

THE CANADIAN BOTANICAL ASSOCIATION

BULLETIN



L'ASSOCIATION BOTANIQUE DU CANADA

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Waterloo

A MESSAGE FROM THE PRESIDENT

I would like to draw your attention to a number of items.

Par la mort inattendue et avant l'âge de M. Lionel Cinq-Mars l'A.B.C./C.B.A. vient de perdre un de ses membres de plus actifs et des plus estimés. Cette perte est profondément ressentie par moi-même ainsi que par tous les membres, présents et anciens, du Comité Exécutif de l'A.B.C./C.B.A. qui avaient travaillé avec lui dans de nombreux projets. La façon magistrale dont il avait organisé la Conférence de Laval en 1970 et ses nombreuses contributions en tant que directeur de l'A.B.C./C.B.A. sont quelques exemples de son travail et de son dévouement à notre association.

We hope that you will plan to attend the next annual meeting of the C.B.A./A.B.C. which will be held in Tempe Arizona from June 16-21 1974. Our hosts will be the Botanical Society of America. The Mexican Botanists will also be in attendance. Several Latin American and West Indian Botanical Groups may be represented as well. Our vice-president, Dr. André Fortin, has agreed to act as the C.B.A./A.B.C. program chairman for this meeting. André is already working on the planning of several joint symposia with the American Botanists. If you have any suggestions regarding the program for the Tempe meetings please write to André as soon as possible.

The October meeting of the Biological Council of Canada will be a most important one for Canadian biologists. In addition to the regular delegates all presidents of constituent societies have been invited to attend. Featured at this meeting will be:

(a) a discussion about the Science Council of Canada with the Executive Director, Dr. P. McTaggart Cowan;

(b) a discussion with Dr. David Munro, General Director of Liaison and Coordination, Canada Dept. of the Environment on the topic "the Man and the Biosphere program";

(c) an address on science planning in Canada by the Honorable Madam Jeanne Sauve, Minister of State for Science and Technology, and

(d) a joint meeting with the National Research Council's Advisory Committee on Biology.

Our own Executive Committee plans to meet on Oct. 27 immediately after the B.C.C. meeting. If anyone in the Association knows of an item that should be considered by the Executive Committee would you please inform me as soon as possible. Information about any topic of importance to Canadian Botanists will be most welcome. Finally, if there is any aspect of the operation of the C.B.A./A.B.C. that you feel should be improved or altered would you please write to me concerning it.

Paul Cavers

President C.B.A./A.B.C.

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LIONEL CINQ-MARS 1919-1973

It is with very deep regret that we have to report the death of Professor Lionel Cinq-Mars. The following account of Dr. Cinq-Mars' life & achievements has been prepared for us by Dr. Bernard Boivin. A bibliography of Dr. Cinq-Mars' publications will appear in the next issue of the Bulletin.

Lionel was born on June 12, 1919 at Saint-Coeur-de-Marie, a Lake Saint John parish at the northern limit of agricultural settlement in Quebec. His father, also named Lionel Cinq-Mars, was a country doctor, just as his grandfather had been. He graduated (B.A.) from Laval in 1940. An interest in floristics developed early and he soon started building a private herbarium. His next step led him to the Collège d'Agriculture at La Pocatière where he graduated (B. Sc. Agr.) *summa cum laude* in 1944 with a graduating essay on weed control. Having already been employed as a summer student by the provincial departments of Agriculture and

Colonization, he joined the Department of Agriculture full time in 1944 now as botanist, now as a Fruit and Vegetable Inspector. But in 1946 he asked for partial leave and became a full time student at Macdonald where he eventually obtained an M.Sc. in 1949 with a thesis on the interaction of the apple scab and certain leaf saprophytes. Concurrently he held a part time teaching assistantship. His career developed naturally from these beginnings.

In 1948 he joined the staff of the Plant Pathology Laboratory maintained at Saint-John by Federal Department of Agriculture. Saint John is close to most major apple orchards of southern Quebec, and naturally enough Lionel specialized in apple diseases, both as a research field and as control problems. He inspected orchards quite regularly and was very active in extension work among local farmers. From 1951 on, R. Crête was seconded to him, a friend and much appreciated assistant.



Saint John was also the home of Marcel Raymond. He and Lionel soon became friends and regular partners in botanical explorations, with Crête as a frequent third party. They were keen field botanists and shared a liking for difficult groups, especially Carex. Every year they detected many range extensions and added a few weeds and natives to the known flora of the Province of Quebec. Lionel came to be favorably known by Louis-Marie of Oka and by the many other naturalists in southern Quebec. As a result of his collecting activities his herbarium grew to some 5000 sheets by 1962. The field work produced large quantities of excellent duplicates, these were mostly given away to institutions, with DAO, MT, LT, CAN, and

SFS being apparently the primary beneficiaries. Rougemont, one of the Monteregian Hills, has extensive apple orchards around its base and Lionel came to know its flora and fauna especially well. When an International Botanical Congress was held in Montréal in 1959, Cinq-Mars organized the Lake Saint John field trip and two Rougemont field days. By now he had become recognized for his knowledge of Viola and Amelanchier, but his career was soon to take a new turn.

In discussions among close friends, Lionel Cinq-Mars revealed that his personal choice of a career in the middle 40's was a compromise between personal inclination, financial resources and social usefulness. His

inclinations were to floristics and taxonomy of the Vascular Plants and to a career similar to what Marcel Raymond and myself had already elected. But he saw little likelihood of being financially able to carry his studies to the Ph.D. level and the prospects of new employment in this field seemed very dim. On the other hand plant pathology was of more obvious social usefulness and pathologists were still clearly in demand; plant pathology was sufficiently akin to floristics and taxonomy to remain intellectually attractive to him; further plant pathology could readily accommodate plant collecting as an avocation. Thus Lionel became a professional plant pathologist and a highly regarded amateur botanist. We often wondered if R.C. Russell of Saskatoon had not been a parallel case. Events in 1962 were to enable Cinq-Mars to start on a new career more akin to his original inclinations.

In mid century there were in the Quebec Province two French language agricultural colleges located some 35-60 miles from their main university campuses. The inconvenience of distance and the limited number of students led to a consolidation of facilities. In 1962 the colleges at Oka and La Pocatière were closed and much of their equipment, collections and staff were transferred to a new Faculty of Agriculture located on the main campus of the Université Laval. Some new positions were created and Cinq-Mars was appointed professor of botany; he was now to teach courses on floristics, systematics, and weeds, along with Botany II, and to direct graduate students postulating an M.Sc.: Claude Lortie, André Vézina, Clément Leduc and Camille Rousseau. The latter was to carry on to a Ph.D. degree. As a professor Cinq-Mars was highly esteemed by his students and rather sought after. His courses were rated as being both difficult and stimulating.

At Oka Louis-Marie had built a good library and a research herbarium of some 100,000 specimens, one of the four Canadian collections truly national in scope and contents. This asset, along with its library, was transferred to Laval in 1962 and became the responsibility of Cinq-Mars. To help reorganize the herbarium and plan its future development and uses, I was invited to spend a year at Laval in 1965-66. In a decade under the direction of Cinq-Mars, the herbarium was greatly improved and doubled in size. The increase was partly the result of the exploration activities of the students and staff, of accessions through a broad program of exchanges and of consolidation or ingathering of various collections: namely the collection from the Faculty of Science, part of the collection from Forestry, the herbarium of the Provincial Museum and the herbaria of A. Desmarais, J. Rousseau, L. Cinq-Mars, A. Gagnon and D.N. Saint-Cyr. A most important acquisition was the arctic herbarium of the late father Arthème Dutilly. In 1966 the collection was formally named Herbarium Louis-Marie after its founder.

The research and teaching activities arising from the herbarium were sufficiently intensive to justify the creation in 1966-67 of two new botanical serials as vehicles for the studies of the staff and students. Ludoviciana, so named after father Louis-Marie Lalonde O.C.S.O., now comprises 10 numbers, and contains some 20 shorter contributions. The more substantial memoirs are gathered in a

series called Provancheria, now in its fifth volume, and so named after Léon Provancher, the founder of Le Naturaliste Canadien and author in 1862 of a two volume Flore du Canada. In 1968 the herbarium was given the status of a university service and Cinq-Mars was appointed Conservateur de l'Herbier Louis-Marie.

Starting in 1943, Lionel Cinq-Mars published some 70 papers of which 22 may be rated as extension work, 1 is ornithological, 24 are in plant pathology and 23 deal with Vascular Plants. Of the latter we may especially note the liminary volume of Provancheria, an exhaustive study of the genus Viola in Quebec. His private herbarium now numbers about 10,000 sheets. Lionel was a charter member of the CBA and a director from 1967 to 1969. He also belonged to a number of other societies and enjoyed the congressional activities of botanists, especially the field trips. He would usually return home with a good showing of the local flora, quite frequently including some additions or range extensions. In return he was very much appreciated as a host and he was usually the leader and organizer whenever a botanical society met in Quebec City.

On August 5, Dr. George B. Rossbach wrote me "I am pleased to say that early tomorrow I drive to Laval University at Quebec for meetings and field-trips largely led by Dr. Lionel Cinq-Mars with the Josselyn Botanical Society of Maine, August 6-9." The day I received this letter I also received the sad news of the sudden death of my friend Lionel Cinq-Mars while on an excursion in the Isle of Orleans near Quebec City.

Lionel Cinq-Mars was due to leave for Morocco on September 10 to take charge of a team of Canadian professors seconded to the Ecole Nationale d'Agriculture de Meknès.

Lionel appreciated the unusual nature of his appointment at Laval University and considered himself as "un homme de transition." He estimated that his task was essentially to lay the groundwork for the future development of floristics and taxonomy at Laval. He built better than he new, for during his very lifetime the Louis-Marie Herbarium was already moving into a leading position in the scientific and educational fields.

Cinq-Mars is commemorated by Amelanchier Quinti-Martii Louis-Marie 1957. He leaves behind his mother Blanche Fournier, his wife Madeleine Desbiens, two daughters Michèle and Danielle, a brother Marc and a sister Madeleine.

THE 1974 and 1975 MEETINGS

The Executive Committee has accepted an invitation from the Botanical Society of America to a joint meeting next year with them and the Mexican Botanical Association at Tempe, Arizona from June 16 to 21. It is hoped that West Indian botanists will also attend these meetings. Dr. André Fortin has been appointed programme chairman for the CBA/ABC at these meetings.

The 1975 meetings are planned as a joint meeting with the Entomological Society of Canada and will be held at Saskatoon during the third week in August. Dr. Taylor Steeves is representing the CBA/ABC in arrangements with the Entomologists.

KLUANE NATIONAL PARK

Victory and Defeat Among Our Highest Peaks by John B. Theberge

(Condensed by the author from Ontario Naturalist, Vol. 13 No. 2, June 1973)

April, 1972. The white mountains of Kluane are bathed in the fledgling warmth of the new spring sun. The upland tundras ring with the guttural laughter of willow ptarmigan, out on territories once more to renew their age-old breeding rituals. The white Dall sheep scan the south-facing mountain slopes above them, searching for newly exposed patches of bunchgrass. One hundred miles away, in Whitehorse, the Fourth Yukon Northern Resources Conference is in session. Delegates have come from all over Canada, and feelings are running high on many issues, among them the new Park at Kluane.

But what is at Kluane that makes it so contentious? If it were dollars alone, Kluane's fate could be determined by the economists. But there are other values at Kluane, values essential to man if man strives for more out of life than merely bare physical existence; values of the mind.

How do you describe the wonder of knowing that at Kluane all the forces that create landscape -- ice and water and wind, and the slow painful processes of soil genesis and plant succession, all combined in some mysterious way to create a miracle of beauty?

And you can describe the excitement of spotting a band of Dall sheep, stark white against the green tundra, over there on the west flank of the Auriole Range, or a grizzly away up above you in the Silver-Onion Pass, grazing in the meadow of the gods? Go and walk through your garden -- not around your flowers but right through them. You feel something of the excitement of walking on Kluane's tundra in June. Pedicularis, Cassiope, Polygonum, Hedysarum, Castilleja -- they are all there, working against time in the warm summer sun to flower and set seed before the snow comes, and -- whur -- a willow ptarmigan flushes at your feet.

But I'm dreaming. These things, some people tell us, mean very little.

For almost thirty years the federal government wrestled over the fate of Kluane. In 1942 it was declared a national park reserve. Such status, however, afforded it no protection. The public showed little interest in northern parks, and there were showings of gold, nickel and copper. So nothing happened. But pressures began to build in the last few years. Citizen organizations, led by the National and Provincial Parks Association, began insisting that the government carry out its obligation for parks in the north and at Kluane specifically. A petition in favour of the park was raised in Whitehorse and signed by over ten percent of the total population of all ages. The mandate for the Parks Branch in Ottawa to act was there. But the British Columbia and Yukon Chamber of Mines said -- no large national parks, Kluane or anywhere else. And the Chamber is no penny stock operation.

A dilemma! But there was a solution. Of the 10,700 square miles in question, about 8,300 square miles is ice and precipitous rocky massives, unusable by miners and all but the rock and piton park users. By including 7,500 square miles of that land in the new 8,500

square mile park Kluane could emerge as the second largest national park in North America, and still most of the usable land would be open to mining. However, the sizes themselves are not the key issue. The Parks Branch was apparently forced to abandon its own criteria for drawing the boundaries of new parks -- the protection of wildlife representative of the area and their ranges and migration routes, the inclusion of known unique natural, geological, scenic, and historic features, and the provision of enough usable valley land for uncrowded wilderness recreation.

That was all decided in the spring of 1972. However, the story does not end there. The Yukon Chamber of Mines has proposed boundary alterations -- more ice for park in exchange for removal from the Park of almost all the valley land and road frontage to the Alaska Highway. The National and Provincial Parks Association challenged the rationale for the original compromise. The Canadian Nature Federation passed a resolution urging that the Park be enlarged.

The mining arguments, however, still keep the Park from enlarging. They are the same now as before the Park was established. You can judge their strength:

- less than \$800,000 worth of gold taken out of the region since white man first explored the country for minerals in 1900 (\$1,100 per year); one copper mine that operated for a few years in the early 1960's and did not gross enough to cover the cost of a bulldozer; a major mining venture by Hudson Bay Mining and Smelting Company that began operation in June, 1972, and one month later announced plans for closure and a loss to shareholders of 9.4 million dollars!

- about ten men have worked at placer gold operations in recent years (second least of the Yukon's four mining districts). Hudson Bay's mine would have employed about 180 men at peak production, but, in the tradition of northern mining, the jobs were there one day and gone the next.

- at total Yukon contribution to Canada's mineral wealth of only 3.2 percent in 1971, with only three operating mines, today.

Then how do mining arguments win favour? Instead of pushing these points, the mining industry argues that values for ore may change, technologies of exploration and extraction may improve, and someday the land may be of value.

Whether or not this is so, consider the implications of the argument. With "potential reserves" everywhere, we are being told that all land must be reserved for mining in the Yukon. That means land-use planning is impossible.

While no case can be made for special mining values on the land adjacent to Kluane Park, a special case can be made for park values. Some of these values may soon be gone without protection. They are enough to make you weep.

The caribou. The Parks Branch know they are there, grazing on the Burwash Uplands, calving within five miles of the boundary that was drawn to exclude them. They know too that here is a relatively unique opportunity to put the entire range of a significantly large band of these normally long-distance travellers in a park.

Historic values have been lost. Dalton Post, a trail camp during the gold rush to Dawson in 1898, is being used for firewood by tourists who have no idea of its significance. Built by Jack Dalton, a figure both praised and feared and obscured by time, it stands today as eight or

nine ramshackle log buildings beside the fast flowing Tatshenshini River. Beside Dalton Post is the remains of the Stick Indian village of Weskutaheen with a graveyard a jungle of high grasses and willows. The small grave houses, built as shelter for the next work, are crumbling into ruin.

In the creeks nearby -- Village and Klukshu, sockeye and king salmon turn the water bright red in late summer. Twenty and thirty pound salmon thrash their way across shallow gravel bars covered by only a few inches of water. This is the only salmon run in the region.

Unique high passes were lost, with sub-alpine and tundra beaver ponds and with rich flora showing west coast features that splash the openings with colour -- five-foot high blue lupine, monkshood, red columbine, Indian hellebore; a 25 square-mile black spruce muskeg glittering with tiny ponds and small lakes called the Pickhandle Lakes, best waterfowl and furbearer rearing ground in the region, where moose, wolves, and bears have beaten the thick sphagnum moss into crisscrossing game trails.

But, as valuable as these features are individually, it is their aggregate that counts -- the upland tundras stretching green in all directions with the massive St. Elias glaciers always in sight. These are barely represented in the Park, and outside they are being gashed for miles by the bulldozers of the mining explorers. Only an approximate 200 miles of potential hiking trails exist in the Park. Is that enough for a Park which is supposed to cater to the true northern wilderness experience, but which is accessible to the heavy tourist use of a major highway? Is it enough considering the Park is only 90 miles by road from the terminus of the world renowned Alaska ferry system, where you have to book accommodations months in advance? Kluane may quickly face over-use; its frail feeling of wilderness will disappear as parking lots jam and hikers meet hikers on crowded trails.

And so the compromise over Kluane's boundaries was no compromise at all. It was land-use planning mistake, and a big one. It is one that future generations will not thank us for, when it is too late to set aside unaltered land in the living museums we call national parks.

Or is it too late? At the Canadian Arctic Resources Conference in May, 1972, Mr. Chrétien (Minister of Indian Affairs and Northern Development) said, "I welcome pressure. If you want something, let me know." There is a way to set things right at Kluane -- flood Mr. Chrétien and his cabinet colleague Mr. Macdonald (Minister of Energy, Mines and Resources) with mail.

Editor's Note:

Mr. D. S. Macdonald refused an invitation to explain his pro-mining position on the Kluane region, in a companion article to this. He admitted that his Department had no information on the mineral values involved. That, however, did not hinder him advising against a larger and more ecologically-adequate park at Kluane.

Dr. Theberge's full report, "Kluane National Park" was published by, and is available from, the National and Provincial Parks Association of Canada, 43 Victoria St., Toronto, Price \$2.00.

HUNT INSTITUTE FOR BOTANICAL DOCUMENTATION

*Carnegie-Mellon University Pittsburgh
Pennsylvania 15213*

Many scientists disparage the significance of their own work to the history of their science. They mistakenly believe that their correspondence, unpublished research notes, and other personal records are of little value to the history of their discipline and the history of science in general. To the present and future historian of botany and of science, letters, field notes, manuscripts, and journals can be of enormous importance, both in chronicling the development of an aspect of botany and in reconstructing the life of a scientist, the activities of his colleagues, the institutions with which they were associated, and the social and intellectual milieu which both shaped and reflected their work.

This notice is an appeal to individuals working in the plant sciences to preserve such archival materials and ultimately to insure their deposit in some appropriate repository. The Hunt Institute for Botanical Documentation serves as such an archives and welcomes inquiries from individuals in the plant sciences whose papers might contain material of historical value.

The archives of the Hunt Institute are open to all researchers and are particularly used by those interested in botanical biography and bibliography, the history of the science, and handwriting identification. Because of the scope of the archival collections and the wide activities of their subjects, there is also much material which could be used by nonbotanical researchers. Topics which have been or could be investigated include travel and exploration in various areas from the 1700s to the present, education in the nineteenth-century United States, United States government-sponsored scientific expeditions, early medicine, social commentary, the sociology of science, and the diffusion of knowledge.

The biographical collection currently provides more than 100,000 citations to published and unpublished accounts of botanists, horticulturists, and botanical artists; about 10,000 of the accounts cited are in the institute's collection. The iconographical collection holds the portraits of more than 11,000 such persons. The manuscripts collection contains more than 2000 letters by 900 botanists, horticulturists, and naturalists, mainly of the eighteenth and nineteenth centuries, as well as approximately 180 collections of personal and professional papers of eighteenth-, nineteenth-, and twentieth-century plant scientists of various nationalities. Included in this last category are letters, manuscripts, notes, lectures, and other papers of the French botanist Michel Adanson (1727-1806), author of Familles des Plantes, and a volume of botanical letters received between 1797 and 1828 by the German botanist Franz Carl Mertens (1764-1831), written by 155 different contemporary botanists of Europe and America. Among the holdings of more recent origin are research notes used in preparation for books, including Herbals: Their Origin and Evolution, by the British morphologist, botanical historian, and philosopher Agnes Arber (1869-1960), as well as

some of her correspondence, and papers documenting the lives and work of plant explorers William Andrew Archer (1894-1973) and Joseph F. Rock (1884-1962) as well as the early life of mycologist and plant physiologist Benjamin M. Duggar (1872-1956), whose later research resulted in the isolation of aureomycin. In addition, the archives include photocopies of relevant material at a number of European repositories and a series of oral history interviews with botanists.

The institute also has a library of over 19,000 titles, with major strength in works published between 1550 and 1850; conducts extensive bibliographical research on works published in botany and horticulture between 1730 and 1840; has more than 16,000 botanical prints and paintings, which are used for exhibits here and elsewhere; maintains a bindery for the conservation and restoration of books and manuscripts; undertakes publication of a facsimile series and monograph series; and has recently opened its collection of Linnaeana, consisting of all books and papers written and published by the famous Swedish naturalist and physician Carl Linnaeus (1707-1778) in every known edition and translation, and the largest known assemblage of books and material concerning him.

Abby Levine, Archivist
Hunt Institute for Botanical Documentation
Carnegie-Mellon University
Pittsburgh, Pa.

PERSONALIA

Dr. Stanley J. Hughes, mycologist at the Biosystematics Research Institute, Canada Department of Agriculture, Ottawa, has been elected to the office of President-Elect of the Mycological Society of America for 1973-74. Stan will serve as President of the M.S.A. during 1974-75. He is only the third Canadian elected to the presidency of this prestigious society.

At the first International Congress of Evolutionary and Systematic Biology at Boulder, Colorado, August 6, 1973, *Gerald A. Mulligan* was elected to the Congress Board of Directors.

Our Members will be saddened to learn of the death on June 21st 1973 of Professor, *Dr. Th. Sørensen*, who until he retired September 1972 was Director of the Copenhagen University Botanical Garden and Museum, and leader of the Institute of Systematic Botany.

Dr. Vladimir J. Krajina, of the University of British Columbia received the honorary degree of Doctor of Laws (LL.D.) at Notre Dame University, of Nelson, B.C. on May 6th in recognition of his distinguished career in environmental protection.

Born in Czechoslovakia, *Dr. Krajina* received his doctorate in natural science from Charles University in Prague. He did postdoctorate studies in Poland, the Hawaiian Islands, Japan, Roumania, the University of Berlin, Geneva, Paris and at the Kew Botanical Gardens in London.

After his distinguished service with the Czechoslovak Resistance Movement during the Second World War, *Dr. Krajina* was appointed professor of botany and head of the Division of Plant Ecology at the Botanical Institute at Charles University. He left Czechoslovakia in 1948 as a political refugee.

In 1949 he was a special lecturer at the UBC Department of Biology and Botany and joined the university's faculty as assistant professor in 1951. *Dr. Krajina* is editor of *Ecology of Western North America* and among his many publications, *Ecology of Forest Trees in B.C.* (1969) has received world-wide recognition.

He is a member of many Canadian, American and international scientific associations and an associate member of the Canadian Institute of Forestry and the Society of American Foresters. In 1972, through the UBC Forestry Faculty, he was awarded the H.R. MacMillan Lectureship in Forestry. In the same year, through the Canadian Botanical Association, he was awarded the George Lawson Medal for notable contribution to the advancement of Canadian botany.

Professor G. Erdtman. Members will be saddened to learn of the death on February 18th of Professor G. Erdtman well known for his work on pollen.

"A USUALLY RELIABLE SOURCE"
A Handbook for Scientists Physicians and Public Relations Officers

The Canadian Science Writers Association have put together a useful handbook giving a comprehensive picture of how reporters and their sources can do the best possible job of getting science news fully reported. It draws on the experience of the National Association of Science Writers' Inc., in the United States as well as on the knowledge and experience of many Canadian reporters.
From SCITEC Bulletin.

BIOSYSTEMATICS RESEARCH INSTITUTE (Research Branch, Canada Department of Agriculture, Ottawa)

The two biosystematics sections of the Plant Research Institute, the Mycology Section and the Vascular Plant Section, have been combined with the Entomology Research Institute and the new organization is to be called the Biosystematics Research Institute. All research on biosystematics in the Research Branch, all of the national responsibilities for identification services, and all of the National Collections for which the Branch is responsible will now be located within the one establishment.

IBP - CT IN THE MARITIMES

The International Biological Programme-CT terminates this year. Region 7 (Maritimes) personnel have been busy completing check-sheets and preparing reports on the areas recommended as ecological reserves for the provincial governments.

During the summer of 1972, 83 areas were examined and 42 of these were check-sheeted. In total, 115 areas in the Maritimes have been check-sheeted; 69 in Nova Scotia, 28 in New Brunswick and 18 in Prince Edward Island. These areas vary in size from 1 to 15,000 acres, most being about 50 acres.

Due to the shortages of time and money, check-sheeting priority had to be given to rare and endangered ecosystems: river floodplains, old-growth forest, sand dunes, etc. Ideally, a broad representation of the region's ecosystems should be protected. We have barely made a beginning. One of the major problems facing CT is to find a suitable successor organization to complete this task.

NEWS FROM THE SECTIONS

The General Section

The business of the General section of CBA/ABC for the past year involved updating the membership list, arranging the 13 contributed papers for two sessions of contributed papers at the London Meetings, and electing two members to serve as directors for the next three years. Dr. Nancy Dengler, University of Toronto, and Dr. Jack Maze, University of British Columbia replace the two members retiring this year. On June 4, a business meeting of the General Section was held in London with 10 members present. New Business consisted of a discussion of the General Section's participation in the planning of the joint meeting with the Botanical Society of America in which it was agreed that the General Section might wish to be involved with the Teaching, Developmental and General Sections of the Botanical Society of America in planning symposia, etc., and a discussion of the possibility of introducing a Developmental Morphology Section as a section of CBA/ABC. It was agreed that at present the needs of the Developmental Morphologists could be met in the General Section. A brief meeting of directors followed the Business meeting at which Dr. Nancy Dengler, University of Toronto and Dr. George Barker, University of Guelph, agreed to serve as Chairperson and Secretary respectively.

A correction to the list of members of the General Section. Dr. Bruce G. Cumming's correct address is:- Chairman, Department of Biology, University of New Brunswick, Fredericton, New Brunswick.

The Mycology Section

There were eleven papers contributed to the Mycology Section at the London meetings this year.

At the Business Meeting a small Committee consisting of Dr. R.A. Shoemaker and Dr. L.L. Kennedy was set up to carry on the work of the Section. Other members may be added later.

An Open Discussion was held to consider future plans of the Section and ways by which a more active Canadian Mycological group might be achieved. It was decided to undertake the project of compiling and circulating a comprehensive list of Canadian Mycologists together with their research interests. For this purpose the country will be divided into regions and various Mycologists asked to prepare a list of names for their regions. These people will then be sent a questionnaire requesting information about their research areas and soliciting their opinions concerning future activities of the group e.g., the best type of program for Annual Meetings. They will be asked also to submit additional names for the list.

Larene L. Kennedy
Chairman
Mycology Section

WHY NOT HERE ALSO?

Britain's roadside verges are to become wildlife sanctuaries. The Department of the Environment has advised all local authorities to stop cutting the grass beside roads so that flowers and animals can flourish.

The country's 500,000 acres of verges - about twice the area of all 130 national nature reserves - support many wild flowers which grow nowhere else. Of Britain's 2,500 species of wild plant, some 600 grow on the roadsides, which also support 20 animal and 40 bird species.

Harvey Elliott in the London Daily Mail

XII INTERNATIONAL BOTANICAL CONGRESS

June 23 - 30, 1975:

The Closing Plenary Session of the XI International Botanical Congress held at Seattle, U.S.A., in 1969, accepted an invitation issued by the Academy of Sciences of the U.S.S.R. to convene the XII International Botanical Congress in the City of Leningrad in 1975. In 1971 the Organizing Committee was appointed: consisting of a chairman (A. L. Takhtajan); four vicechairmen (A.A. Prokofiev, A. A. Theodorov, N. V. Tsitsin, A. A. Yatsenko-Khmelevsky); a secretary-general (O. V. Zalensky); a scientific secretary (N. S. Snigierovskaya); and a number of members at large. The XII International Botanical Congress is intended to facilitate interdisciplinary communication among botanists as well as an informal exchange of ideas. A number of sections are planned, including special ones to accommodate mycologists (also lichenologists), phycologists, and bryologists.

The Congress will be divided between organized half-day symposia and half-day contributed paper sessions. In addition to the opening and closing plenary sessions, two evening lectures are being scheduled. All special interest groups wishing to apply for space and time during the Congress should do so by writing as soon as possible to the secretary-general, Dr. Oleg Zalensky, Komarov Botanical Institute of the Academy of Sciences of the U.S.S.R., 2, Prof. Popov Street, Leningrad 197022, U.S.S.R.

The sessions of the Nomenclature Section will take place, as usual, immediately before the opening of the Congress--in this instance June 20-23. Four days are set aside in order to enable the Section to convene for six to eight sessions of two to four hours each.

A meeting of the International Association of Botanic Gardens (President Academician N.V. Tsitsin) will be held in Moscow at the Main Botanical Garden of the Academy of Sciences of the U.S.S.R. on June 20.

A tentative schedule of scientific field trips has been planned for the immediate pre-Congress and post-Congress periods. The principle purpose of these trips is to acquaint visiting botanists with as many interesting and unique features of the flora and vegetation of various regions of the U.S.S.R. as possible. Some specialized trips for phycologists, lichenologists, bryologists, and palaeobotanists are also planned.

The double postcards announcing the XII International Botanical Congress were mailed during the last months of 1972. Anyone not on the mailing list for the conference, and wishing to receive information should write to the secretary-general at the above address.

MAN & THE BIOSPHERE

(see The Bulletin, July 1973)

The Canadian committee is compiling a list of research work related to the programme. Our members are asked to send an outline of their research to Dr. P. Roberts-Pichette, Executive Secretary, Canadian MAB Programme, Department of the Environment, Ottawa.