

WAGNER NATURAL AREA NEWSLETTER

Volume 6

Number 1

May 1992

Newsletter of the Wagner Natural Area Society, Management Committee and Volunteer Stewards under the Natural Areas Program of Forestry, Lands & Wildlife, of the Wagner Natural Area, Spruce Grove, Alberta.



The Cleared Right-of-Way, Looking North Toward Highway 16X

Barry Jenkins, Society Past President and representative on WAGSAG, the committee that oversaw the Spencer Environmental Impact Study of road development adjacent to the Natural Area, reflects on the first stage of road construction:

"The first visible and tangible outcome of all our months of negotiation over road development plans has happened. It was with a sense of sadness and loss that I inspected the clearing being done for the interchange at Secondary Highway 794 and the north-south aligned connector road. I knew that trees would have to go to make way for cars, but seeing those 15-metre-plus trees being cut, branched and loaded onto trucks made me feel very sad. The only consolation was that at least they were not being wasted. Aspen and spruce trees from the interchange site (within the Natural Area) and at the south end of the new road alignment (from the adjacent lot) were professionally logged, trucked to a saw-mill and used for lumber. Unfortunately, the balsam poplar, for which there is no market, was hauled away and

probably burned. Many of these trees were more than 30 cm across at the stump even though they were only about 50 years old. The trash and stumps have been chipped into mulch and left on site where they will eventually be buried in the roadbed."

"Alberta Transportation and Utilities has continued to keep the Wagner Society informed on matters relating to road clearing and the Department is to be commended for its efforts to minimize damage to adjacent land during logging. Only terrain needed for actual roadway construction has been disturbed and this area has been kept to a minimum; as well, the logging company was not allowed to move its equipment off the right-of-way. The crossing over Morgan Creek, close to the eastern boundary of the Natural Area, was bridged with logs to reduce damage to the banks and to lessen downstream silting. Unfortunately, the contract was tendered too late in the winter and the work had to be done in March, mostly after the ground had thawed. Although the contract specified that work should be completed by the end of March, the mild weather meant there has been some damage to the creek despite the bridging. Other protective measures have included off-site fucelling for vehicles, and disallowance of trash piles."

"Construction of the interchange at SH 794 will begin this summer. Fill dirt will be stripped from fields east of Osborne Acres and used to construct the large ramps needed on either side of Highway 16X. The ramps and the associated concrete girders should be in place by the fall, and construction should be complete by fall 1993. Once this interchange is built, construction of the interchange at the junction of Highways 60 and 16X will start."

Editor's Note: When the interchange at SH 794 becomes operational, access points to 16X at Atim Road and Pioneer Road will be closed off. This has important implications for access routes to the Natural Area. Watch future newsletters for more information.

See map overleaf.



Map showing to-be-constructed interchange and connecting road at the junction of highways 16X and SH 794. Reprinted with permission from the WAGSAG (Wagner Study Advisory Group) News, Number 1, June 1989.

For further information on Wagner Natural Area or other Natural Areas in the province, or to report information or emergency situations in Natural Areas, call Public Lands at 427-5209.

Editorial

As the new editor, I'd like to say hello to all newsletter readers. I'll begin with the usual promises, bearing in mind the old saying, "The road to hell is paved with good intentions!" My objective is to publish a minimum of two, or, with luck, three newsletters per year. (Achieving the hat trick will probably depend in part on how much news there is and how good I get at desk-top publishing!) I will consider for publication submissions from anyone: executive, members, incidental readers and visitors alike, whom I invite to send in relevant articles, notes, natural history observations, comments, suggestions, brickbats and bouquets, letters, illustrations, cartoons, and so on.

I'd also like to take this opportunity to offer a few bouquets. First of all, to the employees of the E.L. Smith Water Treatment Plant in Edmonton, who have made a donation in memory of their co-worker, John Morozziuk. John was apparently a devotee of the Natural Area. We shall put the money toward the purchase of benches for use along the Mari Pond Trail. Donations are particularly gratifying, not only because the money is useful but also

because we know the Area is appreciated, and hence our efforts as a committee are rewarded. Second, bouquets to three executive members: Alice Hendry and Barry Jenkins, for continuing good work in public relations for the Society, and Janice Cantafio, who as treasurer has put in many hours organizing the Society's books and making grant applications. Another bouquet goes to Aileen Rhodes for her hard work as last year's summer student, and her continuing interest in and connection with the Society. And last but not least, many thanks on behalf of the whole executive to staff of Public Lands in the Department of Forestry, Lands & Wildlife, who consistently support us, as volunteer stewards with the Natural Areas Program, and as friends, with their help, encouragement and guidance.

Have a good summer, everyone!

Patsy Cotterill

Mail submissions to the Editor, Wagner Natural Area Newsletter, 7401 156 Street, Edmonton, Alberta T5R 1X4

Wagner Society Executive, 1992

President - Terry Thormin (482-1389)
 Past President - Barry Jenkins (458-1794)
 Vice-President - Derek Johnson (436-8231)
 Treasurer/Membership Director - Janice Cantafio (963-3938)
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In Memory: William Wagner , 1923-1991

Wagner Society members and local people were saddened to hear of the death, on August 29 last year, of William Wagner, former owner of the property from which the Wagner Natural Area was created. Bill Wagner was still living at the family home just east of Pioneer Road, Spruce Grove at the time of his death. He is survived by his sister Mary, brother Jack, and younger sister Mrs. Anne Larue.

As the eldest son, Bill Wagner inherited both the home property where he was born, and the "Wagner Bog" property (N half of section 7) when his father Frederick died in 1946. Frederick Wagner had purchased the bog property in 1926 from the CPR, which in turn had been deeded the land by the Crown in 1901. Bill Wagner came to know the land that is now the Natural Area intimately as he cleared the central fields and the northeast field (west of the Villeneuve extension) and attempted, not always with success, to grow grain (the frosts often came too early) or hay, or to pasture his cattle on them. Sometime during Ernest Manning's time as premier, Wagner became engaged in a legal battle with the CPR over mineral rights to the marl in the fen ponds, which was of commercial value as a constituent of cement. However, Wagner hired a lawyer who successfully argued that the marl deposits were on the surface and so belonged to him!

Knowing the area so well, and its general unsuitability for farming, Wagner was amenable to the influence of local naturalists such as Edgar Jones, who wanted the bog property preserved because of its immense value as wildlife habitat. In 1969 Wagner wrote to the Canadian Wildlife Federation (CWF) asking for financial help to defray the loss of keeping the land in a natural state. He noted that the "surplus glutted condition of agriculture and the virtual near extinction of such wooded marshy areas" made him reluctant to exploit the bog commercially. In actual fact, when the help came it was in the form of a direct purchase of his land, and the source was more local. Edgar Jones and Bill Morgan of the Alberta Wildlife Foundation spearheaded a fund-raising drive to which the Alberta Government contributed generously and the Nature Conservancy of Canada made

a significant donation. In 1971 the immediate goal of all parties was achieved: the 320-acre property was acquired by the Land Assembly Division of Alberta Environment and thus again became crown land.

Conversations with Wagner before his death, and with his sister Mary, clearly indicate the "multiple use"—to use a present-day term—to which the area has been put during the 20th century. Its natural history has also changed during this time, and some of these changes are clearly related to the human activities. Wagner recalled that mule deer once were numerous on the property, but have been replaced by white-tailed deer. He found evidence of elk and buffalo when he cleared a field just west of the Natural Area. The bird life has certainly changed over the years, probably in response to increased noise and disturbance from Highway 16X. Fewer owls are about these days and the Bonaparte's Gulls that Edgar Jones filmed in the '50s have not returned.

In contrast with the earlier decades of this century, use of the Area is more uniform now, with management by the Public Lands Division of Forestry, Lands & Wildlife, and the Wagner Society, as Volunteer Stewards, geared toward maintaining the water regime of the wetlands and Area's diversity of habitats, as well as promoting human enjoyment of their natural bounty. The value of Wagner Natural Area as a wildlife preserve continues to be threatened because of its proximity to large centres of human settlement and development. Nevertheless, the status quo represents a significant achievement. In his 1969 letter to the CWF, Wagner expressed the wish that the bog "could be preserved as is, long into the future when it would become ever more appreciated." It is certainly appreciated.

Much of this information was taken from the report of an interview with Bill Wagner by Alice Hendry at his home on January 7, 1983 (in the Wagner Society's archives). An article in the Stony Plain Reporter, November 12, 1991, "Wagner's sister recalls his conversion to conservation," was also a resource.

"The Earth does not belong to man. Man belongs to the Earth. Man did not weave the web of life. He is merely a strand in it. Whatever he does to the web, he does to himself."

*Chief Seattle
Dwamish tribe, 1853*

Edgar Jones Receives First Wagner Recognition Award

Local naturalist, conservationist and wildlife photographer Edgar Jones was presented with the Wagner Society's first Recognition Award, an engraved plaque, at the annual Members' Night at the Provincial Museum on October 10, 1991. A recent idea on the part of the Society, the award honors individuals who have given or are giving outstanding service to the conservation of the Wagner Natural Area.

Jones has frequented the Wagner peatland since the early 1950s, when he quickly came to appreciate the unusual natural features and the biodiversity of the area and to lobby for its preservation. He was a major influence on William Wagner, the farmer who owned the "Wagner Bog" until 1971, encouraging him to leave the land intact. Jones sought persistently for funds to purchase the property during the '50s and '60s, as an individual and as member of the Alberta Wildlife Foundation. He finally met with success in 1971 when,

with the help of fellow AWF member Bill Morgan, the Wagner property was bought by the Alberta government.

Jones, who lives in Edmonton and still travels extensively on wildlife projects, has been a director of the Wagner Natural Area Society almost since its inception in December 1982. He presided at a special designation ceremony in October 1983 attended by then Energy & Natural Resources Minister Don Sparrow at which the Society was presented with its 21-year lease to the Natural Area. Jones' latest effort in conservation was in July, last year, when he helped transplant Yellow Lady's-Slippers growing on the road right-of-way to the central meadow alongside the Marl Pond Trail. A large marl pond in the centre of the Area, Jones's Pond, is named after him.

Congratulations, Eddie, and our heartfelt thanks!

All your Wagner friends.

Highlights of the Plant Year in Wagner, 1991

1991 was a busy year for botanists in the Wagner Natural Area. Besides the annual May Count, our seventh consecutive one, several field trips took place, including one for delegates attending the Canadian Botanical Association conference hosted by the University of Alberta in June. Various people made visits and observations; summer student Aileen Rhodes monitored and photographed plants throughout the season; research projects were initiated; yellow lady's-slipper orchids were transplanted from the area to be cleared for road construction; more data were obtained from tree cores, and a few more species of flowering plants and mosses were added to the Wagner checklist (updated by Julie Hrapko in December 1991). Finally, in December 1991/January 1992, Derek Johnson, Patsy Cotterill and Alice Hendry drew on their knowledge of the Wagner flora to help Pat McIsaac and Chel McDonald complete the vascular plant checklist for Wagner in the Watchable Wildlife Checklist Series. (Watch for information on the publication of this list.)

May Count

The year began with a warm-up for the May Count a week beforehand, and the Count itself, carried out on May 26th by Alice, Aileen and me. As the spring was an

average one in terms of earliness, I had hoped to find a number of sedges in flower that are normally starting to form fruit by the end of May and so ineligible for counting. My feeling is that sedges and other members of the sedge family (Cyperaceae) are badly underrepresented on May Counts, not only because few people distinguish between the species (samples can always be collected, of course, for others to identify) but because their flowers, and hence their very presence, are so inconspicuous. (They are, however, easily seen when in mature fruit, which provides the key characters for their identification in plant guides.) Still, my pre-count reconnaissance was only partly successful. I was frustrated not to be able to locate any alpine cotton grass (*Scirpus hudsonianus*, really a bulrush, not a cotton grass) in flower. By late June/early July the wispy white beards of its fruiting heads are quite visible in the fens, but finding it in May is like looking for the proverbial needle in a haystack. Golden sedge, *Carex aurea*, proved similarly elusive. It appears in profusion in early June, for example, in the meadows at the north end of the Marl Pond Trail, conspicuous with its grape-like clusters of tiny, green fruits—but for the last few years this species has managed to keep a low profile during the May Count.

Rarities Galore

One thing that always strikes us during the Count and afterwards, throughout the season, is how plants keep turning up in different locations within the Natural Area. For years we always used to look for northern valerian (*Valeriana dioica*), a plant very common in wet meadows in the mountains, in woods northwest of the Cabin Trail; then in woods closer to the Cabin Trail. Now, in the last couple of years, it has appeared in more typical habitat, in the wet meadow at the north end of the Marl Pond Trail.

Venus-slipper was in flower again in the '91 count, and again in approximately the same place as last year alongside the Cabin Trail, although not in exactly the same site. Indeed, we have not found *Calypso bulbosa* in the same place twice, although the proximity of plants has been a lot greater than with the valerian.

Total count for May 1991 was 55 species, very comparable with last year's 53 species (48 in 1989, 82 in 1988).

Later in the summer, we were pleased to note some rare species that have spread or are holding their own. The rare spike rush, *Eleocharis elliptica* (= *E. tenuis* var. *borealis*), first recorded in Wagner in 1990, was observed again in early July. It appeared to have spread when observed in early July, colonizing marl ponds south of the Area fence in the SE corner, and extending northwards along the Villeneuve extension. This spread and the relative obviousness of the plant seems to me to support my contention that the species, known elsewhere in Alberta only from Connor Creek near Mayerthorpe, has only recently arrived in Wagner, rather than being consistently overlooked.

On the turning-up-in-other-places theme, Buckbean (*Menyanthes trifoliata*), which grows happily in a flowing creek NE of Jones's Pond, now also occurs in fens in the SE corner. Here also, on the more elevated ground of moss hummocks around spruce clumps, we found the delicate orchid, heart-leaved twayblade (*Listera cordata*), although we had looked for this

species previously only in dense spruce woods further to the west.

At least four more clumps of the famous, almost road-stopping bog adder's-mouth orchid (*Malaxis paludosa*) were found this year, on different occasions, by Alice, Aileen and Carla Zelmer. Alice found a cluster of five or six south of the present boundary (on Mr. Oxley's property, to be incorporated into Wagner and the site, incidentally, of an originally proposed road alignment). On August 8th, after showing me two more *M. paludosa* plants she had earlier located, Alice spotted a group of eight of these diminutive orchids growing in a bank of *Aulacomnium palustre* moss near the Villeneuve extension. Thus our biggest rarity appears to be alive and well in at least one corner of the Natural Area. Its congener, *M. monophylla*, the adder's-mouth orchid, also no commoner, also seemed more abundant in the SE this year, with several individuals being reported. (One plant was also visible in spruce forest alongside the Marl Pond Trail.)

In our excitement over finding the clump of eight bog adder's-mouth that evening, we almost walked past two extensive patches of *Aster umbellatus*, flat-

topped white aster. Also listed as a provincial rarity, this tall, white-flowered aster seems, however, to crop up in various places in the Edmonton area. These patches were located perhaps some 50 metres from where I first noted the species in the early '80s (and hadn't seen since). I later observed similarly extensive patches of this species in wet woodland-edge habitat in Riverlot 56 Natural Area in St. Albert, so perhaps '91 has been a good year for this aster!

Virginia grape fern (*Botrychium virginianum*) is found sporadically in the south of Wagner, with an excellent specimen evident alongside the Cabin Trail last year. Alice reported finding several more specimens south of Mr. Oxley's property this year. Clearly the southeast portion of the Area and beyond it is a botanical gold mine, and it would be desirable to protect more land to the south.

Last among the list of notable sightings comes *Cannabis sativa*, found, I believe, near the Marl Pond



Malaxis paludosa *Malaxis monophylla*
Drawings courtesy of Public Lands, Forestry, Lands & Wildlife

Trail. I did not see the plant or plants myself, but the leaf I was shown was unmistakable!

Other Plant Happenings

On July 14 a group of nine volunteers undertook the arduous task of relocating 26 yellow lady's-slippers (*Cypripedium calceolus*) and one northern green orchid (*Habenaria hyperborea*) from the area of road construction in the east to the central meadows near the Marl Pond Trail. In early August these transplants, conspicuously staked, looked in good shape, although the stakes have since been accidentally removed. Their fate will be monitored next season.

Derek Johnson took cores from eight trees along the road right-of-way, slated for clearing, in early fall. The oldest and tallest tree was a white spruce of 72 years and

28 metres height (a growth rate of 38.9 cm/year). The one tamarack sampled was 55 years old and 23.5 m in height. The widest tree was a 63-year-old white spruce with a diameter at breast height of 67.5 cm, which meant it had achieved an average increase in girth of 10.7 mm/yr.

Research projects begun included Mark Dale's long-term study of secondary succession in the large central field, Aileen Rhodes' study of algae, chiefly diatoms, in Jones's Pond, and Carla Zelmer's investigation of seed germination and mycorrhizal development in various orchid species. We will report on their progress in forthcoming issues of the newsletter.

Patsy Cotterill

For the next few issues of the newsletter, the Society is pleased to reprint, with permission of The Alberta Teachers' Association, a number of articles written by naturalist Cy Hampson for *The ATA Magazine* in 1961 and 1962. The following is taken from the February, 1962 issue of *The ATA Magazine*.

Richardson's Ground Squirrel

(*Citellus richardsonii*)

Richardson's ground squirrel is known by a variety of common names from gopher, flickertail and picket-pin to yellow prairie gopher. It is not, however, a gopher at all but is, rather, a member of the squirrel family. Our only true gophers are the pocket gophers which leave mounds of earth on our gardens, fields and golf courses. These animals we usually term moles. But they aren't moles. So you see--we call our ground squirrels, gophers; our gophers, moles; our hares, rabbits; our elk, moose; our deer, elk; our pronghorn, antelope; our bison, buffalo; our salamanders, lizards; our lizards, toads; our husbands, bears; and our wives, 'deer.' Shucks!

Seriously, Richardson's ground squirrel has a limited distribution, being found chiefly in central and southern Saskatchewan and Alberta, in southern Manitoba, and in the neighboring states of Montana and Minnesota. The color is yellowish brown above and pale buff below, the tail having a buffy marginal band and a black submarginal band. They commonly sit upright on their haunches and utter a shrill, birdlike whistle.

The species hibernates from September to April and stores much food below ground. They do not partake of the stored rations during winter, however, but utilize them during the early days of spring when food is scarce. When populations are high, they do much damage to crops and pasture. At such times they provide a major food item for such predators as coyotes, foxes, weasels, hawks and owls.

Their home territory is very small. Here, the litter of two to ten youngsters is born in May after a gestation period of about four weeks. The young, who are born naked and blind, develop rapidly and are abroad above ground in about a month. It is not

uncommon to see nearly a dozen of them frolicking around the entrance to the burrow at one time. They do not seem to take to water readily but nevertheless can swim well when the occasion demands.

Food consists chiefly of plant materials, insects and the eggs and young of birds. Capacious internal cheek pouches are utilized in carrying items for storage below ground. The species has been known to be a vector in the transmission of sylvatic plague and spotted fever.

Despite the fact that it is often found necessary to control the numbers of Richardson's ground squirrels locally, it is generally recognized that the species forms a very important link in many food chains.

Cy Hampson

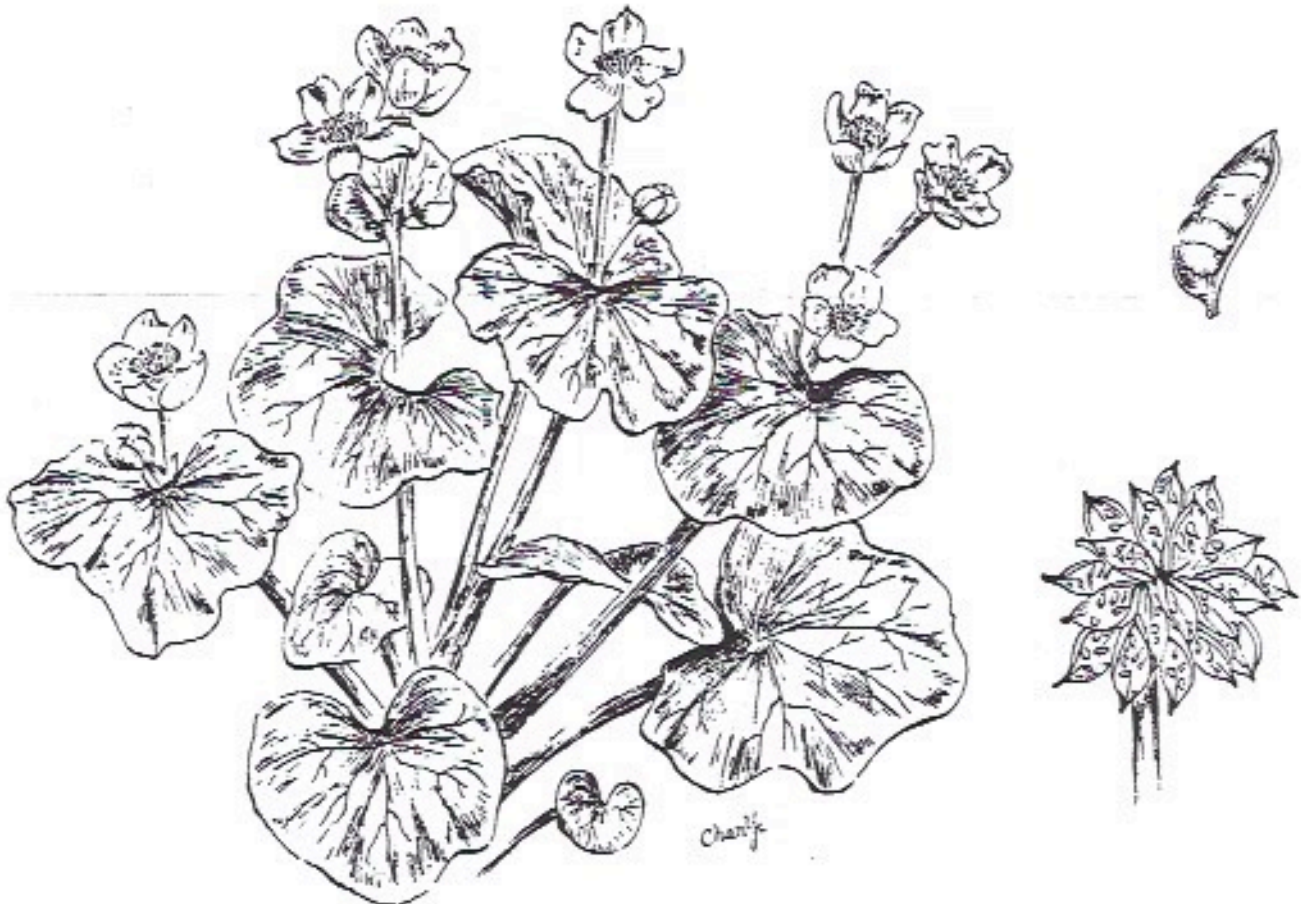
Editor's Note: The Richardson's Ground Squirrel is not found within the Wagner peatland proper, as it prefers well-drained soil, often on a slope, for burrowing in, but in recent years, as its population has increased in the Edmonton area generally, numbers have colonized the fields at the east and west ends of the Wagner Natural Area, as well as the roadside along Highway 16X. The present road construction will destroy some ground squirrel habitat but may at the same time create new opportunities for colonization.



Wildflowers of Wagner (1)

Caltha palustris
Ranunculaceae

Marsh Marigold
Buttercup Family



The Marsh Marigold occurs abundantly in willow swamps and wet hollows in mixedwoods in the Natural Area. It is a plant of shaded wetlands and ditches in the northern part of the province.

Its shoots lengthen early before the leaves of deciduous trees open, and the splendid yellow flowers in late May to mid June are a welcome sign of spring.

By late June clusters of green, several-seeded pods or follicles, several to each flower, are well formed. They

split open to release the seeds, whose dispersal is probably aided by water. The shiny, round-kidney-shaped leaves, on long stalks, persist all season. The hollow stems, lacking much supporting tissue, help provide a supply of air to the waterlogged root tissues, a common need in marsh plants.

The Marsh Marigold is circumpolar in world distribution. In Britain it is also known as Kingcup, a fitting name for its flowers, which are glossy royal-gold and like large buttercups.

Drawings by Yuet Chan

Upcoming Events, 1992

Thursday, May 7. Frog-and-Toad Walk, with Wayne Roberts.

Meet at the main gate at 6:00 p.m. for our annual evening of entertainment listening to, and watching, Wagner's amphibians in their mating rituals. In case of postponement due to unsuitable (unromantic?) conditions, call Patsy (481-1525, eve.) or Alice (962-4836).

Saturday, May 9. Spring Clean-Up.

Another annual ritual, less fun but unfortunately necessary. Meet at 10 a.m. at the main gate, complete with strong gardening gloves, and rubber gloves and garbage bags if desired, to help pick up garbage, check for windfalls and debris on the trails, and spruce up the picnic shelters and biffies ready for summer. Call an executive member for more information.

Sunday, May 31. May Count.

This is an all-day hike starting at 10:00 a.m., and part of a province-wide exercise, to record the number of species of flowering plant in flower in the Natural Area on the last weekend in May. Call Alice or Patsy for information on where to meet.

Thursday, June 18. Orchid Walk. Members and their guests are invited to take part in a walk until dusk to look at some of Wagner's showiest orchids. Meet at the main gate at 7:30 p.m. Call Patsy (481-1525) for more information.

Saturday, August 1. Annual Field Day.

12:00-4:00 p.m. Join us in the picnic shelter for an opportunity to find out more of what the Wagner Society is all about. The shelter is also the departure point for guided tours.

October ? Annual Members' Night in the Provincial Museum. Details to be published later.

These and any other activities scheduled later will be posted in the trail guide boxes on site. Field-trip participants should come suitably attired for weather conditions and appropriately equipped (rubber boots and insect repellent are always a good idea).

Note: If you wish to lead a group field trip of your own, please contact County of Parkland Parks & Rec. Dept. at 963-2231 to inform them of your plans. This booking system allows us to schedule tours to avoid overbooking, and provides us with useful statistics.

Thinking of Joining the Society?

If you are not a paid-up member for 1992, please consider supporting the cause of conservation of Wagner Natural Area by joining or rejoining the Wagner Society. Fill out the membership/renewal form below and mail it with a cheque made out to Wagner Natural Area Society. As a member, you will receive free copies of the newsletter, and an invitation to the Annual Members' Night in October. Other activities are organized from time to time for members' benefit. Donations are tax deductible. For more information, contact Janice Cantafio, 963-3938.

... turn attention more and more to the absolute necessity of preserving wildernesses and natural areas, ecological reserves and sanctuaries, endangered spaces before endangered species. Unless natural ecological systems are preserved, the native flora and fauna will not be preserved. Organisms will still exist in the truncated environments fashioned by well-meaning people but only as cultivars, zoo freaks, the living dead.... Preserving a rare plant population ... must mean preserving the rare ecosystem of which it is one component among others of equal importance. We will not save the riverine forests without protecting the floodplains, nor will the orchids be preserved without preserving the marshes. ...

Home Place, by Stan Rowe, pp. 105-07

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

Family \$12
 Individual \$10
 Student \$8
 Senior \$12

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

Name _____

Address _____

Town/City _____

Province _____

Postal Code _____

Telephone No. _____

Mail to: Janice Cantafio, Treasurer/Membership Director, Wagner Society, Box 842, Stony Plain, Alberta T0E 2G0