

BULLETIN



January, 1973

Volume 6, Number 1

Waterloo

The 1973 Annual Meeting

This will be held June 3-7 at the University of Western Ontario, in London. The programme is as follows:

Sunday

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| June 3 - p.m. | Registration, Executive Meeting |
| June 4 - a.m. | Registration, Contributed Papers, Business Meeting of Sections |
| - p.m. | Contributed Papers, Annual Business Meeting of CBA/ABC |
| June 5 - a.m. & p.m. | Symposium - Annual Banquet |
| June 6 - a.m. & p.m. | Field Trips |
| June 7 - a.m. | Contributed Papers |
| - p.m. | Contributed Papers, CBA Executive Meeting |

In order that the sectional meetings can be co-ordinated and sectional symposia planned, it is hoped that members will return the call for papers and their abstract as soon as possible.

It was decided at the Executive Meeting last spring that the Symposium to be held during the Annual Meeting (June 3-7/73) in London should stress "*Man's Impact on the Canadian Flora*". It has been possible for the Executive to arrange a programme which should ensure that the Symposium will be one of the highlights of the meeting and it is hoped that as many members as possible will be able to attend and participate in this very timely topic.

The invited participants and the tentative titles of their contributions are as follows:

Dr. J.H. McAndrews, Royal Ontario Museum, Toronto. *The Fossil History since the advent of man.*

Dr. R.L. Taylor, University of British Columbia, Vancouver. *The Canadian Flora since Colonization (1700-1900).*

Dr. J.K. Morton, Univ. of Waterloo, Waterloo. *The Fate of Native Species; Changes since 1900.*

Dr. L. Cinq Mars, Laval University, Quebec. *Plant Dispersal as influenced by Man: The Fate of Introduced Species.*

Dr. P.B. Cavers, Univ. of Western Ontario, London. *The Biology of Weeds.*

Dr. J.G. Ogden III, Dalhousie Univ., Halifax. *The Biology of Fresh Water.*

Dr. N. Pearson, Univ. of Western Ontario, London. *The Impact of Urbanization.*

Dr. T.C. Hutchinson, Univ. of Toronto, Toronto. *The Impact of Pollution.*

Panel Discussion - Meeting the Issues

Five or six invited representatives from government, research institutions and universities and with audience participation.

Accommodation

Lodging will be available for delegates in U.W.O. residences or in nearby motels. Families with children may wish to combine the meetings with a camping holiday.

1. University residences

Single occupancy including meals about \$12.50*/day
Double occupancy including meals about \$11.00*/person/day
Lounge facilities, telephones, study room, laundry available on each floor of the residence. Communal baths. Dining facilities are available in the same building.

2. Motels near the University

Golden Pheasant Motel* - Grant and Betty Case, R.R. #5, London - king sized beds, 4-piece baths, colour TV in each room, dining facilities, children's play area, babysitting available at reasonable hourly rates, 4 miles from University.

- 1 person, 1 bed, \$13.00*/day
- 2 persons, 1 bed, \$15.00*/day
- 2 persons, 2 beds, \$17.00*/day
- 3 persons, 2 beds, \$19.00*/day
- 3 persons, 3 beds, \$21.00*/day
- 4 persons, 2 beds, \$21.00*/day

Popular and nicely kept.
Please reserve well ahead of time (4-6 wks).
* plus tax

Trade Winds Motor Hotel*, R.R. #1, Hyde Park, Ontario - TV, phones, 4 miles from University.

- 2 persons per room, \$14.70*/day
- 2 adults and 2 children, \$18.00*/day

Please reserve ahead of time.
* plus tax

+ numerous other motels and hotels in downtown and south London.

3. Camp sites

Fanshawe Park Campgrounds - 6 miles from campus. Fanshawe Lake with small beach area, sailing, canoeing, walking trails, washrooms, playground equipment, Pioneer Village

Springwater Forest Campgrounds, near Aylmer, Ontario, (south of London) - 25 miles from city limits. Washroom facilities, small lake and beach, fishing, walking trails into large conservation area with excellent old stand of beech.

Wildwood Conservation Area, near St. Mary's, Ontario (north of London) - 25 miles from city limits. Washrooms, swimming at small beach area, boating, walking trails.

Lucan Conservation Area, near Lucan, Ontario - 15 miles from campus. Quiet and secluded, space for one or two families only, outhouses, small stream, forested area. Bring your own drinking water.

Pinery Provincial Park, near Grand Bend, Ontario - about 40 miles from campus. Excellent facilities. Washrooms, store, changehouses, ice, museum, outdoor theatre, nature interpretive programme, several trails, miles of sandy beaches (Lake Huron), sand dunes.

Ipperwash Provincial Park, near Pinery, with many of the same facilities.

Pre-conference field trip. Carolinian Vegetation

Dr. Paul Maycock will lead a trip of approximately three days' duration which will visit stands of Southern Ontario's Carolinian species in sites from Pelee to Niagara.

Within Conference Field Trips

On Wednesday June 6, four trips, each of one day's duration have been planned.

(a) *Man's impact on the Canadian Flora* - leader Dr. Jack Alex. Visits will be made to various sites in the vicinity of London.

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The 1972 Lawson Medal Awards

At the annual meeting of the CBA/ABC held at Dalhousie University last June, Lawson medals were awarded to two distinguished Canadian botanists – *Dr. Mildred Noble* and *Dr. Vladimir Joseph Krajina*.

Dr. Krajina joined the Department of Biology and Botany at U.B.C. in 1949 and retired in 1971. During these years he had a major impact on studies of forest ecology, as well as on the public in British Columbia. Thus, both as a sound researcher in forest ecology as well as a scientist who keeps the public aware of the ecosystems and the results of its imbalance, Vladimir Krajina has served his profession, and Canadian Botany well.



Vladimir Joseph Krajina

For notable contribution to the advancement
of Canadian Botany
Pour avoir contribué avec distinction
au rayonnement de la botanique Canadienne
The Canadian Botanical Association
L'Association Botanique du Canada
AD 1972



Mildred Noble

For a distinguished contribution to the
Knowledge of Botany
Pour une contribution de première valeur à la
connaissance de la botanique
The Canadian Botanical Association
L'Association Botanique du Canada
AD 1972

Doctor Noble worked for the Department of Agriculture for the bulk of her professional life and she retired in 1969. In 1963 she was elected as a Fellow of the Royal Society of Canada. The Lawson Medal was awarded to Dr. Noble for her major contribution to botanical knowledge in the area of cultivation and identification of the wood-rotting species of fungus. By her work, identification of many species in culture has become almost routine and the format for comparative studies standardized in laboratories everywhere. Also her original views on the taxonomy and phylogenetic interrelationships of basidiomycetes has opened new approaches to fertile areas of research and fruitful concepts.

Nominations For The George Lawson Medal

The CBA/ABC annually sponsors the George Lawson Medal In Botany. The purpose of the award is "To provide a collective and formal expression of the admiration and respect of botanists in Canada for the excellence of the contribution of an individual to Canadian Botany". Any botanist working permanently in Canada or having spent the greater part of his career here is eligible.

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

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

In order that the Awards Committee may learn of botanists who are eligible for these awards, all members of the Canadian Botanical Association are invited to submit nominations and to consult with their colleagues for suggestions. Nominations should be accompanied by a clear statement of the nominee's contribution and appropriate documentation including biographical information, list of publications and letters by others who support the nomination. Nominations should be sent to me as Chairman of the Awards Committee by February 15, 1973.

Taylor A. Steeves

Department of Biology
University of Saskatchewan
Saskatoon, Saskatchewan

The 1973 Annual Meeting — continued

(b) *Southern Ontario's prairie vegetation* — leader Dr. Paul Maycock. This trip will visit a relatively undisturbed area of prairie vegetation near Windsor. Nearby areas which intergrade into the prairie will also be examined.

(c) *The Royal Botanical Gardens, Hamilton* — The director Les Laking and his staff will direct tours of the Gardens. Special emphasis will be paid to the theme of the conference, "Man's impact on the Canadian Flora".

(d) *Phycological Field Trip* — Dr. D.A. McLarty will take this trip to the Canada Centre for Inland Waters, 867 Lakeshore Road, Burlington, Ontario.

Post Conference Field Trip — The Bruce Peninsula

Dr. Jim Pringle will be starting out with this trip on Friday, June 8 and returning to London on Sunday, June 10. Visits will be made to several areas along the Bruce to study the flora of its fens, shores and dolomitic outcrops.

Phycology Section Programme

In addition to two sessions of Contributed papers, the Phycology Section plans to present on Monday afternoon, discussions of fresh water algal projects presently in progress under the direction of the F.R.B. and various cooperating agencies. On Thursday, a phycological symposium is planned which will have as its theme, "Primary Productivity" and will consider the algal organism in the current Canadian scene.

Supplementing these special meetings, a day trip is planned to the Canada Centre for Inland Waters, Burlington, on June 6, 1973.

Other sectional programmes are being arranged and their success will depend on your response to the call for papers.

A Note From The President

Since we are now about half way through the period from annual meeting to annual meeting, it seemed reasonable to give the membership an accounting of the activities of the Executive Committee of the Association. This note mostly concerns the meeting of the Executive Committee held on September 30 at the Plant Research Institute in Ottawa; but it is not intended to be a complete report of those proceedings which lasted all day.

A great deal of time at the Ottawa session was devoted to discussion of and planning for the 1973 Annual Meeting in London, Ontario. Both Paul Cavers, who is Chairman of the Local Committee as well as Vice President of C.B.A./A.B.C., and David Wilson, the Program Chairman, were present to report on progress. Clearly the arrangements are well in hand and we have good reason to be grateful to all of the members of the Local Committee (listed in the October number of the *Bulletin*) for the work they have done and will continue to do in preparation for the meeting. We also appreciate the contribution which Dr. Jim Phipps made as Acting Chairman until Dr. Cavers' return from Britain in September. As already announced, the programme will include a symposium entitled "Man's Impact on the Canadian Flora". This symposium will occupy a full day in the middle of the meetings during which nothing else will be scheduled, and will include presentations from eight invited speakers as well as a panel discussion with audience participation. Although the programme of the symposium is still tentative at this writing, pending acceptance of the invited speakers, I can assure you that it is well along in planning and looks excellent. This symposium alone should be reason enough for you to plan to take part in the 1973 meetings. There will also be a series of field trips which are related to the topic of the symposium and without doubt several of the sections will be organizing their own programmes with this theme in mind.

While on the subject of meetings, you may be interested to learn that in 1974 the Canadian Botanical Association is going to take part in a North American botanical meeting to be held in mid-June at Arizona State University in Tempe. We have received an invitation from Dr. Charles Heimsch, President of the Botanical Society of America which is organizing the meeting, to join his society as well as Mexican and Central American botanists; and it seemed to the Executive Committee that this was an opportunity which we should not miss. Consequently the invitation has been accepted; but it is still too early to report any details.

The question of C.B.A./A.B.C. dues and the mechanism by which they may be changed has been the subject of some discussion within the Association during the past year. At the annual meeting in Halifax last June, Dr. Eydt in his presidential report advised members that a questionnaire would be distributed by mail in which members would be asked to indicate whether they wished changes in dues proposed by the Executive Committee to be ratified by the Annual Business Meeting as has been done in the past, or by a mail ballot of the membership as one group of members proposed. The result of this survey leaves no doubt — by an overwhelming majority the members (those who voted) indicated a preference for the mail ballot method. Since this concerns a By-Law of the Association, the Executive Committee can make the necessary changes so that the new method goes into effect at once. It may be of interest to the members to know that the first proposal for a change of dues which they will be asked to vote upon will be for a reduction. The Executive Committee voted to propose to the membership that student dues be reduced from five dollars to three, and that a similar reduction be made in the case of active members who have retired from their professional positions. You will be asked to vote on these proposals soon.

With some concern, the Executive Committee heard the Treasurer report that there has been a decline in membership. Although the net drop of thirty-four members is perhaps not alarming, it is more serious that it appears because there were also new members during the same period. The reason for the discontinuing of a number of members is certainly not clear to the Executive Committee; and any comments, advice or suggestions from the membership would be most welcome. If one considers the importance of botany in Canada, and the ample reason for this importance, it does not seem logical that our association of botanists should be declining in strength. Neither does it seem desirable at a time when the national science policy is being reviewed and environmental issues, about which botanists ought to have a great deal to say, are

beginning to draw the attention of the public. The best solution to our membership problem is certainly a renewed enthusiasm for the Association. The Executive Committee urges you to keep up your membership for 1973 and to do everything you can to interest your colleagues who are not members to join us. Even if you are not ordinarily able to attend the annual meeting of C.B.A., you will be able to keep in touch with the activities of the Association, and of botanists in general, through the pages of the *Bulletin*, and will have a vehicle for expressing your own views if you wish to use it. Dr. John Morton, the Editor, now has, in addition to the Editorial Committee, a staff of reporters across the country supplying him with news and confidently expects to be able to provide us with an even more effective medium of communication than heretofore. He and his predecessors have certainly done a wonderful job with almost no help.

The Executive Committee, as might be expected in a full day meeting, also considered many other items of routine business which do not need to be elaborated upon here. If any matter of great importance arises before the annual meeting, you will be informed through the pages of the *Bulletin*.

Biologists Awake!

I recently spent two days at the Biological Council of Canada and I wish to report to all members of CBA/ABC the subjects we talked about and my impression of what we, as Biologists, should be doing and what we should be concerned about at this time.

Dr. David Munroe, the Director General, Intergovernment Affairs, Department of the Environment, spoke to the BCC about the Stockholm Conference and pointed out that from the Stockholm Conference a declaration of 26 principles on The Environment were delineated and will be published. He also pointed out that there is a motion before the United Nations at this time to establish a governing council for Environmental Affairs. This will serve as a major arm of the United Nations dealing with International problems with reference to the environment. At Stockholm concurrently with the UNESCO meeting, was a meeting, chaired and attended primarily by Scientists called Dai-Dong. This meeting was not politically structured by the United Nations nor were its discussions dealt with in the diplomatic language of the position papers which each government had prepared for the Stockholm Conference. The impression I received was that Dai-Dong was not the success people had hoped for. Mr. Munroe also informed us that a third group was in Stockholm, and that this group was known as the Environmental Forum where distinguished people such as Paul Erlich, Barry Commoner, the Chairman of the Club of Rome, and others, gave public addresses to the interested people in Stockholm last June who were concerned about the environment. The fact that the environment is now a major subject of discussion at formal diplomatic levels under the chairmanship of UNESCO does suggest that all Biologists concerned about the environment should be aware that there is about to be an international agency through which serious problems will be discussed. We, as Biologists, can have input to this UNESCO United Nations committee through the Science Secretariat or through the Ministry of the Environment.

The Canadian Committee on MAB

In the near future the draft working terms of the Canadian Committee on MAB will be published as well as a list of the members of this Committee. There will be something in the neighbourhood of 15 members on this Committee which in all likelihood will meet in early December to determine several goals of MAB. For example, to determine what are national projects; to determine what projects are going on in Federal, Provincial, and University laboratories; to be responsible for all non-Federal aspects; and to be responsible for making recommendations to the National Research Council on grants to the Universities. The members of the Biological Council raised considerable discussion on this last point because it is not yet determined whether the funding of the MAB projects will come from the existing NRC funds available for grants to the Universities or whether there will be a special supplement. If there is not a special supplement, most Biologists doing pure research may find a considerable reduction in the size of the grants which they presently receive. I believe it important that all Botanists be aware of the Canadian Committee on MAB which is to be more or less an associate committee of NRC.

The Environmental Council

D. R.R. Logey, Secretary of the Environmental Advisory Council, Department of the Environment, explained to the members of the Biological Council of Canada that the Environmental Council was a creation of the Cabinet and is personally responsible to the Minister of the Environment. Its terms of reference and membership have already been published, however, all aspects of the creation of the Environmental Council are not public because the Minutes of the Cabinet Meetings, of course, fall under the Secrecy Act. It is quite clear, however, that this Environmental Council is charged by the Minister of the Environment, a) to advise on matters referred to it by the Minister, b) to accumulate information and report to the Minister, and c) to recommend priorities of action by the Federal Government. Both the CBA/ABC and the Biological Council of Canada have discussed and passed resolutions in the past that there should be an Environmental Council *totally independent of the Minister* and have recommended that a Council be established which can be compared with the Science Council of Canada; namely, that there should be a Crown Corporation which is obliged to publish their results and make them available to the nation as a whole through the Queen's Printers. Indeed, one of the recommendations of the Science Council of Canada report No. 16 is that such a Council should be appointed. The major difference between the Crown Corporation and the present Environmental Council is that all the recommendations of the present Environmental Council are confidential. However, the projects which they are working on are not. For example, they are busy collecting information on many aspects of the environment and have started a study on the Mackenzie Corridor.

SCITEC

Mr. Bill McKay, the President of SCITEC, visited with the Biological Council of Canada and discussed the changes which have taken place in it and what action it has taken. SCITEC over the past two years has completed a project which studied The Scientific Societies in Canada, and their report on the various Societies will be available in December 1972. SCITEC has also started a project negotiating with the Ministry of Science and Technology to establish a "House of Science & Technology" which has been patterned on "Sports Canada". This would provide headquarters in Ottawa and some space for all National Societies. Most of them, as you know, operate from the kitchen table of whoever happens to be Secretary-Treasurer of the organization.

The Bonneau-Corry Reports

On November 1st, 1972 AUCC released its report "Quest for the Optimum" which was written by Bonneau and Corry and is available for \$3.00 from AUCC. All Biologists should read this report because it discusses the relationship of teaching and research in the Universities!

The LaMontaigne Report, Volume 2

SCITEC has drafted a reply to this report. The Biological Council of Canada has not! Possibly there will be one available by their next meeting in February or March. The reason that BCC has not replied to this specific document affecting research in Universities is that the member organization has not put any input to this committee. If any member has suggestions, please write to the Secretary.

BCC: Relationship with CFBS

A lengthy discussion with reference to the possible fusion of BCC and CFBS into a new umbrella organization for all Biological Societies of Canada took place. It will be months before negotiations between BCC and CFBS both can come up with proposals to the two present existing umbrella organizations. Possibly, they will amalgamate to become one.

The National Research Council Advisory Committee on Biology

This Committee is chaired by Dr. Mary Spencer and has met four times in the past year. Up until the present it has been primarily a fact finding committee and has made relatively few proposals to the National Research Council. This Committee, however, has great power and will perform, we trust, a most vital service to the funding of Biological Research in Canada.

Science Council of Canada' Report numbers 16, 17 and 18 were discussed at BCC. I recommend that every Botanist in the country get a copy of these reports and read them! Because these reports may be the basis for Federal granting agencies to award research grants, each of us should read them.

In essence the two days we spent at the Biological Council of Canada revolved around discussing the role that Government is taking through a variety of agencies; the Canadian Committee on MAB through the Ministry of the Environment, various actions being taken by the Ministry of the Environment, various actions being taken by the Ministry of State for Science and Technology, various actions being taken as a result of the LaMontaigne Report Volume 2. All of these discussions and reports revolved around politics. Not only did it revolve around politics, the conversation pointed out that each of the Scientific Organizations belonging to BCC such as our own CBA/ABC are not participating or feeding information into higher levels of government on what we think is appropriate. As a result of these two days meetings, *I urge all Botanists in Canada to leave their textbooks and their laboratories for a few hours a week and start reading some of the policies which have been already proposed to the Federal Government.* If we, as individual Botanists, do not make our stand clear we may find that policies have been established which are an anathema to each and every one of us. It is our duty as Scientists in today's political climate to wake up, to become aware of these political currents, to become aware that there are many avenues that one can use and methods and committees one can use to put leverage on the policy makers. *Therefore, Biologists awake!*
H.R.N. Eydt

Man and Resources Conference Programme

The Canadian Council of Resource and Environment Ministers initiated the Man and Resources Conference Programme in 1971 to provide a national forum through which Canadians could participate in the process of shaping guidelines for future resource management. The programme has as its focal point a National Conference to be held in Toronto in November, 1973.

Through the programme, Canadians are being asked to re-think their use of resources and their relationships and attitudes to each other as resource users. It concerns productive life as well as leisure and recreation. It covers the maintenance of our life support systems, the questions of resource allocation and resource use conflicts – all in the context of what is socially, economically and environmentally reasonable. Thus the programme seeks to clarify how Canadians choose to rank social, economic and environmental objectives in the present circumstances of Canadian life, but recognising that regional disparities may exist. Through informed discussion, effective priorities may be inferred and guidelines drawn up for the management of our resources in the years to come.

At a National Workshop held this fall in Montebello, Quebec, national issues were identified in order of priority and a plan of action established for the coming year, leading up to the National Conference.

The university community has been invited to participate fully in the programme. The individual may become a member of a task force in a specialized area or an information or resource person. Also studies or analyses currently being undertaken in areas related to Man and Resources may be exposed to a wide audience.

Further information on the Man and Resources Programme and an overview of the programme's structure and objectives is contained in a brochure which may be obtained from Canadian Council of Resource and Environment Ministers, Man and Resource Conference Programme, 1170 Beaver Hall Square, Montreal 111, P.Q.

H.C. Duthie

The Biology of Canadian Weeds

At the suggestion of the Canada Weed Committee, the Canadian Journal of Plant Science has agreed to publish a series of accounts on the biology of plants that are weedy in Canada. The purpose of this series is to bring together all published and unpublished information on the biology of Canadian weeds that can be utilized as a basis for effective, economical, and safe weed-control methods. It is hoped that this series will also result in research that will fill in any important gaps in our knowledge of the biology of our weeds. All accounts must basically follow the format published in the Canadian Journal of Plant Science this year (Cavers, P.B. and G.A. Mulligan. 1972. A new series – The Biology of Canadian Weeds. Can. J. Plant Sci. 52:651-654). Although this format is to some extent based on that used in 'The biological flora of the British Isles' (Clapham et al. 1958), we have made a number of significant changes because our biological information is designed for a different use.

The term "weed", as used in this series, refers to any vascular plant that perpetuates itself in habitats where man does not want it to grow. It is hoped that contributors will give first priority to weeds that are a particular nuisance to man. Contributions should contain accounts of single weed species or a group of related species. Offers of contributions by individuals or groups should be made to Dr. P.B. Cavers, Department of Plant Sciences, University of Western Ontario, London, Ontario N6A 3K7. These offers of contributions will be subject to approval by a committee which has been set up by the Canada Weed Committee. Approved offers will be subject to reapproval after 2 years. Any inquiries about the format to be used or advice on preliminary drafts, should be directed to Dr. Cavers. He will also supply blank maps of Canada and will suggest specialists or institutions that will provide various types of services.

The finished manuscript should be submitted to the: Editorial Office, Canadian Journal of Plant Science, Agricultural Institute of Canada, 151 Slater St., Suite 907, Ottawa, Ontario K1P 5H4. All contributions must comply with the format of this journal. Accounts of a single species, including all maps, drawings, diagrams and photographs, should not exceed 10 printed journal pages.

Undoubtedly, the majority of these accounts will be written by members of the C.B.A./A.B.C. If you have a specialized knowledge of a particular weedy species or group please volunteer to write up this information for this series. Any suggestions of people who would be appropriate contributors will be welcomed.

Politicians, The Environment and Conservation

Prior to the recent Federal elections the Federation of Ontario Naturalists sent out a questionnaire to candidates in Ontario ridings seeking to ascertain their views on matters relating to the environment and conservation. Candidates from 45 Ontario ridings made their environmental viewpoints known by responding to the questionnaire, but the overall rate of questionnaires returned was a disappointing 25%. The rate of return by party was markedly different with the Liberals returning 6% of questionnaires sent, while the Conservatives and the N.D.P. returned 27% and 44% respectively.

100% of the respondents agreed that endangered species must be protected by government action and thought it imperative that Canada ratify the draft UN Convention forbidding the export, import or transit of such species.

77% of the respondents agreed that the basic purpose of our National Parks was to preserve outstanding natural areas and features and that developments which are an attraction in their own right (e.g. ski resorts) ought to be developed in separate public or private recreation areas. 3% had no opinion and 20% disagreed.

87% of the respondents disagreed with the Federal Government's intention to build a second airport in Pickering Township. Only 1% thought that the need for a second Toronto airport had been established. 12% did not express an opinion.

55% of the respondents agreed that the Canadian Government should adopt an exemplary population policy aimed at the earliest stabilization of human numbers in Canada. 3% had no opinion and 42% disagreed.

100% of the respondents agreed that environmental impact statements must be prepared for all large developments involving land use or natural resources and that this statement be publicized before any preparatory work begins.

A National Botanical Garden System For Canada

The proposal regarding the development of this system (see CBA/ABC Bulletin, October 1971) was made to the Ministry of State for Science and Technology in May 1972. Recent discussions held with the Ministry have indicated a positive response, and it is anticipated that the meeting will be held under the auspices of the Ministry of State with appropriate federal agencies in attendance.

Miscellany

Carleton University has received a donation of an annual scholarship for \$200. to be awarded for excellence in studies of Cryptogamic Botany. It is given in honor of Clarence H. Hand who is well known in bryological circles in America and abroad as a collector and exchanger of mosses. This award bears witness of Mr. Hand's distinguished career as high school teacher and principal, as enthusiastic field naturalist and as mentor of students interested in botanical pursuits.

The Department of Biology, University of Saskatchewan, Saskatoon, has recently acquired a new Philips 300 electron microscope. The machine is being used primarily for botanical studies under the direction of Dr. L. C. Fowke. These studies are concerned with the role of cell organelles in differentiative plant cells. Emphasis is currently on the distribution and function of microtubules and Golgi in dividing algal cells. In addition, an electron microscope study is being conducted in conjunction with the plant cell culture group of the NRCC Prairie Regional Laboratory in Saskatoon on protoplasts of higher plants. Protoplasts produced by enzymatic digestion of the cell wall are being cultured in defined medium and the regeneration of cell walls and subsequent mitosis are being investigated. An ultrastructural study of protoplast fusion is also in progress.

Positions Available

Lecturer

Applications are invited for a position as Lecturer in the Department of Botany, University of British Columbia.

Duties include laboratory planning, preparation, and instruction in two courses: survey of the plant kingdom at the second year level and phycology for Third Year students.

Applicants should have an M.Sc., as a minimum, in Botany or Biology with training in plant morphology.

Stipend: From \$7,500, depending on qualifications and experience.

Applications should include curriculum vitae, including copies of University transcripts, and names (with addresses) of three referees.

Submit applications to: Dr. R.F. Scagel, Head, Department of Botany, University of British Columbia, Vancouver 8, British Columbia.

Duties to begin: 1 July 1973. Closing date for applications 15th March, 1973.

Lecturer

Applications are invited for a position as a full-time Lecturer, jointly by the Departments of Botany and Zoology, to be in charge of the Cell Physiology (Biology 330) laboratory. Responsibilities include teaching and preparation of laboratory material.

Applicants must have an M.Sc. degree, as a minimum, in the physiological area of life sciences.

Stipend: From \$7,500 depending on qualifications and experience.

Applications should include curriculum vitae, including copies of University transcripts, and names (with addresses) of three referees.

Duties to begin: 1 July 1973. Closing date for applications: 15th March, 1973.

Submit applications to: Dr. R.F. Scagel, Head, Department of Botany, University of British Columbia, Vancouver 8, B.C.

Personalia

Dr. William Fielding Hanna, well known across Canada as a plant scientist, passed away on September 26, at the age of 80. Dr. Hanna was born in Middle Musquodoboit, Nova Scotia, in 1892, and at his retirement was head of botany and plant pathology in Ottawa. In lieu of flowers, Dr. Hanna's family requested that donations be made to research at the faculty of agriculture at the University of Manitoba.

Dr. Job Kuijt is at present on sabbatical leave from the University of Lethbridge and is Visiting Professor at the Botanisches Institut, Justus Liebig University, Giessen, Germany. Dr. Kuijt writes "While here I am giving a series of lectures on Symbiosis, Carnivory, and Parasitism in Vascular Plants, and carrying out various bits of systematic and morphological work in parasites".

From Department of Biology, U.B.C.

Dr. Bruce McBride has been appointed as an Associate Editor on the Flora North America programme which has been initiated at the Botanical Gardens, UBC. Dr. McBride received his Ph.D. from Washington University in St. Louis and before his arrival at UBC was at Quito, Ecuador.

Dr. D.J. Wort, Plant Physiologist, has retired after 27 years of service. He will continue on at UBC as a Research Associate.

Drs. Charles S. Beil, Janet R. Stein and Roy L. Taylor have formed a consulting company, Western Botanical Services Ltd. The business' forte is plant identification, floristic field surveys, on site evaluation of vegetation, vegetation mapping, consultation on methods of vegetation analysis, consultation on adaptation of plant species to planning, public lectures and seminars, and bibliographical research.

The following Botany faculty are on study leave this year:

Dr. Thana Bisalputra at Department of Developmental Biology, Research School of Biological Science, Australian National University, Canberra, A.C.T., Australia.

Dr. Bruce A. Bohm at Department of Botany, University of Queensland, St. Lucia, Brisbane 4067, Queensland, Australia.

Dr. K.M. Cole, who is spending part of her study leave at UBC and part out of the country.

Dr. W.B. Schofield at Hattori Botanical Laboratory, Nichinan, Japan.

Dr. F.J.R. "Max" Taylor at Station Zoologique, 06 - Villefranche-sur-Mer, France; and Phuket Marine Biological Centre, Phuket P.O. Box 200, Phuket Province, Thailand.

Recent appointments in the Department:

Dr. David L. Brown of Carleton University as a Visiting Assistant Professor to participate in the cytology offerings of UBC's Biology Programme.

Dr. Elsie Conway as a Research Associate in Phycology.

Dr. E. Anne Jolliffe as a Lecturer in Cell Physiology.

Dr. Richard E. Koske as a Lecturer in Biology and Oceanography.

Ms. Diane West-Bourke as a Lecturer in the Introductory Biology programme.

Dr. John Hutchinson, F.R.S. It is with deep regret that we announce the death of Dr. Hutchinson, well known for his work on the phylogeny of flowering plants, published in his "Families of Flowering Plants", and more recently for the first volumes of his monumental "Genera of Flowering Plants".

Department of Biology, University of Saskatchewan, Saskatoon

Dr. J. King is collaborating with the plant cell culture group at the Prairie Regional Laboratory of the NRCC. He is engaged in a joint investigation of the nitrogen metabolism of plant cells grown in suspension culture. These studies are mainly concerned with the uptake of and effects of nitrate, ammonia and amino acids on the growth of a wide variety of plant cells; and with the effects of these substances on the induction, repression and activity of the enzymes nitrate reductase, nitrite reductase and glutamate dehydrogenase. The aim is to contribute to an understanding of the control of metabolism, a fundamental factor in the differentiation of cells, tissues and organisms.

Dr. H. Gruen has returned from a year of sabbatical leave spent in Japan as a guest in the laboratory of a friend, Dr. T. Yamaki, Professor of Plant Physiology at the Komaba campus of the University of Tokyo. Most of his time was spent on continuing a long-term study of the uses and cultivation of wood-inhibiting higher fungi, especially agarics, in Japan, and to learn more about the basic research carried out in that country on these fungi. Since much material had already been gathered during two previous visits to Japan as well as by studies in the United States and Canada, the main effort was directed towards extracting the essential information on historical aspects, modern cultivation techniques, and research from Japanese publications, especially books. This was done with the aid of a translator. The bulk of the material gathered is unavailable in Western languages. Apart from the intrinsic interest of the subject matter, the studies in Japan yielded valuable suggestions for the experimental work on growth of agaric fruit bodies being carried out at the University of Saskatchewan.

Publications

Common coulee plants of Southern Alberta

by Job Kuijt, published by the University of Lethbridge. An illustrated semi-popular guide to 125 of the most common native plants of coulee slopes in southern Alberta.

Icones genera coelomycetorum

by G. Morgan-Jones, T.R., Nag Raj and Bryce Kendrick. The first five fascicles of this series have now been published and a further five are planned for 1973. See the July 1972 Bulletin for further information on the series.

An atlas of pollen of the trees and shrubs of eastern Canada and the adjacent United States

by R.J. Adams and J.K. Morton. This is the first of an intended four-part series of scanning electron microscope photographs. It covers the families from *Gymnospermae* to *Fagaceae* and includes a section on the techniques used in preparing pollen for viewing in the S.E.M. In the words of the authors "Though several atlases of pollen exist, based mainly on light-microscopic studies, the new information revealed by the S.E.M. justifies the presentation of this atlas". Published as No. 8 of the University of Waterloo Biology series, price \$2.00 and obtainable from the Department of Biology, University of Waterloo, Waterloo, Ontario, post free.

1st International Congress of Ecology

The meeting is scheduled for 8-14 September, 1974 to be held in The Hague, Netherlands and will include 1,000 participants, with approximately 100 invited papers.

The Congress fee is 300 Dutch Guilders (approximately \$96.00 U.S.)

Structure, Function and Management of Ecosystems is the title for the Congress. Five major themes emphasizing broad unifying concepts in ecology have been selected by the International Steering Committee. Each of the following themes is scheduled to be the subject of a morning plenary session:

1. Energy and material flow between trophic levels
2. Comparative productivity in ecosystems
3. Diversity, stability and maturity in natural ecosystems
4. Diversity, stability and maturity in systems influenced by human activities
5. Strategies for management of natural and man-made ecosystems

The closing session topic is entitled: *The Significance of Ecological Principles for Society*.

Suggestions for sessions chairmen or speakers and any inquiries about the Congress should be addressed to: International Congress of Ecology, c/o Royal Netherlands Academy of Sciences and Letters, Kloveniersburgwal 29, Amsterdam, Netherlands.

8th International Conference on Plant Growth Substances

This is a preliminary announcement of the arrangements for the 8th International Conference on Plant Growth Substances to be held in Tokyo, August 26 - September 1, 1973, under the auspices of the International Plant Growth Substances Association (Secretary, Denis Carr, Canberra; President, Kenneth V. Thimann, Santa Cruz).

The main sessions of the scientific program will be devoted to the (1) chemistry, (2) physiology, and (3) assays of naturally occurring and synthetic plant growth substances, with emphasis on the fundamental aspects of the action of these substances. We intend that the conference will be truly international and that the scientific programme will be composed of papers on work in progress. Please note that it will be necessary to restrict the number of participants for this reason. Limited funds may be available to assist some overseas participants, particularly younger scientists, but it is hoped that senior scientists will be able to cover their own travel costs.

Lead Reduces Resistance to Infection

A striking example of how pollution can have a devastating but unsuspected effect on the normal physiological process has been offered by a Tulane University scientist. He suggested that the process he uncovered might give some insight into the mystery of sudden infant death.

The pollutant studied by Dr. Nicholas R. DiLuzio was lead. When he injected it into the veins of rats, he reported their susceptibility to bacterial infection increased as much as 100,000 times. Although lead caused damage to liver cells, the rats showed no outward change in behaviour, the physiologist said.

It is possible, he suggested, that lead ingested by a child combined with an infection might account for some sudden deaths among infants. Dr. DiLuzio told a Senate commerce sub-committee probing environmental problems in the inner city that the next step is to investigate the effects which chronic exposure to lead has on the ability of animals - and humans - to resist infection - *From The Ecologist* - May 1972.

News From The Sections

Systematics and Phytogeography Section

The annual business meeting was held on Monday, June 19, 1972 at Dalhousie University, Halifax. Twenty members were present; J.B. Phipps was in the chair and J. Cruise was acting secretary.

1) The Chairman's and secretary's reports were presented and accepted.

2) Subcommittee Reports

(i) *Vascular Plants Checklist*: Dr. J.H. Soper spoke at length and pointed out that delays are occurring until the EDP and the base maps are available. The availability of \$0.25 m for a National Inventory of Collections was noted.

The Vascular Plants Checklist subcommittee was then disbanded by general consent.

The new E.C. and J.H. Soper will elaborate terms of reference for a successor committee.

(ii) *Lichen Checklist Subcommittee*: Dr. Brodo presented a summary of the activities of his subcommittee. He is producing a literature based computerised checklist which now has many reference but is not fully checked for reliability. Considerable moral and financial backing from the National Museum was noted for this activity.

(iii) *Bryophyte Checklist Subcommittee*: no report.

(iv) *Herbarium Review Subcommittee*: It was pointed out that the chairman, W.K.W. Baldwin, now retired, maintains the active file. It is suggested that the new Executive Committee study the future of this subcommittee.

(v) *Local Floras of Canada Bibliography Subcommittee*: no report.

(vi) *Algae Checklist Subcommittee*: It was explained by the chair that, since the inception of this subcommittee in the middle 1960s, the members, Drs. Lee and South, had transferred their relationship to the Phycology Section. It was accepted as reasonable that this situation should continue.

3) Symposia at Future Meetings

There was much discussion of the Executive Committee's proposal that a main way of increasing the impact and value of the Section would be for the section to arrange annual symposia.

The following motions were carried:

"That this section endorses the principle of organising a symposium for the 1973 meetings at U.W.O., London"

"That this section rank the possible themes at this meeting" The Themes proposed were then ranked as follows, the most popular first: 1) Canada's changing flora; 2) History of Canadian botany; 3) Teaching of systematics; 4) Arctic Botany; 5) Systematics in the next decade.

It was agreed that the new chairman of the section attempt to persuade CBA Executive Committee to select Canada's Changing Flora as the CBA symposium and offer our help in organising it.

4) Elections

CBA members in good standing nominated for the 1972-73 Systematics and Phytogeography Executive Committee were: G.W. Argus, B. Baum, J.W. Grear, M.J. Harvey, J.K. Morton.

There being no further nominations these five were declared elected. Together with past-chairman Phipps they will form the new S. and P. Executive Committee.

The new S. & P. Executive Committee met shortly afterwards and elected Dr. J.K. Morton as Chairman and Dr. M.J. Harvey as Secretary of the Section.