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Vancouver

BOTANY 80

Over 640 symposium papers and contributed papers and posters will be presented at BOTANY 80 from July 12-16. All members whose names appeared on lists provided by CBA/ABC should have received their copies of the Abstracts and the Program. If you have not received your copy of either, please contact: BOTANY 80, c/o Department of Botany, University of British Columbia, 3529 - 6270 University Boulevard, Vancouver, B.C. V6T 2B1

The scientific program was assembled by the section chairmen of the various societies, and the Local Committee is to blame for any successes in the All-Conference and social activities!

BOTANY 80 T-shirts

Delegates are urged to obtain a BOTANY 80 T-shirt as a memento of the meetings. These will be available at the meetings for a price of \$6.00 (adults) or \$5.00 (children).

Pre-Conference Field Trips

The pre-conference field trips to the Queen Charlotte Islands, the west coast of Vancouver Island, from Edmonton to Vancouver, and to the High Alpine areas will definitely run. The second trip to the Queen Charlotte Islands (July 24-27) will also run. Trips #5 and #6 to southern Vancouver Island and the Paleobotany trip have been cancelled. Applicants for these tours have been offered seats on another trip or a full refund.

It seems that high costs were a deterrent for some prospective participants. Sadly, the \$50 air fare and the \$10 motel room are things of the past. We must be prepared to pay the much higher costs, or not organize such trips at future meetings.

Other Field Trips

The size and complexity of the program has led to the elimination of the traditional CBA/ABC mid-conference field day. There are, however, several interesting one-day and half-day events for those participants willing to miss some of the paper sessions:-

Throughout the meetings - guided and self-guided tours of UBC campus.
- guided and self-guided tours of UBC Botanical Garden.

Friday July 11th (morning) - Trip #8. Salt marshes and Sea Grass Beds. This trip is directed at those who went on Trip #2 "Marine Algae of the West Coast of Vancouver Island".

Sunday July 13th (all-day) - Trip #9. Bryophytes of B.C. Coast Mountains.

Tuesday July 15th (morning or afternoon) - Trip #10. Tour of the Laboratories of the Vancouver Research Station, Research Branch Agriculture Canada.

Full details of these trips will be available at the Registration Desk.

Family Activities

Several tours have been arranged, downtown Vancouver is a 20-minute bus ride, the Vancouver Sea Festival is on - so there is plenty to do in Vancouver for families. The weather is usually warm and may even be sunny!

We hope that everyone enjoys the science, the city, the campus, and the social activities of BOTANY 80.

Iain Taylor

CBA/ABC T-SHIRT

A T-shirt has been designed for CBA/ABC. It should be on sale at BOTANY 80, at an approximate cost of \$7.00. The first edition is "limited", so come prepared to collect on the introductory offer. Further supplies will depend on the demand for the first "printing". A surcharge will be added to mail orders to cover handling and postage.

If the demand is adequate, the T-shirt will become a regular CBA/ABC publicity item.

For further information contact: Dr. Iain E.P. Taylor, Department of Botany, University of British Columbia, Vancouver, B.C. V6T 2B1.

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Editor <i>Bulletin</i> : (ex off.)	Mrs. Sylvia Taylor UBC Botanical Garden
Archivist:	Dr. W.I. Illman Carleton Univ.

NEW RESEARCH FELLOWSHIPS

The Natural Sciences and Engineering Research Council is offering new research fellowships as a means of increasing career opportunities for a select number of very promising researchers. The program is intended to help maintain the current level of university research and development. It will also produce "an adequate supply of promising and highly qualified researchers in universities to help meet the demand of new faculty appointments in the early 1990's when the retirement rate of the existing research force increases."

The fellowships are open to Canadian citizens or landed immigrants with a doctoral degree in the natural sciences or engineering and "relevant experience to the extent normally required by the university for the rank of assistant professor."

The initial appointment is for five years (the 1980-81 application deadline is July 1), and the salary is to be comparable to that offered to new assistant professors in the same field and with similar qualifications and experience. The NSERC research fellows will be employees of the university, which will receive up to \$20,000 a year to help cover salary and benefits costs. The research fellow will also receive an annual operating grant for an initial establishment period (under three years). At present there are no quotas either for a particular university or research field, but this may change in light of the first year's experience. Up to 100 awards can be made for 1980-81.

It was with pleasure, but also some trepidation that I accepted the invitation to undertake the editorship of the *CBA/ABC Bulletin*. It is interesting to note that the *Bulletin* has returned to its birthplace. Dr. Janet Stein of the UBC Department of Botany was the Editor for the first two volumes (1968-69), and Dr. Roy Taylor of the UBC Botanical Garden was among those instrumental in starting the *Bulletin*.

I wish to begin by expressing our appreciation to my predecessor Dr. John Morton, who occupied this chair for 9 years and who guided the *Bulletin* to its present form and content.

Any change in editorship will naturally bring changes in style, and maybe even in content. I hope that any such changes that I may make will not result in a revolting membership!

One of the functions of the *Bulletin* is to keep members of the Association in contact with each other. One way of doing that is to record moves that people make — literally and figuratively. Therefore, I would like to expand the section called Personalalia, or news of members. The only way that I can do this is if you, the members, let me have the information. I won't call it gossip, but rather a passing on of information about members' geographical moves, promotions, successes, awards, graduations, etc. Hence, this is an appeal to you all (or maybe one member per department!) to pass on to me relevant information from your departments.

I would also welcome information on expeditions, publications and conferences; the activities of other societies; news from the various CBA/ABC sections; and relevant items of regional, national or international events.

Sylvia Taylor

THE DOROTHY HANSELL AWARD

In April The Botanical Garden of the University of British Columbia received a Dorothy Hansell Award for their publication, Plantae Occidentalis: 200 Years of Botanical Art in British Columbia. This publication was described as being "visually beautiful and in keeping with the standard of excellence for which Dorothy Hansell stood."

The Dorothy Hansell Award is made by the American Association of Botanical Gardens and Arboreta and is a tribute to a woman who stood for excellence in horticultural and botanical journalism. She was the editor of The New York Botanical Garden's Garden Journal, the Newsletter and Bulletin of the Holly Society of America, the American Bonsai Society Journal and the AABGA Bulletin.

For the interest of those members who will be in the west this summer, the Art Exhibition "Plantae Occidentalis: 200 Years of Botanical Art in British Columbia" will be on display at the B.C. Provincial Museum in Victoria from June 14 to August 16, 1980. The book was written to accompany the exhibition, although it also stands on its own as a description of botanical art and artists in British Columbia.

NEWS FROM THE SECTIONS

General Section

Chairman: Dr. R.I. Greyson, Dept. of Plant Sciences, Univ. of Western Ontario, London, Ont. N6A 5B7

Ecology Section

Chairman: Dr. Kaye MacInnes, 5001-52nd Ave., Site 11, Box 21, Yellowknife, NWT X1A 1H1

Mycology Section

Chairman: Dr. J.A. Traquair, Plant Pathology Section, Agric. Canada Research Station, Lethbridge, Alta. T1J 4B1

Phycology Section

Chairman: Dr. M. Munawar, Great Lakes Bio-
limnology Lab., P.O. Box 5050,
Burlington, Ont. L7R 4A6

Systematics & Phytogeography Section

Chairman: Dr. Vernon Harms, Fraser Herbarium,
Plant Ecology Dept., Univ. of Saskatchewan,
Saskatoon, Sask. S7N 0W0

SIXTH PLANT DEVELOPMENT WORKSHOP

The sixth Plant Development Workshop was held on Saturday March 29 1980 at the Department of Botany, University of Toronto. The all-day meeting was attended by about sixty faculty, post-doctoral fellows, graduate and undergraduate students, and technicians. It included an open house in the departmental greenhouses and a film made by Dr. G.F. Barclay of living sieve tubes in *Heracleum*. The following contributed papers were presented:

1. The accommodation growth of *Ranunculus scleratus* petioles. A. Samarakoon, I. Boesel & R. Horton, University of Guelph.
2. Effects of incision of stock and scion organs on the formation of the graft union in *Coleus*. F.L. Stoddard, University of Ottawa and Carleton University.
3. The relationship between meristem architecture and leaf and internode shape in *Zea mays*. R.L. Greyson, D.B. Walden, W. Smith & M. Moyles, University of Western Ontario.
4. Anatomy of young sporophytes of the kelp, *Macrocystis pyrifera*. D. Grenville, H. Barrales, R.L. Peterson & J.G. Gerrath, University of Guelph.
5. Cell wall of Charophytes. T. Sawa, University of Toronto.
6. Release of Rhizobium from the infection threads in root nodules. L. McIntyre & W. Newcombe, Queen's University.
7. Structure and composition of the protein bodies in a number of umbelliferous seeds. E. Spitzer & J.N.A. Lott, McMaster University.
8. Analysis of plant cells using soft X-ray lithography. P.C. Cheng, F. Wendy, J.W. McGowan, R.I. Greyson & D.B. Walden, University of Western Ontario.
9. Cell cycle kinetics in meristems of roots grown in different amounts of water. J.E. Thomas, McMaster University.

10. Inhibition of nucleolar, nuclear and cell growth by methylxanthines. D. Davidson, McMaster University.
11. Caffeine: the drug. S.W. Armstrong, McMaster University.
12. Light microscopy and cinemicrography of living sieve tube elements, mostly in *Heracleum mantegazzianum* L. G.F. Barclay, University of Waterloo.

The Fall 1980 Plant Development Workshop is being organized by Dr. J.N.A. Lott at McMaster University, and will consist of a series of practical sessions on techniques used in developmental, ultrastructural and cytochemical studies.

Nancy G. Dengler

THE SQUID TECHNIQUE

Everyone who reviews manuscripts occasionally gets one so obscurely phrased that it almost defies analysis. If the analysis is accomplished, the reader finds so many ambiguities and contradictions scattered through it that it can yield little or no information.

Sometimes such a manuscript simply reflects inability to write plain prose. But occasionally a cumbersome and ambiguous style, practised either deliberately or instinctively, covers the author's doubts about his data or reasoning. This I have long termed The Squid Technique: the author retreats behind a cloud of ink, and hopes to escape detection.

It is important that we learn to recognize this device; for it is all too easy to say "This is far over my head", and put the author on a pedestal. Until I dissected such a paper, paragraph by paragraph, for an intelligent but bedazzled colleague, she could not be persuaded that the work was not up in the clouds but merely at her feet like a tangle of rope.

Douglas Savile

DIESEL FUEL FROM A TREE?

The copa-iba grows in the Amazonian forest of Brazil, and is related to the rubber tree. In photosynthesis carbon dioxide and water are reduced to a hydrocarbon sap. Mature trees, about 100 years old with a girth of 1 m and 30 m tall, have been known to yield 10-20 l of sesquiterpene hydrocarbons in two hours. Sesquiterpenes are found in essential oils and resins - turpentine is one. The trees can be re-tapped at six-month intervals.

The oily sap had been used as a base for perfumes and as a healing ointment for cuts, but its other potential was unrecognized until the visit of a researcher interested in biomass fuels.

Now, Brazilian experimenters are reported to have run a truck on sap taken directly from the tree, and have germinated 2000 seeds from wild species for a "petroleum plantation" trial. Researchers at the University of California have been promised seeds from the Brazilian stocks, although it is unlikely that the tree will survive outside its natural habitat.

From: IDRC Reports 9(1) (April 1980)

The Liberal Government's goal of raising research and development spending to 1.5% of the gross national product has been delayed. The pledge, made in 1978, was to complete the increase by 1983.

John Roberts, the science and technology minister, said May 5 in Ottawa in a speech to university administrators that the goal will only be reached within the next five years, or "by the mid-1980's."

"Currently, in comparing our situation to that in other countries, the share of R&D performed by Canadian industry is one of the lowest and thus the need for increased R&D the highest," Roberts said.

Spending on research and development now is about 0.94% of the GNP, less than half that of other industrialized nations. One of the reasons for the low level in Canada, especially in industry, is the country's dependence on transfers of technology through United States branch offices here.

Roberts said that universities play an important role in the research and development effort. "Without a strong, viable university research community, we will not have access to the latest technology.

We will not develop the bright creative minds that are so crucial to healthy science and will not be able to tackle the increasingly complex and urgent problems which concern us as a nation."

To show the government's support for university-based research, Roberts said that the 1980-81 budget of the Natural Sciences and Engineering Research Council has been increased by \$41.8 million to \$162.6 million — a 35% increase, most of which will go to university researchers. It is the same increase announced by the former Conservative government last January.

Roberts said that the total increase in R&D in the natural sciences, including the NSERC increase, was \$155 million, and that he planned to fight for more funds to spend on research in the next year. "I believe that an expenditure close to \$190 million would be the appropriate one and I am relatively confident that further increases in the government's commitment for the year 1980-81 will take place," he said.

The minister also said that the federal government would not reduce its involvement in R&D spending in face of greater provincial activity in the area, although the government welcomed the initiative shown by provincial governments in funding research. The provincial governments are setting up their own research councils — funded from oil and lottery revenues — and most of the funds are going to medical research. Roberts said that there must be improved communications between the two levels of government now that both are supporting research, but that provincial and federal efforts can "usefully complement one another."

From: University of Waterloo
Gazette 20(34) May 21, 1980

Approximately 120 CBA/ABC and Canadian Society of Plant Physiologist members and family have expressed interest in group travel to the XIII International Botanical Congress in Sydney, Australia. It seems possible that we will have enough people for a group rate to apply from Vancouver (and maybe from Montreal, Toronto and/or Edmonton/Calgary).

CP Air have been asked to provide quotations on such group fares. Other carriers will also be approached. Watch these columns for further information. It is clear already that costs will be high. If you have not sent in the questionnaire circulated in April please do so NOW! The more who travel, the cheaper the cost per seat! If you did not receive a questionnaire, contact: Dr. Iain E.P. Taylor, Department of Botany, University of British Columbia, Vancouver, B.C. V6T 2B1.

FORTHCOMING MEETINGS

Second Midwest Conference on Population Biology, sponsored by the Department of Biological Sciences at Purdue University, National Science Foundation and RIAS Program Development in Ecology, will be held at Purdue University, West Lafayette, Indiana, on September 12-13, 1980. The program highlights topics in ecological genetics, reproductive strategies, social systems, foraging dynamics, competition, and inter-specific interfaces. The schedule is designed to allow open discussions after each speaker and following each topical session.

For further information contact: Morris Levy, Conference Chairperson, Department of Biological Science, Lilly Hall of Life Science, Purdue University, West Lafayette, Ind 47907

The Seventh Plant Development Workshop will be held at McMaster University on a Saturday in October (the exact date will be announced later). This workshop will feature lectures and practical demonstrations of a number of methods that can be used to study development in plant systems. All interested persons are invited to attend.

For further information contact: Dr. John Lott, Biology Department, McMaster University, Hamilton, Ont L8S 4K1 (416-525-9140 ext. 4579)

CSPP SYMPOSIUM PUBLISHED

The Canadian Society of Plant Physiologists has published the papers from a 1979 Symposium on "Contractile Proteins in Plants". This is the first compilation of papers dealing specifically with the topic to be published.

The publication can be obtained from: Dr. W. C. Kimmins, Secretary, CSPP, Department of Biology, Dalhousie University, Halifax, N.S. B3H 4J1. The cost is \$5.00, including postage.

NOTE:- The papers from this Symposium have also been published in the Canadian Journal of Botany, vol. 58 no. 7 (issued April 1, 1980).

PERSONALIA

Dr E. Roy Waygood has been elected to Emeritus Membership of the Canadian Society of Plant Physiologists. Congratulations!

New Members

Ms. Debra A. Chamberlain, 70 Scarboro Heights Blvd., Scarborough, Ont. M1M 2V4
Dr. Joseph C. Colosi, Dept. of Plant Sciences, Univ. of Western Ontario, London, Ont N6A 5B7
James D. Eckenwalder, Dept. of Botany, Univ. of Toronto, Toronto, Ont. M5S 1A1
Dr. Barry Irvine, Dept. of Botany, Univ. of Manitoba, Winnipeg, Man. R3T 2N2
Dr. Karen Johnson, 188 Centennial St., Winnipeg, Man. R3N 1P3
Dr. Helen Kennedy, Dept. of Botany, Univ. of Manitoba, Winnipeg, Man. R3T 2N2
Alayn Larouche, Laboratoire de Palynologie et de Paleobiogeographie, Dept. de Geographie, C.P. 6128, Montreal, PQ H3C 3J7
Del Meidinger, 689 Zelkwas Ave., Prince George, B.C. V2M 3V1
Anthony G. Miller, Botany Dept., Brandon Univ., Brandon, Man. R7A 6A9
Dr. Harvey Shear, Program Coordinator, Great Lakes Biolimnology Lab., P.O. Box 5050, Burlington, Ont. L7R 4A6
Michael Sumner, Dept. of Botany, Univ. of Manitoba, Winnipeg, Man. R3T 2N2
Mr. William D. Towill, 6B-405 N. Edward St., Thunder Bay, Ont. P7C 4P5
Maurice Vittoz, C.P.-1802, Matagami, P.Q. J0Y 2A0
Dr. E.R. Waygood, 9925 Quarry Road, Chilliwack, B.C. V6P 3M3

New Student Members

Mr. Harry Beach, Box 1913, Sussex, N.B. E0E 1P0
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Ms. Diane Lyse Benoit, Plant Science Dept., Univ. of Western Ontario, London, Ont. N6A 5B8
M. Y. Bergeron, 495 Cousineau, Pt-Viau, Laval, PQ H6G 3K2
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Mr. Jerry Chmielewski, 349 Lake St., Grimsby, Ont. L3M 1Z9
Ms. Patricia Chow, Dept. of Biology, Univ. of Waterloo, Waterloo, Ont. N2L 3G1
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Ms. Joan E. Lee, 51 Dakota Dr., Oromocto, NB E2V 1L3
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Mr. Steven D. Price, Botany Dept., Univ. of Toronto, Toronto, Ont. M5S 1A1
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Mr. Paul Threadgill, Dept. of Plant Science, Univ. of Western Ontario, London, Ont. N6A 5B7
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Mr. Timothy A.F. Zitnak, 47 Walnut Dr., Guelph, Ont. N1E 4B4

Address Changes (to allow updating of the CBA/ABC Membership List of January 1980)

Dr. Teuvo Ahti, Dept. of Botany, Univ. of Helsinki, Unioninkatu 44, SF-00170, Helsinki 17, Finland
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Ms. G. Bellolio-Trucco (prev. as de Trucco), 1216-1343 Meadowlands Dr., Ottawa, Ont. K2E 7E8
Miss Shannon M. Berch, Dept. d'Ecologie et Pedologie, Fac. de Foresterie, Univ. Laval, Quebec City, PQ G1K 7P4
Dr. Charles D. Bird, Box 165, Mirror, Alta T0B 3C0
Dr. J.D. Brisson, Ministere de l'Agriculture du Quebec, Service de Recherche en Defense des Cultures Complex Scientifique, 2700 rue Einstein, Ste-Foy, PQ G1P 3W8
Dr. Yung Chang-Ho, Dept of Biology, Erindale College, Univ. of Toronto, Mississauga, Ont. L5L 1C6
Helen F. Cohen, 5472 Mountain Sights, Montreal, PQ H3W 2Y6
Mr. William J. Crins, 412-1180 Forestwood Dr., Mississauga, Ont. L5C 1H8
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R.A. Sims, Faculty of Forestry, Univ. of British Columbia, 2075 Wesbrook Mall, Vancouver, B.C. V6T 1W5
Dr. J.H. Soper, 621 Echo Dr., Ottawa, Ont. K1S 1P1
Dr. Pamela Stokes, Institute for Environmental Studies, Univ. of Toronto, #305 Haultain Bldg. Toronto, Ont. M5S 1A4

NEW AND FORTHCOMING PUBLICATIONS

Heiser, Charles B. 1979. The Gourd Book. University of Oklahoma Press, Norman, Oklahoma. viii + 248 pp.

Everything you ever wanted to know about gourds and their uses.

Rourke, John. 1980. The Proteas of Southern Africa. Illustrated by Fay Anderson and Lura Ripley. Kirstenbosch Botanical Garden, Cape-town, South Africa.

This is an authoritative study of the 82 known species of Protea occurring south of the Limpopo River. It is a limited edition, available either in English or Afrikaans. The cost is 95 Rand or R.450 for a special luxury edition.

The following publication is announced:

A bibliography of wildrice (Zizania spp.) including biological, anthropological and socio-economic aspects by Roger Suffling and C. Schneider. 54 pp. Working paper #5, School of Urban and Regional Planning, University of Waterloo, Waterloo, Ont. N2L 3G1. \$2.00

BOTANY 80 ALL-CONFERENCE SYMPOSIUM - PLANTS AND THE INDIGENOUS PEOPLES OF NORTH AMERICA, ABSTRACTS

Ethnobotany in North America: a historical phytogeographical perspective.

RICHARD I. FORD, Museum of Anthropology and Department of Botany, University of Michigan, Ann Arbor, MI, U.S.A.

Indian people collected, consumed, and classified thousands of North American plants. All of the plants used by a particular culture were not always locally available or abundant in sufficient quantity. In order to appreciate the ethnobotanical knowledge that European explorers, North American plant scientists, and anthropologists have received from Indian peoples over the past 400 years, it is necessary to examine the development of the plant communities from which useful plants are selected. A detailed record of microfossils and macrobotanical remains from bogs, lakes and archaeological sites in Canada and the U.S. demonstrates that these plant communities changed through time as a result of natural processes and human disturbance. The human factor has increased with the spread of farming and the mosaic of successional communities this technology creates. A review of archaeobotanical evidence will suggest various implications for reconstructing prehistoric ethnobotanies. Next, the spread of food production will be traced from cucurbit gardening at least 3000 B.C. in the Mississippi drainage area to corn field agriculture after A.D. 700 in southern Ontario. It will be demonstrated that ethnobotanical research today is related to the recent distribution of useful plant species resulting from environmental changes, cultural modifications of the landscape, human population growth, and intertribal conflicts.

Plant resources used for food and medicine by native peoples of Eastern Canada: an ecological perspective.

THOR ARNASON, RICHARD J. HEBDA and TIMOTHY JOHNS, Department of Biology, University of Ottawa, Ottawa; Archaeology Division, B.C. Prov-

incial Museum, Victoria; Department of Botany, University of British Columbia, Vancouver,

A summary of the use of plants for food and medicine by eastern Canadian native peoples is compiled. The role of plants in nutrition is compared between the agricultural Iroquoian peoples of southern Ontario and Algonkian hunter-gatherers to the north. Data collected from ethnobotanical reports and collections are used as basis to discuss concepts and applications of native herbal medicines. Plant species are categorized as to use by culture, pharmacological activity and phytochemical constituents. The relationship of native plant use to available botanical resources is stressed.

Neglected aspects of North American ethnobotany. DAVID H. FRENCH, Department of Anthropology, Reed College, Portland, Ore, U.S.A.

In the pursuit of major questions of plant utilization and nomenclature, other questions and propositions can be overlooked. Some of the latter are advanced here, with data drawn largely from medicines and foods: 1. Lists and discussions of available plants not utilized by indigenous peoples should be included in ethnobotanies; it is asserted that rational principles underlie non-use and abandonment, as well as use. 2. Plants utilized but not named are usually not included in ethnobotanical reports. 3. Principles of native botany and plant ecology are of comparative interest. 4. Is there more to be written about the nature and functions of plant "staples" versus "non-staples"? 5. The implications of mixing plants in medicines and foods should be studied; some peoples mix them, some don't. 6. Panaceas are not equally distributed among North Americans. 7. Ineffective plant medicines (de facto placebos) may have non-medical qualities that help them to persist. 8. Not all systems of plant relationships are classifications or taxonomies. 9. The accounts of early White travellers and pioneer anthropologists are texts suitable for explication, including the Latin and "popular" plant names then used. 10. Is North America a unit regarding plant utilization? Can it be usefully subdivided by new criteria?

A gift for the taking: the untapped potential of some North American aboriginal food plants. NANCY J. TURNER, Research Associate, B.C. Provincial Museum, Victoria.

Of all the plant species originating in North America north of Mexico and formerly used as food by native peoples, only one, the common sunflower (Helianthus annuus), has world-wide significance at present. A number of the small fruit species have been utilized by horticulturalists in developing varieties suitable for cultivation, and others, such as Jerusalem artichoke (Helianthus tuberosus), sugar maple (Acer saccharum) and wild-rice (Zizania aquatica) are utilized to some extent. For the most part, however, the value and potential of aboriginal food plants are not being realized. Some 100 species of native plants that could be utilized more fully in the diets of modern North Americans are listed, together with information on how and where they were used by native peoples. Many species would find wide acceptance in their present form is made available for marketing; others could be significantly improved through selection and hybridization. All could add variety, interest and nutritional value to the

modern diet. Potential problems involved in the adoption of such foods are discussed, and the advantages to be gained are outlined. Re-instatement of these foods among native peoples of North America is suggested as a way of restoring pride in native cultures as well as contributing significant nutritional and financial benefits.

MEMBERSHIP RENEWAL

The subscription dues for 1980 are now way overdue. If you have not renewed your membership for this year, will you please send your remittance as soon as possible to the Treasurer Dr. David Punter, Department of Botany, University of Manitoba, Winnipeg, Manitoba R3T 2N2

No future *Bulletins* or Association news will be sent to members who are not in good standing in the Association.

The Bulletin of the Canadian Botanical Assoc.
Editor:- Mrs. Sylvia Taylor
Office of The Botanical Garden
University of British Columbia
6501 N.W. Marine Drive
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Issued quarterly in January, April, July and October, and sent to all members of the Association. Non-members can receive it at a price of \$10.00 p.a. (\$2.50 per issue) post free, made payable to "The Canadian Botanical Association" and addressed to the Editor. 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.

Enquiries about membership of the CBA/ABC should be addressed to the Secretary of the Association Dr. D.D. Cass, Department of Botany, University of Alberta, EDMONTON, Alta T6G 2E9