

# MUSKRAT EXPRESS

WILLIAMS LAKE FIELD NATURALISTS  
DECEMBER 2010 NEWSLETTER



We wish all of you  
a very  
Merry Christmas

ENJOY  
BIRD  
COUNT  
+  
POT  
LUCK  
TOO  
SUNDAY DEC 19



VOTE  
NOW  
FOR  
HORSEFLY'S  
SALMON



## The MUSKRAT EXPRESS

DECEMBER 3, 2010

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The newsletter for the:  
Williams Lake Field Naturalists  
1305A Borland Road, Williams Lake BC, V2G 5K5

**Membership fees:** Family (\$30), single (\$25) or student (\$10) memberships can be mailed to the above address. Please complete the membership and waiver forms available at the Nature Centre (250) 398-8532, [muskrat@midbc.com](mailto:muskrat@midbc.com) or the web site below. For more information about the club please contact Fred McMechan at 392-7680 or e-mail [Fred\\_McMechan@telus.net](mailto:Fred_McMechan@telus.net)

**Williams Lake Field Naturalists Web Site** <http://www.williamslakefieldnaturalists.ca>

**Executive of The Williams Lake Field Naturalists:** president Fred McMechan, vice-president Jim Sims, secretary Bev Frittenburg, treasurer Katharine VanSpall and directors Nola Daintith, Ordell Steen, Rob Higgins, Rick Dawson and Cathy Koot

**Editors:** If you have comments, suggestions or articles for the Muskrat please contact Margaret Waring (398-7724), Jim Sims (296-3638) or e-mail us at [muskrat@midbc.com](mailto:muskrat@midbc.com)  
Thank you to all of you who have made contributions to this month's newsletter.

### **Membership Renewal Fees due January 1st 2011**

Please renew now to maintain your membership in the naturalists club (and BC Nature as a result). Membership/waiver forms can be downloaded from the web site given above or you can use the ones we send you. For members who receive the electronic version of the newsletter, the forms will be e-mailed, while those who do not will receive paper copies in the mail. For liability reasons, these forms must be signed and submitted for each year of your membership in the club. Please remember to submit the additional form if you have children (even adult family members) who are to be covered by a family membership.

**IMPORTANT:** The section "Consent for Internal Use (not sharing) of Personal Information" allows the membership director to share your mailing address with the "Muskrat Express" editors so you receive the newsletter and with BC Nature. As our club has liability insurance for each member via BC Nature, BC Nature needs member names for their records. They adhere to strict privacy policies and do not share such information. Without consent, you will not be insured and coverage is required for participation in club field trips. If you do not want to receive the "BC Nature" magazine, let the membership director (Cathy Koot) know and she can arrange for that.

Thank you!  
Cathy Koot

**43<sup>rd</sup> Williams Lake Christmas Bird Count – Sunday December 19<sup>th</sup>, 2010**

By: Phil Ranson (our CBC coordinator)

We were down to 55 species last year; a drop of 8 from the remarkable record count of 2008 where the moon, stars and weather all aligned to seemingly uncover every bird in the region. 55 is still an average year of late and among that total we had 2 new birds, a Swamp Sparrow and a Chipping Sparrow to bring our 42 year aggregate up to 117 species. Without trying to jinx 2010 we seem to manage to find a new species or produce record numbers of some species each year.

The early onset of winter has undoubtedly moved out many of the lingering species and ice has formed in all the bays on Williams Lake making it quite likely that another cold snap will seal up the lake until spring. Any small pockets of open water away from the lake then become critical for finding ducks. The sewage treatment plant in the river valley has become a refuge, particularly for Mallards, but also for ducks that normally should be well south of here by December. Over the last 10 years the steaming waters of the lagoons have hosted Wood Duck twice, Lesser Scaup, both Goldeneye, Shoveler, Pintail, Ring-necked Duck and Bufflehead.



**One of many Downy Woodpeckers waiting to be counted**

The count this year is on Sunday, December 19<sup>th</sup> (first Sunday in the count period). I'll be contacting the regulars who have participated over the last few years and we'll try and maintain the same boundaries – subject to any better ideas you may have. We are unlikely to get complete coverage of our 24 Km circle so there is always room for more participants no matter what your skill level. There's obviously a correlation between number of observers, area covered and birds seen so we're always hoping for a good turnout.

Bird feeders in the count area contribute a significant proportion of our totals so if you have a feeder you can watch for a while and provide an estimate of the birds, and then we'd love to hear from you. If you have friends or neighbours with feeders, please contact them and let them know about the count and who to contact (see below). Counters can drop by and do a count and help with identification if that would help.

Christmas bird counts among other popular bird surveys have become known as 'citizen science' where we can all contribute in some small way towards a better understanding of bird populations. Although not 'scientifically rigorous', if enough data is collected from our counts using a standard survey protocol over a long enough period then the information we can provide to organizations such as Bird Studies Canada and the Audubon Society can be freely shared with the scientific community where it is used to not only determine population trends but to promote the conservation effort and possibly be used in ways we have not yet imagined.

If you'd like to help or have any questions about the Williams Lake count, please give me a call at 398-7110 or email [ranson1@telus.net](mailto:ranson1@telus.net). The post count gathering and pot luck will again be at Fred McMechan's at 1225 Moon Ave., (392-7680) where feeder watchers can phone in their reports after 6:00 p.m.

## Save our Wild Salmon!

Help The Land Conservancy win \$160,000 to purchase and protect sockeye salmon habitat for our Horsefly River Expansion Project. Vote every day at

[www.avivacommunityfund.org/ideas/acf5328](http://www.avivacommunityfund.org/ideas/acf5328) < <http://www.avivacommunityfund.org/ideas/acf5328> >

Here are some instructions that I think are straight forward.



- Here's the link to the site : [www.avivacommunityfund.org/ideas/acf5328](http://www.avivacommunityfund.org/ideas/acf5328)
- Click on this site.
- Click on vote now
- New participants have to register, so click on "register now"
- You have to enter an active email address here
- You then pick a password that will be used only for this contest. Please do not use any of your current passwords.
- Type in a name that will be used if you leave comments on the Aviva site. This can be your real name, or a nick name
- Check or uncheck any boxes in the notification sections below that are relevant to you.
- Click on "register now"

Aviva will send you an email to confirm that you have registered. Once you get this email, you follow their instructions to start voting.

- Your first vote will take you to a page where you log in by typing your email address and the password you just created.
- Here you need to find the Horsefly page by doing a search. Type in Horsefly in the box beside the "search ideas" button and then click this button.  
The picture of the salmon will come up at the bottom of the page. Click on the salmon, and then click on "Vote Now"
- Once you've voted, click on "sign out" at the top right of this page.

The easiest way to vote on subsequent days is book mark this site [www.avivacommunityfund.org/ideas/acf5328](http://www.avivacommunityfund.org/ideas/acf5328)

Then click on "vote now"

Type in your email address and the password, then click on "Login"

This will take you to the right page to vote.

If anybody wants some details on what we are actually trying to buy, they can visit this site:

<http://blog.conservancy.bc.ca/get-involved-with-tlc/campaigns/horsefly-river-expansion-project/>

Thanks a million, or at least 160,000 if we win

Also, there are a number of videos on the bottom of the page that are ‘entertaining’

## **Scout Island Nature Centre Report**

**December 2010**

By: Sue Hemphill

There is snow for tracking visitors, but the lake isn't quite frozen yet. Our eyed Coho eggs arrived from McKinley Creek. I have been busy distributing them to classrooms across the region. Students will raise them through the fry stage for release in June. Fall programs are at an end and winter programs will start mid-January. I have had some great help from volunteers. Juliene Tredenberg and Jan Wherley helped with school groups who came to the Centre for the fall programs. Allison Tew, a high school student, is doing art work in the Nature House and Kaitlin Hal is taking care of all the live creatures in residence in the Nature House.

As I prepare for the winter programs, I come across some of the most interesting information and I thought I would share this with you. We have great books on winter ecology, that help me enjoy our winters even more and give me lots of stories to share with the human visitors. All of us at the Nature House-staff and volunteers hope you have time to go outside to enjoy the Winter Solstice and maybe even notice the bark beetle galleries.

## **Scout Island Nature Centre Needs You**

**Fund Raising Drive 2010/11**

By: Jenny Noble

It's salmon egg time again, so Sue is in the schools setting up tanks in 10 classrooms, and getting the kids started on their fry-raising adventures. There are 18 classes participating this year, so the program is engaging around 500 students. She'll be back to each school several times with more lessons as the eggs develop into alevins and mature into fry. By the time young Chinook are ready to be released in May, the kids are excited to bring them to SINC and send them on their journey.

It's amazing how many young adults come into SINC and go straight to our salmon egg tank, reminiscing about raising and releasing eggs at school. People keep those connections throughout their lives, and Salmonids in the Classroom such a great program for teaching kids about their world. We're learning so much about the importance of Nature in children's development that we feel privileged to be involved in providing them with memorable experiences.

Pre-school is humming along, school classes are delighting in the snow and Mary's had her Young Naturalists' Club in for Archaeology and Astronomy Explorer Days. While most of our education work focuses on children and youth, we continue to engage people of all ages with our nature-oriented lecture series and interpretive displays. Snow and cold aside, there really isn't much down time around here.



We do receive funding from governments and local businesses, but we depend heavily on our Friends and Members to support this vital work. With the loss of gaming funds and increased competition for grants, we're asking you to contribute what you can in funds and/or volunteer time. You'll help keep great programs like Salmonids in the Classroom going, and support improvements like the new McMechan activity room.

And as you plan your seasonal gifting, consider that a donation in the name of someone on your list is non-polluting, exploits no resources, fits all sizes and never needs dusting! We will send you a gift card so you can announce your gift.

When you donate, you help ensure that Scout Island Nature Centre continues to be a sanctuary to the whole community of life, and you:

- receive a biannual Newsletter informing you of upcoming programs and special events at the Nature Centre
- can borrow books (including some great ones for children) on nature topics from the extensive Nature House Library
- are invited to suggest programs you would like to see offered
- receive a charitable tax receipt

The donation form is attached to the end of the newsletter.

### **Bark Beetles (Family *Scolytidae*)**

**From A Guide to Nature in Winter by Donald W. Stokes**

Bark Beetles are small, inconspicuous insects that spend most of their lives under the surface of tree bark. They seem an unlikely candidate for a book on the common natural sights of winter, but the reason for their inclusion is the prominence of the adult and larval tunnels that appear like engravings on the surface wood of dead trees. Many of these engravings form delightful patterns that record the fascinating life habits of beetles.

Bark Beetles can be monogamous, bigamous, or polygamous. Among the monogamous beetles, the female starts the egg tunnels herself after mating, being sometimes later helped by the male. Among the bigamous or polygamous beetles, the male first bores through the bark and creates an enlarged cavity, called a nuptial chamber. Two or more females will enter this chamber, mate with the male, and dig their egg tunnels leading off from the chamber.

After this, the beetles' life histories are similar. The female digs an egg tunnel in the wood surface, depositing eggs in small niches at either side. The larvae hatch and eat their own tunnels through the wood; each of these "larval mines" increases in size as the larva grows. When finished with eating, each hollows out a chamber, where it pupates (forms a cocoon) and transforms into an adult. As adults, the beetles emerge through the bark and fly to new host trees.

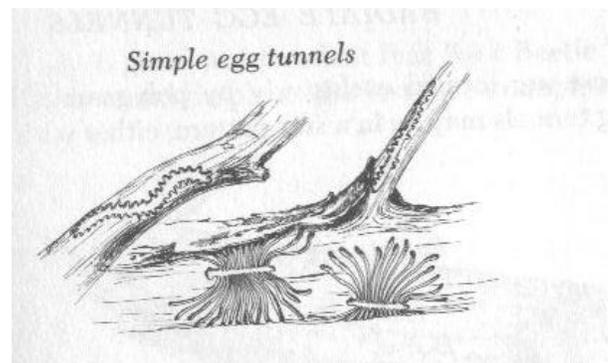
Bark Beetles winter over as larvae, pupae, or adults. Peeling away the bark of an infested tree will reveal them, but chances of seeing the insect are slight, since it is only about 1/10 inch long. And when the beetles are in a tree it is hard to guess at their presence. Even so, they have many predators, chiefly Woodpeckers, which feast on the beetles all year and especially in winter.

The Bark Beetle family, *Scolytidae*, is divided into three groups, distinguished by their habits: True Bark Beetles bore between the bark and the wood, Wood-eating Beetles bore into the wood, and Ambrosia Beetles bore into the wood and live off fungi that grow in their galleries.

Only True Bark Beetles are included here, for their galleries are most evident. There are many genera, some of the more important being *Scolytus*, *Dendroctonus*, and *Ips*. No genus is consistently represented by one type of egg tunnel, so that to label each type with only one or two generic names out and stressed construction of the tunnels and what they reveal about their makers. However, each species builds its tunnels in only certain types of trees, and often consistently on a certain part of that tree- for example, the lower branches, or the trunk. With continued observation you will soon be able to guess where certain patterns are likely to be found.

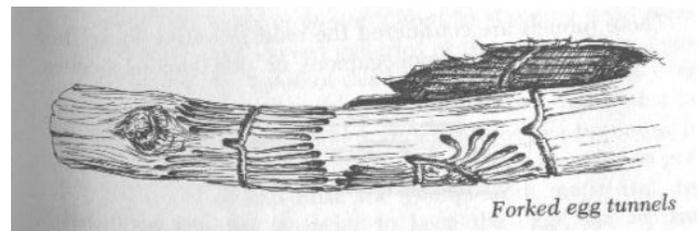
### Simple Egg Tunnels

These tunnels are formed by a single monogamous female. They may be bored with, across, or regardless of the grain, depending on the species. They may be winding or straight, 1 inch to more than 1 foot long. There are always egg niches carved in their sides. Larval mines, radiating from the tunnels, may show in the wood or may have been bored in the bark and thus may not show on the wood surface.



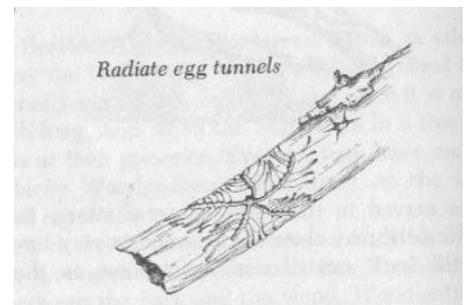
### Forked Egg Tunnels

These tunnels are made by either monogamous or bigamous beetles. They have an extended entrance tunnel that forks off in opposite directions or in the same direction. They most commonly go across the grain of branches. Sometimes larval mines and even eggs niches are bored in the bark and do not show on the wood surface.



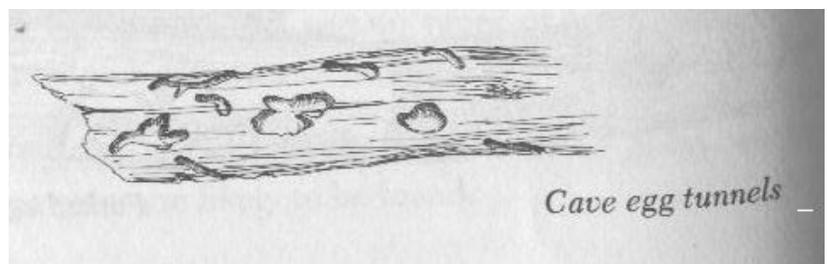
### Radiate Egg Tunnels

These are formed exclusively by polygamous beetles. The egg tunnels may be in a star pattern, either with the grain or across it. Sometimes the nuptial chamber is bored in the bark and does not show in the wood surface.



### Cave Egg Tunnels

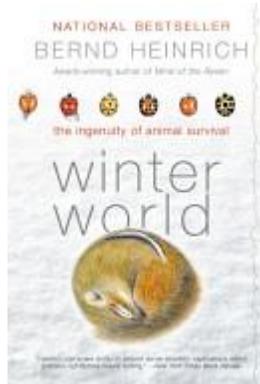
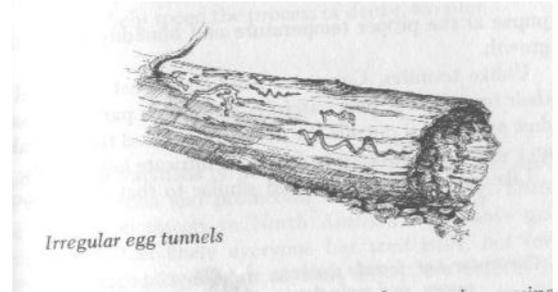
These tunnels are considered the most primitive form; they are made by either monogamous or polygamous beetles. They are enlarged cavities in which all the eggs are laid in a group. The larvae



eat together around the walls of the chamber, making it an irregular shape.

### Irregular Egg Tunnels

This category is given just to admit that Bark Beetle behavior is not as neat and simple as the first four examples would suggest. Many of the Bark Beetles' tunnels are crisscrossing mazes with varying amounts of regularity.



### Winter World: the ingenuity of animal survival

Bernd Heinrich, 2003

Book Review, by Glenna MacKenzie

Heinrich is the author of several books about science and nature, including *Summer World* and *Mind of the Raven*. In this book, *Winter World*, he explores the woods surrounding his Maine home, watching and studying how animals, birds, and insects survive harsh winters. How do they avoid freezing to death? What do they eat and how do they find enough food? How do they adapt to adverse winter conditions? The golden-crowned kinglet is Heinrich's primary focus. In understanding how this tiny, walnut-sized bird copes with winter, Heinrich says, we can understand that "if kinglets can do it, then anything seems possible".

Starting with some scientific background and terminology on temperature, water, snow, and other aspects of the winter environment, Heinrich's near-poetic prose describes the various methods creatures use to survive this coldest season. If humans adapt by changing their environment, by turning up the heat and putting on more clothing, what do other living beings do? Migration, hibernation, and winter flocks are well-known, but there are many other surprising evolutionary adaptations. They have learned to change their physiology and behaviour. One technique is to regulate body temperature by greater or lesser activity: flight, shivering, basking, insulation (e.g. fur, feathers) or states of inactivity (torpor). Hibernation is a broadly-used term which is not always a state of torpor. Bears maintain a high body temperature, while frogs lower their temperatures till they are frozen. A type of "antifreeze" prevents death in frogs. Squirrels, on the other hand, come close to the freezing point without freezing and do not produce antifreeze.

A few years ago I visited the wintering grounds of the monarch butterfly. These amazing insects migrate from east of the Rockies to the mountains of central Mexico. Unable to survive freezing temperatures, their ancestors happened upon this ideal location, where they remain in a state of torpor for about three months, conserving energy and living off their body fat reserves. Much as I was awed by what I was witnessing, I did not yet have the benefit of Heinrich's beautiful accounts of the wonder of winter survival. Squirrels, mice, turtles, bears, bees, moths, chickadees, weasels, frogs, butterflies, bats, spiders, crows, golden-crowned kinglets: these are just some of the examples Heinrich offers to demonstrate nature's ingenuity. This is a fascinating exploration of what surrounds us, usually unknowingly, during our long cold winters.

This wonderful book is available in the Scout Island Nature Centre library.

## Bird Sightings from the Williams Lake Are

By: Phil Ranson

Williams Lake is still mostly open (as of the 2<sup>nd</sup>) but most of the birds have decided it's time to go. A look around N. Lakeside found 3 Pied-billed Grebes, 2 Greater and 1 Lesser Scaup, a pair of Common Goldeneye and a single Coot. Kris had seen a Western Grebe the previous day. Bohemian Waxwings which were plentiful a week or so ago, seem to have cleaned out the mountain ash trees and moved on. The Merlin which benefitted from their presence hasn't been seen since either.

A Heron seems to have survived the big chill, at least temporarily, and has been seen around Scout Island of late. The lower Williams Lake river valley has a good contingent of Dippers with one bird about every 75-100 metres of open water. The river is completely dry until it reaches the lower parking lot area. 4 Snipe were also in the river with a small flock of 6 Green-winged Teal. Lower down the river, a Pacific Wren was calling and seems to be on winter territory. It's still early but there are no signs of a good crop of winter owls as yet. A Northern Hawk Owl was seen earlier in the burned forest in the Nazko area and a Pygmy Owl and a Great Gray were at Riske Creek. There is some concern over the status of the Short-eared Owl which seems to be in decline so it was good to hear of one in the Bouchie Lake area of Quesnel and another reported by Cathy in the Stampede Grounds on December 2<sup>nd</sup>. A Barred Owl was photographed south of Springhouse recently but no reports of Snowy Owl so far – which may be just as well because the individuals that make it this far south often don't fare too well.



**Barred Owl**

By Dave Dickson

### **Rough-legged Hawk** (*Buteo lagopus*)

Phil reports that a Rough-legged Hawk has been hanging out around the transfer station on Frizzi Road. This is one of the large hawks that can be found in the area during the fall and spring migration and sometimes they stay around for part of the winter.

Its feet are feathered to the toes (hence its scientific name, meaning "hare-footed") as an adaptation to its arctic home range. It is a large hawk with long and broad wings. The flight feathers are pale, with dark trailing edge to wings with black marks at the wrists. The tail is broad, with white at base and broad dark tip. It commonly has a pale, streaked chest and

broad dark belly but this varies and it may be all dark, but still with pale wing feathers and white at base of tail. Like the



**Rough-legged Hawk by Sandy**

Osprey it is one of few large predators that hover when it is searching for food.



**Rough-legged Hawk by Ken**

It breeds in the open tundra where it most likely will nest on a cliff ledge. It feeds mainly on lemmings and its population will fluctuate with the population of the lemmings. In bad years they lay fewer eggs (1 or 2) and may even abandon the nest and not breed. When the hunting is better they may lay as many as 7 eggs and the population increases along with the lemmings. During the winter they frequent open grassland areas where they feed on small rodents and the occasional small bird. Their small feet prevent them from taking larger prey. Keep your eyes open for this predator and when you confirm a sighting please report it to Phil or the editors.

**FOR SALE: A Perfect Christmas Gift for a Birder .... Bushnell Sentry Spotting Scope**

50mm 18-36X Zoom Lens	Brand New, never used, never opened
Protective Rubber Armoring	\$100
Multi Coated Optics	And, for a "Her & His" gift – two of them
Compact Tripod	for \$170.00
Hard Sided Case	
Evan Nicholson (250) 392-1944	

**Donation Form:**

Please make your cheque payable to **Scout Island Nature Centre Fund** and mail with the form below to:

Scout Island Nature Centre  
1305 A Borland Rd.  
Williams Lake, BC V2G 5K5

I have enclosed a donation of \$30 \_\_\_ \$50 \_\_\_ \$100 \_\_\_ \$200 \_\_\_ \$300 \_\_\_ other \_\_\_\_\_

**Name** \_\_\_\_\_

**email** \_\_\_\_\_

**postal address** \_\_\_\_\_

\_\_\_\_\_

I prefer to receive the newsletter by email \_\_\_ by post \_\_\_

I am making a donation of \_\_\_\_\_ as a gift. Please send me a card that I can give to the recipient.

**The staff at SINC and the Board of the WLFN  
thank you for being a member and supporting our work throughout 2010  
Have a safe, joyous and ecologically-aware holiday season**