

North Okanagan Naturalists' Club

# Newspacket

[www.nonc.ca](http://www.nonc.ca)

May-June 2011



*Rattlesnakes:  
Where do they go on summer vacation?  
Find out on September 7th...see page 4*



Plant Watch page 3



Vaseaux Lake page 8



NOPNAT page 10

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\* Federation of B.C. Natuarlists (BC Nature)  
\*\* Okanagan Collaborative Conservation Plan

# North Okanagan Naturalists' Club



# Newspacket

**May-June 2011 Issue  
Vol. 39 No. 3**

*OUR COVER THIS ISSUE : A Northern Pacific Rattlesnake. Photo by Jessica Gosling, who will be our guest speaker on September 7th.*

*Newspacket is published five times per year, in January-February, March-April, May-June, September-October and November-December issues. Copy should be delivered to Harold Sellers, Editor, e-mail [hikerharold@gmail.com](mailto:hikerharold@gmail.com)*

## PlantWatch

What is PlantWatch?

[www.naturewatch.ca/english/plantwatch/](http://www.naturewatch.ca/english/plantwatch/)

PlantWatch is part of our national NatureWatch series of volunteer monitoring programs designed to help identify ecological changes that may be affecting our environment. A joint venture between the Nature Canada and Environment Canada, PlantWatch partners include representatives from each province and territory. Our goal is to encourage Canadians of all ages to get involved in helping scientists discover how, and more importantly why, our natural environment is changing.

The PlantWatch program enables "citizen scientists" to get involved by recording flowering times for selected plant species and reporting these dates to researchers through the Internet or by mail. When you submit your data electronically, it's added instantly to Web maps showing bloom dates across Canada, so your observations make a difference right away!

PlantWatching has a long tradition and rich history. In 1750 the Swedish scientist and artist Linnaeus turned plantwatching into a systematic science. He made calendars of flowering times for 18 places in Sweden, also noting the exact climatic conditions at these times. This was the foundation of modern plant phenology which spread to many European countries and revealed, over the centuries, that some spring wildflowers are super-sensitive weather instruments!

Over one hundred years ago in Canada, Nova Scotia's Superintendent of education, Dr. Alexander H. MacKay had students collect plant, animal, agricultural and weather phenology from 1897-1923. Then in 1987 the Alberta Wildflower Survey started and blossomed into a program that initiated Alberta PlantWatch. The Alberta program then advised in the creation of Nova Scotia and Newfoundland PlantWatch. Today there are PlantWatch programs in each Province and Territory. ❖

## Calendar

**Wed., May 4 - NONC** meets at The Best Western Vernon Lodge, 3914 32nd Street, Vernon at 7:30 pm. The speaker is Don Gayton on "BC Grasslands: Ecologies and Challenges".

**Thursday, May 5 - The Colour of Birds:** Hawks are Brown – Bluebirds are Blue. White Egret – Goldfinch – Red Cardinal – Grey Jay. How bird colours evolved into the rich variety we enjoy. A presentation by Dr. Jocelyn Hudon, Curator of Ornithology, Royal Alberta Museum. Schubert Centre 3505-30th Ave. Admission \$5. Presented by The Friends of the Vernon Museum.

**May 6-8 - Skagit Bird Blitz.** Co-sponsored by BC Nature and Hope Mountain Centre for Outdoor Learning. Details at [www.bcnature.ca](http://www.bcnature.ca)

**Saturday, May 7 - NONC Field Day,** 9:00 a.m. at Predator Ridge, & Dinner, 5:30 p.m. at Okanagan College. Deadline for dinner tickets was May 2nd.

**May 12-15 - BC Nature AGM** in Williams Lake

**Saturday, May 14 - The Friends of Fintry** invites everyone to the Fintry Spring Plant Festival, 10am to 4pm on the grounds of the Manor House. Plants and seeds will be on sale together with arts and crafts by the residents of the Westside. Local musicians will play from the veranda, and children of all ages will be invited to play games on the Front Lawn. Lunch will be available from 12 noon to 1:30pm. Admission: By donation. Tour of Manor House and Barns: Adults \$5, children under 12 free.

**Saturday, June 11 - Kalamalka Lake Provincial Park** 25th anniversary. Everyone is invited for birthday cake, speeches and opening of the 1986 time capsule, at 1:00 p.m. at the picnic area at Jade and Juniper bays.

**June 17-19 - Manning Park Bird Blitz.** Co-sponsored by BC Nature and Hope Mountain Centre for Outdoor Learning. [www.bcnature.ca](http://www.bcnature.ca) Contact Robyn Thornton 549-2714 by May 7th so accommodation can be booked, if needed.

**-or-**

**Saturday, June 18** – as an alternative event to Manning Park above - **Kelowna Gardens Tour** - \$20 plus \$8 for gas. Bring picnic lunch or buy lunch at Guisachan House. Meet 9 a.m. at Priest Valley Gym parking lot. Contact Robyn Thornton 549-2714 by May 23rd so tickets can be purchased.

**July 12–19 – Summer Camp,** Wells Grey Park. Contact Pam Jenkins 545-0490.

**Wednesday, August 10 – Planet Bee Tour** \$5, followed by lunch at Davison Orchards. Meet at 10:45 a.m. at Planet Bee on Bella Vista Road. Contact Ray Arlt 542-2058.

**Wed., September 7 - NONC meeting** at Best Western Vernon Lodge, 7:30 p.m. Our speaker will be Jessica Gosling on "Where do rattlesnakes go on summer vacation?"

**Sunday, September 18 – Haney House,** south of Salmon Arm, Harvest Celebration – tasting of local foods and wines plus tour of the heritage house, 3 to 6 p.m. Responsible for your own tickets: \$20 in advance from mid-summer on (250-832-5243) or \$25 at the gate. Contact Robyn Thornton 549-2714 by September 4.

### Parking Fees Eliminated at BC Parks

VANCOUVER (May 3rd) - As of today, you won't have to pay for parking at any provincial parks. "I think that parking meters, making people pay for parking in BC parks, stops some people from using them," says Premier Christy Clark.

Clark says the parking fees generated about \$1 million a year in revenue, but that will be covered without cuts to the parks budget.

## Where do rattlesnakes go on summer vacation?

by Jessica Gosling

### My Project

*Where do rattlesnakes go on summer vacation? Predicting current and future habitat use by the Northern Pacific Rattlesnake (Crotalus oreganus oreganus) in British Columbia*

Understanding which habitats animals use and why is fundamental in the conservation and management of any wildlife species.

In British Columbia, Northern Pacific Rattlesnakes (*Crotalus oreganus oreganus*) range from the U.S. border, north to Kamloops, and have commonly been associated with grassland habitats.

In BC, the Northern Pacific Rattlesnake is currently on the Blue-list, considered of “special concern”. These animals are affected by not only habitat loss due to human development, but also by various land uses in their remaining habitat, such as off-road recreation, forestry, and ranching. Currently, rattlesnake dens in BC are protected by Wildlife Habitat Areas, however, recent work has shown that many snakes travel great distances from their dens during the active season and are, therefore, not protected in any way for at least half of the year.

My research focuses on two aspects of these long-distance migrations. First, are these movements driven by temperature variation over the animals range and can this be modelled and predicted by creating a thermal-landscape map? And secondly, how often are snakes using alternate habitats, such as Douglas fir forests?

My study involves radio-tracking of 15 to 20 snakes each year, through their active season

at multiple study sites including the Kamloops area, Nicola Valley, Ashcroft area, and southern Okanagan. I find my tagged snakes about once a week. When they are located, I take environmental temperature measurements, check on the snake's condition, note their habitat choices, and if I'm lucky, observe mating or feeding. I hope to be able to create tools to predict rattlesnake movements, so we can more effectively protect these elusive and interesting animals throughout the year and into the future.



### Species Profile

The Northern Pacific Rattlesnake, *Crotalus oreganus oreganus*, is the only member of the viper family and the only venomous species found in British Columbia.

It is easily distinguished from other snake species in the province by the presence of the rattle, sensory heat pits along the upper lip, a flattened triangular-shaped head with a distinct neck, and a series of blotches run down the back, developing into more ring-like patterns towards the tail. In British Columbia, the colour of the animal is usually a mixture of greys, olive greens, and darker shades, with whiter bands separating the blotches.

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Rattlesnakes mate in July and August, but the females, who produce live offspring (i.e. they do not lay eggs), will not give birth until late summer of the following year. The energy put into producing the litter normally results in the mother being very emaciated and it takes from one to three summers for her to regain body mass and to reach reproductive condition.

The Western Rattlesnake preys primarily on small mammals, such as mice, voles, and chipmunks. Rattlesnakes in BC have an active season from April to October and spend the winters in communal dens. Because of our latitude, suitable sites that provide protection from freezing winter temperatures likely are relatively scarce, requiring the snakes to show strong loyalty to their dens. Rattlesnakes are primarily associated with the dry, semi-arid grasslands of the southern extremes of British Columbia. Denning sites tend to be at the lower elevations in the hottest valleys of the province (e.g. Thompson, Okanagan, etc.), so early in the spring, this is where the animal is most usually encountered.

Until recently, rattlesnakes in BC and the prairies of Canada were considered the same species. Research in the early 2000s showed that these two groups of snakes were genetically different and this resulted in the Western Rattlesnake being renamed as *Crotalus oreganus oreganus*, the Northern Pacific Rattlesnake. This subspecies of rattlesnake extends south from BC through Oregon state and into northern California. Globally, there are many species of rattlesnakes, found primarily in North and Central Americas, although some species extend into the northern half of South America.

For more information, you can visit:  
E-fauna: <http://linnet.geog.ubc.ca/efauna/Atlas/Atlas.aspx?sciname=Crotalus%20oreganus>  
BC Species and Ecosystems Explorer: <http://a100.gov.bc.ca/pub/eswp/reports.do?index=0>

## Living in Harmony with Rattlers

Rattlesnakes are an amazing and important part of our native grassland fauna, and the animals should be left alone unless they are clearly posing a threat. Rattlesnakes are not easy to locate as they are cryptic animals, often tucking themselves into crevices or other retreat sites. During hot summer days, they may become more active towards night-time, or early in the morning. The likelihood of encountering a rattlesnake while hiking is unlikely, but when it occurs, people should simply stop walking, determine where the animal is, and then move away. Rattlesnakes will not pursue people, as is commonly thought. Many rattler encounters are cases of mistaken identity, as at a glance, gopher snakes and terrestrial garter snakes have similar marking to rattlesnakes.

A notorious behaviour shown by rattlesnakes is their defensive posturing when threatened. If cornered or threatened, a rattlesnake will coil with a distinctive S bend in its neck. However, rattlesnakes are relatively timid animals, and may not even rattle or assume a defensive posture unless threatened or cornered. Often, their first defence is to remain motionless and undetected. Rattlesnakes cannot 'leap'; rather, they can only strike within about one third of their body length. Unlike the gopher snake, another snake in BC that acts more aggressively when threatened, rattlesnakes do not 'hiss' when threatened, although they may breathe loudly and dramatically as a warning.

As residential and other developments continue to spread in southern BC, so does intrusion into the rattlesnake's habitat. This is quite likely a bigger conservation threat to the rattlesnake (and many other grassland species) than intentional persecution. Much like moving into 'bear country', people deciding to live on the outskirts of cities in rattlesnake habitat should take precautions to avoid confrontations with the animals.

*continued on page 7*

and other cover objects should not be left on the property: these are 'magnets' for rattlesnakes and other snakes hunting for prey, or wanting to avoid the heat of the day. Artificial water bodies, like backyard ponds, can also attract snakes (because they also get thirsty!). Snake-proof fencing also may help prevent animals from travelling into areas that they have historically used for summer habitat.

### **The Danger of Rattlesnake Bite**

Much of the fear and persecution of rattlesnakes is due to the fact they are our only venomous species. Certainly, the animal deserves respect and should never be handled.

In the event of a bite, the victim should remain calm (insect bites kill more people each year in North America than snakes), and be transported to a medical facility as quickly as possible. Rattlesnake bites normally show up as two small puncture holes side-by-side (from the two front fangs of the animal).



*above: Jessica Gosling doing field work*

Different opinions exist as to how bites should be treated, so leave this up to a medical professional. The venom of the Western Rattlesnake is not nearly as potent as that of many other venomous

snakes, including some other rattlesnake species. The severity of the bite depends on many factors, such as the age, size and health of the victim, and the location of the bite. Again, let medical professionals decide on the best course of action.

Take steps to prevent rattlesnake bites when hiking within the range of the animal, in a fashion analogous to being cautious when in bear country. Stay on trails, and always look where your hands or feet are going. Don't wear sandals – stick with good footwear, and don't wear shorts. The important thing to remember is that these are timid animals, and with common sense and precaution, we can minimize danger to both humans and snakes.

### **The Rattle of the Rattlesnake**

The rattle of these snakes is one of their more fascinating features. The rattle is a series of modified, interlocking scales on the end of the tail, which when shaken, generate a buzzing sound. Each time an animal sheds, it adds another segment to the rattle. However, the rattle is not always present, particular in young animals that may not have grown enough and added enough segments onto the rattle in order to make noise, or in an older animal where the segments have been broken or damaged. Many snakes vibrate their tail when threatened (like the gopher snake), but only the rattlesnakes have evolved a device that actually makes noise.

A common misconception is that counting rattle segments can determine the age of an animal. This can only be used as a very rough guide, however, as not only do segments break off as they age and weaken, but also because snakes do not necessarily shed once per year (it may be more, or less, depending on environmental conditions). ❖

## Vaseaux Lake Area Trip

Wednesday April 27 - Saturday April 30

by Pamela Jenkins

On Wednesday ten of us left for a few days in the South Okanagan. Enroute to the Pine Bluff Motel at Gallagher Lake we first stopped at Hardy Falls, where there had been a rock fall. The trail no longer goes up to those falls and now a viewing platform blocks the trail a little way back.

We saw some White-crowned Sparrows, some Violet-green Swallows and a Turkey Vulture and then went on to our next stop at the Max Lake Ecological Reserve above Penticton.

It was windy when we reached Vaseaux Lake to walk along the board walk to a bird blind, but we were able to add a few coots, bobbing on the waves, a Barrows Goldeneye and swallows swooping around our heads.

Next day we drove up towards the Baldy ski area, stopping in the grasslands before driving higher. We walked among the Antelope Bush, Sage Brush and Rabbit Brush, adding Red-breasted Nuthatches and Rough-legged and Harris' hawks. Driving higher we stopped at McCuddy Creek hoping to see the White-headed Woodpecker.

Balsam Root, Spring Beauty and Shooting Stars littered the hillside. On upwards to where the pavement ended, we took a side road below the snow, hiked across some fields and through the woods. At one point we saw a lake below. Some walked around to a picnic table. Drivers took the cars so we could eat our lunches, but not at the derelict table. We sat near a patch of Yellow Bells and Mertensia, blooming at the same time.

This was a good birding spot, enabling us to see more birds, including mallards, grebes, killdeer, starlings, Yellow-rumped Warblers and

a Nashville Warbler. Margaret also saw a tanager and a pintail.



Next we drove to the Okanagan River. It was too windy to choose to walk along the rough track between the meandering river to the east and the channeled water to the west. It looked like a white football on the opposite bank, but turned out to be a snuggled up merganser. Through binoculars we could see its feet. On our return this bird was swimming and more obviously a merganser.

On Friday we visited Haynes Point Reserve, south of Oliver, ate lunch at Sherry Lyn's place and watched birds at her feeders, then hiked near and around White Lake in the afternoon.

Before driving home on Saturday, we drove to Mahoney Lake, a unique dry interior salt lake with a special feature, where some sulphur bacteria has made the water at the edges of the lake appear purplish in colour.

By the end of the trip Margaret had made a list of at least 49 species, including Mountain Bluebirds on the trail in the White Lake area, pipits, Yellow-bellied Sapsuckers, Meadow Larks, robins, juncos and so on. More details of the rest of the trip will eventually be written up and posted on our website.

Participants were Barbara Harris, Betty Kerr, Bob Hebbert, Fred and Ina Wisse, Jack and Lyn Smith, Margaret Hubble, Pamela Jenkins, and Tom Crowley. ❖

# Swan Lake Nature Reserve

by Lyall Webster

Now that spring is here (sort of) the Swan Lake Committee is busy with creek clean-up and weed control. Thanks go to Jack Smith who has been getting rid of burdock and on April 19th there was a work party to tackle a blockage in BX Creek - Ray Arlt, Jack Smith and myself. Denis Seymour, Jack Smith and myself were down later to clear branches where a large old willow had collapsed into the creek. Mike Carlson has kindly donated a hundred willows and cottonwoods - these will be planted in early May to replace earlier plantings which have died. Watering parties will be organized on a regular basis for the trees and shrubs, same as for previous years.

As mentioned in a previous update, the Regional District built the main access to the reserve last year, a gravel road, fenced, going in off Old Kamloops Rd., past Stawns Honey and ending in a parking area. This year it is anticipated that some general work will be started

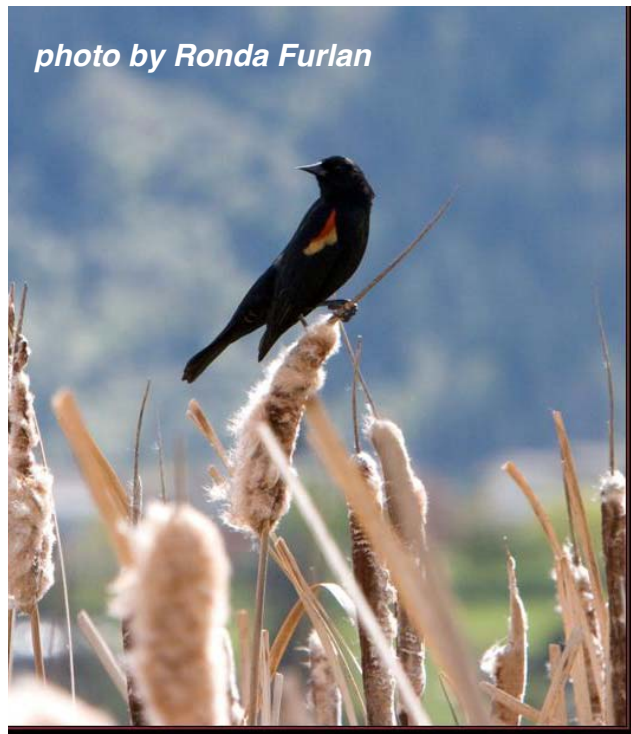


photo by Ronda Furlan

on the trail system, conditional on the availability of funding. A system of interpretive signage is also being planned - this will describe the varied environments in the nature park, i.e. wetlands, uplands, etc and post rules of behaviour - respect for the nesting areas, no dogs etc., etc.. As additional trails, lookouts, blinds, etc. are added to the evolving nature park, the committee will continue to work with the Regional District in providing our input in the planning process. ❖

## Biodegrading

Excerpts from a brochure issued by Washington State University via Hylda Mayfield

About 80% of trash in marine waters comes from the land, swept by wind or washed by rain off highways and streets, down streams and storm drains.

Billions of "nurdles" (little plastic pellets used to make plastic products) are carried down to the ocean. Fish mistake the nurdles for fish eggs. Some mimic hormones and disrupt reproductive and immune systems of fish, mammals and even human beings.

Here is a biodegradable timeline for some items:

Aluminum can	200 years
Apple core	2 months
Cardboard box	2 months
Disposable diapers	450 years
Fishing line(monofilament)	600 years
Paper towel	2-4 weeks
Plastic 6pack holder	400 years
Plastic bottle	450 years
Styrofoam cup	50 years
Waxed milk carton	3 months

Remember that what we do does matter!

## NOPNAT

### North Okanagan Parks & Natural Area Trust (“NOPNAT”) marks its 10th AGM

by Hew Kidston

Just over 10 years ago the North Okanagan Naturalists’ Club and the Greater Vernon Parks & Recreation Department joined forces to create a conservation land trust in the North Okanagan. The objective was to provide our region with an entity that would promote the preservation and conservation of ecologically valuable habitat on private lands in our area. In late 2000 the North Okanagan Parks & Natural Area Trust (“NOPNAT”) became a registered society.

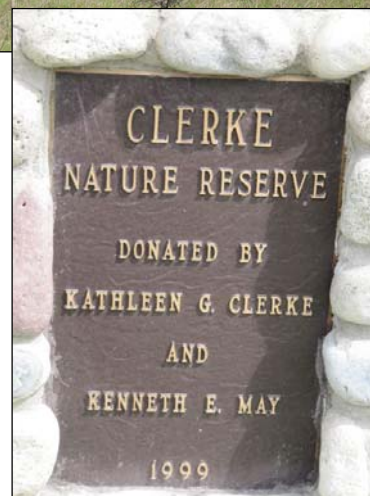
NOPNAT continues to have a close affiliation with NONC, since NOPNAT Directors are drawn from the membership of NONC, the Vernon Outdoors Club and the Allan Brooks Nature Centre Society, and are appointed to the NOPNAT board by NONC. A number of NOPNAT’s 10 Directors are active members of NONC – Kay Bartholomew, Adam Moss, Bill Wagner, Lyall Webster and Frank Berardinucci.

NOPNAT typically protects natural habitat by entering into conservation covenant agreements with private land-owners who wish to preserve habitat values in perpetuity, regardless of who may own the land in the future. This approach allows protection of small, privately-owned areas that could otherwise eventually lose any habitat value through the relentless pressures of population growth and land development. There is a growing awareness throughout North America that a network of seemingly small preserved areas on private lands can become important inter-connecting links between larger, otherwise isolated areas protected as government parks or reserves.

On May 25th, 2011 NOPNAT will reach a milestone when it holds its 10th Annual General

Meeting. Over this first decade, NOPNAT has established five conservation covenants in the North Okanagan: (1) the 0.4 ha Clerke Nature Reserve, on the east side of Alexis Park Drive in Vernon (backing onto Becker Park); (2) a 0.4 ha wooded bird sanctuary surrounded by cultivated lands in Spallumcheen; (3) a 5 ha site on the banks of the Middle Shuswap River, containing roosting habitat for the Western Screech Owl; (4) and (5) two 0.2 ha sites on the banks of Coldstream Creek. The Clerke Nature Reserve is readily accessible to the public for pedestrian use.

NOPNAT welcomes any interested member of the public to its AGM, which will be held at 7:00 p.m., May 25th, 2011 at The People Place in Vernon (Room 001 – 3402 – 27th Avenue). ❖



*The Clerke Nature Reserve on Alexis Park Drive, Vernon*