Non-members may subscribe at a price of $20.00 p.a. ($5.00 per issue) post free. Cheques or money orders (in Canadian funds ONLY) should be made payable to "The Canadian Botanical Association" and addressed to the Editor.

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

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

To ensure prompt delivery of the *Bulletin* please notisy the Editor of any change of address as soon as possible.

Inquiries about membership of the CBA/ABC should be addressed to the Secretary of the Association:- Dr. Paul G. Harrison, Department of Botany, University of British Columbia, Vancouver, B.C. V6T 2B1