

WAGNER NATURAL AREA NEWSLETTER

Volume 9 Number 2 October 1995

Newsletter of the Wagner Natural Area Society, Management Committee
and Volunteer Stewards of Wagner Natural Area, Parkland County, Alberta



Annual Members' Night

October 26, 1995, 7:30 p.m.

Provincial Museum, Ground-floor Lecture Room

Dr. Lu Carbyn of the Canadian Wildlife Service
will speak on
"The Peace-Athabasca Delta and its Implications
for the Ecology of Bison and Wolves"

Followed by: President's Report
Memberships
Refreshments
Everyone Welcome!



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President's Column by Dave Ealey

Wagner Magic!

I watched the Wagner Natural Area weave its magical spell this summer—it turned a perfectly normal college student, our summer employee, into another Wagner Wonder! One of my recent tasks as President has been the supervision of our summer student, Natasha Klingsh. I began it with some uncertainty because I knew I didn't have anywhere near the same familiarity with Wagner as many of the other executive who've been long-time members of WNAS. I discovered, however, that it was equally important to be able to direct Natasha to the appropriate experts whenever she had questions. In fact, Natasha proved to be such a good self-starter that fairly soon after beginning her summer job with the Society she had introduced herself to most of the hard-core Wagnerites.

Over the summer, Natasha not only carried out the regular tasks on site, including the customary special study of the student's own choice, she also undertook two other projects. She investigated variation in orchids and insect pollinators of orchids, and she photographed dragonflies in preparation for developing a guide to the particular representatives of these spectacular insects that occur in Wagner. Her enthusiasm was infectious and I could tell her interest in Wagner was a genuine attraction to a special place.

Which brings me to the question—what is it about Wagner that makes it so special? I really don't think that most of us who have come to feel such a strong sense of "place" about Wagner are basing that feeling on its significant ecosystem values. There's an attachment that develops, I believe, to the interesting character of Wagner, its attractive vistas around the marl ponds, and the teasing excitement

continued on next page

that comes from knowing that, next trip out, someone just might spot another rare plant/unusual bird/long-lost critter! And that sense of attachment is what makes all the effort worthwhile in the month-to-month management of the Area.

And speaking of management, some of our recent activities in this field include planning for a long-term solution to the haying situation, exploring options about insurance liabilities for the site, and monitoring various land-use planning initiatives in the neighbouring areas (St. Albert Boundary Road and a new subdivision plan to the east of Wagner). We have also submitted our revamped management plan to Parks to arrange for all the agencies involved to approve the plan, and we are in the process of

installing a bench and a plaque along the Cabin Trail in memory of our colleague Barry Jenkins.

A final word—history. As an associate member of the Federation of Alberta Naturalists, WNAS has been invited to prepare a summary of its history to be published, along with profiles of other naturalist organizations, in celebration of FAN's 25th anniversary this year. Would anyone with interesting stories to tell about WNAS activities, or who has photographs or slides or insights about the Natural Area or the Society, please get in touch with us? Alice Hendry is writing this historical profile, with the help of other executive. In a society that is more than a decade old, I think there are some fascinating tales to be told. Please share them!



Variable Darner, *Aeshena interrupta*, male, photographed on Common Great Bulrush (*Scirpus acutus*), is a common dragonfly in Wagner Natural Area. This handsome insect is iridescent blue and brown, with blue especially on the head and the first segments of the abdomen.

Photo by Natasha Klingsh, June 30, 1995

Moose on the Loose ...

There have been several sightings of moose in Wagner over the last couple of years, and even without sightings, tell-tale tracks and scats advertise their presence everywhere in the central and eastern portions of the property. Also, Red-osier dogwood has been heavily browsed along the Marl Pond Trail, suggestive of moose feeding. Even if our moose are sometimes shy about being seen in the flesh, they seem to know when it's important to put in an appearance. Joyce Gould and staff of Environmental Protection report that they got a fleeting glimpse of two moose when they were visiting Wagner with two members of the U.S. Nature Conservancy last month—and the visitors were thrilled!



Moose

Picture courtesy of Alberta Fish & Wildlife

Information/Emergency!

For further information on Wagner Natural Area or other Natural Areas in the province, or to report information or emergency situations in Natural Areas, please call the Dept. of Environmental Protection at 427-5209.



The Wagner Grapevine



Author! Author!

Kudos to Derek Johnson, first author of *Plants of the Western Boreal Forest and Aspen Parkland*, which is hovering near the top of the Edmonton bestseller list (non-fiction, paperback). At least 13 of its colour photos were taken in Wagner, and many of Wagner's plants are included (see pp. 4 and 6 for reviews of the book). Derek will autograph copies!

Congratulations . . .

. . . to our treasurer Janice Cantafio, who was elected by acclamation school trustee for Division 5, Parkland County.

New Members

Welcome to new members John Acorn and his wife Dena Stockburger, and to Jim and Barb Beck. John continues to encourage young naturalists in a variety of ways—our Wagner students included—in the field as well as on the screen. John, now achieving fame as a TV nature educator/entertainer, has filmed parts of two episodes of his popular nature series "Acorn, the Nature Nut" in Wagner. The Drs. Beck are also well known to the naturalist community. Most of us own their audiotape "Birds of Alberta" and turn up the volume on it every spring . . .

Bouquets to . . .

. . . all our donors, new and old . . .

. . . all the people who come out to Wagner and (the majority) who appreciate and respect it.

. . . to Natasha Klingsh, latest in our line of hard-working students who have found a summer in Wagner to be a seminal experience and a great help in career-planning. Natasha writes on p. 5 of the frustrations of trying to key out dragonflies. This frustration is common to all of us who attempt to identify organisms—welcome to the confusing world of taxonomy, Natasha! Nevertheless, taxonomy is essential to understand biodiversity, and biodiversity is often the goal of conservation and management. And biological conservation and management is what Natasha is now studying in her first year of a degree in environmental and conservation sciences at the University of Alberta. Is our president right when he suggests that Wagner works magic on our students, or do our students *choose* Wagner because of its magical magnetism?

And beefs to . . .

. . . the people who have used the access provided by the new Villeneuve interchange to fell trees just east of the Wagner fence line, presumably for private gain. The trees don't belong to us, but they are part of the ecosystem, and so their loss is a loss to us all.

. . . and to ourselves, the executive, indiscriminating plant-lovers that we are! Agronomist Wayne Holland, on a recent visit to Wagner to discuss the haying situation, was dismayed to see how much perennial sow-thistle and Canada thistle we are harbouring on the property. . . . So, next summer, we plan to hold a weed-pulling party—and everyone's invited!

Summer Plant Report

May Count. A total of only 45 species were recorded on the May Count (27, 28 May) this year, on account of a late spring with prolonged cool weather. However, because of this lateness we were able to catch (just!) the rare Great-spurred Violet (*Viola selkirkii*) in flower for the first time. One Calypso Orchid (*C. bulbosa*) was seen in flower mid-May, but by the May Count all we could find was one uprooted bulb!

Rarities. All our rare species (see previous newsletters), were tracked again this summer and accounted for. Slender Beak-rush (*Rhynchospora capillacea*) was more difficult to spot this year in the south fens, interspersed as it was amongst other fen vegetation, which may help explain why we overlooked it for so many years during the '80s. Orange Hawkweed (*Hieracium aurantiacum*), a weedy species common in eastern Canada, turned up again this year, in disturbed soil in the Villeneuve field, just east of the woodland where it was first found years ago.

On one foray in the east side of Wagner in mid-September, (to check for seed set in our Spotted Jock-weed individual; why does it not spread?) we turned up a fairly extensive patch of Lapland Buttercup (*Ranunculus lapponicus*) in a moist hollow in spruce forest. This species has been previously recorded in Wagner but is not abundant and to my knowledge we have never seen so many individuals in one small area.

Plants of the Western Boreal Forest and Aspen Parkland

by D. Johnson, L. Kershaw, A. MacKinnon and J. Pojar
Lone Pine Publishing, Edmonton, 1995

Review by Peter L. Achuff

Plants of the Western Boreal Forest and Aspen Parkland is the latest in a series of well-done, popular guides to native plants which includes *Mosses, Lichens and Ferns of Northwest North America* (1988), *Plants of Northern British Columbia* (1992) and *Plants of Coastal British Columbia* (1994). The area covered is the vast boreal forest of western North America from northwestern Ontario (west of about 92°W) to western Alaska and from the prairie grasslands and the mountains of Alberta and British Columbia to the arctic treeline.

The geographic area overlaps somewhat with the previous guides and, consequently, there is some overlap in species covered. However, there are many species in this latest guide not covered by the others. As well, the species descriptions have been rewritten (usually improved) and much new information has been added to the notes on each species. Hence owners of previous guides will find much useful and new in this latest guide.

The Introduction contains an overview of the western boreal forest—its regional variation, physical environment and broad vegetation units, as well as a brief account of plants and people in the area since the arrival of humans in North America. The species covered are the most common and widespread in the area and include both vascular plants (trees, shrubs, wildflowers, graminoids, ferns and fern allies) and non-vasculars (mosses, liverworts and lichens). Each species account contains a brief description (with a minimum of technical terminology and a glossary for assistance) as well as information on geographic range and typical habitat, and notes on human use, natural history, name derivation and similar species, accompanied usually by a colour photo or two and a line drawing.

The descriptions are arranged first by life form (trees, shrubs, ferns, etc.) and then by family. Simplified keys are provided for some groups although many species are not in a key and will be located only by browsing.

As with any publication, there are a few annoying problems and editorial lapses:

- With the exception of the shrub key, the keys lack a page number for the species description and the descriptions are not arranged either alphabetically or in the order that they fall out in the keys. Thus one is continually obliged to refer to the index for a page number that could have been provided easily in the key.

- Is there a circumpolar tree? "All our boreal tree species are confined to North America . . . thus there are no circumpolar trees" (p. 22). Yet tamarack (*Larix laricina*) is noted as "circumpolar" (p. 29). (My understanding is that tamarack is restricted to North America from Newfoundland to western Alaska.)

- The cone scales of white spruce are correctly described as "smooth-edged" (p. 24) yet the line drawing shows a markedly toothed edge.

- The meaning of "subarctic" and its relation to "boreal" is unclear, especially in the Introduction.

- Including the family name with the species descriptions, especially for the Trees, Shrubs and Other Families sections, would be informative and help provide a bridge to other more technical manuals.

- Common names are generally indexed under the last word: for example, "common blue lettuce" is under "lettuce" but "perennial sow thistle" is under "sow thistle" and "squarrose peat moss" is under "peat moss."

However, these are small problems overall and the text is quite free of typos and the photos are of good quality generally.

In summary, this guide is highly recommended. Users with a variety of interests and levels of plant knowledge will find it helpful and interesting. By filling a notable gap in the coverage of popular plant guides, it should attract the attention of many users.

Peter Achuff is a conservation biologist with Parks Canada currently in Waterton Lakes National Park. He has worked on the botany and plant ecology of western Canada for the past 25 years.

See page 6 for an amateur botanist's review of the same book.



Wanderings in Wagner



by Natasha Klingsh

Have you ever looked deep into the eyes of a dragonfly? Donated blood to mosquitoes in the name of science? Or got money for wandering aimlessly through a forest? I did. I was the summer student at the Wagner Natural Area this year.

I loved the job from the first day I went to Wagner (there were no mosquitoes yet). It was Spring Clean-Up day. Much to my joy, there really wasn't anything much for me to clean up, so I got a special tour of the Marl Pond Trail from Patsy Cotterill. She pointed out several notable features there: the marl ponds, the different species of mosses and where they grew, the difference between White and Black Spruce, and the little depressions in the forest that would fill with water and mosquito larvae. (Being naive, I took little notice of the latter and wore shorts. That lasted for about two weeks!) I was amazed at the amount of knowledge that Patsy had, and how clearly she could share it with others.

One of the job requirements at the Wagner Natural Area is to do two projects: the Breeding Bird Survey (mandatory) and one of the student's own choice. Being foolish, I chose three: the Breeding Bird Survey, a study of orchid pollinators and a dragonfly survey. I must put some responsibility on John Acorn for choosing the last project. Let me explain. The day that John and I met, I had just spent approximately four hours patiently observing various patches of round-leaved orchids. I left with four insect specimens and at least 20 mosquito bites for my pains. John and I walked the Marl Pond Trail and netted four different dragonflies within an hour. Not only did the project seem more productive, catching these masters of the sky involved skill, cunning and panther-like reflexes. That made it harder for mosquitoes to land on me. I was hooked! My idea was to identify all the Odonata (dragonfly and damselfly species) at Wagner and document them through pictures and notes. I encountered some difficulties. John Acorn had given me a key that included terminology like: arculus, R4+5, inferior appendage sigmoid, lateral margins of the mesostigmal laminae raised above the mesepisternum. . . . The key didn't include a glossary. Occasionally I took a wrong turn as I travelled through those terms in the key and concluded that I had discovered a wonderfully rare critter that only lived in mineral hot springs in Banff, or mountainous regions of B.C. The other

problems came from the insects themselves. The key showed simple black-and-white diagrams of what a proper dragonfly of such-and-such a species ought to look like. I wish the dragonflies would have read it! There was so much variation within some species I was often inclined to mutter "!!@*?" in frustration. One in particular was quite annoying. It was the Prairie Bluet, an innocent-looking damselfly found throughout Wagner. Approximately 10% of the specimens I found there have a characteristic supposedly reserved for the Plains Forktail, a rare species found at hot springs. At least I was not the only one fooled by it—every "Plains Forktail" at the Provincial Museum was actually a Prairie Bluet!

Taking pictures of the dragonflies was an adventure in itself! I discovered that several elements were needed to make a good picture, the most important one being a cooperative subject. Dragonflies don't take kindly to publicity shots so I had to find ways of making them stay put. The easiest way was to catch the critters and put them on ice. I would put them in a cooler for approximately five minutes and then take them out and have them pose on natural vegetation, attempting to make them look lively and natural as they sat in a drunken stupor! Usually I had 30 to 60 seconds before the subject would warm up and fly off. This was a splendid method and worked for most species. A few changed colour as they cooled. For instance, some bright blue damselflies become a dismal shade of grey. I gave these a photo opportunity in the privacy of my home. I usually spent more time searching for them in the drapes than taking pictures, but nonetheless eventually got their smiling faces on film.

I enjoyed every aspect of my job and want to give a special thanks to everyone in the Wagner Natural Area Society. It is wonderful to see your commitment to a remarkable place and your willingness to sacrifice money, time and energy to preserve it. With guardians like you, I don't doubt that Wagner Natural Area will be around for future generations. Thank you for giving me the chance to work with you.

Natasha has published articles on her experiences and studies in Wagner in Volume 25, Numbers 2 and 3 of *Alberta Naturalist*.

... And amateur naturalist and outdoorswoman Alison Dinwoodie reviews *Plants of the Western Boreal Forest*...

At long last a field guide to fill the gap between the Rockies and the Prairies! It is surprising that, until now, there has been no readily available source of information for non-professionals on what is one of Canada's largest ecosystem regions, particularly as it is being rapidly altered before we really understand what is out there.

This book continues the methodical format of its predecessors in the series. The photographs are good and are augmented by line drawings, which gives the best of both worlds. I particularly like the plain English keys and groups of leaf silhouettes for similar species, for example, the willows; one drawing is worth far more than 10 obscure latinized words! Also the juxtaposition of similar plants, fully illustrated, instead of mentioned in a footnote, makes identification much easier—I have hopes now of disentangling some of the asters at least! A real bonus is the inclusion of the common grasses, lichens and mosses. It is seldom that one finds them dealt with so comprehensively within the covers of one book.

If I have one criticism, it is that there is too much ethnobotanical and herbal information given in the Comments sections. Coming from a medical scientific background, I feel that this is an area where a little knowledge can be a dangerous thing. This interesting area would be better dealt with more fully in a separate book. It is one thing to comment on edibility of berries, or contact rashes, but quite another to talk about their use in treating, for example, gastric complaints. There are many other

fascinating details given, but they need to be pruned. More information on the ecology and inter-relationships, for example, with insects, old-growth habitat, etc., would have been more useful.

There are inevitably a few inconsistencies: some keys are excellent, but other group keys or indices may be lacking, so that one resorts to the usual method of thumbing through the pages until one finds what one wants—but one usually does find it! And the reader will have to make some adjustments for different treatments. For example, I am used to thinking of the gooseberries and currants belonging in their own family, the Grossulariaceae, so it was a little disconcerting to find that the saxifrage family is shown as a major shrub family, containing the *Ribes* species. The highlighted emphasis on specific details is very useful, but could perhaps have been used more to bring out the more obvious differences between similar species, for example, leaf descriptions for *Antennaria microphylla*, white woolly above and below, and *A. neglecta*, woolly to hairless, green above.

Apart from these minor quibbles, this long-awaited book will definitely become an indispensable companion to everyone's visits to local, and not so local, forests.

Alison Dinwoodie was a clinical biochemist at the University Hospital until her recent retirement. She has always been active in outdoor recreation pursuits, and from a previous casual interest in plant identification and general ecology, hopes to increase her knowledge now that she has more time.

Edmonton Plant Study Group Indoor Meetings Fall/Winter 1995-96

(Sponsored by the Edmonton Natural History Club and the Alberta Native Plant Council)

(All meetings at the Provincial Museum, ground-floor lecture room at 7:30 p.m., unless otherwise stated)

Tuesday, November 14, 1995. Derek Johnson will present slides on the Figwort Family (Scrophulariaceae) in Alberta.

Tuesday, December 5, 1995. Members' Night and Social. Bring your best slides, crafts, displays, snacks. Everyone welcome!

Thursday, January 18, 1996. Dr. Randy Bayer will talk on the plants and processes that produce stimulating beverages—tea, coffee, chocolate, coke! BioSciences Building at the U of A, Room B521, 7:30 p.m.

Monday, February 19, 1996. Richard Dickinson and France Royer will speak on the wildflowers of the Edmonton area, their topic and also the title of their new book.

Meetings also arranged for March and April. For further information call Patsy at 481-1525.

Wagner Society Executive, 1995-97

President - Dave Ealey (422-0858)
Past President - Derek Johnson (436-8231)
Vice-President - Pat Clayton (456-9046)
Treasurer/Membership Director - Janice Cantafio (963-3938)
Secretary/Newsletter Editor - Patsy Cotterill (481-1525)
Director/Public Relations - Alice Hendry (962-4836)
Director - Edgar Jones (436-5327)

Membership in Wagner Natural Area Society

The membership year runs from January 1 to December 31. Please consider renewing promptly to continue your support of the Society and Wagner Natural Area. Fill out the membership/renewal form below and mail it with a cheque to Wagner Natural Area Society. Do the same thing if you are joining the Society for the first time. As a member, you will receive free copies of the newsletter (2 per year) and an invitation to the Annual Members' Night in October. Field trips and other activities are organized from time to time. Donations are tax deductible. For more information, contact Janice Cantafio at 963-3938 (evenings).

Please include me as a member of the Wagner Natural Area Society!

____ Family/Organization \$12 ____ Individual \$10
____ Student \$ 8 ____ Senior \$ 8

Besides my membership fee, I enclose a gift to support the activities of the Wagner Natural Area Society: _____

Name _____

Address _____

Town/City _____

Telephone No. _____

Mail to: Janice Cantafio, Treasurer/Membership Director, Wagner Society, Box 3100, Stony Plain, Alberta T7Z 1Y4

Wildflowers of Wagner No. 8

Canada Goldenrod Compositae Family

Most people are familiar with this plant, whose mass of yellow flower heads, topping tall, robust stems, appears in late July and August and heralds the onset of late summer. Canada Goldenrod forms colonial patches in abandoned fields, disturbed grassy places and prairie, and in Wagner is most abundant in the north-central field (south of the main gate) in which succession back to forest is occurring.

Growth of this perennial plant begins in spring with a single erect shoot, reaching 25 to 200 cm high, produced from the tip of an underground rhizome. Shoots from daughter rhizomes often result in a clone which has a circular pattern of growth. Stems are somewhat stubbly to the touch as they are covered in short, curly, rough hairs. These serve to distinguish Canada Goldenrod from a look-alike species, Late Goldenrod (*S. gigantea*), which has a hairless, sometimes bluish or waxy-looking stem and prefers moister habitats than *S. canadensis*. The leaves of the latter are lance-shaped, triple-nerved, and rough-hairy on the nerves and along the saw-toothed edges. Characteristically, the lower stem leaves have fallen off by flowering time. The flower heads are arranged in a dense terminal inflorescence either in a compact vertical cluster or along branches, sometimes in a one-sided arrangement, which are spreading and recurved. The small heads, surrounded by narrow green bracts 2-4 mm long, contain ray florets with female flower parts only and disk (tubular) florets which are bisexual. Both floret types produce fruits, tiny, one-seeded achenes crowned with a pappus of hairs, which are dispersed gradually by the wind throughout the winter.

Canada Goldenrod is insect-pollinated, especially by honey bees and bumble bees which visit for nectar. The plant is host to an astonishing array of other insects, some of which eat it, and is parasitized by insects which cause it to form galls, compromising its fitness and ability to produce fruit. Spherical galls are caused by a tephritid fly, *Eurosta solidaginis*, while moth larvae (*Gnorimoschema gallaesolidaginis*) produce elliptical-shaped galls and the midge *Rhopalomyia solidaginis* induces galls that consist of a tiny rosette of leaves where the inflorescence should be.

Solidago canadensis L. Compositae

White-tailed deer like to browse the flower heads.

Canada Goldenrod is found all across Canada, extending far north and south, and as often happens with wide-ranging species, is morphologically variable, with several named varieties.

Reference: Mulligan, G.A. The biology of Canadian weeds. Contributions 33-61. Agriculture Canada publication # 1765, 1984.



a - stem and inflorescence; b - leaf; c - achene;
d - ray floret with pistil; g - rhizome

Drawing courtesy of John Maywood