

WAGNER NATURAL AREA NEWSLETTER

Volume 12, Number 2 December 1998

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



Wagner Natural Area Society presents

Annual General Meeting & Annual Members' Night 1999

on Thursday, January 28, 1999
in the Ground Floor Lecture Room of the
Provincial Museum.

Dr. Richard Thomas,
ornithologist and ecological
consultant, will deliver a lecture
entitled:

"UNDER SIEGE: CUMULATIVE IMPACTS OF HUMAN ACTIVITY IN ALBERTA'S BOREAL FORESTS"

Find out from the author of the controversial reports
on the Foothills and Boreal Forest Natural Regions:

- What's happening to Alberta's boreal forests
now, and what does the future hold?
- Are Alberta's parks real "protected" areas?
- Is Special Places just a PR sham?

Agenda for the evening:

7:30 p.m. Annual General Meeting. Open to
everyone although only voting members will be able
to vote on motions presented.

President's Report & Treasurer's Report
8:00 p.m. Annual Members' Night begins with the
Guest Lecture.

& Refreshments

Admission is free. & Buy or renew
memberships in Wagner Society.



Wagner Natural Area lies in a pocket of mixedwood
boreal forest in the aspen parkland natural subregion of
Alberta. Its special feature is its spring-fed fens, such as
this one behind the old and stunted tamarack tree
(*Larix laricina*).

Contents of this Issue

Editorial	p. 2
Wagner Grapevine	pp. 3-4
Moth Study	p. 5
Wagner Biodiversity	p. 6
Visitors' Comments	p. 7
Wildflower No. 14	p. 8

Editorial Comment
by Patsy Cotterill

Volunteer Stewards, Partners or Puppets?

First of all let me apologize for the tardy appearance of this newsletter. Because of a late start this fall we decided to combine our (usually January) AGM with our (usually October) Annual Members' Night, which gave me more excuse to postpone production of the newsletter. We should be back on track next year!

The third Volunteer Stewards Conference at Battle Lake in May was a chance to learn from others, renew old acquaintances and make new ones, and enjoy, during the field trips, the luxury of exploring someone else's beloved haunts. In these things, we were not disappointed. We had also specifically requested that at this conference we have an opportunity to air our concerns with Alberta Environment staff responsible for implementing government policy on the protection of public lands. Such policies and practices have changed considerably over the years and our experience has been that communications between the bureaucrats and volunteer stewards have not kept pace. Again, we were not disappointed. The agenda was tailored to our needs and staff of Public Lands and the Natural Resources Service were out in force to listen, explain and clarify.

Even so, we left the conference feeling less than reassured. Indeed, emboldened by our numbers, we felt angry enough by the end to avow political action. Why? Well, most of us have enough experience to read between the lines, and what we heard at these workshop sessions, together with our knowledge of the government's record, gave us no cause for satisfaction. Sure, there has been progress in designating Special Places, but so far most have been in the Canadian Shield, where designation is easy because there are few conflicts with industrial activity. We knew of course that protecting sites under the Special Places program is still hobbled by a process in which local committees make decisions that almost invariably favour development over protection. And sure, the new Natural Heritage Act (NHA) is a logical tidying-up of scattered existing legislation to create clear categories of protected area that define use. However, we also heard that public money is tight and likely to get tighter. So, no matter how logical their category, some protected areas are likely to get dropped if they become too

inexpediently expensive to maintain. (Remember, this past spring the government was attempting to close parks, recreation areas and roadside rest stops to save a few paltry dollars, requiring local municipalities, non-profit groups or individuals to keep them open if they considered them valuable enough.) Nor did the NHA seem to us to have the necessary "teeth" to allay some of our greatest concerns—the incursion of all-terrain vehicles into so many sites, for example.

At volunteer conferences there is always an appreciation ceremony at which, with gifts and speeches, our efforts as stewards are applauded. This is nice even if we sometimes feel a little guilty—after all, we do get a kick out of being ersatz landowners, or at least feeling a special connection to our particular piece of land. However, now that it's evident that government is relying more and more on volunteer help as a means of saving money, we have to wonder: are we being rewarded or are we really being bought? Are we partners in environmental protection, or puppets? Stewards or stooges?

At the conference our political activism veered toward forming a volunteer stewards' association. This could provide us with a valuable means of exchanging our accumulated management expertise for general benefit. More important, as an arms-length organization independent of government, it could give us the autonomy to have representation on boards that directly influence the course of environmental protection in this province. So far, we have not acted on this idea. Many of us, busy with our own natural area, other related activities, or simply earning a living, have no relish for more politics—meetings, phone calls, hours spent at the computer. Perhaps we do not yet see the benefits of an association clearly enough...

In the meantime, the Wagner Society has asked the provincial government to give Wagner the highest category of protection possible under the NHA, as a provincial nature reserve, and that its name and that of our society remain unchanged. So far, we have not had a reply. Nor, for that matter, has the new Natural Heritage Act yet been passed.



The Wagner Grapevine



Third Volunteer Stewards Conference,

Five members of Wagner executive attended the Third Volunteer Steward Conference at the Alberta 4-H Centre at Battle Lake near Westeros on May 8-10, 1998. A full-day of intensive indoor workshops on the Saturday was balanced by early morning field trips at the Centre and a Sunday morning of field trips to Mount Butte and Coyote Lake Natural Areas on the Sunday morning. The conference catered jointly to two groups of volunteers: stewards and campground hosts, with the two coming together for major social events such as the Friday evening registration and introduction session, the Saturday night banquet and the Sunday pancake breakfast. The workshop sessions were at separate venues. Despite the need to cater for large numbers and diverse interests, the conference was well coordinated and went off smoothly.

For the stewards there were sessions on natural history and practical land management skills such as air photo interpretation; others were policy interpretation sessions giving stewards plenty of opportunity to raise questions and concerns with government staff. Considerable time was devoted to explanations of the Special Places Program and the proposed new Natural Heritage Act.

As at previous conferences, awards were made to volunteers according to length of service or extraordinary dedication. In turn, Alice Hendry presented Sandra Myers, Volunteer Steward Program Coordinator with Alberta Environmental Protection, with an award from the Wagner Society, in recognition of her work over the years for the volunteer steward program. The gift was a framed photograph of Lady's-slipper orchids, taken by Leota Cummins in Wagner Natural Area. Following is the text of Alice's presentation:

"Sandy, you have always sought opportunities to recognize the efforts of the Volunteer Stewards. Now we would like to take this opportunity to tell you how much we admire you and to thank you for what you have done for Volunteer Stewards and for the Volunteer Steward Program.

During your ten years as Coordinator of the Volunteer Steward Program you have been our spokesperson. We know that you have spent those

ten years defending the Volunteer Steward Program. We know that you have kept the interests of the Volunteer Stewards at the forefront in your dealings with the department. We know that sometimes this has been at great cost to yourself. You have always been the one person all Volunteer Stewards have known they could count on and trust. You have been an anchor we could always count on in a sea of uncertainty.

We admire your intestinal fortitude. We know that you sometimes find public speaking difficult, yet you have spoken out for us again and again. We admire your determination to keep the Volunteer Steward Program on the agenda. We admire your genuine dedication to the Volunteer Steward program and your recognition of what the Volunteer Stewards can accomplish for this beautiful Province. We admire the drive that has kept you working for the Volunteer Steward Program against what must sometimes have felt like overwhelming lack of interest and opposition.

The Volunteer Steward Program is truly YOUR program, Sandy. Without you, the Volunteer Stewards would not exist. Sandy, you are a very special person. Thank you from all of us."

1998 Moth Study

Thanks to generous grant funding, the cooperation of University of Alberta entomologists and the efforts of our summer student, Andrea White, we were able to begin our moth collection and study this year.

Canada Trust Friends of the Environment awarded the Society a grant of \$4,770 for specimen collecting and storage equipment and this has enabled us to purchase a special cabinet (located in the University of Alberta BioSciences Building) in which to store specimens. An additional \$1,000 from the **Alberta Sport, Recreation, Parks and Wildlife Foundation** is being used to purchase a generator light unit needed in the trapping process. A grant from the **Summer Career Placement Program** paid Andrea's salary.

Dr. Jens Roland, an entomologist at the U of A, directed the project on the Society's behalf and provided lab, freezer and storage space for the specimens. U of A student Chris Schmidt, a moth

The Wagner Grapevine... (continued)

specialist who is conducting a study of forest tent caterpillars, is performing the detailed identification work to species. Andrea used ultraviolet lights to lure the moths into traps, which were located in four widely separated habitats in Wagner. She also used techniques known as sugaring and sweeping for collection. She preserved other insects collected along with the moths provided they were large enough not to dry out too readily, as well as 17 vials of spiders. (See Andrea's report on p. 5, and p. 6.)

We plan to continue the study for several years to adequately sample moth biodiversity and population trends. It is our intent that all arthropod collections be made available to the interested public for study. As well, to make the most efficient use of time and money, Andrea collected lichen samples from the same and other habitats as the traps. Derek Johnson, botanist at the Northern Forestry Centre, will be curating these collections.

1998 May Count of Flowering Species

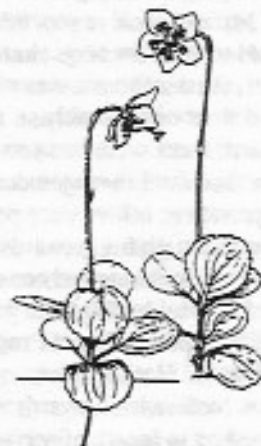
Remember, this was the year of *El Nino*? Our count of plants in flower, undertaken this year on May 31, turned up a list of 87 species (compared with 39 species last year) and reflected our very early spring. Pat Clayton, Frank Rusconi and Pat Wishart helped co-leaders Alice Hendry and Patsy Cotterill spot this record number. Years in which spring comes early invariably produce longer lists than those in which spring is average or retarded, even though this effect is tempered by the fact that a significant proportion of our Alberta species, even in the north, flower in April and throughout May and have finished flowering by the time the last full weekend in May rolls around. This year we missed, due to post-maturity, a number of our sedges, most of the willows, all the currants/gooseberries, and our early-flowering violets. The high count is then also a reflection of the high plant diversity in Wagner, especially considering the fact that it is a wetland and a boreal forest island, and thus is cooler than the surrounding uplands.

We found 21 members of the sedge family still in flower (out of a total of 40 species occurring on the site), including the rare slender spike-rush (*Eleocharis tenuis* var. *borealis*) in the fens at the south-east edge of the property.

Yellow lady's-slipper populations were in full flower in various locations, but it was still too early

for the sparrow's-egg lady's slipper which was in bud. Heart-leaved twayblade and round-leaved orchids were well in flower, early coral-root orchid was past its best in the aspen woods and, alas, we were not able to locate even the vegetative parts of the round-leaved bog orchid and the long-bracted orchid at the two sites where they habitually grow.

With disappointing results in our search for great-spurred violets (*Viola selkirkii*) and marsh violets in the conifer woods between the Villeneuve extension and Morgan Creek, it was good to see a single specimen of one-flowered wintergreen (*Moneses uniflora*) and Lapland buttercups in flower in this area. Not found reliably in the west and central portions of the Natural Area, their occurrence near Morgan Creek proves that all our habitats in Wagner are important to maintain biodiversity.



One-flowered Wintergreen. Drawing courtesy of John Maywood.

about life size

Breeding Bird Report

Edgar Jones, ever concerned for the welfare of Wagner's birds, reports as follows:

"On June 28th, 1998 I made of a check of the 22 bird boxes located along the north and west fence-lines of the Wagner property. This check also included the two duck/owl boxes I placed in the early spring, which were not used this first season. The tree swallow/bluebird boxes have been in place for a number of years and had a high occupancy rate this year, all the occupants being tree swallows! I banded a total of 69, including four adults and 55 young, most of them nearly ready to leave the boxes. Damaged boxes were repaired ready for next year. It is my intention to make an annual check of all these boxes and to report on occupancy rates for future studies."

Moths, Spiders and Lichens... A Sampling of Wagner's Biodiversity

by Andrea White

This summer I had the pleasure of helping conduct a moth species biodiversity study at the Wagner Natural Area. This study consisted mainly of trapping moths using various methods and then pinning them and grouping them into their taxonomic groups, for later more precise identification by an expert entomologist.

The main type of trap I used was a UV light trap. Four UV light traps were set up in various habitats located within the Wagner Natural Area, and these traps were run from May 19 to September 23. Battery-powered UV light bulbs were attached to electrical boxes that were photosensitive to sunlight so that they would automatically turn on when the sun set and turn off when the sun rose. Each night moths would be attracted to the lights and become caught within the traps where they would be killed by a chemical agent inside. The lights also attracted other insects such as caddisflies and beetles which also died in the traps. Then each morning I would head out to Wagner to collect the moths and their other insect friends from within the traps. These insects would then be taken back to a lab at the University of Alberta where I would proceed to preserve them by pinning them and labeling them with the date that they were collected on. I would then group the pinned moths into their taxonomic families to the best of my ability. The specific identification of each moth was performed by Chris Schmidt, a moth expert at the University of Alberta.

Another trapping technique that I used is called sugaring. Sugaring consists of boiling up a concoction of overripe bananas, molasses, brown sugar, beer and hard liquor, and then applying this mixture to tree trunks at dusk. Moths, which are exclusively nectar feeders, are attracted to the sweet scent of the solution and stop to feed on the trees. When a moth is disturbed while feeding its first defensive reaction is to drop to the ground. This makes sense because, if a predator is stalking it, it would be much harder to find on the ground than if it stayed on the plant or flew away. Luckily for me, and unfortunately for the moths, this defensive behavior worked in my favour when I used the sugaring technique. I would simply place a killing jar underneath the moths as they were feeding on the concoction, and more often than not they would dive-bomb right into the jar (into which I had previously placed an adequate amount of killing agent). The next day I would take these moths back

to the lab to be pinned and labeled in the same manner as the ones caught in the UV light traps.

Another technique that I used is called sweeping. It is performed simply by sweeping an insect net through various types of vegetation at dusk and transferring the moths so caught into vials to be transported home. When I got home I would put them in the freezer overnight to kill them. Any moths caught using the other techniques were also frozen if I was unable to pin them on the day right after they were caught. Freezing them preserves them without desiccating them so that they can be pinned at a later date. The moths caught during sweeping were also taken into the lab the next day to be pinned and labeled.

Chris tells me that he expected more moth species to be caught than actually were. [about 220]. This is partly due to the fact that I had some problems with the traps this summer. On some nights the lights just weren't working. I attribute this to the fact that the photosensitive light boxes do not work well in moist conditions, and there are always rainy evenings in the summer, as was the case this year. Another reason is that the batteries did not last as long as Chris had anticipated they would. He had told me at the start of the study that a fresh battery should last at least three days without having to be recharged. As it turns out the batteries only lasted for two days, and when the weather was rainy it was difficult to tell whether the lights were out of commission due to the rain or to dead batteries! Also I realize in hindsight that I should have started sugaring earlier in the summer—unfortunately I did not receive the recipe from Chris until towards the end of the summer!

While I was performing my moth collecting duties I also collected lichens for Derek Johnson, botanist at the Northern Forestry Centre in Edmonton, and spiders for entomologist Robin Leech, these collections also forming part of the overall study of Wagner's biodiversity. The lichens were found on dead and live trees, among moss and on the ground. The spiders were found on the ground, on plants, and along dead pieces of wood, in addition to those I caught while sweeping vegetation for moths.

This study will, I believe, be a valuable contribution to the growing body of knowledge of Alberta's fauna and flora.

Andrea White was our summer student this year.

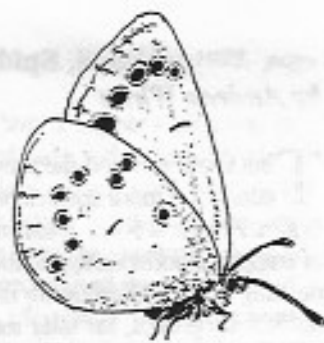
Wagner Biodiversity

For more than half a century local scientists, naturalists and students have been accumulating information on the diversity of life forms in Wagner Natural Area. For the plant kingdom, at least 320 species of vascular plants, 67 species of mosses, 11 kinds of liverworts and 78 lichens have been recorded. Birds seen in or over Wagner during this time period number 143 species, and there are 43 mammals, 3 fish and 5 amphibian species. The less conspicuous, less scientifically known and often more taxonomically diverse organisms, such as algae, fungi and the varied animal assemblages known as invertebrates, are, however, more of a challenge to inventory. Nevertheless, over the years, our knowledge of these organisms has been built up by short-term and sometimes informal surveys of widely different groups such as diatoms (microscopic algae with siliceous cell walls), mosquitoes, chironomid midges, phorid flies, and aquatic and terrestrial snails, as well as of assemblages that cut across taxonomic groups, for example, aquatic invertebrates. Now, with respect to arthropods, the phylum that includes insects, spiders and crustaceans, a solid and impressive groundwork of information has been laid.

A major collection and study of arthropods in Wagner was undertaken in 1985 and 1986 by Dr. Bert Finnamore and Terry Thormin of the Provincial Museum of Alberta. After years of sorting and identifying, with considerable help from international experts in the different taxonomic groups, Finnamore published a list of about 2181 species for that collection—and he is still counting! Adding in other information, he estimated that Wagner contained at least 2900 different kinds of organisms. Because a high percentage of the arthropod species he identified are parasitic wasps, which must have hosts to survive, Finnamore estimated that there could be as many as 6000 species of arthropod in Wagner fens.

Just as large and showy plants get lots of attention, so butterflies have been a popular focus of study in Wagner. Terry Thormin first reported his field knowledge of Wagner butterflies in 1982. Tara Normand collected butterflies in the summer of 1993 under the tutelage of entomologist John Acorn, who took many of the photos for his book *The Butterflies of Alberta* in Wagner. In 1994 Acorn published a list of 47 butterflies for Wagner, which he thought to be reasonably comprehensive. That same summer student Sandra Tober did a marvellous job of collecting 31 butterfly species in Wagner.

Silvery Blue butterfly,
drawing by Sandra Tober



In 1995 Natasha Page (nee Klingsh), again with the help of John Acorn, photographed 13 species each of damselfly and dragonfly from Wagner, and wrote up her findings in the fall 1998 issue of the *Alberta Naturalist*, an impressive piece of work for a student new to collecting. She noted that close relationships between these insects and their habitats could be monitored as indicators of Wagner's ecological health.

This year, student Andrea White, working under the guidance of Dr. Jens Roland and Chris Schmidt at the University of Alberta, undertook to collect moths in the first season of a planned multi-year study. Schmidt has identified over 200 species from this collection and estimates that they may represent only a quarter of the number of moth species actually there.

Dr. Robin Leech is currently taking a sabbatical from his job as instructor in biological sciences at NAIT to identify the spiders collected in the 1985 and 1998 studies. He estimates that the number of species will eventually come in at around 350. The presence of certain species has shed light on spider distribution in Alberta, causing Leech to propose some interesting hypotheses on how they came to be here. For the details, we shall have to await the completion of his study!

Wagner is clearly a treasure-trove of biological information, to be unlocked by scientists and laymen for generations to come!

A Sampling of Literature

- Acorn, John. 1993. *Butterflies of Alberta*. Edmonton, Lone Pine Publishing.
- Acorn, John. 1994. Wagner butterflies: the groundwork has been laid. *Wagner Natural Area Newsletter* 8 (1) 1994, pp. 1-2.
- Finnamore, Albert T. 1994. Hymenoptera of the Wagner Natural Area, a boreal spring fen in central Alberta. *Memoirs of the Entomological Society of Canada* 169: 181-220.
- Page, Natasha. 1998. 1995 Odonate survey at the Wagner Natural Area. *Alberta Naturalist* 28 (3) Fall 1998: 61-64.
- Thormin, Terry. 1982. Butterflies of the Wagner Bog. *Edmonton Naturalist* 10 (2):37-41.

From our Visitors' Book... and others'

I will never forget climbing Mt. Kilimanjaro (19,340 feet) in Tanzania in the '60s. I looked forward to signing the visitors' book at the summit, visualizing a leather-bound volume protected from the elements, worthy to record my great personal achievement in hiking all those vertical miles in thin air to view the world from above the clouds. To my great disappointment, the visitors' book proved to consist of no more than the tatty sheets of an exercise book! As I opened it two pages were snatched away by the wind and carried towards the green ice of the volcanic crater behind me, taking the evidence of others' feats with them. My hands were so cold in my mittens that I could only manage some stubby pencilled hieroglyphics, never to be identified, which didn't matter, because I knew my autograph would meet a similar fate to the ones I had just unleashed!

Wagner's guest books often aren't a great deal more substantial than those of Kilimanjaro, I must admit. We must try to do a better job, because we really do want to keep records of who is coming (including all the beavers, guides and scouts), where they are coming from, and what they think of our favourite natural area. And we do pay attention to what our visitors write.

Most of the comments we receive are complimentary, both of the site and our efforts to maintain it. Some, of course, remind us we are delinquent in our duty: "No trail guides!" From most comments, even though short, we can get an idea of visitors' response to the area. Someone thought to let us know that they appreciated being able to walk their dog in Wagner. Another person made a suggestion about Watchable Wildlife signs. A few people complain and others manage to joke about

nature's inconveniences. They came, they said, "to enjoy the mosquitoes" or they "forgot they needed hip waders!"

One visitor in May 1997 managed to overcome the narrow guest-sheet columns that stifle creativity and note: "balsam poplar bud sheaths falling to the understory like rain" and it "was good to see five children from a Spruce Grove home school out learning about insects."

Of course, blank columns bring out the humour (chiefly in young males) just as blank walls inspire the graffiti writers. So far, however, we have not found any comments wacky enough to be worth publishing farther afield like these below. Michael Hendry, obviously with an eye for both the funny and the ridiculous, supplied the following via Glenn Reed of the *Daily Camera* in Boulder, Colorado. They are some of the curious comments made to the U.S. Forest Service by wilderness campers.

"Trails need to be reconstructed. Please avoid building trails that go uphill." "Too many rocks in the mountains." "Chair lifts need to be in some places so that we can get to the wonderful views without having to hike to them." "The coyotes made too much noise last night and kept me awake. Please eradicate these annoying animals." "Instead of a permits system of regulations, the Forest Service needs to reduce worldwide population growth to limit the number of visitors to wilderness" (my favourite!). And, "Need more signs to keep area pristine."

Records are important, on Mt. Kilimanjaro and in Wagner. So keep your autographs and your comments coming!

Ed.

Got an idea? A suggestion? A complaint? A question? Call our answering machine at 988-4477 or write us at Wagner Natural Area Society, Box 11, Site 290, RR2, Stony Plain, AB T7Z 1X2

Wagner Society Executive, 1998

President	Pat Clayton (456-9046)
Past President/Treasurer	Dave Ealey (422-0858)
Vice-President	Irl Miller (455-3866)
Secretary/Editor/Membership	Patsy Cotterill (481-1525)
Directors	Leota Cummins (447-4256); Alice Hendry (962-4836); Beth Jenkins (458-1794); Derek Johnson (436-8231); Edgar Jones (436-5327)

Wildflowers of Wagner No. 14

Heart-leaved Twayblade Orchid Family

This diminutive orchid of wet coniferous woods is fairly common in Wagner Natural Area. However, it can be difficult to spot because its slender stems and purple or greenish flowers blend in with the moss of the hummocky spruce forests in the centre of Wagner or the spruce-tamarack islands of the southeast fens where it is often found.

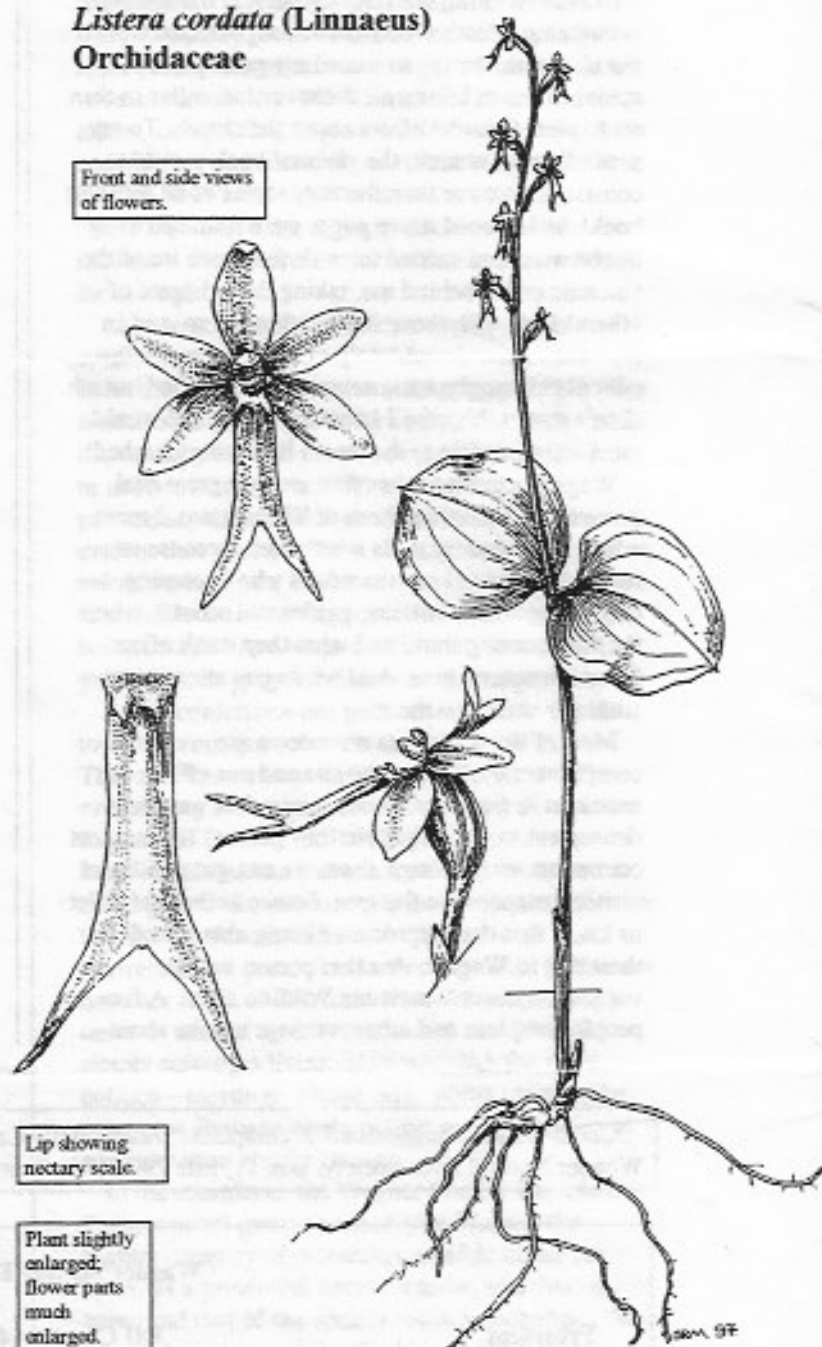
The stem of the plant grows singly, often 10–12 cm high, from slender fibrous roots, and bears a pair of oval to heart-shaped leaves about half-way along its length. These leaves give rise to the common genus name twayblade (tway is an old word for two), and their shape to the descriptive name, heart-leaved. The stem is topped by a raceme of loose, spirally arranged flowers (often about 12), each about 5–6 mm long. Orchid flowers are built on the typical monocotyledonous plan of 6 flower parts: 3 sepals and 3 inner petals. One sepal is upright at the back of the flower and two spread laterally. The lowest petal forms the lip, which in this species points down, is 3–5 mm long, narrow and appears forked because it is divided to about half-way.

This orchid is almost always in flower in Wagner by the end of May and continues to flower through June and probably into July, with the flowers lasting about 2 weeks before they fade. Flowers are pollinated chiefly by fungus gnats but a variety of small insects visit, attracted by their slightly foetid odour and the nectar produced in the lip. The pollen is released with a drop of sticky fluid which attaches it to a visiting insect. The seed capsules are small and oval or ellipsoid.

Heart-leaved twayblade is found sporadically across the boreal forest of north-central Alberta and in the mountains and foothills. Four species of twayblade (*Listera*) occur in Alberta, all distinguished chiefly by characters of the lip, with two species being rare and found chiefly in the southwest. Northern Twayblade (*Listera borealis*) occurs in our area (in Elk Island National Park, for example) but is not found in Wagner despite apparently suitable habitat. It is a more robust-looking green orchid whose flowers have a broad green lip quite distinct from that of heart-leaved twayblade.

Listera cordata (Linnaeus) Orchidaceae

Front and side views
of flowers.



Lip showing
nectary scale.

Plant slightly
enlarged;
flower parts
much
enlarged.

Drawing by John Maywood, reproduced by
permission of the artist from "Orchids of
Lakeland," Alberta Environmental Protection.

Wagner Natural Area Society

Goals and Objectives

- To protect the physical and biotic integrity of that area of land commonly known as "Wagner Bog" and to prevent environmental damage to the area;
- To ensure the preservation of the character and biological diversity of "Wagner Bog" for its intrinsic value and for educational, scientific and research purposes;
- To encourage and promote nature-oriented activities. For greater certainty, but not so as to restrict the generality of the foregoing, these activities shall involve pedestrian traffic only and shall not involve motorized, vehicular or equestrian traffic;
- Generally to encourage, foster and develop among its members and the public a recognition of the importance of environmental conservation and responsible management of natural areas with the least possible disruption when used by man;
- To acquire lands by purchase, lease or otherwise, and to implement management or other plans to further the objectives of the Society.

(Non-voting) Membership in Wagner Natural Area Society

The membership year runs from January 1 to December 31. Please consider taking out/renewing your membership subscription promptly to support the Society and Wagner Natural Area. Fill out this form and mail it with a cheque payable to Wagner Natural Area Society. As a member you will receive two newsletters per year and an invitation to the Annual Members' Night each fall. Field trips and other activities are organized from time to time for the benefit of members. Donations are tax-deductible. For more information, or to become a voting member of Wagner Society, contact the Membership Secretary at 481-1525.

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

Family/Organization \$12 Individual \$10

Student/Senior \$8

In addition to my membership fee, I enclose a gift to support the activities of Wagner Natural Area Society for _____.

Name: _____

Address: _____

Telephone: _____

Mail to: c/o Membership Secretary, Wagner Natural Area Society,
Box 11, Site 290, R. R. 2, Stony Plain, Alberta T7Z 1X2