

Iris

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The Alberta Native Plant Council Newsletter

Botany Alberta Field Trip No. 6 Roaming Rumsey in Celebration of Rough Fescue and Seeing Nothing But Good in the Badlands

by Patsy Cotterill

Whether it was by luck or design, our annual Botany AB field trip couldn't have been a more fitting sequel to the ANPC's "In Celebration of Rough Fescue" workshop, held in Calgary on May 3rd and 4th this year. Red Deer River Naturalists (RDRN), the organizers, chose as the field venues for the weekend of June 14 and 15th two of their favourite stomping grounds, Rumsey Ecological Reserve, southeast of Red Deer, and the badlands of the Red Deer River at Dry Island Buffalo Jump Provincial Park. These locations overlap the borders of the Central Parkland Subregion of the Parkland Natural Region and the Northern Fescue Subregion of the Grassland Natural Region of Alberta, areas where once, before settlement, plains rough fescue (*Festuca hallii*) was a dominant component of the vegetation. Rumsey's claim to fame is that at 3,431 hectares (8,480 acres) it is not only the largest tract of intact aspen parkland in Alberta, but also in the whole world. Dry Island? Only the most economically obsessed farmer (or perhaps urgent traveller in the rain?) could ever have come up with so inapt a name for what is surely one of the most magnificent spots along the whole length of the Red Deer River's spectacular badlands!

RDRN, **Ron Bjorge** of Red Deer Fish and Wildlife provided us with an excellent introduction to the natural history of the area, including the topography, flora and fauna we could expect to see over the weekend.

Fast forward next to Saturday morning, at something after 10, and an expectant crowd of 27 people assembled on the edge of a farmer's field at one of the entry points to Rumsey Ecological Reserve. **Eileen Ford**, of RDRN and ANPC, began with introductions to the group,

The assembly point was Elnora municipal campground, off Highway 21. Early arrivals could take in a late Friday afternoon trip, organized by **Judy Boyd** and co-led by **Phil French**, to Trenville Park on the Red Deer River, to do some birding and eavesdrop on beaver as they



Field trip members discuss a botanical point in a typical Rumsey setting. Photo: Ed Karpuk.

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hunkered in their lodge (ethically approved for a group of naturalists!). This was followed by an evening rendezvous at the Main Street Café in Elnora, kindly made available by proprietor **Louise Higginbottom**, who seemed unfazed by the sudden influx of strange bodies. Here, over coffee and desserts provided by the

which included a number of local people as well as RDRN naturalists, ANPC faithfuls and even a bull trout activist! **Cheryl Bradley**, widely known and respected as a leading advocate of grasslands in Alberta, introduced celebrity guest **Don Tannas**, MLA for High River, whom she had recently successfully



Three-flowered Avens (*Geum triflorum*) in fruit against a backdrop of typical aspen parkland in Rumsey Ecological Reserve. Photo: Ed Karpuk.

co-opted to steer into legislation the bill to create rough fescue grass as the new grass emblem of Alberta. **Dorothy Dickson** of the RDRN and the Alberta Wilderness Association, a long-term defender of all things natural in a wide circle centred on Red Deer, not least Rumsey Reserve, then described in her inimitably candid, pull-no-punches way the history of the Rumsey block and its management. She gave Cheryl credit for first drawing the authorities' attention to the ecological significance of the site through her comprehensive inventory of the area in the mid 1970s, assisted by dedicated plainsmen **Cliff Wallis** and **Cleve Wershler**. Dorothy noted that it was by accident that this classic piece of aspen parkland, not established as an ecological reserve until 1990, has remained in public ownership since it first came under the stewardship of Imperial Ranches in the early 1900s. The early families who leased the land grazed cattle in the winter, taking advantage of rough fescue's high protein content during the dormant season, and this mimicked the grazing patterns of pre-settlement bison. However, the current lessees are practising summer grazing, with as yet unknown results for the maintenance of biodiversity. The goal of management is to maintain the current balance of trees (30%), grassland and water and sustain the area in such a way that natural processes can continue to evolve. Dorothy, a member of the management committee since 1992, spoke

feelingly of the difficulties of having to accommodate the interests of the oil and gas industry, as well as of the ranchers', in pursuing these goals. Meetings dragged on until the completion of the management plan in 1998.

Feeling grateful for the huge effort that has gone into creating and maintaining the reserve, but glad to put the conundrum of the delicate relationship between fescue and ungulates behind us for a moment, we streamed out at last along the trail like a column of foraging ants. With so much to examine, key out and point cameras at, time soon became of the essence. **Ed Karpuk**, president of the ANPC and RDRN organizer, and his henchmen acted as trail Nazis, keeping the stragglers moving and a stern eye on those who strayed from the flock, lest someone get lost in this signless undulating landscape where each grassy knoll and aspen grove looks much like every other one. Also keeping us under surveillance was our skulking and highly unofficial photographer **Terry Krause** (but at least he didn't take too many pictures of us botanists with heads down and bottoms up)! Ed would later redeem his reputation for cracking the whip, however, by adding a new dimension to the field trip, literally. He dug soil pits at strategic spots and demonstrated how the vegetation reflects the soil profile. Thus the sparse mixed-grass vegetation at the top of a knoll where we happily encamped for lunch was underlain by a Dark Brown Chernozem (eroded phase) with a shallow A horizon that is rapidly drained. Close by, on a west-facing slope covered by buckbrush (*symphoricarpos occidentalis*) and in the proximity of willows, the A horizon was more than twice as deep and the soil was clearly much moister (an effect that is enhanced by the shrubbery itself, which serves as a snow-catcher in winter).

After another soil pit, this time dug in a sedge meadow, and some more traversing of hills, we reached our destination, an area of ungrazed grassland that, interestingly, appeared to be rather less diverse than the terrain we had just travelled through, and even dared harbour that anathema of weeds, albeit misnamed, Canada thistle (*Cirsium arvense*). Admittedly, a nearby ungrazed plateau produced the most extensive (and correspondingly photogenic) patch of slender blue beardtongue (*Penstemon procerus*) that we had yet seen – and what a year this has been for said *Penstemon*, as well as a number of other prairie species such as graceful cinquefoil (*Potentilla gracilis*), various grasses, especially *Stipa* spp., yellow flax (*Linum rigidum*), Pursh's plantain (*Plantago patagonica*), and more.

By mid afternoon we were back in our vehicles, heading south along Highway 56 and then west towards the Red Deer River and the excellently maintained campsite of Tolman Bridge East for a quick leg-stretch along the river. After a day in the hot sun, it was like stepping into an oasis when we entered the cool shade and blossoming bowers of Trochu Arboretum, where we stayed for an excellent barbecue supper organized by the Arboretum's curator, **Judy Reeds**. She was not only chief cook and server but also historian, so gave us a short history of the arboretum (not your average amenity in small-town Alberta!). Stuffed with pork and vegetables, the two groups, birders and botanists, then engaged in a bit of competitive-exhibitionist behaviour in reading out their lists of



Plains cymopterus (*Cymopterus acaulis*), in fruit in the riparian zone, Dry Island Buffalo Jump Provincial Park. Photo: Patsy Cotterill.

sightings for the day. (Did they really see all that, or are they making it up? each secretly thought of the other group.) Anyway, the evening at Trochu, the brain-wave of Eileen Ford and another example of her great organizing abilities, proved to be a delightful rounding-off to the day.

On Sunday morning we left the hamlet of Elnora in a long caravan of vehicles, heading east and then south along gravel roads into the north end of Dry Island Buffalo Jump Park. Our guide for the day was septuagenarian **Gladys Pennock**, who is the official steward of the park under the provincial government's Volunteer Stewards Program. And a more fitting steward there could not be: Gladys has lived in the area since childhood, knows it like the back of her hand and has compiled her own book of photographs and commentary on its flora. Her family still farms on its borders. For the next few hours she led us on the "Dry Island tour", a four-mile trip up and down the slopes and between the hoodoos of this egregious badland landscape, along the green riparian zone of the Red Deer River, through aspen bluff and cool, coniferous-forested ravines. A bent but sprightly figure, she stopped periodically to point her walking stick at the views, the sites of dinosaur discoveries, the film locations. We felt very privileged to be given guided access to such a wide range of the park, and also thankful for the



Gladys Pennock, volunteer steward of Dry Island Buffalo Jump Provincial Park.

dry, sunny weather, which made staying upright on all that smooth bentonitic clay possible! To the botanist, the badlands are a place of delights and challenges, an example of the latter being the goosefoot (Chenopodiaceae) family in its various manifestations. *Endolepis*, *Atriplex suckleyi*, a.k.a. *Endolepis dioica*, was currently in flower, forming small pinkish patches on the smooth white clay, and winter-fat, *Eurotia lanata*, was abundant, making up in numbers for what it lacked in cachet. Badlands are also the home of various *Artemisia* species, some of which, like long-leaved sagewort, (*Artemisia longifolia*), the rare Herriot's sagewort, (*A. tilesiii*), of the North Saskatchewan River Valley, and even pasture sagewort (*A. frigida*) seem to specialize in adaptation to eroding clay slopes. I was totally blown away by *A. longifolia*, which formed perfectly rounded bushes with curving branches bearing narrow, grey leaves and seemed to spring directly out of the bare, smooth slopes. (I cannot understand why it hasn't been adopted for horticulture; indeed, perhaps it has?) The shrubby silver sagebrush, (*A. cana*) was of course abundant in somewhat more mesic sites in the valley. There were various legumes, particularly an assortment of showy milk-vetches and locoweeds, *Opuntia* cactuses in bloom, and one or two unusual plants, such as hairy umbrellawort, (*Mirabilis hirsuta*).

To the geologist, however, I suspect the

badlands mean absolute paradise. **Bill Heinsen**, long-time executive member of the RDRN and badlandophile, stoutly resisted the exhortations of our trail Nazis and took time to recount a few millions of years of geological history, as well as give some pointers on how to tell the difference between petrified wood (it looks like wood) and dinosaur bones (they have a shiny surface and a darker, porous marrow). Ed carried his spade again that day but dug relatively little; perhaps he felt he simply couldn't compete with Nature's own great soil-digger, the Red Deer River! Instead he confined himself to explanations of the origin of hoodoos and pointing out features such as popcorn pediments, those crusty areas of dried bentonite at the foot of steeper slopes. (Ed noted that this type of clay can absorb water up to 10 times its dry volume; such alternating expansions and contractions must surely have interesting effects on plant roots!)

Back at the cars by mid-afternoon, we took a short drive on gravel roads to reach the southern entrance of the day-use area of the park, where we attempted to recover from the afternoon heat and exertion a bit before the arrival of **Gary Martin**, Conservation Officer for the Midland area. Gary took us for our final hike along the river and over some of the lower grass-and-juniper-covered slopes. Here at last Ed got a chance to give the day's pedological lesson when we stopped to examine the flora of a solonchetic soil, complete with



"Devil's Gate" in Dry Island Buffalo Jump Provincial Park, showing typical badland topography. Photo: Patsy Cotterill.

Sandberg's bluegrass (*Poa sandbergii*), alkali bluegrass (*Poa juncifolia*), and tiny, tiny, linear-leaved plantain (*Plantago elongata*).

We dispersed for home shortly after, hot and sun-flushed but satisfied with two beautiful days amid stupendous prairie scenery. Of course there hadn't been nearly enough time to see things in depth, and we would have to come back again and in different seasons. It was good to have had the naturalists with us, giving us the benefit of their varied expertise. (Few botanists are indifferent to a good bird sighting, and an inkling of geomorphology/soils greatly enlarges our understanding of plant distribution.) I drove home thinking the best possible thoughts. Oh, to be in Alberta, now that June is here! What a lot this province has to offer in the way of natural landscapes, which remain, thanks to natural agencies such as rivers and the dedicated efforts of a few humans. And how lucky we are to have the company of people who appreciate them and are only too happy to share their treasures with others! ❀

NOTE: would whoever provided the photograph of Gladys Pennock please come forward and receive credit in the next issue of *Iris*?

Botany Alberta No. 7 Seeking Input for Potential Tours

by Tom Maccagno

The Lac La Biche Birding Society (LLBBS) is looking forward with great anticipation to hosting **Botany Alberta 2004** during the weekend of June 18–20 next year. Literally every type of habitat in the Mixed Wood Boreal Forest is accessible in the area without much difficulty. Transitional areas are not uncommon. As well, there is a variety of camping or fixed roof accommodation available.

The LLBBS would appreciate knowing which potential tours would be of the greatest appeal to participants. For example, we could visit one or more of the orchid fens and the springs which play an important role in nourishing them. There are 16 known orchid species in the region, and the yellow lady's slipper found in Owl River Fen appears to exhibit high variations in size within the area. The Garner Lake Orchid Fen may be the site of the largest diamond willow in Alberta. A tour of the nature trails in Sir Winston Churchill and Lakeland Provincial Parks and Lakeland Provincial Recreation Area could also be arranged.

Other attractions include hiking to a magnificent fern fen near Elinor Lake, and a visit to the Alpac Pulp Mill with its



Virginia grape fern, a member of an elusive group of small ferns, can be found in Garner Lake Orchid Fen and at Elinor Lake. Photo: Tom Maccagno.

nearby interpretive trail. It may also be possible to visit the camp of a native elder who would be willing to share his knowledge of medicinal plants and herbs along a trail near his residence a short distance east of Lac La Biche. Arrangements could also be made to tour the Lac La Biche Mission, a National Historic Site, which overlooks an attractive bay with a great diversity of birdlife. Lac La Biche is not only a Migratory Bird Sanctuary, but also a globally significant Important Birding Area (IBA) of Canada site.

For more information please contact the following persons in Lac La Biche:

Jennifer Okrainec (780) 623-5333
jennifer.okrainec@gov.ab.ca

Ted Johnson (780) 623-5435
ted.johnson@gov.ab.ca

Tom Maccagno (780) 623-4177
tmaccagn0@yahoo.ca

Further information can also be obtained in Edmonton from:

Elisabeth Beaubien (780) 438-1442
elisabeth.beaubien@ualberta.ca ❀



Golden saxifrage grows in Garner Lake, Sir Winston Churchill and Lakeland Provincial Parks. Photo: Tom Maccagno.

Into the Wild Flowers: Flora of the Sub-Arctic

Course to be held at the Churchill Northern Studies Centre, Churchill, Manitoba

When: June 24–June 29, 2004

Cost: \$875 CDN

Limit: 16 participants

Instructors: Elisabeth Beaubien and Linda Kershaw

by Elisabeth Beaubien and Linda Kershaw

We're itching to show you one of Canada's biodiversity hot spots! At the end of June, the Churchill area is loaded with northern specialties such as cloud-berry (or baked apple) (*Rubus chamaemorus*), Lapland rosebay (*Rhododendron lapponicum*), and white mountain avens (*Dryas integrifolia*). The summer is brief and productive, and there are over 500 different vascular plants, not to mention countless distinctive mosses and lichens to discover. The season starts with blooms of purple saxifrage and progresses to multi-colour displays: whites, from species including large flowered wintergreen (*Pyrola grandiflora*); yellows, including the exquisite Richardson's anemone (*Anemone richardsonii*) and the mastodon flower or woolly mammoth (*Senecio congestus*); blues and purple, of the seaside lungwort (*Mertensia maritime*) and Greenland primrose (*Primula egalikensis*). The showiest shrub is the Lapland rosebay, a rhododendron which forms wide carpets of purple everywhere near the coast. We will explore a variety of habitats, from lichen woodlands to upland forests to dunes, fens, heaths and beaches, and take advantage of the in-house lab and herbarium. Slide shows in the evening will cover topics such as medicinal and edible plants, plant family recognition, and how plants survive in the arctic.

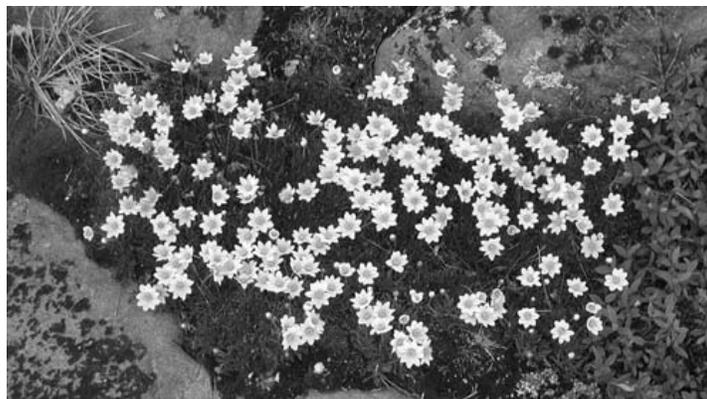
Getting to Churchill

Tundra and taiga cover more than half of our vast country, but very few Canadians ever have the opportunity to experience this amazing landscape. The town of Churchill, on Hudson Bay, is one of the most easily accessible places for



The rolling hummocks of tundra come alive with blooms in June! Photo: Peter Kershaw.

visitors who want to explore arctic ecosystems. There are daily flights from Winnipeg, but if you have a bit more time and want to travel at a more leisurely pace, you can take the Polar Bear Express. Three times a week, this overnight train leaves Winnipeg, passes through Thompson (a 13 hour drive from central Alberta) and arrives in Churchill the following morning. At this time of year it is light much of the night, and you'll enjoy experiencing the transition from deciduous to boreal forest, and from taiga to tundra!



White mountain avens - the flower of the Northwest Territories. Photo: Peter Kershaw.

Churchill is located at a point where many natural systems come together. It lies on the shore of Hudson Bay, at the mouth of the broad Churchill River, on the northern edge of the forest-tundra ecotone (transition zone). Consequently, a rich mix of ecosystems can be found in a relatively small area, including boreal forest, forest-

tundra, tundra, peatland, estuarine and marine systems. This biodiversity hot spot is best known for its polar bears and beluga whales, and it is one of the top 10 bird-watching spots in North America. However, the diverse flora, which includes plants from western Beringia (the vast area between the Russian Far East and the Mackenzie River, N.W.T.), from the eastern arctic and from the boreal forest, is less well known. Each summer a carpet of tiny, ground-hugging plants and colourful wildflowers blankets the tundra, salt-

tolerant plants re-appear along the coast and flowering shrubs bloom in the shelter of the forests.

Apart from the polar bears, the most challenging aspect of this arctic setting is the climate. Snow can cover the ground from September to May, and on windy winter days the wind-chill factor often exceeds -45°C . Spring arrives in June as snowfall ends and snow banks melt, but temperatures can fluctuate greatly through the growing season, ranging from below freezing to $+30^{\circ}\text{C}$.

Churchill also has a rich human history. Three great aboriginal nations meet in this area – the Inuit from the north, the Dené from the west and the Cree from the south and east. There is lots to learn (and great crafts to buy!) in the Eskimo Museum and in local craft shops where native artisans display their work. With boat access via

Hudson Bay to the north and along the Churchill River to the south, European explorers soon discovered the area. Fascinating remnants of two historical periods can be seen at the Fort Prince of Wales (built in 1731–1771) and at the Churchill Research Range (built in 1957) where for many years rockets were launched to study the upper atmosphere and the Northern Lights. Today, the Churchill Northern Studies Centre operates a research facility and provides food and accommodation for visitors interested in learning more about the Arctic.

Here's your chance to experience Churchill first-hand! Course tuition includes teaching, room and board at the Northern Studies Centre, a copy of Karen



Cloudberry and Dwarf Labrador Tea.

Photo: Peter Kershaw.

Johnson's excellent book: the *Wildflowers of Churchill and the Hudson Bay Region*, and tours. We will visit Churchill's own "Boreal Gardens" to explore creative gardening techniques in a northern botanical garden and greenhouse. We'll also tour the community, the Prince of Wales Fort, the Eskimo Museum and take a unforgettable Beluga-watching zodiac trip at the mouth of the Churchill river. We look forward to sharing the absolutely amazing biodiversity of Churchill with you this summer!

If you're interested, feel free to contact any or all of the following:

Elisabeth Beaubien
(780)987-3054 wk, or
elisabeth.beaubien@ualberta.ca or
4123 - 122 Street,
Edmonton, AB T6J 121

Linda Kershaw
(780)662-3626, or
lkershaw@incentre.net or
51163 Range Road 204,
Sherwood Park, AB T8G 1E5

Register by contacting

Mike Goodyear
(204)675-2307, or
cncs@churchillmb.net or
Churchill Northern Studies Centre,
P.O. Box 610,
Churchill, MB R0B 0E0
On the web:
<http://www.churchillmb.net/~cncs>

About the instructors

Elisabeth Beaubien studied biology at Carleton University in Ottawa and later did an MSc in Botany at the University of Alberta. Her main focus, starting with thesis in 1987, has been gathering flowering dates for wild plants, with the help of volunteer observers in Alberta and across Canada. Check out her Alberta webpage

<http://www.devonian.ualberta.ca/pwatch>, as well as the federal Plantwatch program at <http://www.plantwatch.ca> and join us in the fun of tracking bloom times! Elisabeth has enjoyed teaching about alpine plants in the mountain parks since 1980, when she worked for Banff National Park as a naturalist. She currently works as a research scientist at the Devonian Botanic Garden, University of Alberta.

Linda Kershaw is a career botanist and avid naturalist whose research has taken her to many regions — from Canada's vast boreal forest to the majestic Rocky Mountains, and above tree line from the icy reaches of Ellesmere Island to the alpine tundra of the Mackenzie, Ogilvie and Richardson Mountains. She has a special interest in uncommon plants, which began with her MSc thesis in 1976, studying Canada's rare, endangered and extinct species. More recently, she was senior editor of *Rare Vascular Plants of Alberta* book (2001). She has also authored and co-authored many field guides, including *Plants of the Western Boreal Forest and Aspen Parkland*, *Edible and Medicinal Plants of the Rockies* and guides to the wayside wildflowers of Ontario, Manitoba, Saskatchewan and Alberta. ☘

Nisku Prairie Fencing Project Completed — Thanks to Shell Canada!

by Birgit Friedenstab

With funding from the Shell Environmental Fund (SEF), Canadians from Vancouver Island to Newfoundland continue to take personal action in support of the environment. The Alberta Native Plant Council (ANPC) has received \$4,830.00 from the SEF, according to Ed Karpuk, president of the ANPC.

These funds were used to construct a



A brand new fence follows now the perimeter of Nisku Prairie. Photo: Ed Karpuk

fence around the perimeter of a remnant prairie grassland known as Nisku Prairie. The ANPC is pleased to have obtained this support towards conservation of this valuable and rare native prairie habitat. Thanks to Shell Canada Limited for the funding, and to Leduc County for approval and assistance, the fence construction was completed on October 17th. The fence will better enable the ANPC to manage the site and ensure its natural integrity by allowing the implementation of a grazing regime. Grazing will help maintain the health and vigor of the prairie, and will reduce fire hazard. The ANPC plans to have the site grazed by horses during the late fall/winter

time, since plains rough fescue thrives under this grazing pattern, but does poorly with summer grazing. The number of livestock and the duration of the grazing period would be determined by a Pasture Management Specialist. The fence will also reduce additional damage to the prairie by vehicles, prevent dumping of refuse in the grassland, clearly define the site's boundaries and increase the security of adjacent property owners.



Stile and gate in the new fence. Photo: Fred Tully.

Located just east of the Nisku Industrial Park in the Vistas South acreage subdivision, the Nisku Prairie is a municipal reserve on the west side of Kayda Vista. Leduc County designated the site as the *Nisku Prairie Park Reserve* in 1995, in recognition of its significance. In 2000, Leduc County officially authorized ANPC to assist with management of the Reserve. Nisku Prairie is an educational, historical and natural resource that has been utilized as an outdoor classroom by several groups: the Edmonton Plant Study Group (sponsored by both the ANPC and the Edmonton Natural History Club), Agriculture Services Board Tour for the counties of Leduc and Wetaskiwin, the University of Alberta's Rangeland Ecology classes, and King's University College's Plant Diversity class.

Created in 1990, the Shell Environment Fund is a national program intended to make a local difference. A total of \$9,950,000.00 has been granted to 3,497 environmental projects across the country. These projects included habitat restoration, beach and road clean-ups, waste reduction

and recycling programs, trail-building, educational initiatives, and other innovative environmental projects. Individuals, schools, community associations, service clubs and environmental groups have used the grants of up to \$5,000 per project, to improve and protect their environment.

The Shell Environmental Fund accepts applications for projects that are action-oriented, innovative, and community-based. To make the funding decisions, Shell consults representatives of environmental organizations and government.

For information about the Shell Environmental Fund, visit the SEF website at <http://www.shell.ca> or call Shell Canada Limited at 1-800-338-1410. ☘



Oops! Oops! ...

In our last "Oops" section (Iris No. 44) we attributed the article *Encounters of the rare kind* (Iris No. 43) to Patsy Cotterill, instead of Eileen Ford, Sylvia Glass and Gail Hughes. We apologize for that error.

The Alberta Native Plant Council

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The Nisku Prairie HELP WANTED!!

by Birgit Friedenstab

The Nisku Prairie is a 30-acre municipal reserve, a few minutes drive south of Edmonton, just east of the Nisku Industrial Park in the Vista's South acreage sub-division. This small but beautiful patch of prairie has been designated as a prairie vegetation reserve by Leduc County, and it is also an ANPC stewardship site.

The Nisku Prairie site includes excellent examples of both plains rough fescue prairie and aspen parkland. It is significant because of high plant biodiversity (160 native species of vascular plants) and its relative lack of non-native plants. Less than 5% of this type of prairie remains in Alberta, and the valuable Nisku Prairie is the largest remnant west of Vegreville.

The ANPC needs your help to maintain this valuable resource!

Here are some of the projects we have been able to complete with the help of many energetic volunteers:

- Garbage pickup day, including dragging an old car out of the bush (it wouldn't start). Thanks go out to **Bob Cain, Bob Wynes, Heather DeCoursey, Scott Friedenstab, Birgit Friedenstab.**

- Dismantling of a large brush pile (including a lovely wiener & marshmallow roast). Thanks go out to **Mike Schulz, Herta Ogertschnig, Ted Vellenga, Scott Friedenstab, Harry Friedenstab, Birgit Friedenstab, Gerry Clyne, David and Vicki Robinson.**

- Prairie sod salvage and transplant from Little Mountain in northeast Edmonton to Nisku Prairie (heavy work but a rewarding project and an interesting experiment). Thanks go out to the 20 strong-backed volunteers.

- Herbicide control of Smooth Brome. Tongs a lot!! to **Patsy Cotterill, Alison Dinwoodie, Cherry Dodd, Birgit Friedenstab, Ed Karpuk, Gilmour Lund, Marge Meijer, Dennie O'Brien and Beryl Rice.**

- Removal of aspen suckers.



Nisku Prairie: Part of the new fence at the north road allowance. Photo: Fred Tully.

Thanks go out to the King's University College ecopsychology students and instructor **Dr. John Sneep.**

Here's your chance to help, learn about and experience this remnant fescue grassland. These are a few of the projects for the year ahead:

- Become a member of the Nisku Prairie Management Committee (help us plan and execute projects and activities). The next meeting will be November 29.

Please consider attending.

- Join the battle against smooth brome (help us organize mowing and herbicide work-bees).
- Develop community interest and involvement (help us plan hay rides, field trips, etc).
- Reclaim disturbed areas (help us pick and plant native seed, etc).
- Produce educational material for the prairie (help us design and produce signs and pamphlets).

- Organize work crews (help us find and contact volunteers for work days).

- Update the species list (join in field surveys and help with computer data entry).

- Patrol and control weeds (you too can become a weed-whacking expert!).

Your contribution could be for a few hours one day, or more – any time given is valuable and very worthwhile! If you'd like to be included on our list of future helpers, please email or phone:

Birgit Friedenstab
(780) 440-0971
birgitf@telus.net

or you may send mail to the ANPC.

For more information

Check out some previous Iris articles on the Nisku Prairie in Iris No. 44 (2003) *Control of Smooth Brome at Nisku Prairie* and Iris No. 22 (1995) *Preserving the Past — One Person Works to Make a Difference* (includes species list).✿



Nisku Prairie Volunteers on "Smooth Brome Workday": L-R Dennie O'Brien, Gilmour Lund (behind), Patsy Cotterill, Ed Karpuk, and Marge Meijer (kneeling). Photo: Birgit Friedenstab.

Book reviews

Flora of North America north of Mexico: Volume 23: Magnoliophyta: Commelinidae (in part): Cyperaceae

Flora of North America Editorial Committee. (ed.) 2002. Oxford University Press, New York – Oxford. 640 pp.; 1 frontispiece, 520 maps & line drawings; 8½" x 11"; ISBN 0–19–515207–7; (hard cover) Price: US\$95.00
Ordering information: <http://www.oup-usa.com/>

Reviewed by Adolf Ceska

Sedges have edges...

This is a hefty volume, and one very close to my heart. In total, 843 species that belong to 27 genera are treated in this volume. This is quite an achievement on its own right, as the previous attempt of the North American Flora took over 30 (?) years to compile a monograph of this family, one which is now obsolete.

A large collective of 31 authors participated in the writing of this recent volume. Most of the larger genera were coauthored by many authors; the exceptions are *Rhynchospora* (68 sp.), *Fimbristylis* (17 sp.), where Robert Kral is an undisputed king, and *Schoenoplectus* (17 sp.) written by S. Galen Smith. Editors did a very good job in compiling this volume and assuring the overall consistency of the work.

This is the best you can get on the sedge family (Cyperaceae) and the sedges proper (the genus *Carex*) in North America today. The new treatment of members of the tribe Scirpeae is especially important for the Pacific Northwest. For instance, the treatment of the genus *Eleocharis* substantially increased the number of species known in British Columbia (17 sp. in FNA vs. 10 sp. in The Illustrated Flora of British Columbia).

The genus *Carex*, on the other hand, suffered by having been written by too many individual authors. The species concept varies throughout this genus, with excessive lumping in the section *Acutae* (now called *Phycocystis*), whereas other sections tended towards more splitting. The problem with *Carex* in North America is

that the first really authoritative treatment of this genus was written by Kenneth K. Mackenzie, who was a lawyer. Consequently, you feel that you are breaking the law, if you don't follow his classical treatment. The authors tried not to break the law and they followed Mackenzie's sectional divisions, even although they noted that "Mackenzie never explained his arrangement." They abandoned the original Kuekenenthal's division in the subgenera, primarily because Kuekenenthal's subgenus *Primocarex* is obviously an artificial, hardly defensible category. (Wasn't it Raymond who wrote that if *Primocarex* had not existed, it would have had to be invented?) Yet, Kuekenenthal's system would have been easier to follow. Fine, the authors did not accept subgenera, but did follow Mackenzie's sections, and their arrangement "is a modified version of K.K. Mackenzie's system; the section largely follows his delimitation..." In turn, they accepted Dumortier's sectional names, which pre-dated many traditional sectional names. The result is that many new sectional names sound unfamiliar to older botanists.

A serious failing of this volume are the omissions in the synonymy. Lists of synonyms are short and in some instances don't even include names discussed in treatments of particular species. You won't find the name "*Carex angustior*" in this volume at all. This will give me some hope that this species was omitted by mistake, rather than synonymized with another, possibly unrelated taxon.

The distribution maps are reduced to the map of US states and Canadian provinces, where the occurrence of each species is indicated by one dot for the whole province or state. It is a pity that the distributional maps do not provide more detail.

The majority of the authors are from east of the Continental Divide and some obvious errors resulted from this skewed distribution of the authorship. *Rhynchospora capillaris*, *Eriophorum virginicum* (adventive), *Carex torreyi*, etc. occur in British Columbia. You can blame regional reviewers, including me, for some of these omissions, but in some cases (e.g., *Carex torreyi*) there were specimens from British Columbia in major Canadian herbaria in Ottawa that should have been taken into account when writing the treatments.

Illustrations follow the format of the *Flora of North America*. I liked the

illustration of sedges done by Susan Reznicek. Susan is a botanist and you can tell it from her illustrations. You can appreciate the illustrations, if you go to the *Flora of North America* web site and view them in close to their original size.

The *Flora of North America* is available online from the web site: <http://www.fna.org/FNA/volumes.shtml>. Navigation in the web site is easy and the species descriptions are linked to the illustrations. Once you know what you are looking for, you can find it easily on the web site. On the other hand, the book is a good investment. You can be sure that for at least the next thirty years you won't get anything better in the sedge family in North America than this FNA volume.

Flora of North America north of Mexico. Volume 25: Magnoliophyta: Commelinidae (in part): Poaceae, part 2.

Barkworth, M.E., K.M. Capels, S. Long, & M.B. Piep, eds. 2003.

Oxford University Press, New York and Oxford.

814 pp., 918 line drawings and maps; 8½"x11"; ISBN 0–19–516748–1, (hard cover)] Price: US\$120.00

Ordering information: <http://www.oup-usa.com>

Reviewed by Adolf Ceska

...grasses have joints when cops aren't around

This is definitely the most beautiful volume of the *Flora of North America north of Mexico* published so far. The volume treats 733 species and six named interspecific hybrids. The subfamilies treated are Aristidoideae, Arundinoideae, Centothecoideae, Chloridoideae, Danthonioideae, and Panicoideae.

The work on this treatment started in about 1986 as a revision of A.S. Hitchcock's 1951 *Manual of Grasses of the United States*, 2nd ed., rev. A. Chase. The Manual revision was well underway when the *Flora of North America* finally took off. I doubt that the work would have ever been finished without the editorial effort of Mary Barkworth, whose energy I have always admired. I did not count how many people coauthored treatments to this volume, but the result is relatively coherent

and uniform. Quite a feat, as I know that some authors submitted their treatments in handwriting.

The format resembles that of the *Flora of North America*, but in some features it deviates from it. On the negative side, I did not like pooling synonyms in the index-like list at the end of the volume; synonyms without citing authorities in alphabetical order. The names in the treatment don't have the full citations, only the authorities with the sources. The distribution of each species is illustrated with detailed distributional maps. This is much better than, for instance, in the Cyperaceae volume, but on the other hand, the text doesn't have any distributional summary, i.e., accounts of Canadian provinces and the US states as in the other FNA volumes.

Illustrations are definitely the most positive feature of this volume. Each species (with exception of one) are illustrated and the illustrations are mostly on full-size plates. Both grass habit and many important details are depicted for most species. The botanist and botanical artist Linda Vorobik put together a team of six highly skilled artists who all matched their styles well and produced superb illustrations. I noticed that all species of the same genus were all drawn by the same artist, hence the style is consistent for all the species within each genus. Can you imagine having to draw all the 70 species of *Muhlenbergia*?

My main complaint is that this volume deals mostly with the taxa that occur in eastern or southeastern United States; the Pacific Northwest is represented by a few members. Unfortunately, the authors could not do too much to rectify this distributional anomaly. However, it makes me anticipate all the more eagerly the first part of the Poaceae family which will cover most of our taxa that grow in the Pacific Northwest.

The illustrations and treatments from the second of the two *Flora of North America* volumes is currently being made available at <http://herbarium.usu.edu/grassmanual/>. As many works of this dimension, this volume is not without mistakes and errors. In order to see the corrections and print out Errata, visit the following web site: <http://herbarium.usu.edu/grassmanual/FNA25/default.htm>

Mary Barkworth and all the others involved in the preparation of this volume

should be congratulated on this great achievement. It is a job well done!

[Both reviews were originally published online in *Botanical Electronic News* (BEN), ISSN 1188-603X, No. 314, September 23, 2003. That issue can be viewed at <http://www.ou.edu/cas/botany-micro/ben/ben314.html>.] ❁

Iris is published three times a year by Alberta Native Plant Council. The Council aims to increase knowledge of Alberta's wild flora and to preserve this diverse resource for the enjoyment of present and future generations.

If you have an announcement, article or other item, you are invited to submit it to the editor for publication. Items concerning native plants will be given highest priority.

The editors reserve the right to edit submissions, but will review changes with the authors whenever possible. Disputes will be resolved in favor of the audience.

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(publication reviewed in BEN #315, at
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Looking for a "Green Thumb"

by Eileen Ford

The market for wildflower seed packets is huge – evidence: the number and variety of packets, canisters and sackfuls available through gardening outlets, local grocery stores, charitable organizations or even greeting cards. There are locally produced packets, domestically produced packets and imported packets, and mail order catalogues are laden with offers. With the trend to naturoscaping, the demand for wildflower seeds will continue to escalate.

What are consumers spending their money on? Anecdotal evidence shows us that we usually get a lot less than we pay for in the way of native wildflowers, but a lot more than we bargained for when we behold the toadflax, the poppies, the echium and other aggressive, non-desirable, potentially invasive plants that are the ones to rear their heads.

An enthusiastic gardener from Innisfail, eager to do her bit to beautify a large waste area near her home, seeded a prairie wildflower mix that promised the beauty of the natural landscape and all the butterflies that would come to it. After two years and according to the promise on the canister that satisfaction was guaranteed or money

would be refunded, she returned to the supplier and demanded and got her money back. But her battle to eradicate common toadflax (*Linaria vulgaris*), the asters and the mustards continues!

In an attempt to somehow come to grips with this wildflower seed problem, the ANPC is trying to formulate some plan of action to prevent potentially invasive species from being dispersed through the unwitting actions of the public. We require some proof that the seed packets being retailed or distributed by whatever method contain undesirables.

Is there anyone out there who would be willing and able to grow some of these packets and document the results?

Requirements are:

- 1) identifying and photographing (if possible) the seed prior to planting;
- 2) growing the seed until it is identifiable and photographing the results;
- 3) documenting the procedure;
- 4) giving the results to the ANPC.

Interested volunteers should contact:

Ed Karpuk at (403) 347-5723,
Ed.Karpuk@gov.ab.ca; or

Eileen Ford at (403) 886-4905,
hh3@telusplanet.net ✿

Calendar of events

7th Prairie Conservation and Endangered Species Conference



Calgary, Alberta

February 26 – 29, 2004

<http://pcesc.albertawilderness.ca/>

Monitoring Whitebark Pine for Blister Rust: A Methods Workshop

June 2004 (previously scheduled for September 2003).

For information and registration contact Debbie Graham, Continuing education, University of Montana at (406)–243–2047, or by email: debbra.graham@mso.umt.edu.

Mark your calendar!

May 1–2, 2004

2004 ANPC Workshop in Edmonton

Planning is underway for yet another exciting workshop and Annual General Meeting on May 1–2, 2004 in Edmonton. The theme of the workshop is pending. More details to come in the next (Winter 2004) issue of IRIS.

ANPC Small Grants Program

The mission for ANPC is “to effectively promote the value of native plants and habitats through education, research, advocacy and getting our hands dirty.” From time to time, funds beyond those needed to run the organization become available. As this occurs, they may be distributed, at the discretion of the board, through the ANPC Small Grant Program. Any proposed projects must further goals and objectives of the Society.

Grants may be given for research, study and appreciation of native plants supporting plant conservation. The following criteria will be used to evaluate applications:

- Maximum amount of grant \$1000
- Purpose:
 - stimulate research, conservation and education activities that help foster appreciation of Alberta native plants
 - to promote conservation
 - must be consistent with the goals and objectives of the society
- open to members of ANPC and to Alberta residents
- grant MAY cover the following:
- travel, meals and lodging costs directly related to the project
- cost of supplies and services (e.g., photocopying) directly related to the project
- grant WILL NOT cover:
 - equipment purchase
 - expenses that are not essential to the project
 - wages, although some exceptions may apply

The application form can be obtained through ANPC webpage:
<http://www.anpc.ab.ca/contact.html>
or by e-mail: info@anpc.ab.ca
or by writing to:

ALBERTA NATIVE PLANT COUNCIL
Box 52099, Gameau Postal Outlet
Edmonton, AB
T6G 2T5

The Alberta Native Plant Council strives to:

- Promote knowledge of Alberta's native plants.
- Conserve Alberta's native plant species and their habitats.
- Preserve plant species and habitat for the enjoyment of present and future generations.

The Council's specific objectives are:

- To educate individuals, industry, and government about native plants.
- To promote awareness of native plant issues through a newsletter, an annual workshop, and in the media.
- To co-ordinate information and activities concerning Alberta's native plants.
 - To develop briefs or position papers for special projects; for example, biodiversity, forest vegetation management, wetlands, rare species or phenology.
 - To organize field trips, plant studies and May Species Counts.
 - To update lists of current research and conservation projects.
- To preserve natural habitats and plant communities.
 - To support legislation that protects native plants.
 - To take action to establish, preserve and manage protected areas.
 - To undertake Alberta projects jointly with like-minded groups.
- To encourage appropriate use of Alberta's native plants.
 - To produce information on the use of native plants in land reclamation.
 - To develop and distribute collection, salvage and management guidelines.
 - To update a list of native seed sources and suppliers for horticulture and reclamation.