

# WAGNER NATURAL AREA NEWSLETTER

Volume 19 Number 2 October 2005

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



Wagner Natural Area Society invites you to

## Annual Members' Night 2005

Thursday, October 27 at 7:00 p.m.

at the J. Percy Page Centre, 118 Avenue and Groat Road

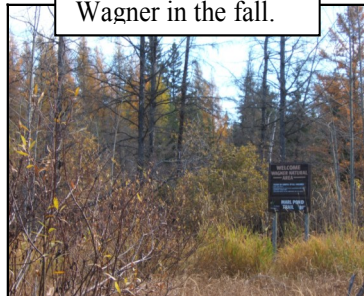
Guest Speaker: **Renny W. Grilz, P. Ag.**,  
Manager of Stewardship, Nature Conservancy of Canada – Alberta Region

“Nature Conservancy of Canada - From Conservation Planning to Site  
Stewardship: NCC's Approach to Land Conservation In Alberta”

The guest presentation will be preceded by short reports by the President, Treasurer and Membership Secretary. Refreshments will be served. Admission is free. There will be an opportunity to renew memberships.

All photos by P. Cotterill

Wagner in the fall.



Mike Jenkins dip-netting for aquatic invertebrates.



Derek Johnson measuring diameter at breast height of a poplar as part of the monitoring project.



Autumn Willow in October.

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## The Wagner Grapevine



### Summ-er Work, Summ-er Fun!

It's been a busy summer if not a hot one! Dr. **Ben Rostron's** two students, graduate student **Cate Hydeman** and undergraduate **Will Shulba**, no doubt take the prize for much wandering in the marsh this season! Both were working on **hydrogeology** projects in the Natural Area, mostly monitoring wells, but also attempting a high-tech experiment that unfortunately went wrong due to equipment malfunction. As well as furthering their careers, their works are designed to provide us with better knowledge of how and where water flows in Wagner.

Cate and Will also proved themselves invaluable in assisting with another project that was carried out this summer: the **monitoring** of 18 permanent sample plots that were set up throughout Wagner when Westworth consultants did the original biophysical inventory in 2000. Using GPS technology and general good bush sense, Cate and Will navigated to relocate the plots and then marked them, making it possible for the survey teams to find them with little hassle. Forming the survey teams, masterminded and directed by **Derek Johnson**, were **Ksenija Vujnovic**, who did much of the original survey as a Westworth employee but is now a government biologist operating out of the Stony Plain Regional Office, botanist and FAN volunteer **Elaine Gordon**, **Patsy Cotterill** and Derek's Northern Forestry Centre intern **Jennie Wong**. Other visitors joined in from time to time. A big thank-you to all our participants!

Big bouquets are also in order for those who did the lion's share of the **weeding** this season: **Alice and Andy Hendry** and **Pat and Dick Clayton**, though sundry other committee members lent a hand. Chief targets were thistles, caraway and sow-thistles. The magnitude of the weed problem has got some of us seriously contemplating other alternatives, which as purists we didn't allow for in our management plan...but more of this anon.

Marginally more fun was searching for the elusive and incredibly rare **Bog Adder's-mouth orchid** that we are monitoring under the new **Adopt-a-Plant Program** for Alberta. The term "needle in a haystack" was invented for this plant! But more of this anon, also.

In the meantime, the paper and administrative work on **Project Land** has been going forward. A round of applause to **Irl Miller**, **Pat Clayton** and **Alice Hendry** who have taken the lead roles in this. Because of some unexpected glitches in processing the sale, we are now expecting to hold the opening ceremony – to which our donors will be invited – some time in the spring. The donor recognition board is already in place on the trail – for which we owe a huge bouquet to **Dick Clayton!**

### And Moving into Fall.... To the Annual Volunteer Stewards' Conference in the Crowsnest Pass

Three of us from Wagner, **Pat and Dick Clayton** and **Patsy Cotterill**, attended this year's September conference along with stewards from several other natural areas. It was organized by Alberta Parks & Protected Areas in Blairmore and offered various informative field excursions and indoor sessions. We were there of course at the time of the infamous Crowsnest Pass snowstorm, when the lights went out and stayed out ... Many balsam poplar trees, still in leaf, were badly damaged by the wet, heavy snow: conifers clearly have the advantage under these circumstances. Kudos to the **Parks staff** and the **staff of the Crowsnest Centre**, who were well equipped with flashlights and a big log fire and took everything in their stride...

### All Year Round...New Treasurer

Last but not least, a big welcome to **Pat Webb** in her new position as Treasurer – an enormously responsible job for our wayward society! Pat is also acting as our "calendar girl", that is, I hasten to add, making sure we do our routine annual duties, especially the financial ones, and along with Pat Clayton, as part-time archivist, helping to keep the records straight. All lots of work, lots of fun.

All in all, it's been a good year. The law suit against us was dismissed; the new land was bagged. Trees got planted and birds banded. Lots of work got done. And hey, weren't the **sundews** wonderful this year, not to mention the **Painted Ladies** – I hope you all got out to see them!

### Wagner Natural Area Society

26519 Highway 16, Spruce Grove, AB T7X 3L4 Visit our website at <http://www.wagner.fanweb.ca>

Executive 2005:	President	Alice Hendry (962-4836)	Directors/Others:	Pat Clayton (456-9046) (Archivist)
	Past President	Irl Miller (455-3866)		Leota Cummins (447-4256)
	Vice-President	Ben Rostron (434-3839)		Beth Jenkins (458-1794)
	Treasurer	Pat Webb (458-3477)		Derek Johnson (436-8231)
	Rec. Secretary/Ed/Membership	Patsy Cotterill (481-1525)		Edgar Jones (436-5327)
	Mike Jenkins (Webmaster) (481-8695);			Jasper Keizer (Fire Warden) (962-2745)

## Wagner “Bug Blitz,” July 16-17, 2005

Write-up by Patsy Cotterill

“We estimate there are around 3000 species of butterflies and moths in Alberta,” said Dr. **David Lawrie**, addressing a group of people assembled just inside the gate of the Wagner Natural Area early in the evening of July 16. “Our current list of butterflies and moths (Lepidoptera) stands at just over 2000 species, 170 of which are butterflies.” The 3000 estimate for the province is based on the fact that, worldwide, there are 20 times the number of moth species as butterflies. A University of Alberta physicist whose after-hours passion is Lepidoptera (he is a member of the Alberta Lepidopterists’ Guild), “Physics Dave” as he is popularly known was heading up the two-day field event billed as a “Bug Blitz.” He noted with pride that some 300–400 records of new species have been added to the Alberta list since 1997. Without doubt some of these records originated in Wagner Natural Area itself, as the Wagner Society partnered with University entomologists in carrying out moth collections for five consecutive summers, sending the specimens to the University’s Strickland Museum for processing and storage.

The Saturday evening session of the Blitz was aimed at attracting the dusk- and night-flying moths. For this purpose “Physics Dave” and computer specialist and fellow amateur entomologist **Bob Beck** (and son **Calvin**), along with **Sean Bromilow**, a grad student in entomology at the U of A, specializing in mosquitoes, carried in some of the cumbersome equipment needed to set up lights in the bush. They proceeded to establish four light stations and one light trap at various points along the Marl Pond Trail starting from the north end. The first station had a mercury vapour light strung up above a regular bedsheet (acting both as a “net” and a viewing screen for observers) suspended over a line – such a light source emits ultraviolet radiation, a potent attractor of various insects. At a second station a “black” light (appearing white to us) was strung above the sheet. The light trap, set up in dense spruce forest, was a contraption consisting of a funnel, vanes, a bucket into which the insects would drop and a light operated by a photocell so that it automatically turned on when darkness fell. The fourth station was located at the main marl pond and was fitted with another black light to attract aquatic insects; the fifth and final station, in more open woodland and brush, featured a powerful mercury vapour light that gave a bluish-green cast to the accompanying sheet.

As dusk fell, the moths began to come, small, brown, not at all drop-dead gorgeous, but fascinating nonetheless. There were the noctuids or owlet moths, members of a very large family (Noctuidae) of big-bodied moths with grayish-brown wings. We peered closely at them clinging to the illuminated sheet, trying to get a glimpse of their long, bent palpi (mouthparts). Next came some representatives of the grass moths (subfamily Crambiinae of the family Pyralidae), common moths of grassland whose caterpillars eat, well, grass. Soon afterwards we encountered our first geometrid (Geometridae) moth, a beautiful greenish creature going by

the name of Pale Beauty, which quickly became a favourite. The geometrid moths are the ones with the “inchworm” or looper caterpillars, which have legs only at the front and back of their abdomens, not in the middle. A ghost moth showed up, a member of the family Hepalidae which is unusual in that the forewings and hindwings merely overlap in flight, they are not joined together by a special structure as in most moths. Dave wondered whether it could be a new species for Wagner. Next came the plume or “airplane” moths (Pterophoridae), so-called because of their narrow forewings and the divided, plume-like structure of the wings, particularly the hind ones. Tortricid moths (family Tortricidae) also began to appear on the sheets. Another large family of mostly brown or greenish moths, with noticeably rectangular forewings that when folded back at rest give the moth the shape of a shield, the tortricids are commonly called leaf rollers, because of what their caterpillars do to leaves. I am somewhat familiar with their caterpillars – heavy infestations make a real mess of aspen trees in the early summer, for example – so I thought it was cool to meet the creature in its other life form, the innocuous adult versus the greedy, destructive youngster, as it were.

A highlight of the evening (no pun intended!) came as we stood by the Marl Pond in the dark and saw tiny lights flashing on and off in the black forest on the other side of the pond. The lights were the romantic communications of adult fireflies (Lampyridae beetles), which generate light by means of a chemical reaction and shine it out through the clear walls of their abdomens. To someone unaware of its cause, this display of flashing lights in the dark must seem eerily mysterious indeed.

Nor were insects the only centre of attention. The Marl Pond Trail becomes something of a highway for Western Toads at night, to the delight of our group. One palm-sized toad, perhaps a bit bedazzled by her new-found celebrity, sat patiently in one child’s hand through an extended period of flash photography.

As if leaving the best acts until last, it was late in the evening when the more photogenic moths came calling, the hawk or sphinx moths (family Sphingidae), the Willow or One-eyed sphinx (*Smerinthus cerysi*) and its relative the Twin-spotted Sphinx (*S. jamaicensis*). Both species have an eyespot, one on each hind wing, and while the forewings are brownish for camouflage during the day when the moth is resting, the eyespots can be flashed at approaching predators as a last-minute defence system if the camouflage fails. The tiger moths (Arctiidae), of which we had one representative, the Virgin Tiger Moth (*Grammia virgo*), rely on a very different defensive mechanism: they use bright colours to advertise the fact that they contain nasty chemicals that make them disgusting to eat! Our evening ended about midnight, dictated of course by human schedules, not by entomological ones!

The following day, Sunday, July 17, dawned bright and sunny and mid-morning found us back at Wagner, armed now with much lighter, low-tech equipment: butterfly and dipping nets and binoculars. We were ready to catch, literally and figuratively, the day-flying insects. The main

field in Wagner was alive with butterflies: Inornate Ringlets, European Skipperlings, Wood Nymphs, Cabbage butterflies, White Admiral, and two species of Blue butterfly. There were also some of the previous evening's moths around, the plume and the grass moths, flying low in the grass.

**Mike Jenkins**, mosquito biologist with the City of Edmonton, had joined the group this morning, and armed with his dip net he made straight for the mud at the edge of the (old) beaver pond. Here he sampled aquatic bugs and their larvae, including the tiny colourless forms that are the larvae of phantom midges (Chiaboridae) – now there's transparency! With little open water, however, dipping was soon abandoned in favour of chasing dragonflies (order Odonata). Besides the occasional spectacular blue darner (*Aeschna* sp.), whose females, however, can be brown and yellow, Cherry-faced Meadowhawks (dragonflies; *Sympetrum* sp.) went about their business. We learnt that only the adult males have red bodies; females and young males are yellow. A spread-wing damselfly (*Lestes* sp.) provided another lesson; as its name suggests it spreads its wings at rest and thus breaks the general rule that damselflies fold their wings over their backs when they come to rest whereas dragonflies spread-eagle theirs.

Seeing a black caterpillar on a thistle prompted our experts to recount the story of the migration of the Painted Lady (*Vanessa cardui*), surely *the* butterfly of this Alberta summer when it migrated north to our province in great numbers. Unfortunately, it is a story with an unhappy ending. With a build-up of high populations, these butterflies move north from California, and even raise a new generation in Alberta, but neither butterfly nor any other stage of the life-cycle can overwinter here. Hence the reappearance of these butterflies in number must await the next migration cycle. A solitary forest tent caterpillar moth (*Malacosoma* sp.), with an orange head and warm brown wings, reminded me of other periodic population explosions. I first came to Alberta in the early 1980s when there were huge infestations of forest tent caterpillars for several years running, and aspens were stripped of their leaves for miles around the Edmonton region and beyond. I can remember the drowned moths forming a continuous layer over the surface of the hummock pools in Wagner's fen forests in the summer.

Soon after we entered the wooded portion of the Marl Pond Trail at the south end we spotted the aptly named, black-and-white Police Car Moth (*Gnophaela vermiculata*) resting on a fireweed plant. A member of the tiger moth family (Arctiidae), its caterpillars are often seen in numbers feeding on tall lungwort, a common forest plant. We went on to check out a long-horned (Cerambyd) beetle on the bark of a spruce tree and a metallic borer (buprestid) beetle, as well as a nest of carpenter ants (*Campanotus* sp.) inside a birch log, which rotting from the inside out as it does, makes a perfect domicile for certain bugs. Then came major excitement. Fluttering amongst the trees was a Northern Pearly Eye butterfly (*Enodia anhedon*), a species of wood nymph (Satyridae) not previously found this far west in Alberta, and definitely a first record for Wagner! Happily another appeared, and then others. Finally, after a number of other bug encounters, including some chasing of Common Sulphur

butterflies (family Pieridae) back in the field, we all retired to the cool of the picnic shelter, where the laptop computer came out and the experts began their tally of the species seen since the previous evening. The rest of us relaxed, snacked or checked out a population of yellow and black woolly bear caterpillars (larvae of a tussock moth, *Lophocampa* sp., which, however, despite its common name is actually a type of tiger moth) happily munching on balsam poplar leaves. We also tried propping up the Northern Pearly Eye specimen to get a photograph of it, but the poor thing was at the point of death from confinement in a jar of ethyl acetate (as a new species a specimen was needed for the Strickland Museum).

When we left Wagner, tired from our previous late night, the hot afternoon sun and our efforts to assimilate a diverse slice of natural history, Mike was still dip-netting, this time in the pond and creek just east of the main gate. Here he fished up large, healthy-looking wood frog tadpoles that hadn't yet transformed, a contrast to the tiny dark toadlets that we had found frequenting the marl ponds. For them, precocity is a great advantage, for it is always a race against time to metamorphose into land-based creatures before the marl ponds dry up in mid to late summer.

Reflecting on the event, which attracted 15 people in all, I was pleased to see how many really keen children took part, accompanied by their supportive parents. It struck me that bug-fancying is an ideal occupation for children, who have young memories for names and distinguishing characteristics, involving plenty of outdoors sleuthing, not only to find bugs but also to match up the various stages of the life-cycle of any given species, and even opportunities for rearing bugs as pets! For the serious student who wants to get into taxonomy and evolutionary biology there seems to be unlimited scope too, finding and naming new species and answering questions such as why in some groups of insects there are so many similar species differing in small details, and why they are distributed the way they are! However, no matter how deeply one wants to get into entomology, I can guarantee that all of us who took part in the Bug Blitz will be paying more attention to our hexapod friends when next spring and summer roll around!

*Our thanks to "Physics Dave" and the other experts for a fascinating glimpse into Wagner's smaller wildlife! Thanks also to **Alana Broomfield** of the Edmonton Nature Club who coordinated the event.*

See the species list on pages 5 and 6



## List of Insect Species Compiled by Dave Lawrie et al. during the “Wagner Bug Blitz”, July 16 and 17, 2005

Family	Common Name	Genus	Species	Common Name	No. Spp.
<b>Order Lepidoptera: Butterflies and Moths (52 spp in total, of which 15 are butterflies)</b>					
Hepialidae	Ghost/Swift Moths	<i>Korscheltellus gracilis</i>		Pine Swift Moth	1
“micro”		<i>Caloptilla</i> spp.			2
		5 other spp			5
Pyralidae: “Crambiinae”	Grass Moths				4
Tortricidae	Owlet Moths/Tortricids				4
Lasiocampidae		<i>Malacosoma</i> sp.		Tent Caterpillar	1
Pterophoridae	Plume/Airplane Moths				2
Geometridae	Inchworm Moths	<i>Campaea perlata</i>		Pale Beauty	1
		9 other spp			9
Noctuidae	Owlet Moths	<i>Plusia venusta</i>			1
		<i>Autographa californica</i>			1
		13 other spp			13
Arctiidae	Tiger Moths	<i>Grammia virgo</i>			1
	<i>Holomelina</i> sp.				1
		<i>Gnophaela vermiculata</i>		Police Car Moth	1
		<i>Lophocampa</i> larva			1
		<i>Grammia</i> larva			1
Sphingidae	Hawk Moths	<i>Smerinthus cerysi</i>		Willow Sphinx	1
		<i>Smerinthus jamaicensis</i>		Two-eyed Sphinx	1
Lymantriidae	Tussock Moths	<i>Dasychira</i> sp.			1
Satyridae	Wood Nymphs	<i>Coenonympha inornata</i>		Inornate Ringlet	1
		<i>Cercyonis pegala</i>		Common Wood Nymph	1
		<i>Enodia anthedon</i>		Northern Pearly Eye	1
Pieridae	Whites & Sulphurs	<i>Artogeia rapae</i>		Cabbage White	1
		<i>Colias philodice</i>		Common Sulphur	1
Nymphalidae	Brushfoots	<i>Speyeria hesperis</i>		Northwest Fritillary	1
		<i>Speyeria atlantis</i>		Atlantis Fritillary	1
		<i>Speyeria cybele</i>		Great Spangled Fritillary	1
		<i>Limnitis arthemis</i>		White Admiral	1
		<i>Phyciodes cocyta</i>		Northern Crescent	1
		<i>Vanessa cardui</i>		Painted Lady	1
Lycaenidae	Blues, Hairstreaks &	<i>Glaucopsyche lygdamus</i>		Silvery Blue	1
	& Coppers	<i>Plebjus saepiolus</i>		Greenish Blue	1
Hesperidae	Skippers	<i>Thymelicus lineola</i>		European Skipperling	1
		<i>Polites themistocles</i>		Tawny Edged Skipper	1
<b>Order Coleoptera: Beetles (total of 33 species)</b>					
Carabidae	Ground Beetles				2
Dysticidae	Diving Beetles				4
Chrysomelidae	Leaf Beetles				4
Coccinellidae	Ladybugs				3
Scarabaeidae	Scarab Beetles				1
Curculionidae	Weevils				3
Lampyridae	Fireflies				1
Cerambycidae	Long-horned Beetles				1
Meloidae	Blister Beetles				1
Buprestidae	Metallic Wood Boring Beetles				1
Elateridae	Click Beetles				2
Lycidae	Net-winged Beetles				2
Hydrophilidae	Water Scavenger Beetles				3
Halipilidae					1
Miscellaneous					5

List of Insect Species Recorded during the “Wagner Bug Blitz”, July 16 and 17, 2005 (continued)

Family	Common Name	Genus Species	Common Name	No. Spp.
<b>Order Hymenoptera: Ants, Bees and Wasps (total of 25 species)</b>				
Vespidae	Wasps/Hornets			2
Ichneumonidae	Parasitic Wasps			6
Formicidae	Ants			2
Apidae	Bees			3
Braconidae	Parasitic Wasps			1
Tenthredinidae	Parasitic Wasps			3
Miscellaneous				8
<b>Order Hemiptera: True Bugs (total of 12 species)</b>				
Corixidae	Water Boatmen			1
Anthociridae	Minute Pirate Bugs/"Flower Bugs"			1
Gerridae	Water Striders			2
Reduviidae	Assassin bugs			2
Scutelleridae	Shield Bugs			1
Pentatomidae	Stink Bugs			2
Miscellaneous				3
<b>Order Homoptera: Plant Hoppers, etc. (total of 7 species)</b>				
<b>Order Orthoptera: Grasshoppers: (total of 3 species)</b>				
<b>Order Diptera: Flies (total of 19 species)</b>				
Culicidae	Mosquitoes			3
Syrphidae	Hover Flies			4
Tipulidae	Crane Flies			2
Bittacidae	Hanging Flies			1
Chironomidae	Midges			2
Chaoboridae	Phantom Midges			1
Tachinidae	Parasitic Flies			1
Calliphoridae	Blow Flies			1
Miscellaneous				4
<b>Order Psocoptera: Wood Lice (total of 1 species)</b>				
<b>Order Trichoptera: Caddis Flies (total of 4 species)</b>				
<b>Order Odonata: Dragonflies and Damselflies (total of 7 species)</b>				
		<i>Aeschna</i> sp.	Darner	1
		<i>Sympetrum</i>	Cherry-faced Meadowhawk	1
		<i>Sympetrum</i>	White-faced Meadowhawk	1
		<i>Lestes</i> sp.	Spreadwing Damselfly	1
		<i>Coenagrion</i> sp.	Bluet	1
		<i>Coenagrion</i> sp.		1
		? <i>Coenagrion</i> sp.		1
<b>Order Neuroptera: Lacewings (total of 1 species)</b>				
<b>Order Ephemeroptera: Mayflies (total of 1 species)</b>				
Baetidae	Small Mayflies			1
<b>Grand Total No. of Orders: 12 Grand Total No. of Species: 180</b>				

## “PROJECT LAND”: Wagner Natural Area to Expand with Adjacent Land Addition

By Pat Clayton

When the land immediately south of the Wagner Natural Area was unexpectedly sold we thought that we, the Management Committee, had lost a good neighbour who had protected the area and left it undisturbed for many years. Part of this neighbour’s quarter section covered the first upwelling of the calcareous springs that form the line of marl ponds that are such a feature of the Marl Pond Trail. We were delighted when the new owner approached us and offered to sell to us the 80 acres or so that covered the most desirable (from our point of view) portion of his holdings.

That is when the hard work began. Two hundred and thirteen thousand dollars is a lot of money for a small group to raise, but we had good advice and lots of help, and a landowner who was able to wait for his money. Tom Cameron, late of Parks and Wildlife Ventures, started us out with advice and a competent survey. Friends of Wagner rallied round and we were greatly encouraged by a very handsome donation from a person who responded to an article in the *Edmonton Journal*. Then we started the onerous business of soliciting donations from foundations, companies and government agencies and getting the usual “no” answers and “matching fund” answers, until finally! positive answers from the Nature Conservancy of Canada, The Alberta Conservation Association and the Community Initiatives Program. A big thank-you to these last three!

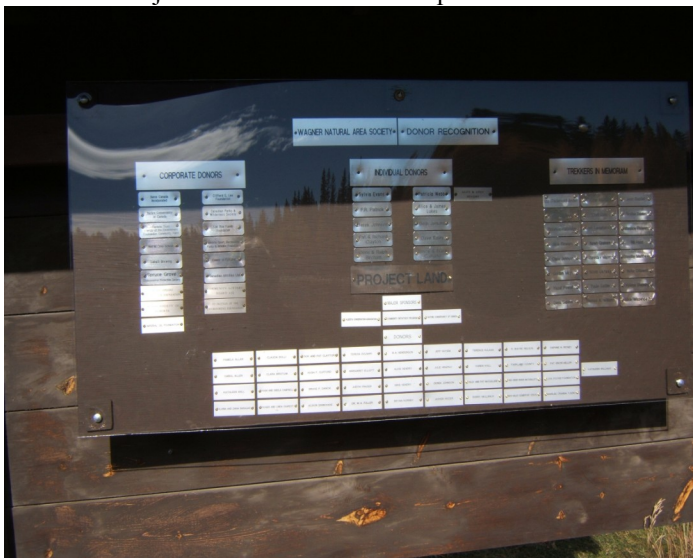
In the meantime, the Federation of Alberta Naturalists’s (FAN) board had graciously agreed that FAN would undertake to administer any funds raised, and they also permitted us as an associate member club to distribute our brochure “Project Land” to the readership of the *Alberta*

*Naturalist*. FAN readers responded generously and our thanks go out to all of them, and to the natural history clubs who also answered the challenge. The total amount raised by individuals, as apart from granting agencies, is very nearly \$20,000. This sum was used by us to prove that naturalists are serious about protecting land; we are sure that it played a part in our success in achieving the three major grants we acquired. Throughout all the ups and downs of fund-raising the FAN staff, and in particular, the Executive Director Glen Semenchuk, went out of their way to be supportive, help with technical things, answer phone enquiries, keep the books, and use their contacts and knowledge of the granting scene to assist us.

We are happy to state that, except for some of the legal work, the land is now secured. It will be owned by the Nature Conservancy with the Wagner Natural Area Management Committee looking after it and managing the whole as a natural area. The Nature Conservancy and/or the Alberta Conservation Association, both of which organizations can hold land, will place a conservation caveat on the area so that it cannot be sold, destroyed, or “developed” at any future date.

Plans for the future include a ceremony in the spring of 2006, a detailed exploration of the new area and then the drawing up of a long-range management plan much of which will depend on what we find when we can legally access this new part of the Wagner Natural Area.

Thanks to all of you who helped in any way to achieve this important addition to the already protected land we lovingly refer to as “Wagner.” Stay tuned for further announcements!



This special “Project Land” donors’ recognition board has been installed on the east-facing side of our bulletin board near the start of the Marl Pond Trail, thanks to the excellent handiwork of Dick Clayton.

Photo: P. Cotterill

## Annual Report on Nest Box Banding for Wagner Natural Area, June 22, 2005

By Edgar T. Jones

This year, after several “low” banding years on our boxes, a new, very high record for banding of tree swallows at Wagner was recorded on the above date ... 155. The previous record was 91. There were no Mountain Bluebirds again this year. The terrain is just not open enough for Bluebirds.

This year I was very fortunate to have the help of Dick Clayton not only with the banding, but also in earlier keeping a detailed list of all the boxes, including a number that he had added after making structural changes to them during the previous winter. No doubt this was a factor in the increased production for 2005. I certainly appreciated Dick’s effort on this, and his help banding them all greatly speeded up the whole operation. We finished the entire route in just under four hours!

As you are aware, the last year in particular was somewhat of a dead loss for me as I had trouble negotiating the ditches. We also cleaned out a number of old boxes, paper and paper cups alongside Highway 16, which seems to be an ever-increasing problem. Again, my thanks to Dick Clayton, for not only keeping up the maintenance of the boxes but also for the banding.

## Wildflowers of Wagner No. 25

### *Aster modestus* Lindley (*Canadanthus modestus* (Lindley) Nesom) Asteraceae (Compositae)

Many of our North American asters have been reclassified as *Symphotrichum* species, *Aster* now being considered by taxonomists as a genus confined to the Old World. According to the old *Aster* concept, there are some 20 species in Alberta, of which nine occur in Wagner Natural Area. Many people find them confusing because of this diversity, but in fact most are quite distinctive and recognizable by eye once you get to know

Large Northern Aster can be readily identified because it is one of only two species in our area that has an involucre (the cup-like structure surrounding the composite head of tiny flowers or florets) that is covered in tiny dark-red stalked glands that make it sticky to the touch. The inflorescence stalks and the upper stem are also glandular. Showy Aster (*A. conspicuus*, renamed *Eurybia conspicua*) is similarly glandular, but it is a taller, more robust plant, with broader leaves that are toothed towards the tips. Its flower heads have pale lavender ray florets with yellow centres, quite distinct from the darker violet-blue rays and violet or whitish centres of *A. modestus*.

Large Northern Aster is a perennial with creeping rhizomes, which means that it grows in small, rather compact colonies, its slender upright stems close together. It likes moist ground, and can be found in moist woods, meadows and ditches. It is quite common in our area and in Wagner a patch of this aster is seen just to the west of the Marl Pond Trail entrance.

Growing from 30 to 80 cm tall, the stems have glands in the uppermost portion that are replaced by white, spreading hairs further down. The lanceolate, entire or remotely toothed leaves, 4 to 8 cm long, are alternately arranged on the stem and appear almost to clasp it, since they lack stalks. The flower heads are few in a short, leafy cluster. The bracts of the involucre are 7 to 11 mm long, narrow and pointed, with purple tips and edges; they lack the hard, whitish base that is characteristic of many asters.

In Large Northern Aster the purple ray florets contain female parts (pistils) only; the central disk florets, whose tubular corolla may be violet or whitish, are hermaphrodite, having both male (stamens) and female parts. The fruits, termed achenes, are dark when ripe, ridged and hairy, and are crowned by a brownish pappus of fine bristles that allows them to be dispersed by wind.

Although all asters tend not to flower before mid or late summer, Large Northern Aster is one of the latest

### Large Northern Aster Aster Family

flowering of them all; its flowers appear in August and set fruit by September.

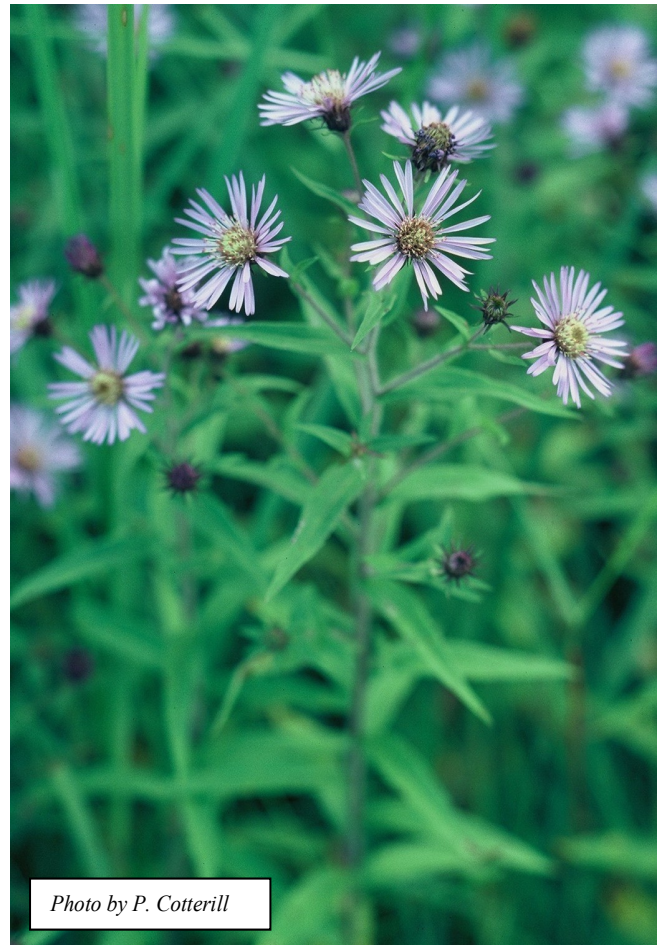


Photo: <http://jcsemples.uwaterloo.ca/Canadanthus.htm>

