

MUSKRAY EXPRESS

WILLIAMS LAKE FIELD NATURALISTS
SEPTEMBER-OCTOBER 2008 NEWSLETTER

21 SEPT SUMMER ENDS



FALL
STARTS

HIKING



HARVESTING

HAVE FUN



OCTOBER FIELD TRIP
VISIT THE GRASSLANDS
WATCH THE SHEEP



The MUSKRAT EXPRESS

OCTOBER 1, 2008

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

Membership fees: Family (\$27) or single (\$22) memberships can be mailed to the above address. Please include your address and phone number with your membership fee. For more information about the club please contact Fred McMechan at 392-7680 or e-mail Fred_McMechan@telus.net

Executive of The Williams Lake Field Naturalists: president Fred McMechan, vice-president Jim Sims, secretary Kris Andrews, treasurer Katharine VanSpall and directors Nola Daintith, Ordell Steen, Anna Roberts, 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 (296-3636) or e-mail simsj@telus.net **This is the September/October Muskrat and we expect to publish again in early November.**

Last Field Trip of the year: Junction Sheep Range Provincial Park

Sunday October 19th Fred McMechan (392-7680)
Meet at Scout Island at 8:00am. Bring a lunch, water bottle and you binoculars for this annual day long drive and hike into the park. This will be at the peak of the Big-horned Sheep rut so look forward to seeing the sheep and perhaps you will be lucky and see or hear some head-butting.

Farwell Canyon to Big Creek Field Trip

Fourteen club members joined Ordell and Jim for the second annual Big Creek hike along the south shores of the Chilcotin River. The weather cooperated and all participants enjoyed another great outing. The lunch break was held at the end of the hike on top of the valley overlooking the junction of the Chilcotin and Big Creek.



On the Trail to Big Creek

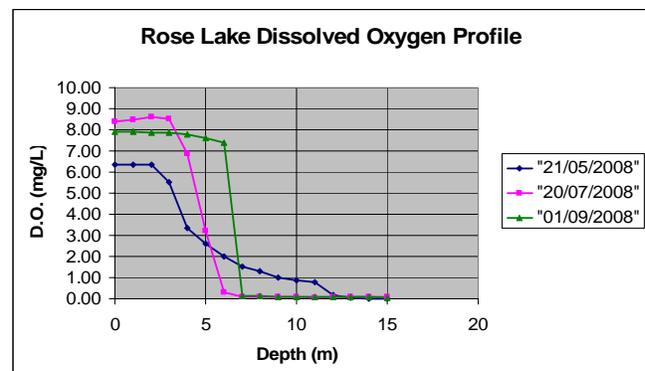
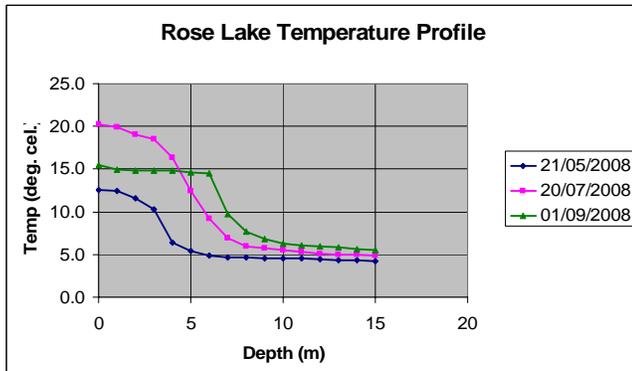
Rose Lake Oxygen Levels

I have been gathering data on the water quality for the Ministry of Environment. For the past four years I have measured the surface temperature and the water clarity with a Sechi Disk.

Last year I also measured the temperature every metre to the bottom of the lake. This year I measured both the temperature and the dissolved oxygen content. At the beginning of the year I was told by Chris my monitor at the Ministry that a number of smaller lakes like Rose Lake did not turn over as they normally would do each spring. She expected that this had something to do with the later than normal ice out date.

The temperature near the bottom of the lake is usually near 4 deg. cel. This is when water has its greatest density. In the spring, when the surface temperature reaches this temperature the water column will have a uniform temperature and density. Under these conditions the water in the lake is able to mix completely. With the aid of wind and wave action the water in the lake will mix (turn over). This brings needed nutrients from the bottom to the surface and re-oxygenates the water near the bottom of the lake. An algae bloom will often be associated with turn over due to the increase in nutrients. As the lake warms up the temperature gradient also creates a density gradient and the denser, colder water at the bottom can no longer circulate with the lighter surface water. The water near the surface will continue to circulate and the oxygen level will increase due to rain, run-off, wind and wave action. However there will be no further mixing of the oxygenated surface water with the lower levels and the oxygen levels at the bottom will not increase. As freeze over nears again the temperature in the lake will approach 4 deg. cel. When the water column again reaches a uniform temperature the lake can turn over again, bringing the badly needed oxygenated water to the bottom of the lake. An algae bloom can occur again as more nutrients come up to the surface and sun shine.

I have included graphs of the data I collected on three dates, May 21st, July 7th and Sept. 1st.



Comparison of the temperature and dissolved oxygen show how the sudden drop in temperature around 5 to 6 metres has prevented the denser lower water from mixing with the oxygenated surface water. By time the September readings were taken temperatures of the top layer had become very uniform through the top six metres. The oxygen levels of the same 6 metres shows how well the top layer of water has mixed as it also is now very uniform just below 8 mg/L. You can also see how dramatic the drop in oxygen is from 6 metres to 7 metres where the dissolved Oxygen is only 0.15mg/L. I also did one survey of Eagle Lake, a much larger lake near Tatla Lake. There was very little change in the dissolved Oxygen levels. For the top ten metres it was slightly below 9 mg/L. The rapid drop in temperature occurred at this point and there was a slight increase to 9.7 mg/L for the nest 5 metres to the point where the temperatures started to level off near 7 deg. cel. Over the last 15 metres of data the dissolved oxygen dropped slightly to a low of 6.7 mg/L at 30 metres.

Scout Island Nature Centre News

It was a great summer thanks to our staff: Wyatt Klopp, Jean Oosthuizen, Ian Higgins, Colleen Langston, Aja Wright and Alison Zacharias. The teachers involved The Nature Fun program focused on getting children interested and knowledgeable about the natural world around them. Each week of the summer had a different theme, and each day covered a different topic based on the theme. The staff developed and led the program each day and every day included outdoor exploration and games based on the theme. Once again, special programs were offered to the children of the Boitanio Day Camp and the Williams Lake Boys and Girls Club. Both of these groups walked down and spent ½ the day with us. This has been a great way to include older children in our programs. There were also evening programs that summer staff led with up to 40 people attending. Jenny and I are both missing the energy and enthusiasm of the summer staff. Ian and Aja are still around to help out and it is Ian who will meet you if you come in on the weekend.

A lot of tasks were completed outside also. There are 14 areas planted with new trees. That is the good news. The bad news is that the herd of 10 (yes 10) deer found all of the birches and aspens and ate them. We will need to rethink our planting plan. Any suggestions out there? Thanks to the great weed fighters who attacked the thistle, burdock, tansy, and blue stick weed. The weed warriors this year were: Harry Jennings, Pete Goetler, Jenny Noble, Denise Deschene, Peter Opi, the Nature Trust Youth Group, and all of the summer staff. The Katimavik crew dug up alder roots that will be alder trees at Scout Island in a few years (if the deer don't eat them). Finally, the new bridge to Otter Point is ready to be lifted into place by the crane. That is thanks to a group of volunteers led by Fred and some skilled help from a Pioneer Log Homes crew. The Nature House is open to the public this fall Saturday and Sunday from 1-4 and during the week when the sign is out until October 12th. After that, it will be open for booked programs only.

Fall is turning out to be almost as busy as the summer. Patricia Spencer is leading **Nature Journeys** 2 days a week. Nature Journeys is an experiential program which employs a "mentoring" approach to teaching, where the child is gently guided into the world of nature through the use of inspiration, games, stories and questioning techniques. Students learn about nature awareness, natural history, survival skills and tracking while having fun at the same time. The groups are small (6 or less) and grouped by ages. They meet with Patricia once a week for 6 weeks.

High school science classes have been making full use of the nature centre. This fall the programs are focusing on aquatic ecosystems for grade 8 and food pyramids for grade 10. The grade 10 students are learning how to bird and then fitting the birds they identify into food chains.

We just had a great two days out at the Quesnel River Research Centre with 21 high school students from School Districts 27 and 28. These students helped to harvest eggs and sperm from Chinook that they netted from the Quesnel River. They assisted DFO staff with this task. They also worked with invertebrates, did a fish dissection and learned about their Ecological

Footprint. It was Fun for everyone! This was made possible because of a grant from Pacific Salmon Foundation, Lions Club of Williams Lake and Taseko Mines.

We have some great new members helping out with these fall programs. If you are interested in working with students, please contact me. We also are happy to provide programs for other community groups, so if you are involved in a youth program and would like a nature program contact Sue.

Bird Sightings from the Williams Lake Area October 1, 2008

American White Pelican

Pelicans were not as common around Williams Lake over the summer. They did make occasional visits and there was frequently a single Pelican around the East end of the lake. I expect they found a more reliable source of fish this summer. While I was on a fishing trip on the Blackwater River we ran into flocks of Pelicans on Euchiniko Lake as well as on Kuskoil Lake. They were loafing around out in the middle of the lakes. When we camped near the inflow into Kuskoil Lake we saw some large birds fly by just as it was getting dark and too dark to identify them. About a half hour later we discovered that it had been the Pelicans as they were splashing, fished in the rapids just above our camp. They were heard off and on throughout the night. At dawn the splashing stopped but a small flock of 9 Pelicans were still swimming around the base of the rapids. After we left camp and rowed



out into Kuskoil Lake more Pelicans flew out of the river valley and joined the others out on the lake. This was a fishing trip for us as well and we caught several rainbow trout at each set of rapids. I expect the Pelicans were finding the same success and were feeding on trout rather than the course fish out in the lakes. I expect they found them easy to catch in the shallow rapids just like we did. There was a late report of seven Pelicans over Riske Creek on September 20th. By then the migration would have been well underway. While we are on the topic of Pelicans, this photo of a Brown Pelican was taken at Lac La Hache on June 28th by Jennifer. It is the first record for this species in the Cariboo. The Pelican stayed around for a few days.

Arctic Tern

Another rare cariboo breeding bird has shown up at Eagle Lake. For the past two summers a pair of Arctic Terns has raised a brood on a newly formed rocky island near the west end of the lake. The new island is a result of the water level lowering over the past thirty years. Anyone approaching the island was exposed to continuous harassment by the pair. The photo of a very angry tern was taken on July 15th when it attacked me while I was on a point of land close to 500 metres from the nesting Island.

The Arctic Tern is similar to the Common Tern both of which are considerably smaller than the Caspian. The Arctic Tern lacks the black tip on the bill and also lacks a black wedge on the wing. Its head does not project as far as the Common's. The Arctic Tern normally breeds in the



high Arctic including the northwest corner of British Columbia. They will usually migrate at sea to and from their winter habitat on the oceans of the southern hemisphere. In the interior they are classified as a very rare spring migrant and a rare fall migrant. They nest as isolated pairs or in small colonies. The nests are usually simple depressions or scrapes on the bare ground with little or no nest materials.

Semi-palmated Plover

July visits to the Eagle Lake Plover nest site failed to produce any sign of the young. The pair of adults could still be found in the area but did not display any broken wing distracting behaviour. When approached closely they simply moved along the shore and continued feeding.

The Semi-Palmated Plover looks a lot like a smaller version of the killdeer but has only a single neck band. The bill is orange with a black tip. The legs are also orange.



The Plover is an Arctic breeder and can be found across most of northern Canada. It is a common to very common migrant in the interior of the province. It will frequent tidal mud flats, sandy and gravel beaches and less frequently rocky beaches. In the area of the nest there were sandy as well as rocky beaches. When feeding it preferred the sandy beach but the nest sight was adjacent to the rocky beach. There have been a couple of other recorded nesting records from the Chilcotin.



Nests are located on the ground and are frequently placed below overhanging ends of logs. Nests are lined with seaweed, grasses clam shells and small stones. Nest materials are gathered from the vicinity of the nest. Nests are often located near objects such as a protruding rock or small hummock. Note the larger rock beside the nest and the lining of grasses in this photo of the Eagle Lake nest.

Blue Jay

The Blue Jay is a crested Jay with barring on the tail and white patches on blue wings. It also has a black necklace on a whitish breast as shown in this photo of the Blue Jay that showed up in Lynn and Kurt's South Lakeside yard on September 26th. Recently there has been a continued increase in the number of Blue Jay sightings in our region as they expand their territory from the Northeast of the province. Perhaps this is an offspring of the pair that have been nesting and spending the winter at Big Lake.



The Blue Jay is common in suburbs, parks and woodlands. It is generally very noisy and bold. It frequently calls out *thief thief*. The loud alarm scream is used to attract the

attention of other Jays who will then mob the invading hawk or owl. They mimic other bird calls and have a good Red-tailed hawk imitation.

Although its diet is mostly plant materials such as seeds, nuts, and berries, the Blue Jay is actually an omnivore; insects, small mammals, amphibians, fish, and even the eggs and young of other birds round out the Blue Jay's diet. It is also a frequent visitor to bird feeders.

Blue Jays typically form monogamous pair bonds for life. Both sexes build the nest and rear the young, though only the female broods them. The male feeds the female while she is brooding the eggs. After the juveniles fledge, the family travels and forages together until early fall, when the young birds disperse to avoid competition for food during the winter.

Sandhill Cranes

The Sandhill Crane fall migration has started again. Large flocks of cranes will be a common sight as they head south calling as they go. Williams Lake is on a major migratory route for the cranes. They will often be so high that the flock can not be heard. On September 19th, close to noon I observed a flock of about 50 cranes circling as they gained elevation just south of Miocene Community Hall. After they had gained few 100 metres of elevation they quickly gathered in a V formation and headed south. Prior to that date I was hearing the cranes calling daily but since then there has been no calling cranes in the area. I expect that I witnessed the departure of our local gang of Sandhill Cranes. They are headed for the southern United States and the northern half of Mexico where they will spend the winter.



Adults are gray overall; during breeding, the plumage is usually much worn and stained, particularly in the migratory populations, and looks nearly ochre. They have a red forehead, white cheeks and a long dark pointed bill. They have long dark legs which trail behind in flight and a long neck that is kept straight in flight. Immature birds have reddish brown upperparts and gray under parts. Size varies among the different subspecies. This crane frequently gives a loud trumpeting call that suggests a French-style "r" rolled in the throat.

The Sandhill Crane has one of the longest fossil histories of any extant bird. A 10-million-year-old crane fossil from Nebraska is often cited as being of this species, but this is more likely from a prehistoric relative or the direct ancestor of the Sandhill Crane. The oldest unequivocal Sandhill Crane fossil is "just" 2.5 million years old, over one and a half times older than the earliest remains of most living species of birds, which are primarily found from after the Pliocene/Pleistocene boundary some 1.8 million years ago.

These birds forage while walking in shallow water or in fields, sometimes probing with their bills. They are omnivorous, eating insects, aquatic plants and animals, rodents, seeds and berries. They breed from central Alaska across the middle of the arctic to Hudson Bay. There is also a fairly common population that breeds in the Cariboo Chilcotin Region. Breeding habitats include bogs marshes, swamps and meadows.

I hope you have approved of the new format of my bird report. If you wish to be informed of all of the rare sightings, nesting records, arrivals and departures I suggest that you become a member of Phil's email group. To get up to date reports and photos please contact Phil Ranson at ranson1@telus.net. I am still looking for your interesting bird or wildlife observations and photos and would be glad to support your sighting with some natural history facts as I have done with this report.

Jim Sims

Chocolate is Coming

Scout Island Nature Centre will be doing a bulk order of organic, free trade chocolate bars from Cocoa Camino (www.cocoacamino.com) again. Chocolate without guilt. The chocolate bars are fresh when they come and keep really well (tasting good one year later when kept at a steady cool temperature). We won't be selling individual bars, but rather by the case (12 bars each 100grams \$42 or ½ case \$21 taxes included). Each bar will cost \$3.50. This is less than in a store and still making a bit of a profit for the Nature Centre. You can have a full case of one kind or a ½ of a case of one kind. Your choices are:

Milk Chocolate Bar - White Chocolate with Cocoa Nibs - Mocha Chocolate Bar - Dark Chocolate (55 % cacao) - Dark Chocolate Bar with Almonds - Espresso Dark Chocolate - Orange Dark Chocolate - Mint Dark Chocolate - Bittersweet Chocolate Bar (71% cocoa)

There is another choice this year--Los Intensos Chocolate Bars (71% cocoa and up) These are smaller bars (40g) and there are 16 in a case. Each costs \$2.25 bar or \$36 a case, taxes included. We will only order whole cases of these. The choices are:

Chili and Spice - Cranberries and Almonds - Matcha Green Tea - Panama Extra Dark (85% cocoa)

Fill out the form on the last page and email or call in if you want to order chocolate. You can pay now or pay when the chocolate arrives.

Order is due by October 15 so we can have the chocolate by the Holidays

Chocolate order form

Name _____ Phone# _____ email _____

Regular Chocolate Bars:

#of cases _____ type _____ cost _____ (\$42each case)

#of 1/2 cases _____ type _____ cost _____ (\$21 each 1/2 case)

Total Cost _____ **Note all taxes are included.**

Los Intensos Chocolate Bars

#of cases _____ type _____ cost _____ (36each case)

Total Cost _____

Send to Sue shemphill@wlake.com or phone 398 8532