IRIS

NEWSLETTER

Alberta Native Plant Council

Box 4524, Station SE, Edmonton, Alberta, T6E 5G4

ISSUE 6 Fall, 1989

ENDANGERED PLANT SPACES

An Upcoming Workshop

of the

Alberta Native Plant Council

Tentatively to be held at Fort Calgary

Calgary, Alberta

(For further information please phone Cliff Wallis in Calgary at 271-1408 or Peter Achuff in Edmonton at 454-9133)

Saturday, February 24, 1990

9:30 am to 5:00 pm

Registration from 8:00 am

The Alberta Native Plant Council is hosting our third annual workshop. Topics will include interesting updates, status reports and upcoming field trips and a keynote speaker.

REGISTRATION

Yes, I want to pre-register.

Please send $15 to pre-register

(members send $10 to pre-register)

SPECIES OF CONCERN:

Let's now begin to protect and preserve our native species populations and their genetic integrity

Prior to the early-to-mid 1970's it was common for virtually all woody species being planted on industrial reclamation sites to be of the introduced variety, and for good reason. Such stock was cheap and widely available from both government and private nurseries and many of the cultivars had been bred for survival under pretty adverse conditions.

Then, in the late 1970's and early 1980's a switchover to a preference for native grass, forb and woody species took place as a consequence of increased ecological sensitivity in the general population, which gradually filtered up to the administrative levels of government and industry. The overall objective of reclamation in wildland zones became to initiate the creation of plant communities that were in harmony with the local wildland landscape. This new approach created many challenges in propagation science and in the technology of establishing native species populations on near-sterile sites. A great deal has been accomplished in a short time though reclamation technology is still not short of problems to solve,

In time, the phrase "native species" became a bit of a buzz-phrase ..... the new "in thing". So much so that the planting of a few beautiful lilac varieties in a highly artificial park campground would come to be viewed as ecological anathema.

Unfortunately the commitment to use "native species" for a reclamation or wildlife habitat improvement project is often not linked to a commitment to use only nursery stock that has been grown from propagation material collected as near as possible to the planting site.

In some cases this situation arises out of the basic ecological ignorance of the project manager or just sheer human laziness. But far more often it arises as a consequence of the relative ease and quickness of obtaining "native species planting stock" (seed provenance not stated) as compared to the time and effort involved in advance planning and budgeting for collection of local propagation material and propagating and growing to size the planting stock. This is particularly the case with relatively large "visual impact" stock, which can take at least several years to produce.

But land reconstruction managers and the rest of us must come to accept that (say) a saskatoon plant grown from seed collected near Winnepeg or Butte, Montana is simply not native, in the true population genetics sense, to a wildlife habitat upgrading site located near Red Deer, Alberta. In fact such plants, if planted in abundance, can be viewed as a form of genetic pollution of local terrestrial ecosystems.

It is a wonderful thing that considerable attention is now focused on the plight of our rare and endangered species and that considerable effort is now going into identifying such species, protecting them and hopefully in the long term increasing their populations.

Perhaps now is the time to take the next step ..... to protect local genetic populations or even our more common species and to be alert to major intrusions of foreign genes into wildland ecosystems, in the name of disturbed land reclamation or habitat upgrading.

What can be done about this problem .... a problem that I think is growing rapidly with the involvement of huge government nurseries in native species production and distribution?

First, we must accept and teach that each "wild" landscape is both unique and precious. Part of the uniqueness lies not just in the assemblage of native species present but in the local gene pools of these species .... particularly of those species, such as the plants, that are relatively immobile in a physical and genetic sense.

We must coax our County, Provincial and Federal governments to insist that any reclamation or wildlife habitat improvement projects within their respective jurisdictions use, in the case of native species, only planting stock that is derived from local propagation material (collection area specified). I would say here that Parks Canada, Alberta Environment and many of the large resource extraction companies have followed such a policy since the early 1980's.

I must also say that much of the problem lies at the County level.

The distribution hither and yon of native shrub stock, grown form seed collected God knows where, by the huge PFRA Nursery at Indian Head, Saskatchewan, is a thing that should be brought to a quick end. Much of this stock goes for shelterbelt understory and wildlife habitat construction projects in the agricultural regions of the prairie provinces .... the very places where the true native shrub populations are most under threat because of intensified agricultural activity .... removal of fencelines, etc. In some rural counties heavily devoted to grain farming one can now travel a long way before laying eyes on a saskatoon, pincherry or chokecherry. Why not use our new shelterbelts and new wildlife construction areas as refugia for our local populations of native shrubs? It would be a simple matter of County government decision, collection of seed by local amateur naturalists and fish and game enthusiasts, shipping it off to PFRA and insisting that the plants that come back to the County be grown form that seed. This might create a few administrative headaches for PFRA but good government agencies thrive on solving such problems and PFRA is known to be a pretty efficient outfit.

As a private nurseryman with some experience in collecting and processing seed of woody native species I would be happy to help with technical advice to any group at the County level that became committed to this approach.

Ted Laidlaw
Native Nursery Limited
Box 316, Tofield, AB
T0B 4J0

SPECIAL PLACES:

Lily Lake: Another Road!!!

The following brief was submitted by the Alberta Native Plant Council to the environmental consultant hired by the local municipal government to conduct an environmental assessment of a proposed road through Lily Lake.

Ms. Elise Bruchet **July 7, 1989**
Calgary, Alberta

Dear Ms Bruchet,

Following up our telephone conversation of last week relating to the concerns of Edmonton naturalists over the proposed road development at Lily Lake, here is the brief we discussed. I submit it on behalf of the Alberta Native Plant Council to request that an environmental study undertaken by the M.D. of Sturgeon include a botanical inventory and such ecological studies as are feasible in the time available.

It is the understanding of the Alberta Native Plant Council, a non-profit, non-governmental organization formed with the aim of promoting the conservation of Alberta wild plants, that an

environmental impact study is being conducted this summer in connection with the proposed construction by the M.D. of Sturgeon of a road across Lily Lake and its valley, NE of Bon Accord. We should therefore like to take this opportunity to recommend that an assessment of the biological resources of the area be made, and that this include consideration of the plant life of the lake itself, the shoreline and adjacent uplands.

As far as we know, apart from a small collection made in 1976 by staff of the Provincial Museum from the east shore of the lake, no botanical studies of the area have been undertaken in recent years and probably none have ever been done from an ecological point of view. Nevertheless, it has been known for many years that Lily Lake is the location for a number of interesting vascular plant species.

Dr. George H. Turner, a pioneering botanist of the 1930's and 40's, who collected extensively in the Edmonton area, stated that the lake "has proved of uncommon interest from the botanist's point of view." Writing in The Canadian Field-Naturalist of January-February 1949 he goes on to provide a comprehensive list of the flora of the Edmonton district in which Lily Lake is mentioned many times. He cites Lily Lake as the only site where he found the aquatic *Ceratphyllum demersum* (Hornwort), the emergent *Acorus calamus* (Sweet Flag), and the Tall White Orchid, *Habenaria dilitata.* Other plants that he found in Lily Lake and only one other lake besides includes Pondweed species *Potamogeton friesii, P. praelongus*, and *P. zosteriformis.* He notes the occurrence of *Calla palustris* (Calla Lily) and *Nuphar variegatum* (Yellow Pond-lily), both boreal species characteristic of the more oligotrophic lakes of the north, as well as the marsh species *Salix serissima* (Autumn Willow), *Caltha natans*, and *Cicuta bulbifera* (Viviparous Water Hemlock). While additional sites are now known for several of these species they remain uncommon and sporadic in this area, and in some cases throughout the province.

The collection made by the Provincial Museum staff indicated a number of species representative of more southern, prairie habitats such as *Orthocarpus luteus*, Owl Clover, *Liatris ligulistylis*, Meadow Blazing-star, and *Solidago rigida*, Stiff Goldenrod. Plants occurring in the Opal and Redwater Sandhills are also represented on the east shore of Lily Lake, such as *Sporobolus cryptandrus* (Sand Dropseed), and an interesting pink form of *Spiraea alba.* In June of this year a field full of *Penstomen procerus*, Slender Blue Beard-tongue, and some unusual agricultural weeds, were noted in fields in the vicinity of the Wildlife Park. In all, when the commoner aquatic, marsh, and meadow species are also taken into account, Lily Lake would appear to have a rich flora characteristic of a variety of habitats, and worthy of further study.

As may be expected from its constitutional objective of preserving the Province's wild flora, the Alberta Native plant Council opposes the construction of a road across Lily Lake and its valley. its reasons are as follows:

1. The gain in human social terms (i.e., the increased convenience of local motorists in being able to use a straight road as opposed to one with a couple of bends in it) does not justify the losses that will accrue to natural populations: disturbance of and danger to wildlife, especially birds, but including also plants as a result of loss of habitat through physical appropriations and changes due to pollution from the road and/or alterations in patterns of drainage and water flow. Again on the human side, such a development will detract from the overall aesthetic appeal and therefore the recreational value of the lake, including a reduction in the value of any interpretive amenities that may be instituted in the future.

2. The road development would appear quite clearly to contravene the 1985 General Municipal Plan of the M.D. of Sturgeon which states in section 3.1.6 that:

"Wherever possible the Municipal District will require roadways and associated structures to be located and designated so as not to adversely affect or intrude upon significant natural, recreational, historical, environmental or ecologically sensitive areas."

In view of the fact that Lily Lake is one of only about a half-dozen lakes in the M.D. of sturgeon, and that alternative transportation routes already exist, it seems particularly unnecessary that the integrity of this small lake should be violated by a road that will effectively cut it in two. We reiterate the point that Lily Lake possesses considerable botanical wealth for its size. Any degradation or loss of habitat at Lily Lake may seem insignificant in the general scheme of things but in fact it is not; taken across the province as a whole such losses add to a radical diminution of habitat resulting in declining populations of plants and animals and loss of our natural heritage for our and future generations.

3. It is our understanding that the road, in passing adjacent to the Alberta Wildlife Park on the west side of the valley, will have a negative impact on the well-being and breeding of animals in the Park, and will detract from visitor enjoyment of the Park. As well, the proposed causeway across the lake would carry the risk of pollution of the lake water which is used for a majority of the animals in the Park. All of these factors have financial implications for the operation of the Park and could threaten the viability of this major tourist attraction.

Obviously, the Alberta Native Plant Council is interested in the findings of a biological assessment of the Lily Lake area and would appreciate receiving any information on the progress and outcome of the study that you are able to supply. In turn please feel free to contact us if you think we would be able to help you in any way.

Yours sincerely,

Patsy Cotterill

Member, Information and Education Committee

Alberta Native Plant Council

HABITATS OF CONCERN:

Roadside Refugia?

The following letter is reprinted with permission of the author.

Honourable Ralph Klein

Minister of Environment

Alberta Legislative Assembly

Dear Mr. Klein,

Re: Road-side Refugia

For some time, while riding a bicycle through the general region around Calgary, I have observed that along many of the secondary roads the wild flowers are especially well represented in the grassy berms along the road. Some special examples are the 2A Highway between Olds and Bowden, or the 1A Highway between Seebee and Cochrane.

Between Olds and Bowden, and for some distance South of Olds, each year around June 15-21, thousands of Yellow Lady-slipper orchids flower along the roadside; there are many other species as well. There is no sign of them at the other side of the fences, where cattle have been grazing, or where weed killers have been applied to regularly ploughed fields. With modern methods of agriculture, there are few hiding places left for our wild flora, especially as clearing of the land certainly has not ceased yet.

I have also observed that the road builders have become much more rigorous in their construction methods: the new 1A between Exshaw and Canmore is a fine road to drive a car or truck on, and the wide vistas make it scenically interesting. However, in preparation of paving, the bulldozers have stripped wide berms to hold wide ditches that are now finished in gravel. Even if in time some flora is re-established on these berms, it will never be similar to the original associations, because the soil structure has been altered so drastically.

In the Netherlands in recent years, road sides have been designated officially as floral refugia. I am not informed about all the detail, but have started enquiries as to the mechanics of this plan. I do know that in some regions, at least, the road side vegetation is not mowed, in order to allow for seed production. Also, weed killers are not applied. I would assume that the major autobahn-type roads would be groomed more technically although, even there, I have seen test plots with varied flowers being evaluated for resistance to air pollution.

In Texas there is a program, instigated by Ladybird Johnson, where the State now scatters seeds of local wild flowers along roadsides and prohibits mowing. The resulting splendour has become a source of tourism income, and tremendous pride among the local population.

My purpose for sending this letter is to draw your attention to the urgent need for, and possibilities of, such programs in Alberta. It would not cost much in administration and execution; the main factors would be recognition of the need, and understanding of the principles involved. Therefore, some directives could be issued, and some practises altered accordingly.

For instance, when roads are renovated, it would be possible to leave one berm untouched, while the heavy machinery does its work along the other side. That would preserve much of the local flora, and give it a fighting chance to re-establish itself. Use of weed killer can be restricted in designated areas, and cutting of grass prohibited. (Even grasses need to make seed to maintain themselves as species.)

You might also consider designating some roadsides as Provincial Parks; they could be relatively small and would not cost much, since the province already would own the right of way. (The strip of land between the railroad and the 2A, particularly between 2 and 10 km North of Olds towards Bowden, might be a fine first candidate for that: Alberta's Orchid Trail.)

Such a program would require expert advise and some supervision. It would seem to me, that the Ecology Departments of the Universities could integrate such advisory functions with existing educational programs. Monitoring of effectiveness could be combined with studies on soil properties and air pollution.

Yours sincerely,
Jan Jansonius
Calgary

COSEWIC:

Status Reports for Rare Canadian Plants

The Plants Committee of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has developed a proposed list of rare Canadian plants. Eventually they would like a detailed status report for each of the plants on the list. Alberta plants are listed as follows.

Status report required for:

Aquilegia jonesii
Carex athabascensis
Conimetella williamsii
Douglasia montana
Draba kananaskis
Draba ventosa
Erigeron pallens
Erigeron radicatus
Erigeron scotteri
Gentiana aquatica
Halimolobus virgata
Hordeum pusillum
Lewisia pygmaea
Oenothera caespitosa var. psammophila
Sparganium glomeratum
Stellaria arenicola
Stephanomeria ranuncinata
Townsendia condensata

Status reports in preparation for:

Abronia micrantha
Chenopodium sunglabrum
Tradescantia occidentalis

Status reports completed for:

Iris missouriensis
Yucca glauca

If you are interested in learning about what is involved in preparing a status report and perhaps authoring one contact: Cheryl Bradley, 158 Westover Dr. S. W., Calgary, AB T3C 2S6, (403) 246-9127.

COUNCIL NEWS

Alberta Native Plant Council Executive

Chairman: Dr. Peter L. Achuff (Department of Forest Science, University of Alberta)

Vice-Chairman: Cliff Wallis (Consultant, Naturalist)

Secretary: Lorna Allen (Biologist, Natural and Protected Areas Section, Alberta Forestry, Lands and Wildlife)

Treasurer: Julie Hrapko (Botanist, Provincial Museum)

Director: Derek Johnson (Federation of Alberta Naturalists representative - Canadian Forestry Service)

Director: Shane Porter (southern Director - Lethbridge Community College)

Director: Elisabeth Beaubien (Northern Director - Botany, University of Alberta)

GOALS AND OBJECTIVES MEETING

Nine members of ANPC met on September 30, 1989 at the Kerry Wood Nature Centre in REd Deer to discuss long range goals and objectives. The reasons for starting the Council and the goals and objectives that were initially adopted were re-examined. The goal of promoting "knowledge and conservation of the native plants and vegetation of Alberta" was accepted as still valid as were the five objectives. Activities that would help accomplish each of the five objectives were listed, discussed and priorized. The top three activities or activity areas are listed below for each objective.

Objective 1: To coordinate information and activities of native plants in Alberta.

1. increase media contacts to promote awareness of native plant issues.
2. Develop information/briefs/position papers for special projects such as biodiversity, forest vegetation management, wetlands, rare species status and phenology studies.
3. Develop a list of current research and conservation projects.

Continuance of the ANPC newsletter "Iris" and the annual workshop/meeting were considered essential and above any priority.

Objective 2: To educate government, industry and individuals about native plants - their management and protection.

1. Field trips, plant study groups and May species counts.
2. Press releases and information distribution on native plant topics and events.
3. Speaker's programs/canned audio-visual presentations on native plant issues.

Objective 3: To encourage research on native plants.

1. Suggest/encourage/coordinate research activities to educational institutions, government and industry.
2. Develop or encourage development of an Alberta database with information on species, habitats and current status such as the Conservation Data Centre of The Nature Conservancy of Canada.
3. Develop a priority list of species and habitats needing urgent conservation action.

A priority nearly equal to number 3 was monitoring the management of native plants in protected areas.

Objective 4: To develop conservation actions for the preservation of natural habitats and plant communities.

1. Promote development and passage of an Alberta Endangered Species Act.
2. Take actions to support the establishment, continued existence and appropriate management of protected areas. Current areas of concern include the Wagner Natural Area, the Big Sagebrush area, and the Many Springs area.
3. Cooperate with the Nature Conservancy of Canada regarding Alberta projects.

Objective 5: To develop guidelines and strategies for appropriate use of Alberta's native plants.

1. Develop and distribute guideline regarding collection, salvage, genetic integrity and vegetation management practices (spraying, mowing, clearing) for native plants.
2. Develop information on the use native pant material in land reclamation.
3. Develop a list of sources of native plant material for horticultural and reclamation purposes.

Implementation Strategy

The group concluded that implementation of these actions should be through the current committees (Information and Education, Rare Plants and Research, Conservation Action, and Horticulture and Reclamation). It was recognized that the functioning of these committees needs to be strengthened by 1. defining the aims and scope of committee activities and 2. developing a coordinated list of specific projects. The list of priorities above will help to do both. If committees have focused projects and a list of specific volunteer needs it may be easier to recruit additional help from members.

An immediate need was seen for a Volunteer Coordinator to canvass and coordinate members for specific activities. A roster of skills and abilities available from the membership is needed. An individual has expressed an interest in assuming this role. A need was also seen for a full or part-time Executive Director once an adequate funding source can be obtained.