

# WAGNER NATURAL AREA NEWSLETTER

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



## Wagner Field Day: Raffle Draw – Boardwalk Celebration – Orchid Walks

Photo: Leota Cummins



Photo: Heike Kohl

Wagner's annual field day in mid-June was an especially big event this year. It combined a raffle draw for two donated paintings, a celebration of the commissioning of the new Marl Pond Trail boardwalk installed late last year, and the usual guided walks to view Wagner's famed yellow lady's-slipper orchids, as well as other orchid species and colourful flora in general.

Congratulations to the winners of the paintings (both oils on canvas) by artists James Davies and Judy Martin. A big thank-you to these artists for their generous donations. Accurate figures are not yet in at time of publication, but we estimate that the raffle has raised about \$1,000 for Wagner's bank account!

The boardwalk, replacing the original boardwalk across the wettest fen areas along the trail, represents something of an experiment in new technology on the part of Alberta Parks. The latter provided some \$8000 in funding for the boardwalk, as well as an infrastructure crew (from the West Central parks region) headed up by Bill Coulson

who installed the wooden boards. The Society obtained a grant for \$5000 from the Alberta Gaming Commission as their contribution to the new boardwalk. During the construction, groundscrews manufactured by the Krinner company were installed by a contractor from the company; plates were then placed on top of these over which the wooden boards were put in place. The new boardwalk is lower than the previous one at just two feet high, with less slope to the ramps.

Parks Infrastructure personnel and the Society will be paying attention over the coming years to determine how well the screws function in the unstable, marly peat substrate of the fen sections.

The completion of this important trail structure was celebrated publicly with cake and a speech thanking Alberta Parks staff during the field day. As usual, the guided orchid walks, led by three of Wagner's directors, proved popular, with our three commonest orchid species, yellow lady's-slipper, round-leaved orchid and pale coral-root all clearly in evidence.

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Caddisfly larva in marl pond.  
 Photo: Shirley Coulson

**The Amazing Caddisfly!**

*Now that we have some water back in our marl ponds, aquatic life is returning! During the May Count some of us took a little breather at the main pond along the Marl Pond Trail and watched the slow progress of a caddisfly larva or two along the pond bottom through the shallow water.*

Caddisflies belong in the insect order Trichoptera (meaning “hairy wings” and referring to the two pairs of membranous hairy wings the adults have). They are closely related to the butterflies and moths order, Lepidoptera. Their larvae are however aquatic, living in freshwater systems of both still and moving water, such as ponds, lakes, streams and rivers.

The larvae of many species (there are some 12,000 species world-wide and over 1300 species in North America) surround themselves with a protective case made of locally available material, vegetation, including bits of sticks, stones, gravel or sand. Many of the larvae we are likely to see construct tube-cases, and the type of case provides a good indication of the genus its inhabitant belongs to. The materials are held together by an inner casing of spun silk. The cases are open at both ends and by moving its body the larva can create a current of oxygenated water that enters through the posterior end, passes over the gills and leaves via the anterior end of the case.

Larvae in cases can move about by protruding their heads and anterior segments equipped with legs. They feed variously on bits of decaying plant tissue and algae, or in some species, on minute live animals.

Some caddisfly species are free-living, only building a protective case when they are ready to pupate. Some species that live in running water build a net rather than a case, which serves both to trap food and as a retreat. Caddisflies in temperate zones complete their life-cycle (complete metamorphosis as in the Lepidoptera) within one or two years. The larvae feed and grow in fall, winter and spring. When they are ready to pupate they attach the case to an underwater object and seal both ends (though water still flows through). They later emerge as flying adults in late spring or early fall (when temperatures are cooler). Many individuals emerge from the water (after swimming to the surface as pupae) simultaneously, a phenomenon known to fishermen as “a hatch”. This synchronicity promotes successful mating. Mated females lay eggs in a gelatinous mass above or below the water surface.

The occurrence of several caddisfly species in a water body along with stoneflies and mayflies indicates water that is clean and unpolluted.

*Information taken from Wikipedia and other internet sources.*

**Notice to members and supporters of Wagner Natural Area Society!!**

A public meeting regarding the Acheson Area Structure Plan will take place on July 21, 2011, at the Glowing Embers RV Park, 26309 Highway 16A. This is an opportunity to obtain information and provide input on a plan that could affect Wagner Natural Area and its water sources.

For more information contact Paul Hanlan, Parkland County Planning and Development Services.

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## The Wagner Grapevine



### Wagner Society Envisions the Future....

On April 2, WNAS directors held their third “visioning” meeting, to take a long-term, big-picture look at the sustainability of the Society as stewards of the Natural Area. Ideas and suggestions were ably corralled into some positive resolutions and directives for action by coordinators **Beth Jenkins** and **Leslie Treseder**.

Although we’ve declined to calculate our average age, we in WNAS are well aware that we need to bring in some younger blood to make for orderly succession. We have identified that in inviting new volunteers on board (both literally and figuratively) we will need to give them clearly defined tasks that match their desired level of commitment. We also need to reach out more to local communities, including the businesses and service clubs of Acheson, Spruce Grove and Stony Plain. We need to do more to encourage students to become aware of the educational and personal opportunities provided by the Natural Area and stewardship. We are developing a “Friends of the Fen” group to encourage the public to become more involved through assistance with site monitoring.

To promote outreach, we will be tweaking our Powerpoint presentations and possibly creating a video, as well as working on a major overhaul of our website. We will review the structure and constitution of our society with an eye to making it more open and friendly. Current outreach activities consist of guided orchid walks in June, an open house event in late fall, a bi-annual newsletter, and occasional guided walks and presentations. Our spring and fall clean-ups also draw in volunteers. Educational initiatives include a guide to the Marl Pond

Trail, an orchid poster and a booklet “Trees of Wagner Natural Area.”

### May Species Counts

This year for the official May Count Day May 29<sup>th</sup> we had plenty of eyes to assess flowering stages of our plant species: **Donna Cherniawsky**, **Shirley Coulson**, **Steve Symes** and **Ashley Thorsen** took part, with **Patsy Cotterill** compiling. We surveyed the Marl Pond Trail and the Cabin Trail through to the Villeneuve Road allowance and south to the fens. Steve, Ashley and Shirley also did a bird count, mostly along the Marl Pond Trail (see page 7 for the list of birds they recorded).

On May 30<sup>th</sup>, **Alice Hendry** and **Patsy Cotterill** toured Alice’s property in Osborne Acres and then entering via the municipal reserve land, walked around the eastern edge of the large south-east marl pond and thence to the original east-west boundary and back along the west side of the pond. On May 31<sup>st</sup> Patsy entered via the “roadside marl pond” and walked to Jones’ Pond, and thence eastwards to the creek that contains the only known occurrence of buckbean (*Menyanthes trifoliata*) in Wagner. Only two or three plants were in flower. A total of 63 species were found in flower (flowering stages 4 – beginning flowering – through 8, with the majority of flowers faded but some still fresh), as assessed on the total population of the given species seen. Over the 11 years from 2000 to 2010 the average number of species in flower has been 51. This year’s total suggests that even with lingering winter snow cover and a delayed start to spring plants can quickly recover their normal phenological stages given favourable weather in May.

### Wagner Natural Area Society Board 2011-2012

26519 Highway16, Spruce Grove, AB T7X 3L4

Visit our website at <http://www.wagner.fanweb.ca>

#### Executive:

President Pat Clayton (456-9046)  
Past President Ben Rostron (434-3839)  
Vice-President/Webmaster Mike Jenkins (887-2032)  
Treasurer/Webmaster Pat Webb (458-3477)  
Secretary/Editor Patsy Cotterill (481-1525)

#### Directors:

Executive, together with Alice Hendry (962-4836),  
Beth Jenkins (458-1794), Irl Miller (455-3866);  
Cathy Mowat (439-1694)

Other Responsibilities: Pat Clayton (Archivist); Jasper Keizer (Fire Warden) (962-2745); Derek Johnson (Science Advisor) (436-8231)  
All telephone numbers are preceded by 780-.



## Raising *Picea glauca*....

**Derek Johnson**, our Special Director, Science Advisor, has masterminded three mass plantings of white spruce seedlings by the Junior Forest Wardens. All took place in May, and were in the years 2005, 2008 and 2009.

Derek recently (June 2011) revisited his charges, and reports as follows:

Since the last measurement in the spring of 2009, **S**three seedlings have been Killed in Action and two are Missing In Action (I hate it when I can't find something!). Of the 150 seedlings tagged from the first planting in 2005, 130 are still alive for an amazing 86% survival percentage. (Seven seedlings succumbed to tractor or the natural survival percentage would have been even higher.) The winning seedling (in the southeast corner of the Villeneuve field) is now 80 cm tall, from a planted height of 37 cm, which represents a more than doubling in height over six years. There's one seedling over 70 cm tall and three over 60 cm tall, all of which represent more than double their planted height. There are 16 seedlings over 50 cm tall, which is between 1.5 and 1.75 times their planted height. However, on the negative side, there are more than two dozen seedlings that have done absolutely nothing since they were planted. It's amazing to me how they've managed to stay alive this long. Most of these seedlings are "out in the grass" where the growing conditions are the toughest and they just haven't managed to put on enough initial root growth to support any top growth.

Anyone who can open a successful restaurant can be a successful tree planter. After all, the only three things that matter for both are location, location and location. However, good food is important, or in the case of tree seedlings, the quality of the planting stock, and the Junior Forest Wardens have certainly had the best of that over the years. Good service is also important, or in the case of seedlings, planting technique. The method employed in 2005 was excellent as witnessed by the high survival percentage, but I think it's pretty

conclusive that the "parachute" planting technique (dropping seedlings into a hole from a great height) employed by some of the youth in 2008 just doesn't work. Of the 20 seedlings planted this way that I tagged in 2008, six have expired (30% mortality) in just three years. I know it's a small sample size, but all other things considered, I think the poor planting technique has a lot to do with the high mortality.

"Spikey II" is alive and well if a now 12-year-old girl would like to come back and see him/her/it. "Spikey I" succumbed to tractor as it was planted right next to the gate in the northwest corner of the Villeneuve field, but don't ever tell her that. She'd be heartbroken.

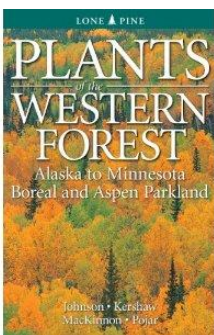
High praise to Patsy and her planting crew from 2009. I could only find two dead seedlings that appeared to have been obviously planted along the east-west road allowance past Jasper's gate.

I'm keeping a spreadsheet of the tagging data. I plan on doing re-measurements every other year until the seedlings reach breast height.



Photo: Derek Johnson

White Spruce (*Picea glauca*) seedlings from the Alberta Tree Improvement and Seed Centre north of Smoky Lake



### Want to Know Wagner's Flora Better?

This is the second edition of the popular field guide authored by local botanists Derek Johnson and Linda Kershaw et al. and published by Lone Pine Publishers. It contains the vast majority of Wagner's plants. If you don't find it on the shelves of good bookstores, please ask for it!