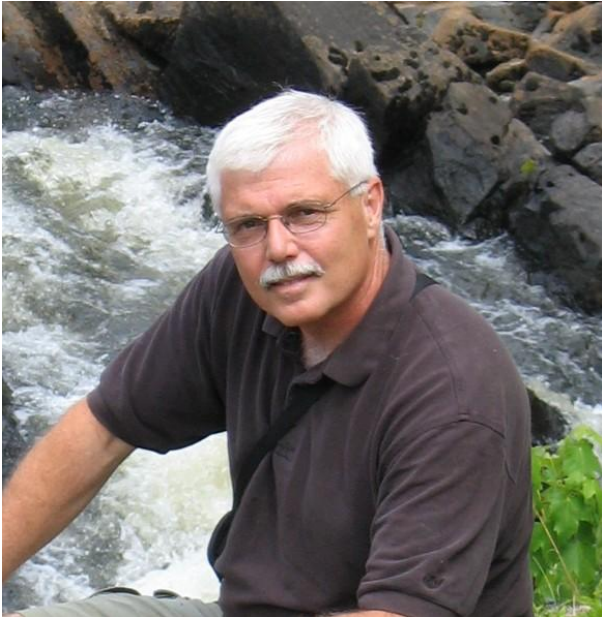


# WAGNER NATURAL AREA NEWSLETTER

Volume 25 Number 2 October 2011

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



## Invitation to our Annual Open House, November 20<sup>th</sup>, 2011

Wagner Natural Area Society is pleased to invite its supporters and the public at large to its **Annual Open House**, to be held on **Sunday, November 20th**, 2011 at **St. Paul's United Church Lower Hall**, 11526-76 Avenue, Edmonton. The event will begin at **2 p.m.**

Our guest speaker will be **Peter Lee, Executive Director of Global Forest Watch**, who will address the topic of **"Global Forest Hotspots: Where Do Canada and Alberta Fit?"** Lee says that orang-utans, mangrove swamps and tropical jungles are what most of us think of as containing the globe's biodiversity hotspots. But what about Canada? Alberta? What do we have and how are we doing at being good stewards of it?

The Open House includes a WNAS President's report, displays and refreshments. Admission is free.

Peter Lee loves the outdoors and is familiar with many of Alberta's most beautiful and pristine landscapes, having worked for the Alberta government in parks and protected areas for many years. He was an ardent supporter and champion of Wagner Natural Area in its early years.

*Photo supplied.*

Edgar T. Jones was a founder of Wagner Natural Area and a long-time director of Wagner Natural Area Society. For his obituary, see Page 3, and further comments, Page 2.

*Photo: Michael J's Photography*



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Wagner Natural Area Society Newsletter ISSN No. 1712-2767

The following is a re-print in full of a column Eddie wrote for the newsletter of November, 1988, when Terry Thormin was editor, followed by my comments. (Ed.)

“Birding in Wagner, 1950s and ‘60s.

By Edgar T. Jones

*As a keen cinematographer in the 1950s and during the ‘60s, I had some of my most interesting experiences in Wagner Bog. I can recall on almost all of my visits, particularly in the spring, that some of the most common resident breeders included Mourning Doves, Boreal Chickadees, Bonaparte Gulls, Solitary Sandpipers, Lesser Yellowlegs, Flickers and a number of the warblers, including in particular both Yellow-rumped and Common Yellowthroat. In the earlier part of the season, February and March, the Gray or Canada Jay as it was then called, bred regularly.*

*In the interest of recording a few of the breeding dates, Mourning Doves were usually well into the summer as follows: July 5<sup>th</sup>, 1959, three nests, one with one egg, and two with two eggs. July 19<sup>th</sup>, 1961, two nests were located, one with two small young and one with two eggs. Nearly all were located in leaning live or dead spruce and all at low elevations. Slightly earlier in the year, several Nighthawk nests were found: on June 20<sup>th</sup>, 1956, two nests with two eggs all of which were laid on the bare ground usually in a burnt-over or logged area. Most of the Boreal Chickadee nests were located at Wagner in the latter part of May or early June when they usually had young. The earliest nest I found was May 25, 1960, when both adults were feeding young. My first encounter with nesting Yellowlegs was in the Wagner Bog. On May 22, 1956, a nest of four eggs was found. Later the same year on June 3, I flushed a female off four eggs sitting so tightly as they usually do that she didn’t leave the eggs until my foot was 10 inches away! This particular nest was hatching on July 3. To show some variation on hatching dates: on June 12, 1958 I flushed a female off four downies which had just nicely dried off and in a matter of hours or possibly minutes would have left the nest .*

*One day on June 2, 1955, while skirting the edge of the Wagner marl beds, I flushed a Short-billed Dowitcher off four eggs. This was the only nest of this species that I ever found in Wagner but I did observe a nest with four eggs several miles away in the muskeg just to the west of where Sunwapta Broadcasting Station now has their facility. That nest was found a few years earlier on June 1, 1951. Nests of the Solitary Sandpiper were observed in early July 1959, both of them located in spruce, in a Robin’s nest.*

*My first records of Bonaparte’s Gulls nesting in Wagner were back in 1954 when I observed two families of downies on what is now called Jones’ Pond on June 29. In the following years quite a number of nests were found in the spruce surrounding the ponds and marl beds, with eggs, usually three, being recorded as late as June 21. T. E. “Tom” Randall who often accompanied me on my jaunts to the muskeg*

*recorded nest building on May 23, 1962, no less than four in one small area.*

*Wagner was, and still is, a fascinating area. With its unique botanical attractions, and with a sizeable collection of bird and animal species, I would hope that the Wagner Bog will long be an interesting and fascinating spot to visit.”*

After reading this column I felt a bit sad and nostalgic. I should say that I am only a casual birder, but several of the birds Eddie mentioned are no longer seen in Wagner to my knowledge: Bonaparte’s Gulls, Gray Jays, Nighthawks, Mourning Doves, even Lesser Yellowlegs. Boreal Chickadees are still there, but not nearly as common as Black-capped Chickadees, which Eddie does not mention. The mention of Nighthawks and Mourning Doves struck a particular chord with me. When I lived in the boreal forest of northern Manitoba I used to go to sleep in summer to the characteristic calls of Nighthawks hawking, and Gray Jays too were familiar and funny with their antics as “camp robbers.” In the suburb of Winnipeg in which I subsequently lived for a while, Mourning Doves were common.

Loney Dickson, who resumed the Breeding Bird Survey in Wagner in 2009 (after a lapse since it was first initiated in the mid ‘90s), attributes the loss of these species and others in Wagner to increasing development (agriculture and infrastructure, including busy roads) in the surroundings. This goes to show that while we can maintain Wagner’s land base and work hard to protect its all-important water supply, we cannot guarantee the integrity of its ecosystem as a pocket of boreal forest.

Nevertheless, the outlook is not all bleak. In 2009, Loney Dickson observed a total of 74 species of birds in or over Wagner Natural Area, with 59 species showing some evidence of breeding (four species confirmed). Many of these species were of course represented by very small numbers of individuals, and the casual visitor to Wagner is likely to see only those birds that are present in relatively large numbers.

The Society is extremely grateful to Loney for resuming this scientifically based Survey, as it really is important to maintain the records in Wagner that Edgar Jones initiated and kept up until fairly recently. We are also indebted to Dick Clayton who has taken upon himself the task for so many years of looking after Wagner’s bird boxes. Birder Dave Ealey has also contributed to records, particularly May Counts. However, we desperately need new (younger) volunteers with an interest in birds to come forward. Four new people took part in a May Count of birds in Wagner this year and we hope their interest will continue. Loney has indicated he is willing to compile incidental records of birds at any time of year ([loney@albertacom.com](mailto:loney@albertacom.com)) and I am sure he would love to hear from anyone interested in helping with the annual Survey. Loney has also noted that few people seem to bird in Wagner in the spring and fall. Now there’s a challenge!

## Edgar T. Jones, November 22, 1922 to September 28, 2011

Naturalists, family and friends turned out in large numbers to remember Edgar T. Jones at a memorial service and reception for him in Edmonton on October 4<sup>th</sup>. Edgar T (known to Wagnerites simply as “Eddie”) died September 28<sup>th</sup> at the age of 88 after a period of declining health.

Decorated World War II pilot, bush pilot, nature film-maker, birder and naturalist of international reputation, conservationist, husband, father, grandfather and great-grandfather, Eddie was all these things. But to members of the Wagner Natural Area Society he was most fondly revered as the “founder of Wagner Natural Area.”

The site of present-day Wagner Natural Area has been familiar to naturalists and scientists since at least the 1940s, and Eddie started visiting it regularly in the early 1950s to observe and photograph birds. He quickly became appreciative of its wildlife and distinctive peatland vegetation. He was a major influence on William Wagner, the farmer who owned the land in question until 1971. Eddie and colleague Bill Morgan, both with 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 contribution” to purchase the land from Mr. Wagner. In 1971 the half-section (320-acre) property was acquired by the Land Assembly Division of Alberta and reverted to Crown land. In 1975 the area received formal protection as a provincial Natural Area.

Eddie’s intimate association with Wagner Natural Area continued over the years. A steward group, the Wagner management committee, later the Wagner Natural Area Society, was formed in 1982, and Eddie soon joined it as a director. Many of us longer-toothed Wagnerites remember attending society meetings in all of Eddie’s three homes in Edmonton. More than the meetings, we remember the socializing that followed: lively chats about birds while we consumed his delicious desserts made by his wife! We also remember his passion for conservation, in later years manifesting itself as indignant letters of protest to politicians – Eddie had a hard time believing that anyone could think differently from himself about the importance of conservation!

Eddie continued his field work in Wagner over the years, filming birds, acting as mentor to summer students and regularly banding tree swallows and other birds using the nest boxes along the perimeters of the fields and in the woods. He submitted annual bird reports on banding and other observations to the Wagner Society. By 2005 he needed the

help of long-time volunteer and birder Dick Clayton to complete his banding, and after 2007 he was no longer physically able to do his banding. What he did in Wagner was of course only a small part of his birding activities overall. In the course of his career Eddie banded 117,000 birds, some with the help of his family, an outstanding record. He banded his first bird at the age of 16, under the tutelage of William Rowan, the renowned ornithologist who did pioneering work on bird migration at the University of Alberta. At the memorial, Canadian Wildlife Service biologist Gordon Court paid tribute to the contribution Eddie had made to science with his meticulous field notes over the years. The current status of wildlife can of course only be understood in the perspective of its historical status. Such data are irreplaceable.

Wagner Society was also the grateful recipient of copies of many of Eddie’s slides and photos, which we use in our presentations, newsletters and displays. About a decade ago Eddie donated his wildlife slides to the then Provincial Museum, a total of some 15,000 slides – again an impressive record. Eddie’s own presentations, in later years given chiefly at the Museum, always drew huge audiences and made profits for the sponsoring natural history societies.

Wagner Society members were pleased to be invited to Eddie’s 80<sup>th</sup> birthday party in November 2002, at which Alice Hendry soundly “roasted” him with the Society’s collective reminiscences.

Eddie loved native birds, non-native birds not so much. (He positively hated starlings, along with cats!) He never lost his interest in birds and the field, even though he endured some dark days after the death of Jeanne, his beloved wife and helpmate, in October 2008. (Eddie and Jeanne celebrated their 50<sup>th</sup> wedding anniversary in 2000.) He always had a special regard for Wagner Natural Area even though by 1995 he and Jeanne had set up their “own” natural area, the Edgar T. Jones Natural Area, as a wildlife sanctuary near Hastings Lake. We in Wagner Society will honour Eddie’s memory the best way we can, by continuing to look after an area of great biodiversity that he held so dear. We also take pride in having our two “founders” memorialized with their names on the map of Wagner Natural Area: Jones’ Pond, a beautiful large marl pond with clear, amber-coloured water framed by spruce and tamarack in the north-central part of the property, and Morgan Creek near the eastern edge of the natural area. –Ed.

Eddie received recognition during his lifetime for his contributions to natural history and Canada. In October, 1991, Eddie was the first recipient of the Wagner Society’s Recognition Award, for his service to Wagner Natural Area and the Society.

In June 1993, he was awarded an Honorary Doctor of Laws degree in recognition of his accomplishments as a naturalist, wildlife cinematographer and educator. (Eddie made 104 nature films, his first one in 1959, many of which appeared on TV in Canada and the U.S.)

2001. Eddie was awarded the prestigious Order of Canada for contributions to his country.

2002. Order of the Bighorn, the top provincial environmental award, was awarded to Eddie and Jeanne.

June, 2006. The Emerald Award for Individual Commitment was awarded to Eddie and Jeanne.

## How I Spend My Winter: Short Essays from the Field

By Patsy Cotterill

This past September my relatives visited from England. We weren't especially lucky with wildlife sightings but what common animals we did see invariably elicited exclamations of delight. For example, coyotes proved especially popular with my niece. We camera-stalked a mother and baby porcupine that put in an appearance in Dinosaur Provincial Park for several exciting minutes before the uncooperative pair disappeared into undergrowth. A busy pileated woodpecker in the river valley got video footage. And we made several crepuscular excursions to get a good view of beavers, mostly with little success, though we fared better with muskrats. My family's interest served to remind me how important our Canadian wildlife is for tourism! However, it also revealed my general ignorance of matters zoological. Mindful of Canada's harsh climate, they asked how various animals survive the winter. In many cases my answers were unconfidently vague. I decided to educate myself a little by doing a quick literature search, focusing on the mammals and amphibia of Wagner Natural Area. Here is an overview of what I found.

Winter brings two challenges to animals of temperate climates: low temperatures (which means energy must be expended to maintain body heat and metabolism) coupled with a shortage of food (a source of energy). The most popularly known strategy for surviving winter is hibernation. During hibernation body temperature approaches that of the environment, the heart rate and metabolism are slowed, conserving energy, and the animal is in a state of torpor. Usually however there are periods of arousal in which body temperature returns to normal or near-normal, with considerable expenditure of energy. As a general principle, the larger mammals do not hibernate. They can accumulate enough fat in their large body masses to see them through the winter when this is supplemented with an external food supply. Their low body surface area to volume ratio also helps to conserve heat. The largest mammals to hibernate are marmots, which weigh from 3.5 to 7 kg. But what about bears, you might say? Apparently bears do not actually hibernate, they merely enter a period of winter lethargy, in which their body temperature only drops about 5 to 7°C below the active level of 38°C. If temperature loss was much greater it would take an enormous amount of energy in such a large animal to raise it back to normal in the spring! On the other hand, many small mammals don't hibernate either, although they usually spend much more time in their nests or shelters than in summer, sleeping and in some species huddling communally for warmth. The variety of strategies animals employ to survive winter makes for a fascinating study!

Our ungulates, **Moose** (Order Artiodactyla, Family Cervidae (deer), Species *Alces alces*) and **White-tailed Deer** (*Odocoileus virginianus*) stay active in winter, feeding predominantly on shrub and tree material. The long-legged Moose copes well with moving in deep snow, but when snow depth reaches more than 30 cm the shorter-legged White-tails experience some difficulty in accessing food resources in shrubland. They tend then to congregate for shelter in dense

coniferous forests where snowfall is interrupted by the trees but the food supply is scarcer. The stiff, longer, outer hairs (guard hairs) of the deer's coat provide efficient insulation by trapping air between them. Since the females of both moose and deer carry their young throughout the winter presumably the condition in which they enter winter affects their survival and reproduction.

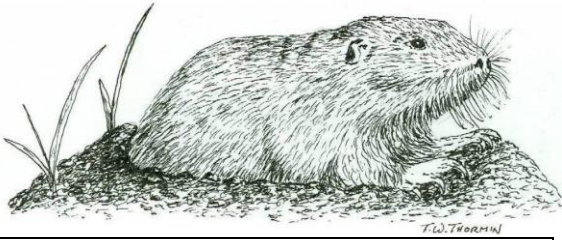
The winter habitats of **Beavers** (Order Rodentia, Family Castoridae (beavers), Species *Castor Canadensis*), are well known. They dam water courses to create ponds deep enough to allow a lodge to be built with underwater access throughout the winter, even when the upper layers of water have frozen. They cache fresh logs underwater near the lodge as a winter larder. The Wagner Society has drained ponds and trapped out the beavers in the past because their flooding damages peatland forests. However, the aspen trees around the Atim dugout are now growing up nicely, so perhaps we can expect a re-invasion soon! **Muskrats** (Order Rodentia; Family Cricetidae (voles, lemmings, New World rats and mice, etc.), Species *Ondatra zibethicus*) are not common in Wagner, possibly because of low water levels. They make similar arrangements to beaver, living in burrows in wetland banks and in (albeit a lot smaller) lodges in marshes. As with Beavers, often several animals will huddle together in the lodge. This lowers their collective surface area to volume ratio and allows them to stay warm at lower metabolic rates (i.e., using less energy). They do not store food for winter, but follow their own trails under the ice to find food, which consists of aquatic vegetation and small aquatic animals.

**Porcupines** (Order Rodentia, Family Erethizonidae (New World porcupines), Species *Erethizon dorsatum*) stay active in the winter but also resort to the familiar tactic of sleeping a lot in their underground dens. They eat mostly conifer needles and tree bark in the winter (and can kill trees by "girdling" them) but a much more varied diet of vegetation in the summer. Surprisingly, porcupines seem to be uncommon in Wagner.

**Northern Pocket Gophers** (Order Rodentia, Family Geomyidae (pocket gophers), Species *Thomomys talpoides*) indicate their presence by the characteristic low mounds of soil that appear in fields (at least where the soil is "diggable"). These are the excavation piles from the system of underground tunnels and chambers which they dig out and inhabit. Pocket Gophers continue to be active during winter, feeding on roots, tubers and bulbs. In winter they often forage above ground creating snow tunnels, which they pack with soil they have dug up. When the snow melts these casts, sometimes referred to as "gopher garlands" or "eskers," stand out prominently. (Check the sandy soils at Clifford E. Lee Nature Sanctuary for good sightings of this interesting phenomenon in the spring.) Although Pocket Gophers can damage crops, they also aerate the soil, increase water infiltration into the soil and promote germination of seeds by creating disturbed ground.

Continued on next page





Northern Pocket Gopher Drawing by Terry Thormin

Squirrels (Order Rodentia; Family Sciuridae (squirrels)) are seed-eaters and the world's principal arboreal herbivores. **Red Squirrels** (*Tamisciurus hudsonicus*) and **Northern Flying Squirrels** (*Glaucomys sabrinus*) stay active during the winter, although on very cold days they will retire to their nests underground or in tree cavities to sleep. The flying squirrels may huddle communally. The Red Squirrel's food caches are easy to find: its large heaps or middens of discarded cone scales are very obvious in coniferous forests. Dried mushrooms may be stored too. **Richardson's Ground Squirrels** (*Spermophilus richardsonii*) have colonized the Villeneuve field in the past but currently appear not to have any colonies in Wagner, although a few have recently been seen during the summer in Atim Field. (Perhaps our haying of these fields interferes with their establishment, although Wagner's heavy soils are generally not conducive to ground squirrel burrowing.) Ground squirrels do hibernate, retiring to their underground burrows in late summer or early fall. The **Woodchuck** (*Marmota monax*), also in the squirrel family, and familiar to many of us from sightings in the North Saskatchewan River valley, also hibernates. Upon entering hibernation it will have accumulated fat to the extent of nearly one-third of its summer weight. The Woodchuck is a solitary nester but most marmots hibernate in groups in a common hibernaculum.

With respect to mice and voles (Order Rodentia, Family Cricetidae), **Deer Mice** (*Peromyscus maniculatus*), **Southern Red-backed Voles** (*Clethrionomys gapperi*) and **Meadow Voles** (*Microtus pensylvanicus*) are all reported as being common in Wagner. My guess is that the Meadow Voles are the most usually seen, especially when their populations are high. These animals stay active and protected during the winter because they can tunnel at the ground surface under snow cover to find food (mainly seeds). Their little tunnels or runways often become visible when the snow melts. Deer mice in particular are known for nesting communally in well-insulated nests.

Shrews (Order Soricomorpha – formerly Insectivora), Family Soricidae (shrews), like mice and voles, forage beneath the snow in winter but to conserve energy also spend considerable time in their grassy nests. The common species in Wagner are **Masked Shrews** (*Sorex cinereus*) and **Water Shrews** (*Sorex palustris*). Shrews, known for their large appetites, are predominantly insectivorous but will also eat other small animals.

The **Ermine**, also known as Short-tailed Weasel or Stoat (Order Carnivora, Family Mustelidae (weasels), Species *Mustela erminea*), is well-known for its all-white winter coat (except for a black tip to the tail) which grows in after it has

molted its brown summer coat. This winter pelage is dense and silky, providing insulation against the cold. Ermines eat mice, voles, shrews and sometimes Snowshoe Hares, hunting them out from their underground and under-snow burrows in winter. The white colour of its coat may provide it with camouflage as a predator.

By contrast, although their coat also changes from brown to white at the onset of winter, the **Snowshoe or Varying Hare** (Order Lagomorpha; Family Leporidae (rabbits and hares), Species *Lepus americanus*) does not molt completely like the ermine. The tips of the hairs turn white, but their bases remain grey-brown. The coat is thick and provides good insulation, and its white colour in winter undoubtedly serves to camouflage the animal. With its large hind feet and furry foot soles, the Snowshoe Hare bounds easily across the snow surface. In fact, a deep snowpack may give it the advantage of access to more winter browse: in winter it eats mainly the bark (which includes living tissue) of trees and shrubs. Its characteristic gnawing pattern on fallen branches is a familiar sight in spring. Hares are also coprophagous (eating their own fecal pellets) to derive extra nourishment from their food. Snowshoes are known for their cycles of rising and falling populations. They seem to have been relatively scarce in Wagner over the last few years. On the contrary, in city suburbs, their cousin the **White-tailed Jackrabbit**, *Lepus townsendii*, which also acquires white pelage in winter, is thriving. Damage to the trunks, with girdling and likely mortality, was high among young trees planted in subdivisions in the 2010-2012 winter owing to the deep snow. The higher parts of the trunks were accessible to these Jackrabbits, and shorter vegetation, on which these essentially prairie hares also feed, had been covered by snow.

The **Little Brown Bat** (Order Chiroptera, Family Vespertilionidae (evening or common bats), Species, *Myotis lucifugus*) is reported as being the commonest bat in Wagner. These small bats mostly fly further south to find humid caves and mines in which to hibernate, having accumulated body fat to about one-third as much as their normal body mass before entering hibernation. Like many hibernators, they do arouse from their state of deep torpor occasionally, which carries energy costs.

**Coyotes** (Order Carnivora, Family Canidae (wolves, foxes, jackals, coyotes, dogs), Species *Canis latrans*) are evident in Wagner in all seasons, either from scat or direct sightings. Coyotes hunt mice and voles under the snow with their characteristic pouncing motion, but also include more fruit and vegetable matter in their fall and winter diets. They are not averse to eating carrion.

So much for the mammals. What of Wagner's famous amphibians? These are cold-blooded animals that must hibernate because they cannot maintain a sufficiently high body temperature for activity. Moreover, they must protect themselves from death due to freezing.

Our highest profile amphibian is the **Western (Boreal) Toad** (Class Amphibia: Order Anura; Family Bufonidae (toads) Species *Bufo boreas boreas*). These insect-eating toads hibernate from about October through April, likely in banks, burrows, or under trees, and the species as a whole has been known to descend to depths of over a metre to escape freezing (Continued next page)

temperatures. They prefer burrows that are deep enough to prevent freezing and moist enough to prevent desiccation and so are often located near water, such as spring seeps. Since amphibians are under threat world-wide, and many populations of the Western Toad in southern Canada have been extirpated due to habitat loss, Wagner's importance as a sanctuary for this species cannot be overstated, along with the significance of its water supply.



Photo: P. Cotterill

Is this Western Toad looking for a hibernaculum? It was hiding among rocks at a picnic site in Elk Island Park on September 12.

The **Wood Frog** (Order Anura, Family Ranidae (frogs), Species *Rana sylvatica*) not only hibernates in winter, under forest litter and in soil, but also employs a freeze-tolerance strategy. It literally freezes solid and spends months in a state of suspended animation without heartbeat or metabolic function. Water is withdrawn from its organs, and forms a mass of ice surrounding them. Meanwhile, high levels of glucose in the tissues reduce the freezing point of cell fluids and so regulate the freezing process and protect the cells from ice injury. This process is explained with excellent clarity in the website:

<http://www.naturenorth.com/winter/frozen/frozen3.html>

Wayne Roberts, who conducts an annual check of Wagner amphibians, has kept frogs in his fridge over the winter, but I don't recommend anyone else try this! Rather, I suggest that the next time you see a wood frog in the spring, spare a moment to respect this animal for what it has just come through, and a moment to admire the biologists who have elucidated this phenomenon. **Boreal Chorus Frogs** (Order Anura, Family Hylidae (tree frogs), Species *Pseudacris maculata*), the tiny frogs with the rasping trills, apparently employ a similar winter survival strategy.

With respect to snakes, I do not believe the **Red-sided Garter Snake** (Class Reptilia, Order Squamata, Family Colubridae (colubrid snakes), Species *Thamnophis sirtalis parietalis*) has been seen in Wagner. However, this species is well-known to hibernate in winter dens known as hibernacula. A large hibernaculum exists in the Kilini Creek area, a peatland with similarities to Wagner. Presumably no suitable hibernaculum exists in sufficiently close proximity to Wagner.

Birds, as well as bats, and insects, can migrate by using their wings to carry them to warmer climes. Several bird species, however, remain as winter-residents, many feeding on torpid insects hidden in trees, and deploying a variety of strategies to maintain warm body temperatures as they forage or roost. Insects either die or migrate as adults, or pass the winter in a state of suspended development (diapause) as an adult, egg,

larva or pupa. Common local **Mourning Cloak butterflies** (Class Insecta, Order Lepidoptera, Family Nymphalidae (brush-footed butterflies), Species *Nymphalis antiopa*), are among the first butterflies to appear in spring, often looking a bit worse for wear. They overwinter as adults in a state of cryopreservation, in sheltered places in trees. How the majority of our common insects spend the winter is another subject worth study!

I notice that my relatives did not enquire how our trees and shrubs cope with the cold winters, a matter of supreme importance for the ecosystem as a whole, presumably because the survival of conifers and broad-leaved trees is a matter of common observation in their home country. Our hardiest (and therefore most northern) trees, **Black and White Spruce, Tamarack, Jack Pine** and **Balsam Fir**, along with the deciduous **poplars, Paper Birch**, and some **alders** and **willows**, employ a strategy of extracellular freezing, rather in the manner of the Wood Frog, to prevent ice damage to their living tissues. Winter strategies among plants is another fascinating subject.

In this brief overview of wintering habits of some of our common species I have barely touched on the remarkable behavioural strategies, such as communal nesting to conserve body heat, or caching food that has been abundant during the summer (seeds are especially suitable for this), that animals undertake to tolerate cold. I have not even mentioned the anatomical and physiological ones. However, it is worth mentioning the presence of brown fat (aka brown adipose tissue) that is found in all hibernating mammals as well as many that remain active throughout the winter. Brown fat cells are rich in mitochondria, which respire carbohydrate to produce heat that is conveyed rapidly to blood vessels and vital organs.

What lessons can we learn from a study of animal adaptations to winter, and indeed, to their environment in general? Probably that such adaptations are awesome, and should inspire in us a deep desire for species conservation. Nevertheless, these adaptations are not perfect. Winter is a time of great stress and vulnerability for many organisms, and the mortality of individuals can be high. By comparison, we humans have it cushy with our warm houses (by virtue of exploiting the planet's unsustainable energy resources), adequate clothing and abundant and delicious food. If we *must* complain about winter let it be only for the purposes of social cohesion!

*Reference: On-line sources for species Merritt, J.F. 2010. The biology of small mammals. Baltimore, MD. Johns Hopkins University Press.*



Mourning Cloak butterfly on Manitoba Maple, early May, 2011. Photo: P. Cotterill



## The Wagner Grapevine



### Thanks to All Our Volunteers!

A large number of volunteer hours has been contributed to the upkeep of Wagner this year, by many different people. First, an apology to those volunteers who were missed out of the spring newsletter: **Shirley Rypstra, Emily Rypstra, Bridgett Rypstra** and **Carolyn VanderVeen**, all from Osborne Acres, and also **Trudy Harasci** of Edmonton and **Alyssa Wilson** of the Nature Conservancy of Canada. All these people helped with the spring clean-up.

Activities of all kinds continued throughout the summer and thanks are due, in no particular order, to:

**Derek Johnson, Loney Dickson** and **Kim McKinnon** for re-measuring so many of our permanent sample plots this summer. Derek notes that 17 of our 29 PSPs have been visited this year, and he is preparing a comprehensive report on their status, to be excerpted in the next newsletter. To **Alice Hendry**, for outreach to her Osborne Acres neighbours, including particularly the **VanderVeen family** and the **Van Rooyen family**. To **Cathy Mowat** for organizing the fall clean-up with the **Knights of Columbus** – and of course to **Allan Phillips** and all of the K of C team who turned out to pick up roadside litter and host an excellent barbecue outside the front gate. To **Helen Omelchuk**, who helped **Jasper Keizer** clean up the Marl Pond Trail on the same occasion. To **Pat Webb** for miscellaneous duties including bringing on board two new volunteers, **Carole Dodd**, who is helping her with design and operation of the website, and **Henk Harks**, who will be taking over some of Pat’s treasurer’s responsibilities. To **Beth Jenkins**, for her work with the spring raffle, and for taking on some of the messier duties associated with our facilities. To **Irl Miller** and **Patsy Cotterill** for doing more transplanting into the restoration fields. To **Heike Kohl** and **Holly Duvall** for assistance with site monitoring. To **Brenda Harvey** and **Carolyn VanderVeen** not only for helping with clean-ups but also for being brave enough to attend one of our board meetings! To **Ben Rostron** for hydrological expertise, which always comes in useful at “political” meetings, and last but not least, to **Pat and Dick Clayton** for continuing,

consistent stewardship. Dick deserves mention also for his bird-banding and nest-care duties (see the Bird Banding Report, page 8).

### Yet Still More Volunteers Needed!

Despite having more hands-on help this year, we are still looking for more volunteers, and especially if they are young (well, maybe young at heart will do), healthy and keen (i.e., as opposed to current board members who are old, tired and jaded!). We would still welcome people who can help with spring and fall clean-ups. However, we are also looking for people who are willing to be monthly monitors, which chiefly involves checking the trail and site perimeters once or twice on the chosen month, ensuring that trail guides are available in summer, etc. (This is a rewarding job because if you monitor in different months you get to see Wagner in all seasons and observe neat little bits of natural history.) Apprenticeships and mentorships for monitors are possible, although it really isn’t a difficult job, and you don’t need to be an expert botanist or birder or anything. For those with a taste for board responsibilities, we invite you to join us as a director. Directors can hold the position for one-, two-, or three-year terms. Since people are invariably more interested in certain aspects of management than others, we tend to have some division of labour. Preparatory work may be done by one or several people (subcommittees) but decisions are made communally. We have about 10 meetings a year.

Volunteers could be outreach coordinators or volunteer coordinators, for instance. Some of us specialize more in communications, and others in hands-on field work, though almost all of us like to get out in Wagner as much as we can. In fact we draw our inspiration from the natural area itself and its denizens. (We appreciate observers who send in their natural history reports too, and see my comments about welcoming birders (page 2).) If you’d like to enquire about volunteering, give any one of us on the board of directors (see below) a call or email, or turn up at one of our public events and ask questions!

### Wagner Natural Area Society Board 2009-2011

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 Director) (436-8231)  
All telephone numbers are preceded by 780-.



## Wagner Nesting and Banding Report, 2011

By Dick Clayton

Total tree swallows fledged	135
Total tree swallows banded	67
Total tree swallows not banded	68
Total wrens fledged	4

5 empty boxes
1 wren nest (4 young, 1 egg)
7 tree swallow fledglings dead

The increase in young tree swallows fledged this year over 2010 was 16, which was not, however, close to our recent record of 168 in 2008. Three boxes which were not being used were removed (poor locations) so there are now 32 boxes in all, 15 in the Villeneuve field and 17 in Atim field.

Geoff Holroyd of Canadian Wildlife Service phoned and asked if he could band tree swallows at Wagner for a

research project; by arrangement with Bob Danner, this was agreed upon. Bob has helped us band since Eddie Jones' retirement, but he always has lots to do and felt that he would relinquish it to an official research project. We thank him very much for his interest and assistance. The banded numbers are from my observation; the official ones are with Geoff.

Following is a list of birds recorded by Shirley Coulson in Wagner at the end of May. Many of these species are the same as those recorded by Steven Symes, Ashley Thorsen, Shirley and Darren Dunsmore on May 29<sup>th</sup> from the Marl Pond Trail, but Shirley wandered farther afield in Wagner and noted some additional species:

Canada Goose	Ruffed Grouse	Solitary Sandpiper	Franklin's Gull
Least Flycatcher	Common Raven	American Crow	Tree Swallow
Black-capped Chickadee	Boreal Chickadee	Red-breasted Nuthatch	House Wren
American Robin	Yellow Warbler	Yellow-rumped Warbler	American Redstart (female)
Clay-colored Sparrow	Savannah Sparrow	White-throated Sparrow	Song Sparrow
Dark-eyed Junco	Brown-headed Cowbird	Red-winged Blackbird	Common Grackle

### Wildlife Note:

A member of Wagner Society was recently in conversation with a member of the public who had live-trapped a red squirrel and was releasing it in Wagner Natural Area. Apparently this was his third such release. I took the opportunity to enquire of squirrel expert Dr. Stan Boutin of the University of Alberta what the probable survival of such released squirrels would be. He replied that the odds were not good. Wagner habitat is likely saturated with squirrels and

any intruder would be unlikely to find a niche. Squirrels are aggressively territorial! It is therefore not advisable to attempt to relocate squirrels. Besides, any gap left in the original environment is likely to be quickly filled by another squirrel, so property owners with problem squirrels are not actually solving their problem. A better strategy is to protect their property against squirrel intrusions, and if using a bird feeder, try to obtain one that is squirrel-proof. – Ed.

Northern Twayblade      Photos by D. Fielder



### A New Orchid Species for Wagner!

**David Fielder** took these pictures of Northern Twayblade, *Listera borealis*, in Wagner on June 5.<sup>th</sup> This is a new orchid for Wagner! David, who enjoys orchid hunting and photography in local peatland natural areas, also recorded the Adder's-mouth orchids (White and Bog, *Malaxis monophyllos* and *M. paludosa*) in flower on July 31<sup>st</sup>. He found a healthy population of 20-25 plants of Lesser Rattlesnake Plantain (orchid) (*Goodyera repens*) on August 1<sup>st</sup>. This is good news because *G. repens* is a rare orchid in Wagner. Good work, David!