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ANNOUNCING

CANADIAN CONGRESS OF BIOLOGY
JUNE 23-28, 1985

LONDON, ONTARIO

UNDER THE AUSPICES OF THE BIOLOGICAL COUNCIL OF CANADA (BCC), THE MEMBER SOCIETIES, INCLUDING THE CBA/ABC, WILL HOLD THEIR ANNUAL MEETINGS IN LONDON NEXT JUNE. THIS CONGRESS, THE FIRST OF ITS KIND, WILL ALLOW CANADIAN BIOLOGISTS AN OPPORTUNITY TO EXPLORE AND DISCUSS THE BROAD INTERDISCIPLINARY ASPECTS OF THEIR SCIENCES AS WELL AS REPORT ON THE CURRENT RESEARCH OF THEIR OWN PARTICULAR INTEREST. BESIDES A FULL MENU OF CONGRESS SYMPOSIA, SOCIETIES AND SECTIONS WILL RUN THEIR USUAL PROGRAMS. SHOULD CBA MEMBERS WISH TO CONTRIBUTE TOWARDS THE PROGRAM - NOW IS THE TIME TO MAKE YOUR SUGGESTIONS KNOWN - TO THE STEERING COMMITTEE OR THROUGH YOUR SECTION CHAIRPERSON.

HOPE TO SEE YOU IN LONDON, JUNE 23-28, 1985.

DICK GREYSON
CBA/ABC REPRESENTATIVE
CONGRESS STEERING COMMITTEE

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NEWS FROM THE SECTIONS

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

The executive held a meeting on August 11, 1983, at Grand Forks. Bruce Roberts was re-elected Chairman and Suzanne Warwick Secretary. The executive agreed to prepare a brief summary of current ecological activities in Canada for the CBA/ABC *Bulletin*, similar to that prepared by the Systematics & Phytogeography Section. Symposium topics for the Fredericton meeting were discussed.

General Section
Chairman: Joanne 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
Chairman: Keith E. Denford, Dept. of Botany, Univ. of Alberta, Edmonton, Alta T6G 2E9

CALL FOR "EMERGENCY RESOLUTIONS"

Members are reminded that, in accordance with By-law 76, " "Emergency resolutions" may be submitted to the Board of Directors at any time prior to their meeting immediately before the annual meeting. The Board of Directors will then declare whether they conform to the general guideline for resolutions .... ".

Resolutions submitted under By-law 76 must be received by the Secretary 10 days before the annual meeting (NO LATER THAN JUNE 15, 1984). "Emergency resolutions" can only be admitted if they deal with an emergency situation that leaves no time for preparation of a normal resolution.

Send "emergency resolutions" plus all relevant material to the Secretary: Dr. Iain E.P. Taylor, Secretary, CBA/ABC, Dept. of Botany, Univ. of British Columbia, Vancouver, B.C. V6T 2B1

HABITAT PRESERVATION IN CANADA

The CBA/ABC membership will be interested to learn of the recent accomplishments of the Nature Conservancy of Canada (NCC). During 1983 it received $315,000 from its own fund-raising activities, and thus released considerable funding from other sources. A total of $939,000 resulted and was used to purchase 1,264 acres, or 15 significant properties, in various parts of Canada for habitat preservation.

The work of the Conservancy is applauded by the CBA/ABC Conservation Committee.

For more information on NCC projects, write to: Lloyd H. Mayeda, Executive Director, The Nature Conservancy of Canada, 2200 Yonge Street, Suite 1710, Toronto, Ont M4S 2C6

Dianne Fahselt
Chairman
Conservation Committee

THOMAS M.C. TAYLOR

I received notification of a new publication by *Dr. Thomas M.C. Taylor* just as the January issue of the *Bulletin* went out to members. This should be added to the list of publications provided at the end of Dr. Taylor's obituary (CBA/ABC *Bulletin*, Vol. 17, p. 8).

Taylor, T.M.C. 1983. The Sedge Family (Cyperaceae). Handbook No. 43, B.C. Provincial Museum, Victoria. 375 pp.

NEW WORD (TO ME!)

The latest issue of Douglasia, newsletter of the Washington Native Plant Society, has a new section — Botanical Salmagundi. A search through the dictionary revealed two meanings. Either a type of salad plate or a heterogenous mixture (potpourri). How appropriate!

WHAT'S ON IN ECOLOGY IN CANADA

The Executive of the Ecology Section of CBA/ABC has decided to institute a series of articles titled "What's on in Ecology in Canada". The aim is to provide information on current research in ecology in the various regions of Canada. Bruce Roberts, Chairman of the Section, is responsible for collating the reports from correspondents in the different areas.

I. BRITISH COLUMBIA

(Roy Rurkington, UBC)

SIMON FRASER UNIVERSITY

Ian Hutchinson (Dept. of Geography) — niche metrics of local brackish-marsh sedges in the Fraser Delta and in experimental plantings; plant community variation in the deltas of the Pacific Northwest; ecophenic variation in *Carex lyngbyei*.

UNIVERSITY OF BRITISH COLUMBIA

Gary A. Bradfield (Botany) — analytical study of coastal marsh and forest vegetation patterns, including correlations with environmental variables; development and testing of multivariate data analytic models in plant ecology. Students:

G.L. Porter (M.Sc. 1982) - Vegetation-environment relationships in the tidal marshes of the Fraser River Delta, British Columbia.

D. Gagnon (Ph.D. stud.) - The vegetation of west-central Vancouver Island, B.C.

Robert E. DeWreede (Botany) — ecology of marine algae, with emphasis on population dynamics. Students:

Terrie Klinger (M.Sc.) - population dynamics of two kelp species.

Herb Vandermuelen (Ph.D.) - ecology and life history of *Colpomenia*.

Put Ang (M.Sc.) - successional studies in sub-tidal marine algae.

Ronald E. Foreman (Botany) — Director, Bamfield Marine Station, Vancouver Is. Marine benthic community ecology, with emphasis on seaweeds.

Paul G. Harrison (Botany) — population biology of seagrasses; functional ecology of soft-bottom ecosystems (plants, microbes and animals). Students:

Pat Miller (M.Sc. Biology) - community ecology of amphipods in eelgrass beds.

Vladimir Krajina (Botany) — has finished a manuscript of "British Columbia vascular plant indicator values" (about 2000 pages) on which he worked for seven years with Karel Klinka.

Margaret North (Geography) — Floodplain vegetation, including pre-settlement vegetation of lower Fraser River floodplain, and down-stream impact of Bennett Dam on the Peace River floodplain; biomass yield from annually flooded grasslands in the Fraser River floodplain.

Wilfrid B. Schofield (botany) — habitats of bryophytes as a factor in interpretation of the development of geographic patterns. Students:

John Spence (Ph.D.) - overview of bryophyte communities of alpine and sub-alpine areas in southwestern British Columbia and adjacent Washington State.

Terry McIntosh (Ph.D.) - role of bryophytes in stabilizing soil surfaces in semi-arid regions of western North America.

Roy Turkington (Botany) — population biology of pasture species and its influence on community structure; ecological and evolutionary implications of competition (Lonnie Aarssen) and disturbance (Roberta Adams) on community structure; differentiation in *Trifolium repens* (Richard Evans); *Rhizobium trifolii* variation and its potential for improved symbiosis with *Trifolium repens*, nitrogen-fixing ability, and productivity (with Brian Holl, Plant Sciences, UBC). Students:

L.W. Aarssen (Ph.D. 1983) - Interactions and coexistence of species in pasture community evolution.

M.J. Ratcliffe (M.Sc. 1983) - Interspecific associations, phenology, and environment of some alpine plant communities on Lakeview Mountain, southern British Columbia.

UNIVERSITY OF VICTORIA

Mark A.M. Bell (Biology) — reclamation of coal mined lands; application of vegetation studies to reclamation; use of native species in reclaiming disturbed areas; studies on colonization by microfauna on reclaimed high elevation slopes; ecology of nitrogen-fixing native legumes for use in high elevation reclamation; methods in analysis and classification of Okanogan parkland and grasslands.

B.C. PROVINCIAL MUSEUM, VICTORIA

Adolf Ceska — plant communities, wetlands, classification techniques.

Robert T. Ogilvie — ecology of alpine vegetation - phytosociology and ecology of alpine plant communities of the Coast Mountains and southern Rocky Mountains; ecology of maritime vegetation - phytosociology and ecology of shore, snad dune, and estuarine plant communities.

If you know of anyone who has been omitted from the list, would you please contact the Chairman of the Section: Dr. B.A. Roberts, Newfoundalnd Forest Research Centre, Canadian Forestry Service, P.O. Box 6028, St. John's, Nfld A1C 5X8. Volunteered information for future lists would also be most welcome.

EDITOR'S ERRORS

The Editor regrets that two errors (other than typos) crept into the last issue of the *Bulletin*.

p. 15 - It is, of course, the Canadian Congress of Biology

p. 17 - The Royal Botanical Gardens, Hamilton, received a major grant of $25,000 for a medicinal garden.

You may have also noticed that I made doubly sure that members were aware of the morning events on June 25 for the Annual Meeting in Fredericton!

GUIDELINES TO ORAL PRESENTATIONS OF PAPERS

Oral communication is very important in the exchange of information. Capture the audience's full attention at the beginning and half the battle is won. State the underlying objectives of the research very clearly, eliminate confusing details, and use simple slides. The guidelines below will help.

1. Write out the talk in advance, but never read it. Writing allows you to:
   a) check the logical development and flow
   b) ensure proper transition
   c) check sentence length (should be short)
   d) seek synonyms for frequently used words
   e) discard non-essential items
   f) ensure that only familiar terms are used
   g) ensure that the time is correctly divided into 10% introduction, 80% main body of text (including conclusions), and 10% summary. Plus time allowed for questions.

2. Reduce the written text to a simple outline or notes, or even speak without notes. You cannot hope to hold the audience if you have your head buried in a written text. The 3 common types of outline are: topic outline; key phrase outline; and sentence outline. Choose the one that best suits you. An experienced speaker will write and revise the talk several times, learn the main points, and then use a few cards (at least 5 x 7") with topic headings, key sentences or transitional sentences as a memory refresher.

3. Organization

a) The introduction should be simple and gain immediate attention. Attention can be gained by several devices, including opening with a narrative, quotation, rhetorical question, or startling statement - but all must be relevant to the talk. Humorous asides may be used - but avoid stock jokes.

b) The main body ("meat") requires logical organization of the material. Use short, clear statements, with precise and appropriate words, to convey ideas. Avoid abstracts. Use active rather than passive verbs. State the purpose of each experiment and relate it to the overall purpose given in the introduction. Keep experimental details to a minimum because of time constraints - they can always be provided during the question period, privately, or in a published article. Give the conclusion of each experiment at the time, not in a separate section.

c) The summary should leave the audience with the central theme of your talk - restress the main points, re-state the thesis, conclude with an anecdote or question, or state future program(s).

4. Techniques

a) Visual aids are effective if properly used.

Blackboard -- use only in a small room, plan use in advance so that parts do not have to be erased

Slides -- most popular method. Remember that at least 1 minute per slide is needed for full understanding. Show well-defined groups of slides - slides replace the speaker while projected so that you and your information fade into the background.

The do's and don'ts of slide use can be summed up in the phrase "Keep it simple, stupid!".

Do:
- Ensure slides are in correct order and right side up
- Allow at least 1 minute per slide
- Allow time for slide changing
- Allow for accidents
- Provide titles
- Plan exactly what to say about the slide
- Select a standard slide size
- Make the material fit a rectangle with long side horizontal whenever possible
- Use colours if helpful, but not just for aesthetics
- Label the point of interest on a micrograph
- Locate the pointer before the talk
- Discuss your signals with the projectionist beforehand

Don't:
- Make too many points per slide
- Plan too many slides for the time
- Use tables if graphs are more vivid
- Put too many lines on a graph
- Use unlabelled axes on a graph
- Use typewritten material or illegibly small numbers or letters
- Use non-standard, square or tall slides unless unavoidable
- Use poor quality slides
- Keep the audience continuously in the dark or keep flicking the lights on and off
- Keep slide projected after it is needed
- Read aloud every word on a slide

Overhead transparencies -- can be used in normal lighting. Complement speaker, not replace. Blank transparencies can be used instead of a blackboard. Legibility is still of paramount importance.

Help -- most large institutions have technical illustrators on staff — consult with them, and then follow their advice. Consider having them make up the slides and transparencies, in spite of the cost involved.

b) Delivery is very important. Do not use a mumbled monotone, unintentional punctuation (ahs and ers), and try to avoid nervous mannerisms. Practice, practice and practice - by yourself, in front of a mirror, and before friends, colleagues and your supervisor.

Do not speak too fast or too slow. Pitch your voice to reach the back row if there is no amplification in the room. Vary force and pitch of delivery to emphasize main points and important sections.

Use a microphone if one is available. Stand at least 6" away. Speak in a natural voice, and move away slightly if you wish to raise your voice. Never cough or clear your throat directly into the microphone (this has been described as sounding like a mating call of a bull elephant!). Don't talk directly to the microphone or you will lose your audience.

Maintain eye contact with individuals in the room.

Avoid an awkward stance. A natural position has the feet 8-10" apart with one foot slightly forward. Do not wander aimlessly around. Use gestures as needed, don't keep your arms rigidly at your side. Don't clutch the lectern as if it was a life-saver.

Nervousness is totally natural - but visibly quaking knees can distract the audience. Use the lectern to conceal them if necessary. Reduce nervous tension by knowing your subject, and

being prepared so that nothing major can go wrong. Take several deep breaths to relax yourself, and then begin to speak.

Timing is very important. The allotted time includes questions. Time your rehearsals and make notes in red on your cue cards so that you can correct errors during the actual presentation. There is nothing worse than being cut off before the end.

Leave the dais coolly and calmly — don't dash off as though ready to hide.

5. Question Period

Don't ask for questions as you finish your talk — this is the responsibility of the chairman of the session.

A question may sound stupid or even malicious — ask for it to be repeated so that you gain extra time to think about your answer.

A questioner may be probing or ask too many questions — suggest meeting later for a private discussion so that you do not run over your allotted time.

No questions? It usually only takes one question to generate others. Consider "planting" one or two close friends in the audience to start the ball rolling. (Some senior scientists apparently use this technique at large congresses -- and ensure that the first question is one that they would like to answer!)

6. Rehearsal

This is very important. It will also help to prepare you for unexpected hazards, such as disappearing chalk, malfunctioning equipment and disturbances in the audience — and on how to deal with the situation. Long-time members may remember a recalcitrant electrically-operated screen at one Annual Meeting — and the cool (and humorous) way in which the speaker handled the matter.

Finally, do not use another language unless you are fluent. Most international meetings, such as the International Botanical Congresses, will provide translators. CBA/ABC is officially bilingual, although translations are not provided, and the Cinq-Mars Judging Committee always includes both French and English speaking members.

IOPB NEWSLETTER

The International Organization of Plant Biosystematists has re-established the IOPB Newsletter and Issue No. 1 (new Series) has just been published. The IOPB Newsletter is sent free to all members of IOPB. Membership in IOPB is for the period 1983-1987, and is $25.00 U.S.

Contributions to the IOPB Newsletter for an international audience, including requests for material, items of research interest, notices of meetings, etc., may be sent by anyone to the Editor: Dr. Krystyna Urbanska, Geobotanische Institut, E.T.H., Zürichbergstrasse 38, CH-8044 Zürich, Switzerland.

Membership application forms may be obtained from: Dr. Liv Borgen, Secretary-Treasurer, IOPB, Botanical Garden and Museum, Trondheimsveien 23B, Oslo 5, Norway. Or from: Dr. W.F. Grant, President, IOPB, Department of Plant Sciences, Box 282, Macdonald College, McGill University, Ste. Anne de Bellevue, Que.

JUST FOR FUN

An American nursery was building a new greenhouse with all services underground. Unfortunately they forgot to put in the telephone wires. There was a bend in the duct so normal methods of feeding in the telephone wire did not work. Solution — catch a toad, tie fishing line around its middle, drop it into the ducting and turn on the water hose. The toad went the necessary 200 feet, plus a further 60'! A house builder then informed them that a mouse was the usual means of solving such a problem!

AIR POLLUTION IN FORESTS

Members may be interested to know of the following publication.

AQUILO, ser. botanica. Tome 19, Vol. I and II. 1983. Proceedings of the 12th International Meeting for Specialists in Air Pollution Damages in Forests (held at Oulu, Finland, 23-20 August, 1982).

Volume I includes the papers presented at the sessions, while Volume II contains the posters presented. There were 5 Sessions — Acid Precipitation; Physiology and Structure; Forest Growth, Dynamics, Diagnosis and Evaluation; Air Quality Criteria and Forest Trees; and Workshop on SO_2, O_3 and NO_x and Forest Trees.

The papers presented include:- Acid Precipitation and Forest Growth in Norway; Sensitivity of Eastern Canadian Forest Tree Species to Simulated Acid Precipitation; Possible Indirect Long-term Effects of Acid Precipitation on Forest Growth; Comparative Growth as a Measure of Air Pollution Impact; Ecological Monitoring of Sulphur in Forests in Western Canada; Long-term Effects of Sulphur Dioxide on Forest Growth; Variation in Air Pollution Responses of Hardwood Trees.

The posters include: Fluoride Levels in Forest Trees around Aluminium Smelters; Deposition of Sulphur Compounds in Forests in Southern Finland.

Copies of the journal can be obtained by contacting either the editorial staff (AQUILO ser. botanica, Department of Botany, University of Oulu, SF-90100 Oulu 10, Finland) or the distributor for overseas (Akateeminen Kirjakauppa/The Academic Bookstore, P.O. Box 10128, SF-00101, Helsinki 10, Finland). There is no indication of cost on the copies that I have seen.

IOPB 1986 SYMPOSIUM

The International Organization of Plant Biosystematists (IOPB) will hold a Symposium in Zürich, Switzerland, July 13-18, 1986, entitled "Differentiation Patterns in Higher Plants".

In addition to invited speakers, poster sessions will be accommodated. Short scientific excursions are also planned.

For information, write to the Chairperson: Dr. Krystyna Urbanska, Geobotanisches Institut, E.T.H., 38 Zürichbergstrasse, CH-8044 Zürich, Switzerland.

PRESERVATION BY TRANSPLANTATION — A REPLY

There has been much discussion in recent issues of the *Bulletin* (Vol. 15(1):7; Vol. 15(3): 30-32; and Vol. 16(2):1, 13-15, 19) concerning transplantation of rare species for conservation purposes. We feel that we must respond to some of the statements made, and we hope that the following summarizes the main points raised thus far.

1) There have been several statements by Dianne Fahselt, Paul Keddy and John Morton suggesting that transplanting is being proposed.

2) A distinction has been made between transplanting individual species and re-constituting whole communities, and between 'flora' and 'vegetation'.

3) Whether natural communities are preferable to artificial ones is said to have been questioned.

4) Two of the earlier authors have asked what body of literature or experience of transplanting exists.

5) Paul Keddy suggests that the outcome of transplanting is uncertain and that there is not (and never will be?) enough scientific data to justify transplanting.

6) Paul Keddy defined eight successive criteria for establishment and reproductive viability of transplants. He also pointed out that long-term survival of populations may depend on rare, extreme environmental episodes.

7) Two hypotheses for absence of species from a specific site have been suggested as a) 'specialization' and b) 'dispersal'.

The general tenor of the remarks has been hostile to transplanting.

We agree with points two, six and seven above, and so will not address them further. We also concur that one probably cannot ever create an entirely 'natural' community by transplanting. We wish to challenge and/or elaborate on the other points, as well as add some of our own.

First, one must be careful not to distort the political picture. From the previous *Bulletin* items one gains an impression that there is an impending deluge of transplantation proposed by 'consulting companies in environmental hearings', some of whom 'seem unable to state publicly that the natural habitat is botanically preferable to artificial plantings', that these proposals purport to be a 'solution', and that 'those without scientific training in ecology' (the proponents?) 'always appear to underestimate the complexity of the problems involved'. How many of these proposals are there, who are the proponents, and under what circumstances are the proposals being made? The two British examples quoted are clearly insufficient to establish the Canadian pattern! Are the attitudes and lack of expertise attributed to the unnamed individuals accurate?

We can partially answer the objective aspects of the above questions. We know of two proposals for transplanting in Ontario specifically for the purpose of conservation of species threatened by development. The first concerns transplanting proposed for a number of species by Bob Dorney of Ecoplans at a hearing convened by the Niagara Escarpment Commission concerning a proposed quarry. The second is our own attempt to preserve a few selected species of the Oriskany flora at Cayuga (de Boer et al., 1982). One should also note that the West German Federal Government has legislation concerning the re-creation of whole ecosystems and a group at Stuttgart University, including Dr. D. Bruns, is heavily involved in these activities.

Our second point is that, in deciding whether or not transplanting is wise, one must take into account why the proposal is being made. Our proposal was made when other politically viable alternatives had been exhausted. The case of *Schoenus ferrugineus* L. mentioned by John Morton was a similar attempt to stave off disaster for a doomed population. This is the 'lifeboat strategy' of transplanting, and we believe that it is valid. Then there is the case of the Steetly Quarry in Britain (see Vol. 16(2):19) where transplanting is apparently being done to *enable* development to proceed. We believe that this approach entails real danger for the conservation movement. The issue has been raised in the context of salt marsh preservation in the eastern U.S.A. Race and Christie (1982) conclude that "the critical determination must be to distinguish whether marsh creation and restoration techniques are used to mitigate unavoidable loss of wetlands and enhance estuarine systems, or to justify the destruction of wetlands". That is, one must carefully distinguish between the 'lifeboat' approach and the 'enabling' strategy where development is seen as having automatic priority over conservation, and in which transplanting is the sugar coat to a bitter pill! (There is, of course, a third motive for transplanting involving propagation and restoration of rare and endangered species to areas from which they have been extirpated.)

Paul Keddy has emphasized the technical difficulty of successful transplanting, and uses this as an argument against it. In 'lifeboat' transplanting (e.g., at Oriskany), the worst that can happen is that the plants are lost anyway. One of our objectives at the Oriskany site is to assess the difficulty of transplanting and, *in the event of a failure, this will be the best possible argument against attempts to transplant purely yo facilitate development*! In the meantime, we will learn a great deal about the ecological requirements of the species involved, and about transplanting in general. On the other hand, if one or more gene pools are preserved, then the species, the scientific community, and society in general will have benefitted. There is very little literature on salvage transplanting per se, though much has been written on natural gardening, especially of prairie and eastern deciduous species. However, we suggest the interested reader refer to Conservation of Threatened Plants (Simmons, et al., 1976), chapters of which deal with problems of preserving threatened plant species and encourage attempts at doing so. The 'technical' argument against transplanting is certainly valid where transplants are proposed to facilitate development. Conversely, merely to say that we know little about a problem is a very poor reason, in itself, to abandon transplanting — the achievements of science, of which we are inheritors, were never built upon such timid stuff!

Surprisingly, two important factors have never been raised in the transplanting debate. One concerns the problems which transplanting might raise for the phytogeographer (and we are indebted here to Tony Reznicek for his comments). If transplanting is unsuccessful, it may provide interesting theoretical information about why

plants are absent from certain sites (e.g., Clausen and Hiesey, 1958). Conversely, if it is successful but undocumented, real confusion over the original distribution and genetic constitution of a species may result. For this reason we advocate that transplanting should normally be local (e.g., within a township). Long distance transplanting should usually be restricted to garden or arboretum situations where the likelihood of naturalization is relatively small. (Incidentally, has the Conservation Committee members considered the flourishing trade in wild plant stock and seeds when it examines transplanting?) If transplanting does become common for whatever reasons, perhaps a register of transplant attempts should be established as a means of avoiding confusion to later researchers.

The other factor, which was addressed only briefly by Paul Keddy (Vol. 16(2):13-15), is the probability of survival of populations over long time periods. The island biogeography theory of MacArthur and others (MacArthur and Wilson, 1967, and Diamond, 1975) suggests that dispersal of a species becomes less frequent as the distance between 'islands' increases. The distance between natural habitat 'islands' is increasing under human influence so that the natural dispersal of propagules between them is inhibited. At the same time, the size of the 'islands' is being reduced, making for a smaller flora within each as the diversity of habitat is reduced, and, in addition, we interfere with natural habitat within these remnants. Thus, the likelihood of local extirpation increases. It is impossible for a small community of botanists to do very much to alter these overall trends in land use, but by transplanting we could make the hostile environment between habitat islands more permeable to plant propagules.

Such ideas are bound to be controversial, but we in North America must come to terms with an increasing need to manage remnant natural areas, and such management must be based on logical reflection and experiment rather than emotional gut reactions. Whether or not a transplant attempt is wise in an individual situation can never be answered by a simplistic policy, nor can the situation be resolved without reference to the particular political milieu and biological facts. As with many other conservation problems, the appropriate means of arriving at a decision are neither wholly an art, nor yet entirely scientific. To suggest otherwise is naive.

References

Clausen, J. & Hiesey, W. 1958. Experimental Studies on the Nature of Speices IV: Genetic structure of ecological races. Carnegie Inst. Washington, Publ. 615. (See also earlier works cited therin.)

de Boer, G., R. Suffling, L. Duquette & L. McGuire. 1982. Feasibility Study for Salvage of the Oriskany Flora. Working Paper Series No. 10, School of Urban and Regional Planning, Univ. of Waterloo, Waterloo, Ont.

Diamond, J.M. 1975. The island dilemma: lessons of modern biogeographic studies for the design of nature reserves. Biol. Conserv. 7:129-145.

MacArthur, R.H. & E.O. Wilson. 1967. Island Biogeography. Princeton Univ. Press, Princeton.

Race, M.S. & D. Christie. 1982. Mitigation marsh creation and decision making in the coastal zone. Environmental Management.

Simmons, J.B., R.I. Beyer, P.E. Brandham, G.Ll. Lucas & V.T.H. Parry, Editors. 1976. Conservation of Threatened Plants. Pleanum Press, N.Y.

Roger Suffling
Univ. of Waterloo

Gretchen de Boer
Brock Univ.

INTERNATIONAL SCHOOL OF VEGETATION SCIENCE

The Summer Program of the International School of Vegetation Science, in numerical methods in ecology and systematics, was held at Università degli Studi di Roma from June 19-29, 1983. The Istituto di Botanica and Centro di Calcolo Interfacolia were hosts for the course.

The course director, L. Orlóci, Department of Plant Sciences, University of Western Ontario, gave a series of lectures on measurement, sampling, comparisons, linear and non-linear ordinations, clustering, tests of distinguishibility, analysis of structured tables and identification methods. These were designed to introduce the students to a range of current methods and problems in multivariate analysis. Lectures were supported by open laboratories run by J. Bowles and N. Kenkel (Univ. of Western Ontario) in which students obtained hands-on computer experience using Apple II personal computers. Participants were given the opportunity to try out the methods introduced in lectures and explore and compare techniques using their own data. Tutorials in matrix algebra and the BASIC language were given by M. Lagonegra (Univerità di Trieste). G. Cavedon (Università di Roma) introduced the UNIVAC mainframe computer.

A series of special lectures on selected topics was also given, including the philosophy of ordinations and classifications by D.W. Goodall (C.S.I.R.O., Australia), an introduction to dynamic modelling by P. Juhász-Nagy (Eötvös Lóránt Tudomány Egyetem, Hungary), a maximum likelihood method of ordination by D.W. Goodall, special response curves and ordinations by E. van der Maarel (Uppsala, Sweden), and the nature of individuals, descriptions, equivalence, similarity and pattern by M.B. Dale (C.S.I.R.O., Australia).

Workshops on "Information analysis in vegetation research", "Management and multivariate analysis of vegetation data", and "General statistical packages" were given by E. Feoli, the Course Co-ordinator (Università di Trieste), O. Wildi (Swiss Federal Forestry Service) and G. Cavedon respectively.

A field trip to Circeo National Park allowed participants to study undisturbed woodland dominated by *Quercus ilex* and climb Monte Circeo (514 m) to examine vegetation types, including the dominant Maccia.

Over 40 faculty and students from 14 countries attended the course. Plans are underway to hold similar courses on a regular basis at different host institutions.

Jane M. Bowles
London, Ont.

RUSSIA 1983

Last May, Don Fraser and I conducted a study tour through the U.S.S.R. under the auspices of the Continuing Education Department of Concordia University, Montreal. The itinerary included the cities of Moscow, Leningrad, Tbilisi, Yerevan and Baku. We were fortunate with the weather — Moscow, and particularly Leningrad, were about 2 to 3 weeks ahead of the normal season. On May 2, the vegetation in Moscow was about 2-3 weeks ahead of that in Toronto. The spring flora was therefore in full bloom, even in Leningrad. Although the Moscow Botanical Garden was really not quite ready for the outdoor visitor, we were graciously received and the short tour on a blustery day gave us a general impression of the locally represented tree species. Native, as well as introduced, herbaceous spring-flowering species were distributed under the trees.

At the Timiryazev Institute of Plant Physiology, Academy of Science, we were welcomed by Academicians A. Kursanov and M. Chailakhyan, with whom my colleague had worked in 1969 while on an U.S.S.R Academy of Science - Canada National Research Council exchange. Since that time, a new section was added to the Institute and the staff was proud to show us as much of their new facilities as time permitted. They even had tea, sandwiches, cookies and publications ready for us. The next day we were guests of Dr. L. Ilyina and the Vice-Director of the Academy of Science Geography Institute. It was interesting to find that this Institute has a large biogeographical unit with extensive research projects in different regions of the Soviet Union.

The Kirov Order Lenin Forest Academy was on our itinerary in Leningrad. It was interesting to learn that men abd women are about equally represented in the 12,000 students, and half of them study only part time. All are assured of a job on graduation, with an established procedure to give the best choice to the best students. In the nearby arboretum we observed the performance of native and introduced species.

I shall never forget the Komarov Botanical Garden of the Academy of Science. I was particularly interested in the flowering specimens from Siberia in the rock garden. After my pre-occupation with close-up photography I looked up to be confronted with a militia guard. He asked in Russian: "Can't you read? It is forbidden to walk through the rockery!". My answer was a truthful "Nyet!" — although I can make myself understood in Russian, reading is a much slower process, especially when time is at a premium. Thus I continued to explain that I was a visitor from Canada who could not visit Siberia on this trip to study its flora. Since I was already leaving, all appeared well. Then I saw a beautiful *Fritillaria* — "Just one more photo?" — He shrugged his shoulders and left.

Tbilisi, the capital of Georgia, although picturesque along the Kura River, did not quite live up to my romantic imagination. This was the locale of a series of novels for young girls, of princesses and Tatars, by the Russian author Czarska. This author was unknown to any of our Soviet acquaintances. Of botanical interest was a small garden near Mtskheta, where an amateur horticulturalist collected a large representation of cultivated plants. He died at a venerable age, but his family kept up the property. It appeared to us that the welcome to tourists was their price for this private privilege.

From Tbilisi we travelled by bus along the old military road through the Lower Caucasus Mountains to Yerevan, the capital of Armenia. Although we did make a couple of stops en route, the steep winding road did not allow much choice and we had to content ourselves with photographs taken from the moving bus. We managed better later, when we travelled to Geghard, the ancient monastery built into rock north of Yerevan. We saw extensive measures of "conservation" - bare hillsides plowed in contours and planted with shrubs and trees. It was also mentioned, when we observed the many new houses under construction in the mountains, that individuals can own such homes in the country provided that they grow and care for trees around the property.

Flying to Baku was the only time we were reminded of a photographic tabu - no photos allowed from the plane. When we saw the large oil slicks on the Caspian Sea, this warning was understood. The city, first visited by us fourteen years ago, was now disappointing. New apartment houses did not harmonize with the beautiful old buildings and the smell of oil, absent before, was most penetrating. The trees that we admired before in downtown Baku, planted and sustained with irrigation for over 40 years, were still flourishing.

Over the years I have been the recipient of many botanical books from the Soviet Union. Some were gifts received during visits to laboratories in 1969, others a follow-up to those visits or following contacts established during international meetings - both procedures probably familiar to colleagues in similar position. It was therefore shocking to find it impossible to obtain, in various specifically recommended bookstores in several cities, any literature whatever, scientific or popular, that would aid in the identification or understanding of the flora of the Caucasus region. This lack was unexpected, because I have collected a wide array of semi-popular, well-illustrated, "flower" books in many parts of North America and Europe.

The first indication of such difficulties was encountered while visiting the Timiryazev Institute in Moscow. I was informed that my letter inquiring about such a text had arrived very belatedly and did not leave time for a search; the Geography Institute had various useful information concerning our journey, but specifics concerning the flora were not available. It was only then that I began to realize that books previously presented to us were probably a valuable possession of the donor. It explained why the books received were not new, except for those mailed to us by the authors.

In all the three cities I was directed to specialized bookstores, although none of them was associated with a university. I found the type of books that I was searching for in one - however, they were Czech or Hungarian and not of the Soviet Union. The same store, in Leningrad, had a wide collection of lovely books from the Eastern Block. None of the stores visited had popular illustrated Russian books on plants, although I have in my possession such a book on mushrooms given to me several years ago. In Yerevan I found individual volumes of two floras, one of them from Siberia. Both were represented only by their second volume, i.e., only the second half of plant families. This store also had a book on plants of the Moscow Botanical

Garden that I bought. The information given in a second-hand bookstore was that books about plants are very popular and sell almost immediately.

It might be of interest to future visitors to the U.S.S.R. to know that at the time of our visit we were not successful in mailing back to Canada any books written in Russian. This needs clearance by the Soviet academics concerned — a Dean or Director of a University. Only English books were accepted for mailing by the Post Office — a fact that made our suitcases heavy to carry. However, we encountered no difficulty in bringing those books, or the many rolls of exposed film, back home in our personal luggage.

Erika E. Gaertner
Economic Botanist
Town of Mt. Royal, Que

CANADIAN CONGRESS OF BIOLOGY

Planning is well underway for the Canadian Congress of Biology to be held June 23-28, 1985, London, Ont.

1. An All-Congress Banquet is proposed for Wednesday, June 26. The CBA/ABC Banquet and Awards Presentation is proposed for Thursday, June 27, possibly with one or more of the other societies.

2. A tentative list of topics (see below) for Congress Symposia has been drawn up, although the precise meaning and direction that these might take have yet to be determined. They will be programmed into 4 ½-day sessions.

a) Basic Research in the Biological Sciences in Canada
b) Forestry
c) Biotechnology
d) Greenhouse Effect
e) Soil; biota; fertility
f) Ageing
g) Developmental Biology
h) Germplasm
i) Life in a Cold Climate
j) Acid Rain
k) Disease/Resistant
l) Ecology: Current and Future Research Questions

It is most appropriate that suggestions/recommendations and comments be made soon to help with their development into stimulating and useful exercises. Contact your Section Chairperson, or Dr. R.I. Greyson, Dept. of Plant Sciences, Univ. of Western Ontario, London, Ont N6A 5B7

3. The Section Chairmen have been requested to provide information on activities and space requests for their individual sections.

4. The Congress probably will not arrange any special field trips. The individual Sections will be responsible for suggesting and arranging field trips if so desired.

Dick Greyson
CBA/ABC Representative
CCB Steering Committee
Univ. of Western Ontario

BOOK REVIEWS

Triggerplants by Rica Erickson. 1981. University of Western Australia Press, Nedlands, W.A. 229 pp. (First published in 1958 by Paterson Brokensha Pty Ltd., reprinted 1981 by U.W.A.). Obtainable from International Scholarly Book Services, Inc., P.O. Box 1632, Beaverton, OR 97075, U.S.A. $11.95 U.S.

Reprinting a book 23 years after publication makes it more available, but in science it does little else. Triggerplants was written for popular use. As the first comprehensive work on triggerplants in the English language, it also sought to serve professional biologists.

The book is concerned with two genera (*Stylidium*, triggerplants, and *Levenhookia*, styleworts) of the Stylidiaceae. They are largely confined to Australia and seem to offer a range of intriguing phenomena for study. The group is of interest not only to biosystematists (there is the 'standard' diversity to be found in southern Western Australia), but also to anatomists (see Carlquist, Amer. J. Bot. 68:778-785, 1981), plant physiologists (the trigger mechanism is separately repoised and sensitized), and cell biologists (in *S. graminifolium*, each trigger reset is accompanied by a pulse of pollen maturation that takes only 15-20 min to complete).

The book begins with a general introduction and discussion of insect pollinators, notes on pollen structure and identification keys to some 100 species. There follows an annotated catalogue in which plants are grouped by form and/or geographical distribution. Each section begins with a brief essay, in which the reader is presented with a fascinating array of information and history. The text is often very effective in creating word pictures of the quite amazing geographical and ecological diversity which is the background for these beautiful plants. The line drawings are also very useful, however the water colours serve little purpose now that so many excellent colour photographs are available.

The reprinting is laudable as a means of reminding us of this plant group, but the failure to revise the text is a missed opportunity to incorporate new information. Seven new species have been described since 1958, there have been several reports of extended distribution, and there have been major cytogenetic contributions, most recently by Coates (Aust. J. Bot. 29:397-418, 1981). One can only hope that preparation of Flora Australensis will generate an up-dated treatment of this group. It should not then be difficult to provide the layman, and the visiting botanist, with a guide to this fascinating group of plants.

In short, this is not a book for purchase although anyone with more than a passing interest in the Australian flora should know of its existence.

Iain E.P. Taylor
Dept. of Botany
Univ. of British Columbia

La Randonnée Sauvage by Sylvain Thomassin. 1983. Masson et Réalisations Editoriales Pédagogiques, Paris. 196 pp. Illustrated. 79 Fr. (In French)

The eight chapters are subdivided into indexed sections. Simple drawings illustrate the principles involved. The first three chapters are devoted to orientation and the use of a

compass; map interpretation, correlation of time with sun or moon and its relation to the establishment of geographic position. They occupy 107 pages of the 188 pages of actual information.

Chapter 4, The trip — informs on proper planning, plotting of the trip, and leaving information with a time schedule. It includes suggestions, with detailed drawings, of scaling steep rocks or traversing a lake in an improvised raft. It depicts a method to crawl up on the ice if unlucky enough to fall through it; how to protect oneself against snowblindness or insects; and finally a set of diagrams indicates the various types of clouds and their interpretation.

Chapter 5, Fire — describes the making of fire for the night, to signal, or to cook. I would have liked this chapter and chapter 7 combined, because there we find the application of fire to cooking in the field.

Chapter 6, The shelter — devotes 6 pages to diagrams of knots and several pages to stakes and poles, their shaping and tying for the set-up of different shelters. A sketch of a cot made from sticks is also included. I would prefer to find the snow shelters illustrated and described in the Survival section in this one.

Chapter 7, Eat and drink — is preoccupied with the provision, purification, and sterilization of water. It presents different techniques of campfire cooking.

It was only in the last chapter on Survival that I found any reference to plants. It was encouraging to see that poisonous plants were of primary importance to the author. Then came a shock of discovery -- besides plants with latex, only those with red parts or fruits were warned against. Even is this text was meant to cover only France, the omissions are serious. A superficial survey can name several plants with dark blue or black berries that are dangerous to eat: Belladonna (*Atropa belladonna*), *Paris quadrifolia*, Privet (*Ligustrum vulgare*), and at least one plant with white berries that is on the suspect list - Mistletoe (*Viscum album*). Nevertheless, it was stressed that it was imperative to know each mushroom collected. The section in this chapter that I have found particularly interesting was concerned with "fresh-air diseases of France". It made me realize how careless a tourist can become in an unknown environment: walking barefoot on a beach can become disastrous if you step on a poisonous fish or handle it, even if dead; different tapeworms have more or less serious consequences - they can be contracted by handling contaminated material or meat that has been insufficiently cooked.

This is a beautiful little book, soft linen covers and glossy pages, on backpacking. It is a perfect text for a course with a good instructor, very theoretical, and the aim at an universal scope is apparent in the description of indivdual chapters. It does not mention conservation of the environment or consideration of future trekkers, an important factor when the popularity of this pastime is considered.

Erika E. Gaertner
Economic Botanist
Town of Mt. Royal, Que

The Sedge Family (Cyperaceae) by T.M.C. Taylor. 1983. Handbook No. 43, B.C. Provincial Museum, Victoria. vi + 375 pp. $7.00

A new handbook has just appeared in the B.C. Provincial Museum Handbook Series. It deals with the Sedge Family (Cyperaceae) of British Columbia, and its author is the late T.M.C. Taylor. It is one of the best of the family treatments in the Handbook series, and it is regretful that T.M.C. Taylor died before its publication.

Almost all of the species included are illustrated and their distributions plotted in maps. Good descriptions and short summaries of each species' distribution are presented. The treatment of sedges follows the sectional divisions defined by Mackenzie. The whole page layout and typeface of the keys and headings resemble those found in Hermann's Manual of the Carices of the Rocky Mountains and Colorado Basin.

The overall treatment is good. The author sometimes accepts a rather broad species concept (such as in *Carex rossii* and related taxa) and does not recognize infraspecific categories. This can be misleading. On the other hand, the solution of some of these problems would require much deeper study, going beyond the objectives of this handbook.

In August 1978 I went through the manuscript when it was almost ready for publication. The time lapse between that year and the date of publication is responsible for most of the book's shortcomings. Since 1978 floristic finds and more recent taxonomical treatments (Whitkus, Standley, etc.) have added over a dozen species to the family Cyperaceae in British Columbia. Unlike good wine, botanical manuscripts tend to go stale and become outdated with age, and we should try to shorten the publication process. I know of several other manuscripts, most notably T.C. Brayshaw's Aquatic Monocots (submitted in 1980), which are either "in press" or "off press" for unreasonably long periods of time. The printing costs of T.M.C. Taylor's book were in the end covered by the Donor Fund of the Friends of the B.C. Provincial Museum. This dedicated group of people have made significant contributions to advances in botany in British Columbia by sponsoring this and other projects. However, a publication of this significance should not have to wait for help from private benefactors.

From an editorial point of view, the book has a few minor deficiencies. Some names are misspelled, the names of authorities are not uniformly abbreviated, and the page numbers have been left out of references in the introduction. The title of the book is a mystery to me. The cover says "The Sedge Family of British Columbia", the spine "The Sedges of British Columbia" and the title page "The Sedge Family (Cyperaceae). According to my friendly librarian, the last of the above is the official title!

Adolf Ceska
B.C. Prov. Museum
Victoria

Ethnobotany of the Nitinaht Indians of Vancouver Island by Nancy J. Turner, John Thomas, Barry F. Carlson and Robert T. Ogilvie. 1983. Occasional Papers Series No. 24, B.C. Provincial Museum, Victoria. B.C. Provincial Museum, Victoria, and Parks Canada. x + 165 pp. $5.00

Nancy Turner is one of the most respected ethnobotanists on the West Coast. John Thomas is a Nitinaht Indian who received the traditional training, but later in middle age trained as a Native Language Instructor at the University of Victoria. Barry Carlson is a member of the

Department of Linguistics at U.Vic., and Robert Ogilvie is at the B.C. Provincial Museum.

The study reported here was initiated in the spring of 1980 with a grant from the Friends of the B.C. Provincial Museum. Little is known of the ethnobotany of the Native peoples on the west coast of Vancouver Island, and no systematic work had been undertaken with the Nitinahts. The recording of traditional information on the names and uses of plants is important and urgent — many cultural traditions are being lost through assimilation into western society, particularly as the elderly tribal members die.

Much of the traditional Nitinaht territory falls within proposed boundaries of sections of the Pacific Rim National Park. The authors hope that the data presented will be useful in planning the future role of various traditional resource areas, and in interpreting to park visitors the natural and human history of the park lands. They also feel that it will be a valuable contribution to the Nitinaht people themselves in that it preserves an important element of their heritage.

The first four chapters include an outline of the linguistic affiliations of the Nitinaht, the vegetation and environment of the region, and the role of plants in the traditional culture (as foods, materials and medicines), including a section on Nitinaht nomenclature and classification of plants. Descriptions of the roles of plants occupy over 30 pages and are fascinating, including the fact that John Thomas made several items during the course of the field studies to actually demonstrate usage.

The Inventory of Plant Species Named and/or Used by the Nitinaht takes over 80 pages, with the families and genera arranged alphabetically within the divisions of plants. Each species listed is provided with its Latin name and authority, common name and Nitinaht name, with a literal translation of the meaning in many cases. This is then followed by a description of its tradititional use.

There is a Reference List, and 6 appendices — Nitinaht plants unidentified botanically, annotated list of some species for which no names or uses were known, names of some introduced plants and plant products in Nitinaht, orthographic system for Nitinaht terms, and an example of the transcription of an interview taped in Nitinaht. There are two indices — one to Nitinaht plant names and one to botanical and colloquial names.

The book is beautifully illustrated with a total of 83 photographs and drawings (by Elizabeth J. Stephen, botanical illustrator at the Museum). These include plants, tools and techniques.

This is a very useful and welcome addition to the ethnobotany of Western Canada. It can be obtained from: Publications, B.C. Provincial Museum, Victoria, B.C. V8V 1X4.

Sylvia Taylor
UBC Botanical Garden

Plants and the Blackfoot by Alex Johnston. 1982. Natural History Occasional Paper No. 4, Provincial Museum of Alberta, Historical Resources Division. xii + 106 pp. No price indicated.

The Occasional Papers are designed to promote rapid dissemination of information and are intended primarily for interested specialists rather than as popular publications for general readers.

The material presented in this book is based on an article "Blackfoot Indian Utilization of the Flora of the Northwestern Great Plains" (Econ. Bot. 24:301-324, 1970). It is chiefly a review of the literature on the relationship between the Blackfoot and plants, but is no less useful because it brings together a number of references that may now be difficult to find.

There are 90 illustrations, all except 3 being of plants — the others are a map of the area historically occupied, a Cree Grass Dance (1885) and a Blackfoot Tobacco Dance Ceremony (1943-44).

The plants are listed by Latin name, and the English common name and Blackfoot name(s) are also provided. This is followed by usage of the plant as described in the literature, thus bringing together information that may be scattered in several references.

The author also provides a list of unidentified species that have Blackfoot names, and a long list of references.

This is another useful addition to the ethnobotany of the Native peoples of western Canada, and it is to be hoped that it will spur the development of field studies with surviving elders of the tribe, such as those done by Nancy Turner et al.

The book can be obtained from: Provincial Museum of Alberta, Alberta Culture, 12845 - 102 Ave., Edmonton, Alta T5N 0M6

Sylvia Taylor
UBC Botanical Garden

BOOKS TO NOTE

Biogeography and Ecology of the Island of Newfoundland edited by G.R. South. 1983. Monographiae Biologicae 48. 648 pp. Dfl. 300 (approx. $130.00 U.S.).

The island of Newfoundland has much in common biologically with the neighbouring Canadian Maritime Provinces, but it also has many unique features which are highlighted in this volume. The geological evolution is described first, followed by a detailed review of the climate and a first classification of the soils. These are followed by descriptions of the ecology, plants, insects and mammals. Several members of CBA/ABC are listed as authors of the various chapters.

Wildflowers of the Yukon and Northwestern Canada including adjacent Alaska by John G. Trelawny. 1984. Sono Nis Press, 1745 Blanshard Street, Victoria, B.C. V8W 2J8. 214 pp. $16.95

A guide to the native plants of the area, that provides both the Latin names and the common names of the plants included. It contains 382 full colour photographs, 96 outline drawings and 2 page map.

Succulent Flora of Southern Africa by Doreen Court. 1981. A.A. Balkema Publishers, Rotterdam, Netherlands. 240 pp. Hfl. 85 ($39.50U.S.)

Orchids of Nigeria by L.B. Segerback. 1983. A.A. Balkema Publishers, Rotterdam, Netherlands. 122 pp. Hfl. 95 ($37.50 U.S.)

POSITIONS OPEN

University of Guelph, Guelph, Ontario

Chairperson, Department of Botany — A botanist is required as chairperson for the newly reorganized Department of Botany at the University of Guelph. The Department currently has strengths in the areas of plant structure, development, physiology, ecology and biosystematics, and will interact with the newly formed Department of Molecular Biology and Genetics. The candidate should be dedicated to excellence in research and teaching and have the capacity to strengthen existing fields within the department, and promote development of new directions within plant biology.

In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. This position is subject to final budgetary approval.

Applicants should send Curriculum Vitae and the names of three referees before May 1, 1984 to: Dr. B.H. Sells, Dean, College of Biological Science, University of Guelph, Guelph, Ont N1G 2W1

Chairperson, Department of Molecular Biology and Genetics — A new Department of Molecular Biology and Genetics has recently been established by the University Senate. A search is being initiated for a departmental chairperson who is dedicated to excellence in research and teaching who will direct this department during its formative stages in attracting new faculty and developing new courses and/or programs. The group of individuals who will form the nucleus of, or who will be associated with, this new venture include those with research interests in cell and molecular biology of gene expression, developmental biology, and genetic recombination. A new facility is being constructed to house the department.

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

This position is subject to final budgetary approval.

Applicants should send Curriculum Vitae and the names of at least three referees before May 1, 1984, to: Dr. B.H. Sells, Dean, College of Biological Sciences, University of Guelph, Guelph, Ont N1G 2W1

MEMBERSHIP RENEWAL

A reminder that membership renewal forms were sent out in November 1983, and that the membership list has now been cleared of all unpaid members.

If any of your colleagues comment that they have not received a copy of the *Bulletin*, or that it is late, please remind them of the above. Even better, show them the copy of the combined CBA/ABC - CSPP/SCPP membership directory that is included with this issue. This directory contains all those members who had renewed by February 29, when the Secretary cleared the list. If their name is missing, then either they renewed after February 29 or not at all. We would like to retrieve their names from limbo if they would only contact the Treasurer, and send him a cheque for the correct amount!

FORTHCOMING MEETING

Seventeenth Session of the International Poplar Commission, October 1-4, 1984, Westin Hotel, Ottawa, Ont.

The International Poplar Commission was established in France in 1947, and is holding only its second Session in North America since its inception. The Commission is an umbrella organization for autonomous poplar councils or commissions in the 32 member countries. The 17th Session is being arranged by the Canadian Forestry Service and the Poplar Council of Canada. The Poplar Council of Canada and that of the U.S. are concerned with poplar hybrids and also with the more efficient production and better use of native aspen and cottonwood.

The purpose of the Commission, which operates within the framework of FAO, is to facilitate the exchange of ideas, information, research results and plant material among the member countries, and to promote poplar cultivation and use. More than 200 delegates are expected to attend the Session in Ottawa, which will deal with subjects such as poplar breeding, pathology, biomass production systems, logging and utilization. Pre-session tours to plantations in Quebec and eastern Ontario and to poplar-using plants in northern Ontario are planned. Post-session tours to visit plantations and industries in the States of Kentucky, Mississippi and Wisconsin are also planned.

For further information, contact: Dr. Robert Gambles, Executive Secretary, Poplar Council of Canada, Ontario Ministry of Natural Resources, Maple, Ont L0J 1E0

The Bulletin of the Canadian Botanical Assoc.
Editor: Mrs. Sylvia Taylor
Office of The Botanical Garden
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Advertisements for Positions Open and Classified categories may be placed at a cost of $10 (Can) per published column inch. Advertisements by individual members for post-doctoral opportunities and Positions Wanted are carried free.

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

To ensure prompt delivery of the *Bulletin* please notify the 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. Iain E.P. Taylor, Department of Botany, University of British Columbia, Vancouver, B.C. V6T 1W5