



Adopt-a-Plant Alberta Explores the Fort McMurray Area

By Eileen Ford

Bring together a pool of expertise, a group of passionate plant people, and a few good spots to visit. That's the making of a grand weekend!

Thanks to Robert Grey, ten of us had a wonderfully productive time in the Fort McMurray area. We met Saturday morning at the Rotary Campground, on the road to the airport. Robert gave us a big welcome and outlined plans for the weekend.

As Fort McMurray and tar sands are synonymous to any Albertan, it was fitting that our first experience would take us north towards the Syncrude oil sands lease. Travelling north on Highway 63 we got a glimpse of the destruction of the boreal forest ecosystem that is the result of the open-pit mining used to get at the shallow deposit of oil-rich bitumen. The

“overburden”—forests, wetlands, lakes—must be removed in order to access the bitumen below. Even seeing just a small portion of this vast area that becomes visible to anyone travelling the highway, one has to gasp at the monstrous indignity against nature that is taking place.

Our first stop was at a 104 hectare chunk of tar sands forest that has been “reclaimed” by Syncrude. Oil sands companies must restore mined lands to their pre-mined status. So, it was with great anticipation that we approached the site.



False dragonhead (*Physostegia ledinghamii*)
Photo P. Marlowe

In this Issue . . .

Adopt-a-Plant Alberta: Fort McMurray	1–4
Graham Griffiths—In Memoriam	5
Grazing School for Cowgirls	6
Annual Workshop: Fragments of the Foothills	7

Two representatives of the Energy Resources Conservation Board were there to meet us. Chris Hale, Senior Environmental Scientist, and John Brownlee, Section Leader, Environment, treated us

to an expert analysis of the reclamation. This site is the only reclaimed land to be returned to the Crown out of the hundreds of thousands of hectares currently under lease to oil sands companies. Syncrude, as a public relations measure, commissioned the impressive sculptures of bison that stand near the entrance to this public

See *McMurray*, page 2

McMurray, from page 1

park where viewing trails allow a glimpse of the efforts at reclamation.

A sign at the entrance to the site tells one that reclamation efforts began in 1983 with the planting of trees such as nursery-raised poplar (*Populus* sp.) and larch (*Larix* sp.). In succeeding years shrubs were added: wild rose (*Rosa woodsii*), red osier dogwood (*Cornus stolonifera*), and cranberry (*Viburnum* sp.). Twenty-five years after these reclamation efforts, you realize the time and difficulty involved in this procedure. We waded through invasive species like sweet-clover (*Melilotus* sp.), sow-thistle (*Sonchus* sp.), canary grass (*Phalaris* sp.), and timothy (*Phleum* sp.) that take full advantage of these open niches and thrive. A few native asters (*Aster* sp.) and some northern grass-of-parnassus (*Parnassia palustris*) appear here and there. One has to be favorably impressed by the presence of

Siberian larch (*Larix sibirica*), although there is a high probability that this species will hybridize with the native tamarack (*Larix laricina*). The Siberian larch is growing extremely well and signs of natural regeneration are abundant.

In the area we walked there were no wetlands, so one can only rationalize that a wetland restoration would be so much more difficult, if at all possible. As we saw, nature was trying to make a creek, without much success.

The general look of the forests around Fort McMurray shows the shocking effects of a number of “natural” processes. In the past two years, massive defoliation has occurred in the stands of aspen (*Populus tremuloides*). The spruce (*Picea* sp.) have suffered for ten or so years from spruce budworm and also a sawfly infestation. The willows (*Salix* sp.) are showing the results of severe leafminer attacks. All this, in addition to the large scale devastation by

forest fires and solar scorching of the trees along the highway, leaves the impression that the forests here are under attack from many fronts.

After this sobering site we headed south of Fort McMurray to the bridge on Highway 63 that is the access point to the walking trail along the north side of Poplar Creek. Our destination was the confluence of the creek with the Athabasca River some 1.5 km downstream. In spite of the rutted, very wet trail, it was a delight to be in the lush green forest with the sound of water flowing along beside us. Janet Marsh, lichenologist par excellence, gave us our first lesson in lichenology. We now know that when “Freddy fungus and Alice alga took

a lichen to each other” (credits to Elisabeth Beaubien), another element is involved in the life cycle of the lichen—bacteria. The role that bacteria play is as yet little understood. *Parmelia sulcata*, old man’s beard (*Usnea lapponica*), and *Melanelia subaurifera* kept us occupied for many minutes while our organizer and guide urged us along the trail. All-terrain vehicle activity and the recent rains presented a few challenges along the way but we had fun brushing against the ostrich ferns (*Matteuccia struthiopteris*) and popping seed pods of the aptly named western jewelweed (*Impatiens noli-tangere*). A few tastes of high-bush cranberry (*Viburnum opulus*), still sharply acidic and lacking juice, was a sure sign that the fruit was not yet ready for the palate.

At the confluence of Poplar Creek and the Athabasca River, the forest gives way to rushing waters and a view of the vast boreal region beyond. On the shoreline of the creek and extending for some 72 metres upstream, we were able to document in excess of 200 stems of the stately false dragonhead (*Physostegia ledinghamii*). Twenty stems still held onto some of their beautiful flowers. Pat Marlowe had happened upon this population a year ago while husband Patrick was fishing in nearby waters. Pat also showed us turned sedge (*Carex retrorsa*) that grows along the same shoreline. This sedge (*Carex* sp.) is rare in Alberta. Upon careful examination, one could see that the lower bracts were several times longer than their flower clusters, and the perigynia at the base of their spikes were bent downward. Photographing, documenting, and enjoying the sights and smells of nature kept us occupied until Robert urged us on to the return journey.

Lunch time had already passed so we hiked back to Poplar Creek Bridge like horses headed for the oat bag. Cookies and watermelon courtesy of



Club-moss (*Botrychium* sp.)
Photo P. Marlowe

See McMurray, page 3

Pat rounded off our own lunches, and Robert was keen to get us to the three sites he'd lined up for the afternoon.

Heading east on the Old Stony Mountain Microwave Site Road, our first stop was a small clearing at the side of the road. An abundance of lichen species became evident as Janet Marsh began to identify and explain the differences to look for. Don't ever dismiss a bit of ground or a branch, dead or alive, as having only one or two lichens growing on it! As Janet explained foliose, fruticose, crustose, thallus and hypothallus, cortex, apothecia, veining or the lack thereof, and how adding water to a *Peltigera* brings out the green of the alga, we began to notice features not observed before. Not a few of these species found their way into paper bags brought along for collecting purposes.

Before we moved on, several different lichens had been identified: *Stereocaulon tomentosum*, *Cladonia deformis*, *Cladonia borealis*, *Cladonia mitis*, and studded leather lichen (*Peltigera aphthosa*).

Interspersed throughout the lichen cover were tasty berries of bog cranberry (*Vaccinium vitis-idaea*) and common blueberry (*Vaccinium myrtilloides*), flavours that connected us to the earth and gave an appreciation of the community in which we found ourselves. All around were spruce, aspen, birch (*Betula* sp.), flowering bog rosemary (*Andromeda polifolia*), and still in bloom, hooded ladies'-tresses (*Spiranthes romanoffiana*). A club-moss proved a bit of a conundrum to Leslie and a few others. Some study was required to ascertain that this was

indeed the rare S1-ranked mountain club-moss (*Huperzia selago*). Another puzzle was the fuzzy little rosette of an everlasting (*Antennaria* sp.) plant. One must revisit these sites several times



Mountain club-moss (*Huperzia selago*)

over one season and over the course of several seasons to appreciate the abundance of life.

A second stop just up the road led to several more lichen species, this time on an area of decaying wood, then into the forest to see the hanging masses of old man's beard (*Usnea scabrata*). Further through the trees and into a wetland where one pitcher-plant (*Sarracenia purpurea*) still stood tall, while pitchers, all but hidden by the lush sphagnum moss (*Sphagnum* sp.), showed their astonishing palette of colours on every mound. And throughout the area, small bog cranberry (*Oxycoccus microcarpus*), few-flowered sedge (*Carex pauciflora*), cotton grass (*Eriophorum* sp.), scheuchzeria (*Scheuchzeria palustris*), and

leatherleaf (*Chamaedaphne calyculata*) grew. A discussion as to whether we were in a bog or a fen concluded that we were in a combination of both! Try restoring that. When such a wetland is

physically wrested from its proper place on this earth how ever can it be restored to a "self sustaining ecosystem with a capability that is equivalent to predevelopment conditions"?

The final stop of the day was a grassy, weedy, overgrown site of about 10 acres across from a private campground. Here we searched for a species of grape fern (*Botrychium* sp.) that Jane Esler had seen two years ago. We found it just where Jane recalled. Several more individuals

Photo P. Marlowe

were located, so a serious search of the area was mounted with a piece of orange tape marking each occurrence. When the tallying was complete, we'd located at least 100 individuals. In trying to key out the grape fern using Patrick Williston's *The Botrychiaceae of Alberta*, we arrived at Mingan grape fern (*Botrychium minganense*). However, on comparing our specimen to the photograph in the book, we weren't ready to summarily accept this designation. Further investigation has Leslie convinced we saw at least Mingan grape fern and moonwort (*Botrychium lunaria*), and perhaps even a third species.

By 8:00 p.m. the bugs were eager for us, but before we called it a day we listed

See McMurray, page 4

the lichen species we'd encountered in a day. In addition to those already noted, we came up with this impressive list: *Peltigera malacea*, dog lichen (*Peltigera canina*), *Peltigera leucophlebia*, *Cladonia phyllophora*, *Cladonia uncialis*, *Hypogymnia physodes*, and *Vulpicida pinastri*.

Refreshed and eager for more adventure, we convened again at the Rotary Campground on Sunday morning and headed south. First stop was at the 70 km mark to look at the results of a Pembina Oil pipeline natural revegetation experiment. Some 20 years before, the



surface material had been lifted and moved to the side of the pipeline route. After installation of the pipeline, the "overburden" was repositioned. This site proved to be a gold mine of sedge and rush (*Juncus* sp.) species, including the rare fox sedge (*Carex vulpinoidea*); its population appeared very healthy. Fox sedge is a montane and lower foothills plant, but as Leslie remarked, this species and others are starting to be seen in the Fort McMurray area. We walked the pipeline until wetlands created by beaver activity forced us back. This stretch of pipeline needs more research to properly gauge the extent of the fox sedge population. Other delights along the way included golden sedge (*Carex aurea*), small bottle sedge (*Carex utriculata*), Bebb's sedge (*Carex bebbii*), knotted rush (*Juncus nodosa*), *Juncus alpina*, common cattail (*Typha latifolia*), small-fruited bulrush (*Scirpus microcarpus*) and, unfortunately, timothy and tansy (*Machaeranthera tanacetifolia*). But the presence of a few native species of aster, violet (*Viola* sp.),

grass-of-parnassus (*Parnassus* sp.), birch, and willow—all natural invasion from surrounding forests—proves that nature can do a good job of correcting some of our mistakes, given half a chance.

Another few kilometres further south brought us to the Mariana Lake Recreation Area and the pièce de résistance of the whole weekend for me: the northern quillwort (*Isoetes echinospora*). Robert's two kayaks were launched, hip waders and even a bathing suit were donned, and—there were the quillworts! It is astounding to me to see a plant that is totally submerged and bearing spores in little sacs at the leaf bases. Once arrived back home, my microscope showed me why the plant bears the specific epithet *echinospora*. The spores are akin to a little hedgehog all rolled into a tight ball. So again we collected and documented, noting that Mariana Lake is ringed by black spruce (*Picea mariana*). Along much of the shoreline the trees grow right down to water's edge. But in some areas there is a riparian zone of reeds, sedges, and grasses between forest and water. Robert has observed the absence of any quillworts in those areas where there is this riparian zone. There are so many observations yet to be explained.

With the long road ahead calling us, we reluctantly said our good byes. On my drive home I could not help but feel that a weekend like this is what Adopt-a-Plant Alberta (APA) is all about. The expertise was there in Janet Marsh, in Pat Marlowe, Leslie Monteleone, Julie Carignan, in Chris Hale and John Brownlee. The enthusiasm was there in everyone, not least in Edme Brownlee who had a fine time collecting for a herbarium that will be established at Keyano College. It was also an asset to have Robert's daughter Julie along. As a native of Fort McMurray, she has been well taught by her father.

See McMurray, page 5

Alberta Native Plant Council

Garneau P.O. 52099
Edmonton, AB T6G 2T5
website: www.anpc.ab.ca
e-mail: info@anpc.ab.ca

President

Kelly Ostermann
kostermann@eba.ca

Past President

Vacant

Secretary

Laurie Hamilton
laurie@zanshinenvironmental.com

Treasurer

Mryka Hall-Beyer
mhallbey@ucalgary.ca

Directors

Marsha Hayward (Northern)
wildloonart@incentre.net
Tony Blake (Central)
tonyblake@shaw.ca
Cheryl Bradley (Southern)
cebradley@shaw.ca

FAN Directors

MaryAnn Johnson
MaryAnn.Johnson@amec.com
Chrissie Smith (alternate)
chrissie@ualberta.ca

Conservation Action

Terry-Lin Fedorus
na-hanni@hotmail.com

Membership Secretary

Kelly Ostermann
kostermann@eba.ca

Education and Information

Mari Decker
maridecker@wildmail.com
Jim Posey
jpo@persona.ca

Rare Plants

Dana Bush
cdbush@telusplanet.com
Ed Karpuk
ed.karpuk@gov.ab.ca
Leslie Monteleone
lesliemonteleone@hotmail.com

Reclamation and Horticulture

Greg Sutor
gsutor@matrix-solutions.com

Webmaster

Kara Tersen
kara.tersen@natureconservancy.ca

Newsletter Committee

Marilyn Germaine
marilyn_germaine@hotmail.com
Laurie Hamilton
laurie@zanshinenvironmental.com
Pat McIsaac
pmcisaac@abnorth.com
Alfred Falk
falk@arc.ab.ca

In Memory of Graham Griffiths 1937 – 2009

Graham Griffiths dedicated his life to taxonomy and made a significant contribution to both entomological and botanical science.

Visit the Alberta Native Plant Council website at www.anpc.ab.ca to view a compilation of

- Eulogy by Dr. John Packard
- Biography by Patsy Cotterill and Deirdre Griffiths
- Photos
- Tributes from peers, colleagues, and friends

Graham will be remembered with admiration, respect, and affection by all those fortunate to be his colleagues and friends.



Graham Griffiths at Long Lake in 2007
Photo P. Cotterill

ANPC Objectives

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 these:

- 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
 - 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 ♦



McMurray, from page 4

APA reminds me of the volunteer effort that was required to create the Oxford English Dictionary. Without the countless hours and dedication of the volunteers, the job of collecting information just can't be done. I urge anyone with any interest in plants to get involved in this project. The information you will contribute to the rare plant fund is nothing like the benefits you will gain from participation in the program.

Thank you again to Robert Grey and thank you to all who work so hard to make these experiences possible. ♦

Coaching Cowgirls to Care for Their Land

By Shannon Frank



Grazing School participants in 2009

Photo S. Frank

Women have always played an active role on farms and ranches in Alberta. Their interest in continuing to learn more has led to the creation of many women-only educational events like the Southern Alberta Grazing School for Women.

The 1st Southern Alberta Grazing School for Women was held in 2004 near Pincher Creek, Alberta. Overwhelming positive feedback led to it becoming an annual event rotating among locations throughout southern Alberta.

The school is two full days with an evening to socialize and connect with other ranching women. The school consists of both indoor seminars and outdoor hands-on learning. Common elements of the school include sessions about grazing management, range and riparian health assessments, plant identification, and special topics pertinent to the area.

One of the favorite sessions has been the personal stories of Alberta ranch families. Each year a few southern Alberta women are asked to share stories from their own operation and family experiences. Each story is unique and motivating.

The 6th Annual Southern Alberta Grazing School for Women was held at the New Dayton Community Hall, July 22–23, 2009. There were 22 participants who enjoyed regular sessions as well as the year's special topics: wind development and farm succession planning. Keynote speaker Dr. John Dormaar also shared stories of local border history in a special evening presentation.

Planning for the 2010 school is already underway. It will be held in Vulcan County in July. Watch www.cowsandfish.org for more information. ♦

Iris is published three times a year by ANPC. 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.

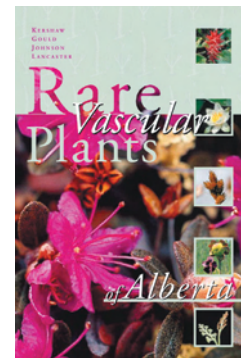
The editors reserve the right to edit submissions, but will review changes with the authors whenever possible. Disputes will be resolved in favour of the audience.

Copyright remains with the authors except where noted. Permission to reprint is generally granted, but please contact the editors for details.

Submission deadline for the next issue:

March 15, 2010

A subscription to *Iris* is included with membership in the ANPC. To join, contact the secretary, or check our website, www.anpc.ab.ca.



Addenda for the Rare Vascular Plants of Alberta are now available!

For information, drawings, and range maps of rare vascular plant species of Alberta not found in the *Rare Vascular Plants of Alberta* (Kershaw et al. 2001) please visit the Alberta Native Plant Council's website at www.anpc.ab.ca under Publications. This is an ongoing project with plant species added as the pages are completed.

Alberta Native Plant Council (ANPC)
23rd Workshop and Annual General Meeting

Fragments of the Foothills

Saturday, May 1, 2010

Walking Eagle Inn, Rocky Mountain House, Alberta
Clearwater Room



After the workshop, the ANPC will hold its Annual General Meeting. Everyone is invited to attend. Learn about ANPC activities, consider a position on the Executive and/or volunteer for committee work.

For information on the workshop and registration please contact:

Laurie Hamilton

Phone: (403) 483-2476

E-mail: laurie@zanshinenvironmental.com

What's the current state of Alberta's Foothills? Please join us in Rocky Mountain House to explore this amazing and botanically diverse portion of the Alberta landscape. Potential topics include:

- Foothills ecology
- Land uses
- Weed issues in the Foothills
- Recent rare species recovery plans
- Mountain pine beetle update
- Reclamation criteria for the green zone
- Potential rare plant species in the Foothills Natural Region
- Parks in the Foothills
- Range communities
- Ecosite land classification communities
- Foothills initiatives:
 - o Foothills Restoration Forum
 - o Foothills Research Institute

The workshop program is currently being developed.
Please visit www.anpc.ab.ca for regular updates.

Workshop registration includes the one-day workshop, program handout, a light breakfast, buffet lunch and coffee breaks. The banquet is optional.



The daytime workshop and annual general meeting will take place at the Walking Eagle Inn, Rocky Mountain House.

8:00 am - Check-in and registration
8:30 am – Workshop presentations begin
4:30 pm – Annual General Meeting

The banquet will also be held at the Walking Eagle Inn.

Registration:

Fill out the following registration form and mail it to:

2009 ANPC Conference

c/o Mryka Hall-Beyer

3023 Cochrane Rd. NW

Calgary, AB T2M 4J4

Deadline:

Early registration is up to and including **April 1, 2010.**

After that a late registration fee will be applied.

Deadline for banquet tickets is **April 26th, 2010.**

Registration Form

Name _____

Affiliation _____

Address _____

City _____ Province _____

Postal Code _____

Phone _____

E-mail _____

Early Registration (tick one as applicable, enter amount on line below)

☐ Member (new or current) \$55.00
(if you are already a member, or if a membership payment is enclosed)

☐ Non-Member \$65.00

☐ Student \$30.00

Late Registration **after April 1st, 2010**

☐ Member (new or current) \$65.00

☐ Non-Member \$75.00

☐ Student \$40.00

Workshop Registration Total \$ _____

Banquet Ticket @ \$30.00 ea \$ _____

Banquet Guest(s): _____

My diet is restricted (please describe, so we may meet your needs during the workshop and banquet):

New Membership or Membership Renewal enclosed:

☐ Individual.... \$15.00 ☐ Family..... \$25.00

☐ Senior \$10.00 ☐ Student..... \$10.00

☐ Corporate.... \$50.00 ☐ Life..... \$500.00

Tax deductible donation.....\$ _____

☐ where needed ☐ conservation action ☐ educational programs

Total Enclosed \$ _____

Include a cheque or money order payable to:

Alberta Native Plant Council

We cannot accept other forms of payment.

Accommodations:

The Walking Eagle Inn has a block of rooms available at the workshop rate and offers a variety of non-smoking rooms, which have been blocked for registrants for the nights of April 30 and May 1, 2010. Please book by **April 15th** to take advantage of the special rates and mention **Alberta Native Plant Council**. Call toll free at 1-866-845-2131 or direct at (403) 845-2804 for hotel reservations.

Walking Eagle Inn
4915 Hwy 11
Rocky Mountain House, AB

