What are Nightjars?

The Golden Arbutus

Time to find the Precious Frog
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**Objectives of BC Nature**

(Federation of BC Naturalists)

- To provide naturalists and natural history clubs of BC with a unified voice on conservation and environmental issues.
- To foster an awareness, appreciation and understanding of our natural environment, that it may be wisely used and maintained for future generations.
- To encourage the formation and cooperation of natural history clubs throughout BC.
- To provide a means of communication between naturalists in BC.

**BCnature magazine is published quarterly by**

BC Nature - Circulation 6,000

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Please email your articles-photos-thoughts to BC Nature reserves the right to edit submissions for length, style and clarity. For advertising rates, and cut-off dates, please email the office. Cut-off date for Summer Edition - May 1, 2016

**Cover Photo:** John Gordon - www.johngordonphotography.com

**Photograph:** A Khutzemateen Grizzly Bear feeds on protein-rich sedge grass after waking from hibernation. The bears also eat clams to complement their diet until the first salmon runs in the summer.

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Please visit Elders Council at http://www.elderscouncilforparks.org/

Color Version of BCnature is available online www.bcnature.ca
Editorial

Having Fun Birding?

By Tom Bearss

When Betty asked me to do a story for BC Nature magazine on the topic of “having fun” on our bird outings, I had no idea what to write. So I’m going to ramble. Some BC Nature members are already familiar with the Delta Nats Casual Birder (aka DNCBers) outings. I do a report on our weekly birding outings which I circulate and also publish on our website at: www.dncb.wordpress.com. These weekly missives are meant to be a report of our sightings, but rather than simply listing the species sightings, I try to enhance the report with extraneous and inane commentary on some participants, or on what we had for lunch, or some other attempt at an amusing anecdote. Anyhow, the weekly outings are in fact “casual”, yet normally successful birdwise, and a lot of fun.

A bit of history. Back in about 1988, I was living and working in Ottawa and saw an advert in the local newspaper about a birding course at our kids’ high school. I took the course in the fall. We met at the school on eight Thursday evenings and learned about many aspects of birdwatching (e.g. Species identification, habitats, choosing binoculars and scopes etc.). Then, on Sunday mornings, the class would meet at McDonald’s and our leader would take us to a park or other different place in the Ottawa region. I was amazed at the many unique and beautiful areas, even in the city, that I had never been to, where we could wander around and see birds. After a few outings and Thursday evening sessions, the Little Brown Jobs (LB’s) turned out to be very different. The Sparrows were different from each other; the Blackbirds weren’t all Starlings, and Warblers were a candy species I would learn to love. And the 20-plus participants in the course were all like-minded, that is, casually interested in birds, but equally interested in making new friends and spending some quality time together, outside in a pleasant environment on a Sunday morning. We were back home by noon to be with our families, and of course, responding to our spouse’s never-ending To Do List.

I took the course again the next spring, as did many of the other participants. We learned more and saw more neat places in the region, and bonded more too. Next Fall, several of us, including our Leader, decided that we didn’t need to take the course again, so we started our own “club” and met at MacDonald’s on Sunday mornings to go “somewhere”. We (almost 40 of us) each paid $10.00 for a telephone line with a message machine to tell us where we might go each week. We grew more birdy (but not fanatical) and started to go further away on longer outings, to the Gatineau Mountains in Quebec, Algonquin Park, or Presqu’ile Provincial Park. Some of us became even more adventurous and went on week-long outings to renowned birding spots like Point Pelee and Cape May, New Jersey.

When I retired in 2006 and moved to the Wet Coast (Ladner), I joined the Delta Naturalists Society (DNS). After a year or so of going on outings with other BC Naturalists Clubs (and being “conned” into being President of DNS), I suggested to a few of us “regulars” that we meet occasionally at a local cafe and decide to go birding “somewhere around the Bay”. A few local “birding gurus” like Anne Murray and Roger Meyer, were instrumental in giving some legitimacy to our outings. As time passed, we started to meet more regularly and after a year or so I began to write reports on the outings. Then we got really advanced and our computer guru, Ken Borrie, started a DNCB blog to showcase and catalogue the reports. The Blog has since expanded to become a very informative website of information on DNS activities, with the related Picasa site of members’ photographs taken on the outings. I have tried over the years to get other Nats to write the reports, but with limited success. I will continue to push this effort.

All this rambling doesn’t explain the “fun” aspect of our outings, but the history of their creation is certainly an important ingredient. We have between one and 40 participants on our weekly DNCB outings, the number is often directly related to the weather, or the destination. Participants range from expert birders, which I certainly am not, to the occasional participant who is more interested in finding blackberries to supplement his breakfast. Our outings are more often like a Chat Room than a birding outing. We often have “Target Species” on our outings, but we mostly try to specialize in seeing “candy” birds “up-close-and-personal”. As BC naturalists know, Delta is a “Mecca for Birding” and we try to pick destinations, in Delta or further afield, where participants not only get good looks at different species, but can also be enthralled by the location, the vistas, the habitat, the flowers or other aspects of nature.

I don’t know what it is (maybe it’s me), but our outings seem to comprise consistently an eclectic group of weirdos (that’s good, not bad). Obviously, since our outings are mid-week, most participants are retired seniors, but we get the occasional worker (playing hooky) or homeschooled family joining us. We don’t count species seen (although I try to remember the neat ones seen) nor do we have a “protocol” of how participants should act. Common sense prevails, and so far it has worked. At the start of each outing, we introduce the “newbies” and try to make them feel comfortable. A mandatory (by me) group photo on each outing is sometimes a nightmare to organize, but most participants like to see themselves on our Picasa site.

For the past year or so, many outings have ended with lunch at a restaurant at or near where the outing has taken place. This added feature has brought some additional enjoyment to some participants, but it is not without its drawbacks. For instance, on a recent outing to Blackie Spit, the last half hour of the outing was spent inaneely discussing where we were going for lunch and no birthing was accomplished. Not a big deal, but interesting.

I just read what I wrote above, and it is a classic example of my literary creations which actually say nothing, but perhaps you’ll get a grain of entertainment from it. Check out our Delta Nats website for many similar rambling missives.

Tom Bearss is a retired Canadian Trade Commissioner and Diplomat who has worked abroad in Greece, New Zealand, Australia, Caribbean and South America, and had Government postings in New York, Trinidad & Tobago and Bieffalo. He has also travelled extensively in Europe, Asia and Africa but is now settled in Delta, where he is fully occupied with playing hockey, golf, birding and with his family, especially the free daycare with his grandchildren.

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Dates to Remember

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<th>Event</th>
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<tr>
<td>Skagit Bird Blitz</td>
<td>May 6 - 8, 2016</td>
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<td>Mitenatch Camp</td>
<td>May 8 - 11, 2016</td>
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<td>AGM 2016</td>
<td>May 12 - 15, 2016</td>
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<td>Rene Savenye Scholarship</td>
<td>June 3, 2016</td>
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<td>Robson Bird Blitz</td>
<td>June 3 - 5, 2016</td>
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<td>Manning Park Bird Blitz</td>
<td>June 17-19, 2016</td>
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<td>FGM - Prince George</td>
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Natural Mistakes
The Joy of Winter Birds

By Clive Keen

It was a slow news day, and the local TV station was getting desperate. “Could you do an item on birdwatching in winter for Five O’clock News? You can! Great! We’ll be straight round!”

Ah well, there’s twenty minutes to think of something interesting and sort-of-newsy to say. But the Snowy Owls haven’t come yet, the Gyrfalcon looks like it’s happy to stay in the arctic this year, and though I’ve a yard full of Redpolls, that’s not exactly Pulitzer Prize material. What to say when the camera rolls?

My usual technique for TV and radio interviews is to write down five words, and glance at them if I start to dry up. So, in between trying to get respectable and finding where I left my shoes, I start on my five words.

Salt - Ah, this is a good one, being both sort-of-newsy and allowing a useful conservation message. Now that winter is here, grit and salt are being scattered on roads, and that attracts a fair number of lesser-known bird species. So I can both wax lyrical about all the exciting new birds to be seen with little effort, and give a public service announcement. Watch out for them while driving! Don’t squash those rarities! The interviewer will like that, and people just might slow down a bit when they see all those Redpolls, Crossbills, Grouse, etc, milling about in the middle of the road.

Leaves - I still can’t think of anything really newsy, so developing a “joy of winter birdwatching” theme seems a good tactic. The great thing about winter, I can say for a start, is that there aren’t many leaves on the trees, so the birds can’t hide behind them, which makes birdwatching so much easier than in June. Also, with a barren landscape and a scarcity of prey making them hunt more often, the raptors can be more evident than in summer. Arctic raptors, too, which tend to be the big charismatic ones, come down and give us rare looks. Good one that. Media folk like talk of “Raptors”.

Snow - And, I can add, a heavy snowfall – which we can expect any day, which is sort of newsy – covers up a lot of the usual food for seed eaters. Snow can be tough for birds, as the natural food supply that hasn’t already been consumed is hidden. This allows me to put in a plug for bird feeders without the bear conservation officer giving me a hard time. The bears are all safely hibernating by now, so can’t be lured into backyards by suet and sunflower seeds, and I can talk about how supplemental winter food can help birds survive their toughest season.

Dawn - The best time to see birds – comes late in winter, which is great for all those birders who just aren’t morning persons. e.g. me. And the fewer daylight hours also mean that birds have to compress all their activity into a limited time, meaning that they don’t knock off work in the middle of the day, leaving nothing for us birders to look at.

Cold - Which gives me yet another public service announcement opportunity. I can talk about how brush piles and other man-made shelters can provide refuge from the winds, ice and snow of winter – a lot of birds simply won’t make it through until spring without the lucky breaks we can provide. But, note to self: try not to spoil things by saying that birds often cope with the cold a lot better than some of us birders.

Did I make all these points during the interview? Blowed if I know. I never did glance at the five words, and certainly didn’t watch the Five O’clock News to check on what I’d said. I know that I spent quite a long time going off script and rhapsodizing about the Great Gray Owl I’d seen the week before, but perhaps some of my public service points survived, squeezed in between the advertisements for hygiene products. And, thank the Gods of all Small Creatures - I didn’t spoil things completely by admitting that I was about to escape the cold for a week of birding in southern Texas. Those things with feathers really can cope with the cold a lot better than some of us humans.

Letter to BC Nature

Dear BC Nature Scholarship Committee:

I am writing today to say thank you for awarding me the Rene Savenny Scholarship! This award was very helpful in enabling me to study on Haida Gwaii this fall. Studying conservation issues in such a unique location was highly informative and revealed the true complexities of these challenges. During our semester, we had extensive field time and opportunities to hear about local issues and perspectives from multiple local groups.

Some of my personal highlights included visiting former Haida village sites in Gwaii Haanas National Park Reserve and Haida Heritage Site, and hiking to Rose Spit in Naikoon Provincial Park.

I am now returning to studies at the University of Victoria; I particularly look forward to a flowering plant diversity class which I will be taking in January. This summer I hope to work in field biology in BC, possibly with Parks Canada.

Thanks again, Ian Cruickshank

Class field trip on Haida Gwaii
Photograph courtesy of Ian Cruickshank

Lurking behind this bit of whimsy were some more serious issues. For instance, I was photographing this lovely White-winged Crossbill, and looking forward to getting a better shot, when an idiot driver, ignoring all my gesticulations, drove straight over it. Please, please, watch out for birds when you are driving in winter.
President's Report
Climbing onto the Rock
By Kees Visser

Since my last report in the Winter magazine, we visited, in mid-October, the clubs in Princeton and Osoyoos. The Princeton club, The Vermillion Forks Field Naturalists, is doing very well, and has come out of their problems. Of course, as every club, does have their difficulties, mainly due to an aging membership. I cannot say the same about the Oliver-Osoyoos Naturalists, which I met and presented to on October 21, 2015. The club’s leadership is trying very hard, they have appointed a new BC Nature Director, Dwayne Flexhaug, and I hope they will overcome their difficulties, in the same manner as Princeton.

In mid-November I visited Campbell River and Comox. The Comox Nature Club (CN) is organizing the 2016 AGM, May 12 to 15, and their program already looks great, as you can see in the Winter issue of BC Nature. Consider being a part of it! My spouse, Nieke, and I met the Organizing Committee over dinner and they were and are doing an amazing job. I trust that I will see many of you in the Filburg Centre in Courtenay. The registration form is available in the winter magazine, this issue, and online http://comoxvalleynaturalist.bc.ca/, where there will be updates as well.

In Campbell River we presented in the Museum, and we met the core of a new potential club. I am happy to report that a club will be established in early 2016, with Laara Ireland as first President/BC Nature Director and Bonnie Thomson as Secretary/Treasurer.

In early October the Environmental Law Centre finally made the BC Nature submission to the Federal Court of Appeal in Vancouver. We were very impressed with how thoroughly detailed, logical and professionally the arguments were presented. ELC captured the significance of this case when confronted with the prospect of the envisioned future of environmental law being as advocated by Enbridge. We don’t know at this point what the outcome will be, and we might have to wait until March 2016 or when you read this.

Besides Enbridge, we are also working very hard on pressing the federal and provincial governments to have proper environmental assessments of Transmountain (Kinder Morgan) and the Roberts Bank Extension. On the first file we wrote to the provincial Liberal Government to reinstate cross examination, which was excluded by the previous government, as well as to make the Environmental assessment much more stringent. On Roberts Bank, you have read articles in this magazine and in the enews and our special representative, Roger Elmsley, works hard on this file to keep Port Metro Vancouver in line.

We are working on and will assist BC Parks with a drone-use policy and we have agreed to lend support to a proposal from Environmental Law Centre and the Ancient Forest Alliance for the Provincial Government to dedicate a $40 million annual budget for acquisition of natural areas across British Columbia. We also wrote a letter of support to the Ministry of Forests, Lands and Natural Resource Operations for the proposed closure of certain areas in the Shulaps and Cayoosh Ranges to use by Off Road Vehicles. In mid-January, Bev Ramey, as Director-at-Large, met with Minister Marc Garneau, Federal Minister of Transport, to discuss safety and security along our west coast. Mid-January we assisted with support of a new Columbia River Treaty.

Since late last year, our Executive has expanded and I like to welcome a new Treasurer, Reda Akladios, and a new Parks and Protected Areas Coordinator, Deborah Herbert. Welcome and thanks for joining us.

Personally, in consultation with Alan Burger, our Vice-President, I have decided to step down as President after May 2016. The major reason is the declining health of my spouse, who will need my full support later in 2016. Alan, an expert in marine biology, has worked extensively off the West Coast and in the Antarctic, will do a very good job and will make BC Nature stronger.

Volunteer position with BC Nature: Conservation Co-Chair

Conservation is one of mandates of BC Nature. From time to time, conservation issues arise and are brought by individuals or clubs to BC Nature for support. These issues are handled by the eight member Conservation Committee. At present we have a Conservation chair, mainly for Northern BC issues, but we have a need for a co-chair to assist with the southern part of BC.

Please contact: John Neville - songbird@saltspring.com.
Conservation Report
By Rosemary Fox and Conservation Committee

Walbran Valley Logging - BC Nature has written to the Minister of Forests, Lands and Natural Resources Operations, the Hon. Steve Thomson, to support the position taken by our member Club, the Cowichan Valley Naturalists, against logging in the Walbran Valley where there are high ecological values that need to be protected.

These ecological values include the existence of at least two rare and endangered species. Research conducted in the ancient forests of the Carmanah and Walbran Valleys by entomologists at the University of Victoria (Claudia Copley, Dr. Zoë Lindo, and Dr. Neville Winchester) has demonstrated that there is a unique assemblage of insects and their relatives in these ancient forests compared to that of nearby clearcuts. Of particular importance, this research has also demonstrated that these ancient forest ecosystems will not recover from the stand-replacing impact of clearcut logging. Among the many species reported from the region is a rare species of mite that has recently been described, named after the Walbran Valley, Metrioppia walbranensis, (Lindo, Z. 2015, The Canadian Entomologist 147: 553-563). This mite is currently on the federal COSEWIC Candidate List as a Group 1 candidate. Group 1 contains wildlife species of highest priority for assessment by COSEWIC. The Midget Funnel-web Tarantula (Hexura picca) is also known from the Walbran Valley, and it can be found on this same COSEWIC candidate list as a high priority candidate (http://www.cosewic.gc.ca/eng/sct3/index_e.cfm#8).

The letter calls for a halt to logging in the Walbran Valley until it can be demonstrated that logging can be carried out without jeopardizing the ecological values found there.

Trans-Pacific Partnership - The Trans-Pacific Partnership (TPP) which was signed February 5, 2016 by the 12 signatory nations that have been negotiating the agreement (Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States, and Vietnam) poses a disturbing array of threats to our environment and climate. BC Nature has not studied the TPP in depth. However, the Sierra Club (US), which has objectives similar to ours, has studied it, and has concluded that the Trans-Pacific Partnership would be an environmental disaster. In the opinion of the Sierra Club, the pact’s environment chapter outlining conservation rules, praised by the US Trade Representative, cannot make up for the deal’s threats to our air, water and climate. Dozens of other environmental organizations are also waving red flags.

Four major areas of concern have been identified by the Sierra Club:

1. The TPP would empower fossil fuel corporations to attack climate policies in private tribunals. The investor-state dispute settlement system included in the pact would empower some of the world’s biggest polluters to challenge environmental protections in private trade tribunals. Similar rules in existing pacts have enabled corporations like ExxonMobil and Chevron to bring more than 600 investor-state cases against more than 100 governments. The TPP would expand this system of corporate privilege to thousands of corporations, major polluters among them. The TPP would also require the Department of Energy to approve automatically all exports of natural gas to countries in the agreement, including Japan, the world’s biggest natural gas importer.

Expediting those exports could open the floodgates to more fracking and dangerous climate emissions. There is also no assurance that the rules in the environment chapter dealing with challenges such as illegal timber and wildlife trade would lead to meaningful changes on the ground. The US is not known for holding other countries accountable in failing to live up to environmental commitments made in trade pacts.

The TPP would lock in dirty fossil fuel production by expediting natural gas exports.

2. The TPP would require the US Department of Energy to automatically approve all exports of liquefied natural gas (LNG), a fossil fuel with high life-cycle greenhouse gas emissions, to all TPP countries including Japan, the world’s largest LNG importer.

By expediting US LNG exports, the TPP would increase the world’s dependence on a fossil fuel with significant climate impacts and would likely displace cleaner energy sources such as renewables.

3. The TPP would increase climate-disrupting emissions by shifting US manufacturing overseas

The TPP would force US manufacturers to compete directly with firms in low-wage countries, like Vietnam and Malaysia. The resulting offshoring of US manufacturing would spur not only US job loss, but also increased climate-disrupting emissions, as production in Vietnam is more than four times as carbon-intensive as US production, and production in Malaysia is twice as carbon-intensive.

A TPP-spurred shift in manufacturing from the United States to countries on the other side of the Pacific Ocean would also increase shipping-related greenhouse gas emissions, which are projected to increase by up to 250 percent by 2050 as demand for traded goods rises.

4. The TPP would impose new limits on government efforts to combat climate disruption.

- Renewable energy programs that encourage local job creation could run afoul of TPP rules. The deal includes terms that the World Trade Organization (WTO) used to rule against a successful clean energy program in Ontario that reduced emissions while creating thousands of local jobs.

- The TPP also replicates provisions that the WTO has used to rule against environmentally friendly consumer labels. These rules would prohibit labels seen as “more trade-restrictive than necessary”, restricting policy space for energy-saving or other labels that diminish climate-disrupting emissions.

- The TPP’s procurement rules would restrict the autonomy of governments to mandate “green purchasing,” such as requiring energy to come from renewable sources in government contracts. Such policies could be challenged for having the unintended “effect of creating an unnecessary obstacle to trade". Government officials charged with promoting the TPP typically ignore...
these threats to our climate, claiming instead that the pact’s environment chapter would “preserve the environment.” However, the chapter includes no provision that would protect climate and environmental policies from the myriad threats posed by other parts of the TPP. Moreover, while all US trade agreements since 2007 have required trade partners to “adopt, maintain, and implement” policies to fulfill their obligations under seven core multilateral environmental agreements (MEAs), the TPP environment chapter only includes this requirement for one of the seven MEAs. This step backward from environmental protections negotiated under the George W. Bush administration contradicts the requirements of US law for fast-tracked trade agreements, and would allow TPP countries to violate critical environmental commitments to boost trade or investment. While the TPP environment chapter mentions a range of conservation issues, the TPP countries’ obligations are generally weak. Rather than prohibiting trade in illegally-taken timber and wildlife, for example, the text only asks countries “to combat” such trade with insufficient measures, while allowing governments to avoid this weak commitment at their “discretion.” Even if the TPP’s conservation terms were to include stronger obligations, there is little evidence to suggest that they would be enforced. The United States has never once brought a trade case against another country for violating its environmental commitments in a trade agreement, even amid documented evidence of violations.

Port Metro Vancouver (Vancouver Fraser Port Authority) Port Metro Vancouver (PMV) is responsible for the “stewardship of federal port lands in and around Vancouver,” and is accountable to the federal Minister of Transportation. The Port’s mandate is “to facilitate Canada’s trade objectives, ensuring goods are moved safely, while protecting the environment and considering local communities.”

BC Nature has three major areas of concern regarding Port Metro Vancouver’s fulfillment of its mandate:

1. Proposed expansion by the building of Terminal 2 (T2) at DeltaPort. PMV has argued that it is responsible only for the project footprint (that is, the proposed man-made islands to be built for T2 and the port causeway). We agree that PMV’s proposed footprint is very significant, as it will be located on the intertidal Robert’s Bank in the Fraser River Estuary, an area of international biological significance, and one of the ten most significant Important Bird Areas in the world. T2 is anticipated to have major environmental impacts on species of federal responsibility such as migratory birds, marine mammals and salmon.

It is important to consider impacts of the proposed T2 that will extend beyond the footprint of the proposed new terminal, specifically:

- Impacts of increased roads and railroad;
- Impacts of vessels passing through Georgia Strait, Boundary Pass and the Strait of Juan de Fuca (including the noise and disturbance to marine life, as well as the increased likelihood for shipping accidents and clean up procedures)

The Canadian Environment Assessment hearings for the T2 proposed expansion is at last now requiring PMV to...
report on shipping impacts, but bizarrely the panel will not be able to make recommendations on shipping impacts.

2. Port Metro Vancouver’s Export of “Dirty Coal”: We are appalled that Canada is shipping dirty coal from the existing Robert’s Bank DeltaPort to overseas markets. This coal arrives by rail from the US. It is coal the US has refused to ship from its ports. The coal is being transported by rail across the Canada-US border (near Peace Arch crossing), along the shoreline of the tourist municipality of White Rock, to the DeltaPort.

3. Port Metro Vancouver’s several proposals for “Habitat Enhancement”: These proposals for so-called “enhancement” or “habitat banking” include modifications to wetlands such as those at the McDonald Tidal Marsh and Point Grey Tidal Marsh. Despite public meetings voicing great opposition, Port Metro Vancouver appears to be proceeding unchecked, and has even requested that the province not require an environmental assessment. In our view, these “Habitat Enhancement” projects need to undergo a fair review process by an independent body other than Port Metro Vancouver.

Unmanned Air Vehicle Systems (Drones) Guidelines are urgently required to manage the use of drones. BC Nature has urged the Minister of Transportation to act quickly to develop guidelines. Regulations are urgently needed to prohibit flying of drones in parks and other wildlife-sensitive areas. The regulations could of course allow for special approved uses such as research or for search and rescue.

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The Prince George Naturalists Club is excited to be hosting the 2016 Fall General Meeting from September 22 – 25, 2016 at the Coast Inn of the North in Prince George, BC. Our theme “Northern Treasures: Fish, Fur and Feathers” is intended to highlight the variety of natural wonders and ongoing conservation and education initiatives that can be found in our region. On Friday, a fantastic line-up of speakers will be sharing their knowledge on everything from outdoor recreation, to birds, moose and caribou, and even dinosaurs found here in northern BC. On Saturday morning, there will be opportunities to tour the Hudson’s Bay Wetland Project, the Nechako White Sturgeon Recovery Centre, as well as Cottonwood Island Nature Park at the confluence of the Nechako and Fraser River. For those who are able to stay a little longer, join us on Sunday for a trip to the Ancient Forest (a unique inland wet-temperate rainforest), or for a day tour into the Pine Pass of the Northern Rockies led by outdoor guru Mike Nash. There will be plenty of social events, including the option of touring The Northern Lights Estate Winery (BC’s northernmost winery) and the Pacific Western Brewing Company. For continued updates and announcements on our program, please visit our website at:  http://pgfgm2016.ca or email us at: pgfgm2016@gmail.com

Registration and conference schedule will be in the Summer and Fall 2016 BCnature Magazine and available online www.bcnature.ca

Northern Treasures: Fish, Fur and Feathers
September 22 - 25, 2016

Whiskeyjack Nature Tours
Tours for Naturalists

***SOUTHERN UTAH & DEATH VALLEY***
20th April-1st May 2016 (12 days)  Cost $3250CAD (dbl occupancy) from Las Vegas
Planet Earth contains an infinite variety of landscapes, but in southern Utah random geologic events have conspired to create rare, unexpected and beautiful consequences. The mighty Colorado River, aided by the arid erosion cycle, has waged battle across the eons with the sandstone strata and fashioned landscapes so unique and bizarre that they are more redolent of an extra-terrestrial origin. We visit Bryce Canyon, Arches NP, Canyonlands NP, Monument Valley, Zion Canyon and more + Death Valley.

***YUKON & DEMPSSTER HIGHWAY***
Land of the Midnight Sun
Tour I 18-29 June 2016 (12 days)  Tour II 1-12 July 2016 (12 days)
Cost $3900 (dbl occupancy) + GST from Whitehorse
The Yukon is a fabled land whose very name evokes archetypal images of wilderness and a frontier populated by colourful characters. On this tour we will experience both the natural and human landscapes of this fascinating and beautiful land, visiting the Klondike, the Dempster Highway, and the Mackenzie Delta. The Dempster is renowned as a naturalist’s paradise with its varied and beautiful landscapes, sought-after bird species, large mammals and we visit at the peak of the wildflower display. At latitude 66N we cross the Arctic Circle and enter the Land of the Midnight Sun. We also fly across the Mackenzie Delta to Tuktoyaktuk on the Arctic Ocean.

***THE SUNSHINE COAST FOR NATURALISTS***
25-29 July 2016 (5 days)  Cost $1590 (dbl occupancy) +GST from Vancouver
The Sunshine Coast exemplifies the best of coastal British Columbia as the temperate rainforest meets the blue of the Salish Sea in a confusion of magnificent fiords and green islands. We visit the Sunshine Coast’s scenic highlights, including a full day cruise to the world famous Princess Louisa Inlet. We also visit Jedediah Island and take a sunset cruise to Hotham Sound. Our base is the highly rated Rockwater Secret Cove Resort. The Sunshine Coast’s culinary offerings are an important part of this tour and we will sample the best available. Meals (except for 4 dinners) are included.

Leader: Tony Greenfield
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Ice Age
By Mike Nash

Two recent papers in the journal Science, highlight an aspect of climate change that we may not be aware of as we look apprehensively at Earth's rapid warming.

Reconciliation of the Devils Hole climate record with orbital forcing resolves a longstanding question arising from Devils Hole cave in Nevada. The chemistry found in calcite deposits deep in caves is an excellent source of information about climate in earlier times, but data from Devils Hole has not always agreed with measurements taken elsewhere. This has given us “...one of the great paleoclimate enigmas of the past three decades.”

Orbital forcing is the combined effect on climate of three influences on the Earth’s motion in space. The first two are the 26,000-year cycle of change of the Earth’s axis of rotation (precession) and the 112,000-year cycle of change of the Earth’s eccentric elliptical orbit around the Sun (apsidal precession), which combine to create an effective 21,000-year cyclical effect on Earth’s climate. The third cycle is the 41,000-year oscillation of the tilt of the Earth’s axis (obliquity) in relation to its orbital plane around the Sun between 22.1 and 24.5 degrees. Together with some other factors, these overlapping cycles have, over the last million years or so, combined to create ice ages on a roughly 100,000-year cycle.

Measurements of past climates made in Devils Hole cave have provided an important component of the historic climate record, but their disagreement with other measurements has muddied the waters. However, recent measurements taken from calcite deposits in the cave have removed the 8,000 to 10,000-year discrepancy between this important paleoclimate site and other locations, so climatologists can now be much more confident that our understanding of these climate-driving mechanisms in times past is correct.

The second fascinating paper in the same journal issue, The Anthropocene is functionally and stratigraphically distinct from the Holocene, also considers the climate effects of orbital forcing while discussing the new geological age of humans, the Anthropocene.

The paper suggests that following a warm peak in the current interglacial period at around 2,000 years ago, the planet has been cooling in accord with predictions of orbital forcing, culminating in the Little Ice Age from about 1250 to 1800 CE. It goes on to say, “Given that the orbital trend is continuing, Earth should still be cooling. However, increased anthropogenic emissions of greenhouse gases have instead caused the planet to warm abnormally fast, overriding the orbitally-induced climate cycle.”

Taking these two papers together, we can perhaps now infer with more confidence that, notwithstanding the climate impact that technological human civilization has had on the planet, the 12,000-year interglacial that allowed the emergence of civilization in the first place was beginning to be over in the Middle Ages with the onset of the Little Ice Age. This poses an interesting question: where would we be today if, in the absence of the industrial revolution and its associated increase in fossil carbon burning, the Little Ice Age had continued to deepen? Clearly the planet is now warming too fast, but the inference drawn from these recent papers brings an added dimension to human-wrought changes on the Earth’s climate. We certainly should not make the mistake of rejoicing in greenhouse gas emissions, or relaxing on the issue, but we can consider the judicious burning of fossil carbon as a thermostat to mitigate the opposing scenarios of a too-hot or too-cold world. Fossil carbon’s real value, therefore, is as a long-term temperature regulator, not as a primary energy source.

Festival Active Pass
Galiano Island
April 22 - 24, 2016

Come experience spring in the Gulf Islands on Earth Day weekend at Festival Active Pass (festivalactivepass.com). Take in a wildlife spectacle as thousands of Bonaparte’s Gulls make their annual feeding stopover in the Active Pass Important Bird Area, joined by other gulls, loons, cormorants, and eagles, as well as Steller and California Sea Lions, and Harbour Seals. Orcas are frequently seen in Active Pass from several Whale Trail viewpoints.

The themes for the three-day festival are Nature, Art and Community. Festival Central will have displays, live music, delicious food and an arts and crafts market. Choose from guided hikes, boat tours and kayaking, or tour island gardens and artists’ displays. Talks and walks will be presented on topics ranging from birds to ocean monitoring, to local archeology and history, to field sketching and nature photography, to the community food program and solar energy production. Attend an exciting concert on Friday evening, and then the Festival banquet for a sampling of locally-sourced foods followed by a community dance on Saturday evening. On Sunday enjoy a special brunch followed by a play performance.

There are convenient morning and evening ferry connections to Galiano, and on-island shuttle buses will get people to Festival venues and events. Camping is available at Montague Park, and there is a full range of visitor accommodations. Galiano provides a wide choice of places to eat, from funky food wagons to award-winning fine dining restaurants.
It’s Time to Protect the Great Bear Rainforest’s Grizzlies

By the David Suzuki Team

The agreement between government, industry, First Nations and environmental groups to protect much of the Great Bear Rainforest should be celebrated. The deal makes almost 85 per cent of the forested land base in this massive region on B.C.’s coast off limits to logging. Forestry in the remaining 15 per cent will follow “lighter-touch” practices, called “ecosystem-based management”. Most importantly, First Nations will have greater decision-making authority over industrial development on their lands.

However, while the agreement helps protect grizzly bear and other wildlife habitat, it doesn’t protect the bears themselves, contrary to B.C. Premier Christy Clark’s claims at a news conference. Hunting grizzly and black bears in the Great Bear remains legal.

The agreement actually contains no reference to grizzly hunting. To slow the hunt, First Nations and others must pony up millions of dollars to buy out existing guide outfitting territories open to foreign big-game hunters. Trophy hunting by BC residents — governed under a different process — will proceed regardless of whether First Nations and their allies purchase and retire foreign hunting quotas.

Had the government been serious about ending the barbaric hunt, it could have banned it outright under the province’s Wildlife Act, or simply ended the open season on grizzlies in the Great Bear, as was done by earlier governments to protect the area’s Kermode “spirit bears”. (Only bears with white fur are protected, even though bears with black coats can carry the spirit bear gene.) Despite the spin, the B.C. government has never recognized the Coastal First Nations ban on trophy hunting in the Great Bear Rainforest.

Seeing grizzlies feeding on salmon as the fish make their way up the coastal streams and rivers of B.C. and Alaska is magnificent. These large brown bears with their characteristic hump and silvertipped fur scoop salmon from the river in an age-old interplay between ocean, river, fish, bear, bird and forest. The salmon bring nutrients from the ocean. The bears eat salmon and drag the carcasses into the forest, providing food for other animals, like eagles, and fertilizer for the massive rainforest trees.

First Nations-owned and operated bear-viewing operations are booming in the Great Bear Rainforest, creating jobs and revenue. The trophy hunt threatens these sustainable businesses.

The grizzly bear trophy hunt is a sport like dogfighting, cockfighting and bullfighting are sports — maybe worse. Bears that people come to see and photograph can be legally shot by trophy hunters, armed with high-powered rifles and scopes. That the B.C. government allows it to continue in the face of opposition from First Nations and a huge majority of British Columbians for the sake of profit is disgusting.

I’m not against hunting — and many who oppose the trophy hunt agree that sustainable hunting can be a good way to put food on the table. But shooting an animal — often on its way to feed and thus an easy target — just to hang its head on the wall or put its skin on the floor is not hunting. It’s killing for pleasure.

Government justifies allowing this practice by arguing the hunt is well-managed and that grizzlies are plentiful, with only a small number killed each year by hunters. Even if that were true — which it’s not — it’s a poor excuse for an inhumane practice.

Studies confirm earlier research by the David Suzuki Foundation showing the hunt is not sustainable. A peer-reviewed report by Simon Fraser University, University of Victoria and Raincoast Conservation Foundation scientists in the journal PLOS ONE analyzed the provincial government’s own data and concluded too many grizzlies are being killed in B.C. They found overkilling of grizzly bears by humans is common and that annual hunting mortality limits set by government are too risky.

Grizzlies reproduce slowly, generally having one or two cubs every three or more years. They also face threats from habitat loss, damage and fragmentation; cascading effects of salmon collapse and climate change; and death from poaching, vehicle and train collisions and the inevitable adverse impacts of careless human behaviour. Grizzlies have already been eliminated or are currently threatened in 18 per cent of the province, including the Lower Mainland and most of the Interior.

It’s time to stop killing bears for trophies. ✫
The Siberian Accentor

By John Gordon

It takes a good eye to spot something a little different amongst a flock of Dark-eyed Juncos and this proved the case January 3, 2016 during the recent White Rock Christmas Bird Count.

Thanks to a hunch and a distant grainy picture and further checking with other birders, the news finally broke that British Columbia Field Ornithologists (BCFO) president George Clulow had spotted something very special, a Siberian Accentor (Prunella montanella). The bird normally breeds in Northern Siberia on both sides of the Northern Urals, and migrates to SE Asia. Sometime they can be found in Western Europe where it is also a rare vagrant.

Records (see link below) indicate that between 1991 and 2011 the Siberian Accentor has been reported in British Columbia only 5 times classifying it as a mega rarity.

Once the news broke, birders from all over North America began to converging on 5224 - 160 and Coalbrook Rd in Surrey. Hundreds have visited the site, many waiting hours for brief glimpse. Living nearby I managed four visits before I could photograph it perched on a bush beside the road, a mere 24 hours of waiting in the cold! That day there were about forty birders, a number from Oregon; on the weekends as many as one hundred people waited for the bird to appear.

When a bird is found so far out of its range it’s termed a vagrant; sometimes the term accidental is used. Many things can send a bird thousands of miles in the wrong direction including storms, inexperience and the bird misreading the magnetic fields that would normally help it on it’s migratory route.

There are a number of ways to keep track on bird’s movements in your area through listservs, websites or by just joining a local nature group. Join them on day trips, attend meetings or take part in the annual bird counts. As a member of the Langley Field Naturalists I have attended numerous evening talks, outings and even a few four-day expedition into the Cariboo and Chilcotins. During those times I have made many friends along the way and broadened my knowledge of avifauna.

I have listed a number of links and more about the Siberian Accentor. Good birding and I always say “It’s never too late to start birding.”


British Columbia web birding sites: https://groups.yahoo.com/neo/groups/vanbcbirds/info
For the Vancouver area http://groups.yahoo.com/neo/groups/BCVIBIRDS/info
For Vancouver Island http://bcbirdalert.blogspot.ca or rare bird alerts http://birding.bc.ca
Bird alerts for BC http://www.fraservalleybirding.com,
For Fraser Valley birding tips. www.johngordonphotography.com and www.thecanadianwarbler.blogspot.com
https://www.flickr.com/photos/92004629@N03/

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Skunk Cabbage - Precursor of Spring

By Terry Taylor

In swampy sites along the coast, the one plant that proclaims spring is Skunk Cabbage (Lysichiton americanus). The large yellow flowers stand out against the brown leaves of the previous year’s sedges. It is a plant whose colour heralds the return of the sun, and also one with a number of unique characteristics.

This is a species whose relatives are almost all tropical. Many of them are grown as house plants. It belongs to the arum family, and unlike its kin, is at home in the cold, fertile soil of our wetlands. Our only other common member of this family is duckweed. Duckweed becomes a mature plant but stays in the seedling stage!

The big yellow flower is not a single flower. It is a flower cluster. The golden petal is a large modified leaf that surrounds a central spike of small flowers that have no petals. The characteristic odor is not produced to attract either us or bees. It favors small insects that are attracted to carrion. If you look closely at a Skunk Cabbage flower you will usually see many small orangy Rove Beetles, busily collecting pollen. Flowers are closely attuned to the insects that pollinate them, and the odor of a flower is an attractant for its pollinators. The small beetles and flies that go to Skunk Cabbage are not normally interested in flowers. These big flower clusters have taken advantage of a group of insects that other plants do not often use.

Another unique feature is the leaves. They develop later than the flowers and are larger than the leaves of any other native plant. Like similar members of this family they protect themselves from grazing animals with microscopic needles. These are composed of calcium oxalate, and there are bundles of them in every leaf cell. Cell interiors are under pressure, but this pressure is contained by the cell walls. If an animal bites into the leaf the ruptured walls can no longer contain this pressure and thousands of needles are shot into the soft tissues of the animal’s mouth. The injuries also allow any irritating compounds within the leaf to enter these tissues. Bears, however, have been recorded eating the roots in spring as a laxative.

There is another species of Skunk Cabbage in eastern North America. It belongs to a different genus. Although the flowers are a similar shape to ours, and the odor is similar, its bract is reddish in colour. There is, however, a striking difference from the western plant. Eastern Skunk Cabbage makes its own heat. Sort of a warm-blooded plant. The flowers bloom very early and the heat produced gives insects a warm, protected site. In return these insects give the plant an early spring start. The western Skunk Cabbage does not produce its own heat. The large yellow bract, though, protects the flowers and their insect friends from the colder, circulating air outside the flowers.

Although we have not taken much horticultural interest in the native Skunk Cabbage, that is not the case in Europe. The western Skunk Cabbage has been grown in wetland gardens there, and I remember seeing a population in Ireland that became naturalized. The Royal Horticultural Society has honored Skunk Cabbage with an Award of Garden Merit. Another common name is Swamp Lantern, a very apt name. The bright yellow flower bract stands out against the dark background before surrounding plants have reappeared.

With all its beauty and unique features, maybe it is time to appreciate what a special spring gift we possess.

BC Naturalists’ Foundation News

By Bev Ramey

Club support grant applications are now being reviewed by a joint committee of the BC Naturalists’ Foundation and BC Nature. Grants will be awarded by the end of February. This is a pleasant task, to read through the project descriptions, to appreciate the extensive volunteer commitments from club members, and to assist the several worthy club projects.

Thank you to the many members of BC Nature who made contributions to the Foundation’s Annual Appeal and thereby help grow the investment base of the Foundation.

The Foundation will hold its AGM, open to all to attend, as part of BC Nature’s AGM and Conference hosted by the Comox Naturalists. The Foundation’s AGM will be held Saturday, May 14, at 1:00 p.m.

We welcome new volunteers to the Board of the BC Naturalists’ Foundation. If you would like to help on the Board please contact Bev Ramey 604 224-7689 or bevramey@telus.net

Or you can contact any of the board members to express your interest: Robert Handfield of South Okanagan Naturalists, Pat Westheuser of Central Okanagan Naturalists’, Tom Bearss of Delta Naturalists, Gerald Keating of Pender Island Naturalists, John and Heather Neville of Salt Spring and Victoria Natural History Society, Kees Visser of Salt Spring Trail and Nature Club and David Tsang of Vancouver.

A Strong Foundation is Good for Nature

Your financial support increases the capacity of the BC Naturalists’ Foundation to make grants for the conservation and education projects of naturalists for years to come.

BC Naturalists’ Foundation

Tel: (604) 985-3057
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www.bcnature.ca
Focus on IBAs: Strathcona Provincial Park
By Krista Kaptein and Mandy Vaughan

Strathcona Provincial Park on Vancouver Island is the oldest Provincial Park in BC, designated in 1911, and the largest on Vancouver Island, at 250,000 hectare. Mostly wilderness, the Park encompasses habitat from ocean to alpine at 2200m elevation. The Strathcona Park Important Bird Area (IBA) includes the whole of the park except the westernmost portions of the Megin and Moyeha river watersheds on the west coast of the Island.

Although vast in size, the Park has modest bird values compared with many IBAs in BC. Nevertheless one species of interest is unique – the Park is home to the core of the Vancouver Island White-tailed Ptarmigan population. This subspecies (Lagopus leucurus saxatilis) occurs only in the central montane portions of Vancouver Island. Recent research from the Canadian Wildlife Service/University of British Columbia indicate that the Vancouver Island subspecies is using a wider elevational range of habitats than the mainland subspecies.

Mandy Vaughan, a member of the Comox Valley Naturalists Society and a volunteer with the Strathcona Wilderness Institute Society, inherited the role as IBA caretaker for Strathcona Park in 2013 from her friend and fellow naturalist Betty Brooks, who had held the position for some years prior. “I had regularly helped Betty with the annual bird count in the Park, and when she was ready to retire, she convinced me that I could take over!” says Mandy. “Although I love to hike, and I visit alpine areas of the park most summers, I tend not to get off the beaten track and have never seen a Ptarmigan. So I was very happy to learn that Professor Kathy Martin of the Department of Forest and Conservation Sciences, Alpine Studies department at UBC, was ready to retire, she convinced me that I could take over!” says Mandy. “Although I love to hike, and I visit alpine areas of the park most summers, I tend not to get off the beaten track and have never seen a Ptarmigan. So I was very happy to learn that Professor Kathy Martin of the Department of Forest and Conservation Sciences, Alpine Studies department at UBC, manages an “Observe and Report Program” for the White-tailed Ptarmigan subspecies on Vancouver Island.”

Monitoring of the VI White-tailed Ptarmigan began in 1995 as a partnership between UBC’s Centre for Alpine Studies and the Strathcona Wilderness Institute Society, a non-profit organization with a mandate to inspire awareness, appreciation and stewardship of Strathcona Park. Ptarmigan field surveys were conducted from 1995-1999 by Dr. Kathy Martin and student technicians. From 1995 to the present, citizen science monitors have submitted more than 400 sightings. Hikers are encouraged to report sightings of the ptarmigan on record cards which are distributed at trailheads throughout the Park.

The 2014 analysis of the two datasets by Dr. Kathy Martin, Michelle Jackson, and Sarah Gergel, concluded that for White-tailed Ptarmigan on Vancouver Island citizen science data are comparable to data collected by professional scientists, and may be used as a stand-alone tool to monitor their distributions.

Their study was the first to describe the distribution of Vancouver Island White-tailed Ptarmigan summer habitat using topographic and climate variables. Strathcona Provincial Park encompasses the highest elevations on Vancouver Island and therefore contains the majority of suitable ptarmigan habitat. The presence of the park further adds to the value of citizen science for monitoring alpine wildlife in this region, as the trail system and protected status of the park result in higher visitation than areas outside the park.

Wildlife in alpine ecosystems can be elusive and difficult to survey, yet knowledge of their distributions is critical, as these habitats are threatened by climate change. Opportunistic citizen science observations submitted by hikers in remote alpine regions can be valuable, as coverage can be extensive compared to scientific field surveys. These comparable results are encouraging for the continued use of citizen science monitoring programs, which can save both time and expense while involving and educating the public about threatened species.

The next steps in the UBC research will be to model climate impacts on ptarmigan habitat using both datasets and scientific models, and to use The Intergovernmental Panel on Climate Change (IPCC) scenarios to predict the distribution of ptarmigan habitat over three future time periods.

“Part of my role as caretaker is to monitor changes in the park which might affect ptarmigan habitat,” says Mandy Vaughan. “Of course the major ongoing change is climate change and slowly but surely, the tree line is rising and trees and shrubs are creeping upwards into the alpine habitat favoured by the White-tailed Ptarmigan. The endangered Vancouver Island Marmot uses similar habitat, and I recently read an article which talked of the possibility of maybe one day needing to artificially maintain open areas of alpine within the park to preserve the type of habitat needed by these species. Of course, life is not always that simple and it may be that a changed climate will bring other complexities in its wake. Strathcona Park is 250,000 protected hectares, and for that reason alone can be considered an important bird area.

And so the other part of my role is to coordinate an annual bird count within the park. I hope to organize counts both in the Buttle Lake area and the Paradise Meadows area of the Park each year.”

“One last thing,” Mandy notes, “It has taken a little while for me to become familiar with eBird, but the more I use the program, the more organized I become in recording field data for later entry. And I can certainly see the value in eBird for long-term monitoring of bird information.”

http://tinyurl.com/ocrj9c2

By Krista Kaptein

A Pair of White-Tailed Ptarmigan
SQUAMISH EAGLE WATCH CELEBRATES 20 YEARS

By Larry Murray

The Eagle Watch program of the Squamish Environment Society is now celebrating its 20th year of operation. This volunteer-driven learning program offers first-hand eagle viewing and information each weekend from November to January. Twenty years ago, the Nature Conservancy instigated this program with local volunteers and soon the Squamish Environment Society was supplying the energy and commitment for this extraordinary project. In 1995, the report “Survey of Wintering Eagles in the Squamish/Brackendale Area” was published (Merkens/Booth) - a result of the 1994 world-record count of 3,769 eagles. The count, which started in 1986, is done on the first Sunday in January, and includes dozens of volunteers. Counts since that record year have varied considerably, and in recent years have usually been less than 1,000. This year the count came in at 411, and it was the first time the count had been lower than 500. The decline has been attributed to reductions in salmon returns throughout the summer and fall, and in particular to the poor late-year runs of chum and coho. Despite the decline in numbers of eagles, the Eagle Run Dike viewing area, headquarters for Eagle Watch, continues to offer a special opportunity for visitors to view many other types of wildlife as well as the eagles. The dike is wheelchair-accessible and close to parking and the facilities Squamish offers.

Since 1995, thousands of visitors have experienced eagles up close. Even without the telescopes (provided by Olivon Optics) or binoculars, the eagles are readily seen as they devour spent salmon along the Squamish River. A telescope view brings many "wow" feelings from the visitors. Rain or shine, the eagles perform their displays much to the delight of nature photographers and casual viewers as well. The fall training course enables the volunteers to answer the many questions asked. Over the years, many Eagle Coordinators have performed excellent management and organization of this program. Currently, Dr. Judith Knapp of Squamish performs that role and has taken the project to new levels in the local schools. The rich eagle heritage in the Sea to Sky Corridor is now passed on effectively to the younger generation.

In October, the second Eagle Watch Gala was held at the Executive Suites Hotel & Resort. This hotel business partner has been instrumental in helping Eagle Watch with its goal of achieving sustainable funding. The local businesses and cultural societies have pitched in for this Gala. Sixteen local artists (Squamish Visuals) exhibited their works. The community support for a high-end silent auction is growing and some wonderful hotel and B&B offerings were picked up readily. "Dress to Impress" was the theme and it set a new level for the Squamish social scene. A highlight was the auctioning of the beer label painting for The Howe Sound Brew Pub new "Eagle" craft beer. Local artist Linda Bachman painted the label.

In January, as part of a larger celebration honouring the 30th Anniversary of the Brackendale Winter Festival and Eagle Count, Eagle Watch organized a Natural World lecture series. Presentations by scientists Dr. Brian Chatterton, Dr. Chris Neufeld, Dr. Kimberly Dawe, and Dr. Rudy Reimer-Yumks focussed on current research in areas of environmental interest.

Among the keys for the success of the Squamish Eagle Watch is the creation of the Brackendale Eagle Provincial Park along the Squamish River. Environmentalist Thor Foslev (Brackendale Art Gallery) is the energy behind this special park. The eagles are protected by this park designation and are able to enjoy the security of the shoreline to feast on the salmon and then retire to the cottonwood trees nearby to rest. This park promotes the ethical viewing format of the program. Sunwolf Rafting, another Eagle Watch partner, offers excellent eagle rafting along the Squamish and Cheakamus Rivers.

As the environment changes, the number of salmon returning will determine the number of eagles that return. Like the canary in the coal mine, eagles are an indicator species. The Squamish Environment Society is working to educate the young, the public, the business community, and the politicians about the eagles in order to help recognition of their value in our ecosystem and to promote their survival.

Winner of the annual Eagle Watch photograph contest

By Ed Dubois
Nature Culture

By Rob Butler

Finding great joy watching the natural world unfold each year and reveling in the magic and majesty of wilderness is what makes us naturalists. We often find it difficult to explain our fascination with nature and express our affinity in how we live, our choice of books and friends, travel, and activities.

Such a strong connection with nature should not surprise us - the reaction is entirely natural. For the millions of years of our evolution, our early human lives were shaped by natural selection. Our ancestor’s survival depended on an ability to find food, avoid becoming a victim of a predator, injury and disease, and reproduce offspring. Our long history with nature explains the joy naturalists feel when in nature. The therapeutic effect of nature enhances our physical and emotional well being and the development of our children.

Running parallel to our understanding of nature’s benefits is the fear that we might have gone too far in distancing ourselves from the natural world. We need a new pact with nature but how might we proceed without giving up all the gains we have made from our technological world?

In BC, we value nature and we have a track record of protecting natural places. However, nature is not the foundation of our culture. Instead, nature is viewed as a value-added benefit of living in the province. We have nature celebrations such as the Brant Festival, Meadowlark Festival and Wings over the Rockies, but we do not have a province-wide cultural celebration.

I live in the Lower Mainland where there is pressure to convert farmlands to other uses. The naturalist community is well aware of the immense importance of farmland to wildlife, especially on the Fraser River delta. Portions of the delta have received the highest conservation designations but naturalists fret about the future of the delta and how to engage the wider community.

I am not about to dictate what should or should not be part of our culture. Instead I propose we consider that nature in this province provides a unique opportunity to nurse a nature culture. Along the way, we might also learn from Indigenous people who have spoken about their connection to nature for a long time.

A basic tenet of a Nature Culture is that nature and culture sustain each other. A culture that values and celebrates nature cannot continue without nature.

Let me explain with an example. The Mediterranean diet received UNESCO World Heritage Designation for its cultural value several years ago. The designation recognized the important role of particular foods and livelihoods to the Mediterranean culture and in doing so, UNESCO made a connection between sustaining the land where the food was produced, the livelihoods of the people who harvested the food, and the distinctive Mediterranean cultural celebrations. The culture could not be sustained without the dietary products from agricultural lands and the livelihoods of farmers who supplied them for people residing around the Mediterranean. Feasting, the farmers and the land were identified as elements of the culture.

How might we establish a Nature Culture in BC? Start with a personal audit around home to begin to move toward a more sustainable lifestyle. You will find some things easier to change than others, and the exercise will open your eyes to where change is needed. Your choices might begin to affect the local marketplace.

The next step is to develop a tradition rooted in sustainable nature. Our family has held a feast each year in which all the food was locally-sourced. The feast has become an annual tradition and a means to remind us of the value of local land and farmers. The concept has been adapted at large gatherings – nine in total so far – at which the food was mostly sourced from the Salish Sea region and sustainable. The Pacific WildLife Foundation and Mossom Creek Hatchery sponsored the most recent feast in January where we asked everyone to describe how much of each dish was sourced locally, how difficult it was to find and where it was purchased. The surprise for those who attended the feasts was the discovery of how much food was locally available even in mid-winter. Some of the fun was the ease or difficulty in sourcing local food. Not all places in BC will be so fortunate to have local food sources so a feast might be planned for summer when food is more plentiful or food might be put away for a winter feast. An aspect of future local feasts will be to develop a new cuisine. The cuisine and the food items will need names.
Federated Clubs of BC Nature

Lower Mainland Clubs
Abbotsford Mission Club - Abbotsford
Alouette Field Naturalists - Maple Ridge
Bowen Nature Club - Bowen Island
Burke Mountain Naturalists - Coquitlam
Chilliwack Field Naturalists - Chilliwack
Delta Naturalists Society - Delta
Friends of Semiahmoo Bay - White Rock
Langley Field Naturalists - Langley
Little Campbell Watershed Soc. - Surrey
Nature Vancouver - Vancouver
Pender Harbour & District Wildlife Soc.
Squamish Env. Cons. Soc. - Squamish
Stoney Creek Env. Comm. - Burnaby
Sunshine Coast Nat. Hist. Soc. - Sechelt
Surrey Environmental Partners - Surrey
Whistler Natural History Society - Whistler
White Rock Surrey Naturalists - Surrey
WildResearch - Burnaby

Kootenay Clubs
Fernie Nature Club - Fernie
Rocky Mountain Naturalists - Cranbrook
West Kootenay Naturalists - Castlegar

Thompson Okanagan Region
Central Okanagan Naturalists’ Club - Kelowna
Kamloops Naturalists - Kamloops
Lillooet Naturalists Society - Lillooet
Nicola Naturalists - Merritt
North Okanagan Naturalists Club - Vernon
North Shuswap Naturalists - Scotch Creek
Oliver-Osoyoos Naturalists - Oliver
Shuswap Naturalists - Salmon Arm
South Okanagan Naturalists - Penticton
Vermilion Forks Field Naturalists - Princeton

Northern BC
Buildley Valley Naturalists - Smithers
Kitimat Valley Naturalists - Kitimat
Mackenzie Nature Observatory - Mackenzie
Northern Amphibian Nats. Soc. - Terrace
Prince George Naturalists - Prince George
Queens Trail & Nature Club - Quesnel
Timberline Trail & Nature Club - Dawson Creek
Williams Lake Field Nats. - Williams Lake

Vancouver Island
Arrowsmith Naturalists - Parksville
Campbell River Naturalists - C. River
Comox Valley Naturalists - Comox
Cowichan Valley Nat. Soc. - Duncan
Nanoose Naturalists - Nanoose Bay
Pender Island Nats - Pender Island
Rithet's Bog Cons. Soc. - Victoria
Rocky Point Bird Observatory - Victoria
Salt Spring Trail & Nature Club - Salt Spring Island
Victoria Nat. History Soc. - Victoria

BC Science Fair Students Win International Awards in Taiwan!

By Science Fair Foundation of British Columbia

Daniel O’Reilly, a Grade 11 student from College Heights Secondary, Prince George and Austin Wang, a Grade 12 student from David Thompson Secondary, Vancouver have returned with success from the Taiwan International Science Fair, held January 25 - 29, 2016.

Mr. O’Reilly received a Bronze Medal in the Medicine and Health category for his project “Remedies Recovered from Roof Top Resources” in which he sought to devise a new approach to treat “superbug bacteria” by using natural resources that could improve the quality of life and provide sustainability of products for the forest and pharmaceutical industries. Mr. Wang received a Gold Medal in the Microbiology category for his project titled “A Novel Method to Identify Genes in Electron Transfer of Exoelectrogens” which aims to identify the genes involved in bacterial extracellular electron transport to generate power in microbial fuel cells.

Mr. O’Reilly and Mr. Wang were accompanied by Pat Offin, a retired educator from Mackenzie, BC. Ms. Offin was chosen as the educator because of her broad outreach education experience, her years of participation and support of the Science Fair program and her appreciation of its educational benefits for students.

British Columbian students have attended the Taiwan International Science Fair since its inception in 1991, a legacy of the Pan Pacific component of the 1991 Canada-Wide Science Fair hosted in British Columbia. Students are selected to participate based on their Science Fair project work, their communication skills and their ambassadorial qualities.

“Through scientific research, Science Fair participants are able to gain 21st century learning skills, important life and job skills which help reveal where new career opportunities exist” said Patti Leigh Founder, and Executive Director, Science Fair Foundation of British Columbia. “Science Fairs allow students to stretch their imaginations and intellect, and they provide a chance for young scientists to network with their peers and with potential mentors.”

British Columbia Regional Science Fairs are supported by the Science Fair Foundation of British Columbia, a non-profit, charitable organization whose vision is to sustain and enhance the science culture of the youth of British Columbia.

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Time to Find the Precious Frog

By Aleesha Switzer

As the warming glow of spring flirts across the horizon, frogs in BC’s Fraser Valley slowly emerge from their winter refuge and blink their eyes in the light of the sun. Among them, the biologists, emerging from their offices after a long winter of paperwork, are rubbing their eyes at the brightness of day. This is breeding season, a frenzied time for frog and frog-researcher alike. For members of the Oregon Spotted Frog Recovery Team, this is one of the most crucial seasons for population monitoring and discovery. As one of these people heading into the wetlands this spring to search for frogs, I would know.

The Oregon Spotted Frog (OSF) is Canada’s most endangered amphibian, found only in the Fraser Valley. Historically this frog lived along the coast from British Columbia to California, but population numbers are dwindling across the range. This is largely due to the loss of wetland habitat. The species is now listed as endangered under the federal Species at Risk Act and is red-listed in British Columbia. In the United States, the Oregon Spotted Frog is listed as threatened under the Endangered Species Act.

Canada’s OSF Recovery Team consists of a variety of dedicated individuals including federal and provincial staff, academic professionals and junior biologists from local non-profits, like me! Throughout the year we work to save the frog by conducting population surveys, research, and habitat construction projects.

This spring I will head out to search for frog eggs. We count egg masses to estimate the size of the breeding adult populations. Every egg mass requires a female frog to lay it and a male frog to fertilize it, and we assume the sex ratio is 1:1. We currently have five breeding populations of OSF in Canada, and the largest one contains fewer than 300 adult frogs. Yikes! At this time of year another frog at risk, the Northern Red-legged Frog, will be laying eggs as well. By observing the egg mass position in the water and associated vegetation, we can differentiate between the different species’ eggs.

What I enjoy most about my field work is searching for frogs in the most unlikely places. To find these rare, endangered creatures, I search the roadside ditches and sloughs. When I started working with frogs as an undergraduate student I never would have imagined the abundant diversity of life that can be found in roadside ditches. These watercourses are often thought of as dirty, lifeless, unimportant features of the landscape, only meant for water relocation. If you take the time to explore these systems, you will find they are full of life. Juvenile salmon and small fish, salamanders and newts, crayfish and lampreys, and, of course, frogs all seek refuge there.

These last wet places are the remnants of the Fraser Valley’s historic landscape. Before agriculture and development took over, the Fraser Valley functioned as a giant ephemeral wetland, the perfect rearing place for fish, amphibians, and waterfowl. Looking into these ditches is like a window to the past, revealing the amazing diversity that once thrived in our backyards.

As luck would have it, two new populations of OSF have been discovered in the last two years in Abbotsford and Chilliwack. These populations are not in the pristine, untouched wetlands we often aspire to protect, but in roadside ditches in agricultural areas. Unfortunately, preliminary surveys have been bleak. Only 16 adult frogs are known to exist at each of these newly-discovered sites.

While searching for these frogs this spring, I will undoubtedly encounter garbage bags, agricultural runoff, and disturbing disregard for the home of these small, delicate creatures. But who is to blame when we, as a society, are seemingly unaware of the life in a roadside ditch? Perhaps we need to focus on compassion, for the environment and for each other.

I believe there are many more undiscovered populations out there that require our protection from an uncertain future. With the threat of climate change, invasive species like the American Bullfrog, and continued agricultural and residential pressures on these fragile, fragmented ecosystems, the time for change is now. But we cannot do this alone. We need your help.

The OSF Recovery Team conducts outreach activities to educate people who work in these systems about how to identify amphibians and what to do when they find frogs. This year the Team is launching the Precious Frog website, named after the Latin name of the species, Rana pretiosa. With the website we hope to connect the people who live with frogs in their backyards with the biologists who are trying to protect them. Anyone can join our team this spring as we search for Canada’s most endangered frog. Read our stories, share your knowledge, and show us what you find out your own back door.

If you see me out in the ditches, feel free to stop and chat. Together, we can help recover the Oregon Spotted Frog.

Like us on Facebook, facebook.com/preciousfrog. Follow us through the wetlands on Twitter @preciousfrog

To learn more about Oregon Spotted Frogs and what you can do to help recover this species, visit our website: www.preciousfrog.com
What’s with BC’s Birds?

By Trevor Jones

Many of BC’s common bird species are in a statistical downward freefall. Some examples: Killdeer, populations down 70% since 1970; Belted Kingfisher down 59%; Rufous Hummingbird down 54%. Dozens of other common species are to be found in the Appendix to this article on the BC Nature web site.

So why the declines? The root cause is the human population increase. Our urbanization and sprawl cause direct loss of habitat. Our ongoing urbanization of the lower Fraser Valley and the Okanagan are prime examples.

In BC, a large province with relatively small population, loss or degradation of habitat occurs as a result of resource extraction, largely for export, including logging, oil and gas, energy, and mining. There is very little of BC, outside of protected areas, that has been unaffected by resource development, and unfortunately, the pace is not slowing. Other factors include pesticide use, to enhance crop production for growing populations.

Loss of the natural world occurs incrementally, day by day. Losses occur on a grand scale, such as unconventional oil and gas activities in the northeast corner of BC, or on a small scale, like on my street in Vancouver. Over the past 15 years, most of the houses on my block have been torn down and replaced by larger ones. With this demolition, we also lost gardens, weedy areas in the lanes, and trees. They have been replaced by plants such as laurel or those irritating little cedars along the lot lines. Due to even this small change, birds that were commonly seen in my neighbourhood (including Juncoes and House Finches) are all gone now. Even the Starlings are gone!


Can the declines be halted? Probably not. Just kidding (sort of). I mustn’t end on a down note. Sometimes good things happen for conservation in spite of lack of interest by the general public. Some examples:

• In the 1970s, a small organization in the Kootenays, Valhalla Wilderness Society, set out to protect the Valhalla Range west of Slocan Lake. Hardly anyone else knew this area. Nevertheless, after a relentless campaign, the area was designated as Valhalla Provincial Park in 1983.
• In 1993, a brief, strategically brilliant campaign culminated in designation of Tatshenshini-Alsek Provincial Park in northwest BC, with its outstanding wilderness and wildlife values. Another area no one knew, except river runners and the mining company intent on developing a copper mine.
• The Stein Valley, a roadless wilderness between Pemberton and Lillooet, was protected in 1995 after a campaign through the 1980s and into the 90s. Initial efforts were having difficulty gaining traction. Then, the miracle. John McCandless of Lillooet, working with Lillooet Tribal Council, organized and masterfully put on the Voices for the Wilderness Festival in the wild alpine, an audacious effort. Overnight, the Stein Valley became a national issue.

And who can forget Rachel Carson’s masterpiece, Silent Spring, which saved a good chunk of the natural world from the ravages of DDT. By 1958, Carson, bemoaning the large bird kills that had occurred as a result of DDT sprayings, tried to interest a magazine in assigning her a story on this subject. At that time Carson was already a best-selling nature author and former marine biologist. The magazine turned her down. Carson decided to go ahead and tackle the DDT issue in a book.

What about our birds? Some personal thoughts for those who might wish to DO SOMETHING: Don’t spend a lot of time trying to get ongoing publicity in the major media. You probably won’t be successful. The media won’t be receptive, because the public is not on side or interested. Catch 22? (How do you get the public on side or interested other than by publicity?) Perhaps. However, do engage with local media, which can be receptive on local matters.

Be strategic. Think outside the box. Take on your issue in bitesized chunks. Figure out who or what is blocking the particular concern you have. Identify their vulnerabilities. Identify opportunities. Then go on the attack. Seek allies.

Offer to assist environmental organizations working to protect habitats of interest to you. Write or speak with relevant MLAs or MPs. And talk to your own MLA or MP. Direct action is not everyone’s cup of tea. However, for those so inclined, actions such as on the Walbran on Vancouver Island are important for conservation. 😊
Gerard Bloem (1914 - 2015) - Hiker and Naturalist

By Terry Taylor

Gerard and his wife Trudy were active members of the Vancouver Natural History Society, North Shore Hikers and Alpine Club of Canada for many decades, and I deeply miss him, as we had a friendship that lasted for more than 50 years.

Gerard was born in Monnickendam, Netherlands, and he and Trudy came to Canada in 1955. They soon became active in the naturalist and hiking communities of the Vancouver area. He took a keen interest in the mountains, whether it was the alpine meadows or the rocks he traversed across the ridges. We had active discussions about glacial features, got excited about finding a new wildflower, or admired the patterns on a snowfield. One memorable experience was finding a Planarian Flatworm in a creek, when filling our water bottles!

When they were active hikers, Gerard and Trudy usually attended the Alpine Club summer camp in the Rockies and invited friends to their house on West Second Avenue to view slides of their latest adventures. Trudy was active in the Dunbar Lapidary Club and there were rocks all around the living room. Discussions on minerals and geology often took place because of these.

During hikes Gerard also pointed out the bird calls and songs we were hearing. The Varied Thrush brings back memories of route finding on a mist covered snowfield. Almost every hot summer hike was accompanied by the sound of the Olive-sided Flycatcher. There were jokes as the party went from the territory of one bird to the next. Trudy said they were shouting “quick, quick, free beer, free beer”.

Pre-retirement, Gerard was a clinical chemist. Gerard visited the hospital laboratories on the east coast of Vancouver Island and at Powell River, where he was in charge of quality control and assisted staff in maintaining standards. He also had a small home lab filled with reagents and other chemicals. Trudy was Dr. Harold Rice’s laboratory assistant when Dr. Rice built the first heart-lung machine in Canada, at St. Paul’s Hospital. Both Gerard and Trudy were very proud to have been part of that project. As a consequence of his professional background he was equally at ease discussing the biochemistry of native plants, as well as their taxonomy. His analytical abilities extended well beyond chemistry. Gerard also possessed an astute ability to use contour maps, and he had a map for every area he hiked. This was long before the days of GPS, and many of the trips were successful due to Gerard’s map reading skills.

Astronomy was another of his interests. Even in recent years he used a small telescope. In 2014 he had the opportunity to view the partial solar eclipse through a welder’s glass.

Gerard was always concerned about the welfare of the people around him. This was well exemplified by the way he kept the group together in difficult terrain. In 1963, when I was just learning the local flora, he generously bought a botany book for me, which I still possess.

His caring nature was very well demonstrated by the way he looked after Trudy when she became afflicted with Parkinson’s Disease. Trudy passed away in 2003 and Gerard, although deeply saddened by the loss of his dear Schatze, forged ahead and remained curious and delighted by the natural world and the events on this and every other planet.

The BC Naturalists’ Foundation greatly appreciates that Gerard Bloem made the time during his full life to include in his will a generous bequest to the Foundation. So that we can all learn more about Gerard’s life, the Foundation asked his good friend, Terry Taylor, to write this tribute.

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For more information, contact Deb Kennedy at debkennedy@naturetrust.bc.ca or call 604-924-9771 or 1-866-288-7878

www.naturetrust.bc.ca
Columbia River Treaty - Sign-on letter to Foreign Minister Dion, Secretary of State Kerry and Premier Christy Clark
From Canadian and American NGOs including BC Nature

February 10, 2016

Dear Minister Dion, Secretary Kerry and Premier Clark,

The Columbia River is one of the most important trans-boundary rivers in the world. Although the river has been heavily developed for hydropower and flood management, including by dams built pursuant to the U.S.-Canada Columbia River Treaty, it still functions as a single system, within a single watershed.

As citizen-based coalitions in Canada and the United States, we are writing on behalf of organizations in both countries that collectively represent millions of people. We support modernizing the 1964 U.S.-Canada Columbia River Treaty, to improve the health of basin ecosystems and ensure that the river and its people are more resilient to the increasing effects of climate change.

To achieve these goals, we are writing to raise two fundamental issues regarding the treaty and its negotiation. First, we recommend the addition of “ecosystem-based function” as a third Treaty purpose, and that expert representatives appropriate for addressing ecosystem function be added to Treaty negotiating and governance structures. Restoring and/or improving ecosystem-based function means improving the health of the Columbia River system, and can include a variety of measures such as: restoration of wetlands, riparian areas and floodplains; approximation of natural hydrographs; reduced impacts of reservoir and dam operations on terrestrial and aquatic ecosystems; fish passage and reintroduction of anadromous species; and adaptive management to continuously improve ecosystem functions. In order to achieve maximum net ecological benefits, a determination of which measures to implement, and where, will require coordinated investigation and modeling throughout the watershed.

This brings us to our second recommendation. We recommend the development of a common U.S.-Canada analytic base to explore and assess operational scenarios and watershed futures across the whole Columbia basin. This will provide a framework for understanding the potential for improvement of ecosystem function, and also to adequately assess trade-offs and synergies between all water uses in the basin (ecosystems, power production, flood control, irrigation, domestic, navigation, etc.).

Negotiations toward a modern Treaty are more likely to result in the maximum net ecological benefit if all stakeholders can access and use a common analytic base. The modeling process should be transparent and informed by our combined best available science. We believe a process that brings together all of our trans boundary expertise to jointly develop and assess scenarios for all uses and water conditions is more likely to result in a superior Treaty and its adaptive implementation, than a process based on compartmentalized analyses.

A common analytic base would enable a host of positive opportunities in preparing for the Columbia River Treaty talks, and provide a constructive mechanism for international collaboration. Such a coordinated approach need not compromise each nation’s requirement for confidentiality. Instead, this common analytic base would catalyze all our region’s sovereigns and stakeholders to contribute and learn. All would be enabled to provide input, and evaluate others’ input, into modeling scenarios. Ultimately, it would strengthen the scientific, technical and democratic foundations of a new Treaty.

The International Columbia River Engineering Board, established by the International Joint Commission prior to the original Treaty negotiations over 50 years ago, produced common technical analysis and evaluations for both nations. We hope you will examine this precedent for a common analytic base, and update and expand it with modern tools, collaboration and transparency.

Thank you for considering our recommendations, and for all your work to modernize the Columbia River Treaty. If you would like to discuss this further, please do not hesitate to contact us. Any response to this letter can be sent to either Martin Carver and/or Joseph Bogaard. Their contact information is listed below.

Sincerely,

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BC Wildlife Federation
CPAWS - BC Chapter
Living Lakes Canada
Salmo Watershed Streamkeepers Society
West Kootenay Ecosociety
Friends of Kootenay Lake Stewardship Society
Association of Northwest Steelheaders
Northwest Sportfishing Industry Association
Center for Biological Diversity
Pacific Coast Federation of Fishermen’s Associations
Idaho Rivers United
The Center for Whale Research
Whale and Dolphin Conservation
Oregon Natural Desert Association
North Columbia Environmental Society
Oregon Environmental Council
Slocan Lake Stewardship Society
Hells Canyon Preservation Council
WaterWatch of Oregon
Center for Environmental Law and Policy
Oregon Shores Conservation Coalition
Washington Trollers Association
Friends of the Clearwater
Northwest Guides and Anglers Association
League of Women Voters of Idaho
National Wildlife Federation
Institute for Fisheries Research
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League of Women Voters of Oregon
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“What Are Nightjars?”

By Elly Knight

“What are Nightjars?”

I can’t count the number of times I’ve tried to answer this question since I became Program Manager for the WildResearch Nightjar Survey. One thing is for sure, studying Nightjars has been, and continues to be, a lesson in science communication. My partner, who is also a bird biologist, told me pretty early on that I had to stop using the word “Caprimulgidae” if I ever wanted anyone to be interested in Nightjars (Caprimulgidae is the scientific name for the Nightjar family).

So, what are Nightjars? Many things! In a nutshell, Nightjars are birds that sleep during the day and look like leaves. One of my favourite definitions by Tim Dee reads: “a Nightjar is a dusty carpet whose pattern has absorbed into it every tread, until it cannot be said what is dirt and what is design”. Nightjars are birds that travel to us on pointed wing from South America to pluck insects from midair with gaping mouths. Nightjars are birds that can slow their heart rate and enter torpor, which is a form of hibernation. Nightjars are known as “goatsuckers” because Pliny the Elder and Aristotle spread a rumour that these birds feed from the teats of goats at night. Nightjars are fascinating and highly understudied. Nightjars are of conservation concern.

Nightjars are aerial insectivores, a group of birds whose populations are declining faster than any other group of birds in North America. The entire Nightjar family is understudied because their nocturnal habits preclude their detection during other monitoring programs; however, available data indicate North American populations are in decline. In Canada, we have three Nightjar species: (1) the Common Nighthawk is listed as Threatened under the federal Species at Risk Act, (2) the Eastern Whip-poor-will is also federally Threatened, and (3) the Common Poorwill has been assessed as Data Deficient by the Committee on the Status of Endangered Species in Canada (COSEWIC). The need for better baseline Nightjar data is as clear as the call of a nighthawk on a warm summer night.

Since 2010, WildResearch has been working with citizen scientists to fill the Nightjar data gap in BC. The WildResearch Nightjar Survey aims to contribute to Nightjar conservation by collecting baseline data that can be used to monitor populations, study habitat associations, and optimize survey protocols. We started in 2010 with the largest data gap: the dearth of information on Common Poorwills in south-central BC. Then in 2014, we expanded the program to the rest of BC to try and fill the Common Nighthawk data gap as well. We developed new protocols in 2014 that target Common Nighthawks at dusk and Common Poorwills at night, and using those protocols, keen volunteers have helped us collect valuable data.

I’m happy to report that while I’ve been busy trying to figure out how to explain Nightjars, the WildResearch Nightjar Survey continues to grow and do great things. In 2015, more than 70% of volunteers returned to help survey 154 routes, and 50 volunteers attended one of six orientation sessions across the province. WildResearch is in the process of building an online Nightjar Atlas that will increase our volunteer management capacity and streamline the volunteer process. We collected acoustic data to further study Nightjar survey methods, and have trained volunteers and students how to use bioacoustic technology to analyze those data. We continued to build new and existing collaborative relationships and are currently leading a national initiative to standardize Nightjar survey protocols across Canada. We uploaded 2010-2014 survey data on the NatureCounts portal so that the data collected for free by citizen scientists are freely available. Finally, we are thrilled to announce that the WildResearch Nightjar Survey will expand to five new provinces and territories for the 2016 survey season! All of this was made possible with generous financial support from BC Nature and the BC Naturalists’ Foundation, TD Friends of the Environment, the James L. Baillie Memorial Fund, the Science Horizons Youth Internship Program, and MEC. But above all else, the WildResearch Nightjar Survey is made possible by you, BC’s naturalist community.

So I’m still trying to figure it out... what are Nightjars? Here’s my best answer: Nightjars are an opportunity to contribute to conservation! Surveying a WildResearch Nightjar Route is the best way to find out what Nightjars are. If you’d like to participate, watch for a volunteer call out in April 2016 or email us at Nightjars.bc@wildresearch.ca.

A male Common Nighthawk roosts sleepily on a fencepost in southern Alberta.
More Eagles Flocking to Fraser Delta for Winter

By Anne Murray

For a bird that was once on the US endangered-species list, the Eagle has made a remarkable comeback. It is now so common in the Lower Mainland that even the most urban of city dwellers cannot fail to spot one.

With its striking white head and tail, dark body, massive bill and talons, and two-metre wingspan, the adult Bald Eagle is every inch a North American icon.

In the past few decades, the number of Bald Eagles wintering in the Fraser River delta has increased dramatically, with winter counts averaging between 600 and 1,300 birds.

This year, eagles are causing traffic jams and parking problems around Ladner–Boundary Bay farmland as photographers vie for the best views of these magnificent birds.

Eagle numbers down on Squamish River - In contrast, eagle counters at Brackendale—on the Squamish River, a famous wintering area—recorded much lower numbers than formerly in their annual January census this year.

In the Fraser delta, the eagles feed along the riverbanks, on tidal marshes, and in farm fields around Boundary Bay, preying on the tens of thousands of ducks and shorebirds that use the delta as a wintering area. Some eagles are more opportunistic, gathering in huge flocks around the Vancouver Landfill in Burns Bog and the composting facilities near Boundary Bay Airport.

Many of the eagles are visiting for the winter, some from as far away as Alaska, while others are local birds. By January, the residents are already paired up and working on repairing or building nests. Younger birds are distinguished from adults by their dark brown plumage streaked with white: the adult plumage, with its characteristic white head and tail, takes four to five years to develop.

There was once a time when there were very few Bald Eagles in the delta, but the number wintering and nesting there has steadily increased during the past four decades. A good source of information on their distribution is the annual Christmas bird-count data, coordinated by Audubon and Bird Studies Canada. This volunteer initiative began in North America in 1900 and has now expanded to 2,348 circle areas across the continent.

Eagle numbers up hugely since 1970s - In the Lower Mainland, Christmas bird counts are conducted around Vancouver, White Rock, and Ladner in Delta, among other areas. The count data (accessible on the Audubon.org website) reveal that, on average, between 1958 and 1974, fewer than three eagles were observed each year on the single-day midwinter count within a 24-kilometre radius of Ladner. Today it is a common occurrence to see a dozen or more adult and juvenile eagles perched in a single tree.

The local population change began in the 1980s, when average count numbers first rose to 76, then increased through the 1990s to 234, and soared to 936 after 2006. In 2015, the total eagle tally in the Ladner count circle was 1,360. Breeding numbers have also increased dramatically. David Hancock, a naturalist and writer with a special interest in eagles, estimates there are now 400 to 500 nesting pairs in the lower Fraser Valley.

The information gathered by thousands of volunteer bird watchers in Christmas bird counts is immensely valuable in learning about North American birds. Although a single year’s data can be misleading, because of changes in weather or observer efforts, collectively the surveys can demonstrate population trends, such as the recent increases in Lower Mainland Bald Eagles, Anna’s Hummingbirds, and Eurasian Collared Doves. Some other bird populations, such as Band-tailed Pigeons and Short-eared Owls, can be seen to have declined in the same period.

The Ladner Christmas count is often ranked first in Canada for high numbers of birds, with, typically, 140 to 152 different species observed, but in 2015 only 134 species were seen, with the cold, wet weather being a factor. Eagles, however, do not seem to mind the cold.

Annual eagle counts at salmon-spawning sites - Besides the Christmas bird counts, eagle numbers are tallied annually at two famous salmon-spawning sites: Chehalis flats at Harrison Mills and Brackendale on the Squamish River.

During the Fraser Valley Bald Eagle Festival in November 2015, 1,400 Bald Eagles were counted at Chehalis. The eagles gather on the alluvial flats and in trees along the rivers in this scenic area, drawing visitors from far and wide.

Since the founding of the festival and annual monitoring 20 years ago, the area has seen fluctuating numbers of eagles gathering there for the fall salmon runs. In 2010, Hancock counted 7,362 eagles along
More Eagles Flocking to Fraser Delta Continued

three kilometres of the flats, with hundreds more flying overhead: a world-record gathering of eagles.

At Brackendale, eagle numbers have declined since a peak of 3,769 eagles in 1994 over a 40-kilometre stretch of the Squamish River during the annual January count. Typically, teams hike, raft, and kayak to count the birds. Cold, snowy weather, high water in the river and fewer Chum Salmon carcasses were blamed for a count of only 411 eagles on January 3, 2016, the lowest in the 30 years’ history of the count, which has averaged 1,385 birds annually since 1994.

Low numbers at Brackendale, however, have been offset by high numbers of eagles in Delta and the Comox Valley, both areas with sources of food other than salmon.

**Salmon an important predictor of numbers**

There are many complexities to the population dynamics of these majestic birds and a number of possible reasons for the changing eagle numbers in different areas. Salmon runs change in size annually and over the long term as habitat, climate, and fishing fluctuates.

Observers at Brackendale have commented on the loss of earlier coho, chinook, and steelhead populations in the river with habitat changes, yet there was an increase in chum populations in the 1990s. The high eagle count at Harrison in 2010 occurred in the same year as the largest Fraser sockeye run in 100 years.

This year, with a long drought in summer and heavy fishing pressure prior to fish entering the river, salmon numbers were low. Correspondingly fewer eagles were seen at Chehalis. Alternative food sources can also draw eagles, such as the vast waterfowl flocks on Boundary Bay or the presence of compost and landfill sites.

Hancock is concerned for the long-term viability of eagle populations because of their strong dependence on salmon. In modern times, the vast waters of the Pacific Ocean have become steadily more polluted, even as attempts are made to clean up the inland waters of the Salish Sea. The resident salmon-feeding orcas suffer greatly from toxic pollution.

**Ocean pollution a concern for eagle health**

Although western eagles were not so affected by the pesticide problems of the 1950s and ’60s, there is no escaping the global scope of ocean contamination, particularly for species that depend so heavily on fish in their diet. Hancock speculates that birds feeding on composting heaps and landfill sites could be less contaminated than northern eagles that are dependent on salmon for most of the year.

The large numbers of eagles gathering in the Fraser delta have impacts on the local environment. These are very large predatory birds and their booming populations must have an effect on other species with which they compete for food and nesting areas. Besides more normal prey, such as salmon, ducks, and sandpipers, there are reports of them attacking young Great Horned Owls, Red-tailed Hawks, small dogs, and other animals.

Even humans are at risk: it would be easy to get hit by a car while staring skywards and wandering absent-mindedly across one of the farm roads that are regular travel routes for local workers. Furthermore, the turf farm and composting facility, which attract hundreds of eagles daily, are located close to the end of the Boundary Bay Airport runway, creating a serious hazard for small planes using the airport. ✠

Take care if you travel in eagle land!

Anne Murray’s books on Delta’s natural and ecological history, A Nature Guide to Boundary Bay and Tracing Our Past, a Heritage Guide to Boundary Bay, are available in local stores or from www.natureguidesbc.com. She blogs at www.natureguidesbc.wordpress.com
NatureKids Update
(Formerly Young Naturalists Club)

By Kristine Webber

This January NatureKids BC launched the first full-colour issue of NatureWILD magazine. Based on a member survey (2015) we know that NatureWILD is a much-loved part of our program and that parents and children appreciate having a print-ed copy to hold, read together and share with others. Advances in digital printing technology (along with a reduction in printing costs) have enabled us to show the wonders of nature in full glorious colour and capture the attention of youth members.

Of course this means we need wonderful photos. If you can help, please contact Daphne at naturewild@naturekidbc.ca.

Also new with this issue of NatureWILD is a teacher’s guide linking content to the BC curriculum (K-7), making it easier for teachers to integrate nature in their teaching. This guide will be emailed to all our school members in the quarterly e-blast. If you know of a teacher who would be interested let us know!

Thank you to the NatureWILD editorial team: Daphne Solecki, Brian Herrin and Tricia Edgar. Welcome also to Alison Garrad the new NatureWILD graphic designer.

Explorer Day Update

Everyone agrees the best part of NatureKids is the Explorer Day. Outdoor adventures with friends, family and local experts.

We are tallying up the numbers for 2015 and so far, clubs went out on a whopping 235 Explorer Days. Many of those days were led by BC Nature club members – thank you for sharing your passion for nature with children!

Our NatureBlitz, which was held February 27, 2016, included all types of nature-related activities from dawn to dusk. Children and their families explored nearby nature, took part in citizen science and were taught all about critical wildlife habitat during our day-long NatureBlitz at the Alaksen National Wildlife Area and Reifel Bird Sanctuary in Delta BC. This event combined age-appropriate nature interpretation by local experts with guided walks (e.g. early morning songbird walks), demonstrations of scientific methods and equipment (e.g. live trapping small mammals) and other fun activities to engage participants such as nature photography workshops.

The NatureBlitz offered by NatureKids BC was in partnership with Nature Canada, the Delta Naturalists, BC Waterfowl Society, Canadian Wildlife Service and Delta Farmland and Wildlife Trust. Financial support was provided by Environment and Climate Change Canada.

All activities were free but pre-registration was required to participate. Missed the event? You can check out the photos on Instagram by searching #NatureBlitz, #NatureKidsBC.

Nature Club Changes

We’d like to welcome new club co-leaders: Jennie McCaffrey (Kamloops), Linda Brooymans (Nanaimo), Sara Thirnbeck (Kelowna), and Sarah Brookes (Nicomolek). Best wishes to departing leaders’ Kathy Smith (North Okanagan) and Fiona Flook (Kelowna).

NatureKids is seeking volunteer nature club leaders or co-leaders for the following clubs: Victoria, Thetis Island, TriCities, Nelson, Fort St. John, Delta Home Learners, Nanaimo and Oceanside Clubs. A Volunteer Club Leader’s primary role is to organize monthly outdoor nature adventures, called Explorer Days, for NatureKids club members. For more information contact Tammy Keetch at coordinator@naturekidsbc.ca

Contact Information
Vanessa Lee, President
info@naturekidsbc.ca
Kristine Webber, Executive Director
kristinewebber@naturekidsbc.ca
Tammy Keetch, Clubs Coordinator
coordinator@naturekidsbc.ca

Fun with Fungus Explorer Day led by BC Nature Member Al Grass.
Hamilton Mack Laing Generates Yet Another Prize
By Dr. Loys Maingon

Throughout his long life Canadian naturalist, Hamilton Mack Laing (1883-1982), was the recipient of many national awards, including a 1972 award from The Federation of BC Naturalists (BC Nature). It is therefore in keeping with Laing’s many contributions to Canadian environmental history, that the Mack Laing Heritage Society which worked tirelessly for the past three years to see his last will respected should now be the recipient of a Heritage BC 2016 award.

The prize is somewhat ironic. This is the first Heritage BC award given to a person or organization in Comox. It may also be the first award in a town which demolished recognized national heritage. And it may be the first heritage award given to a society that was not able to save national heritage.

The society which started as a committee and group within Comox Valley Nature sought to save Mack Laing’s original home “Baybrook” as a nature house open to the public, according to Laing’s explicit wishes. Unfortunately influential local neighbours opposed this potential encroachment into their privilege, claiming that the house had no heritage value.

Both Heritage BC and The National Heritage Trust of Canada (formerly Heritage Canada), wrote letters to Comox explicitly recognizing the “very significant heritage and historical value of Baybrook”, and offering to fund the restoration. For strictly political reasons Baybrook was demolished August 6 2015.

Laing built Baybrook in 1922 and lived in it until a few years after the passing of his beloved wife, Ethel, also a distinguished naturalist, in 1945. During these idyllic years, which he described in Baybrook: Life’s Best Adventure, Baybrook was a hub for many prominent members of Canada’s environmental community. As a member of the “B” (Brotherhood of Venery), whose key role has been aptly described in Briony Penn’s excellent biography of McTaggart Cowan (The Real Thing, 2015) as a society of the most prominent progressive North-American conservationists led by Lloyd Hayes, Joseph Grinnell and Aldo Leopold, Mack Laing was chosen to train specially gifted students such as Ian McTaggart Cowan, who named Laing as one of the four greatest influences on his life. Laing was also an early influence on Farley Mowat.

It is less well-known that Laing was involved in the 1920-1925 Anti-pollution League led by Gifford Pinchot and President Taft, which passed the very controversial 1924 “Oil Pollution Act”. It is from the activities of the League that the term “environmentalist” first arose in 1922. Laing was the first Canadian to write about marine oil pollution on the West Coast in 1928. – He may therefore be considered Canada’s first environmentalist – much to the chagrin of Comox’s anti-environmentalists, who have sought to erase his memory for the past 33 years and have now destroyed Canadian heritage.

The Mack Laing Heritage Society, has received its award for its public educational work, advocating for the preservation Canada’s environmental and natural history. Its ongoing concerns and work can be seen on its website http://macklaingsociety.ca/. The society is currently engaged in a campaign to see Laing’s will and trust respected, in an attempt to save the house he built in 1948 and lived in until his death in 1982. 🕊
By Lee Beavington

The Golden Arbutus: A Tree Apart

Clinging to the rock, ocean ripples below and steep cliff above, I try to keep my balance on this precipitous outcrop of shore. In search of a sureer grip I contemplate the sandstone shelf overhead. Roots twist through the stone like veins. Above, the reassuring and sinuous body of an Arbutus tree stretches toward the morning sun. Then I notice that half of the tree is gray, brittle and unequivocally dead, not the kind of place to test my full body's weight.

My fingernails creep forward along the honeycombed sandstone. Sea spray darts at my hiking shoes. I struggle to find footholds around a particularly obstinate corner. Ahead, my Dad scurries forward with the sure-footedness of a wizened, nearing seventy-year-old mountain goat, at a pace suggesting we are on a well-paved path. Instead, we are hugging the perimeter of Edith Point on Mayne Island, on a non-path whose ledge will be swallowed by high tide later this day.

Every year my Dad and I follow our ritual and hike through uncharted wilderness. We drive out of the city until we find a dirt road, then drive some more, and eventually settle on a mountain creek whose size allows us to follow its cascades upstream. Yet with my family now spending much of our summer on Mayne Island, this year my Dad and I opted for a new adventure: clambering around this Gulf Island point. “Are you guys all right?” A boater in Campbell Bay has sailed up to us, concerned we are lost, trapped, or both. “Thanks, but we’re exactly where we want to be!”

To walk through a Gulf Island forest is to be dwarfed by giants. Furrowed columns of Douglas-fir dominate, with Shore Pine, Western Redcedar, and Western Hemlock rounding out the conifers. The occasional Red Alder, Bigleaf Maple and Garry Oak offer some deciduous shade, though evergreens clearly command this ecosystem. And yet, one tree species steals my attention every time, its unexpectedly angled trunk reaching between linear firs. Perhaps it’s the sienna-hued bark that peels back to reveal an inner sunlit gold. Then there’s the tree’s shape, that slender and sinewy trunk that twists and turns toward the light. Or perhaps there is something deeper still, an indigenous memory of roots holding the splintered earth together.

By all accounts Arbutus menziesii is unique. Besides being Canada’s only native broadleaved evergreen tree, this Arbutus can grow—seemingly prefers to grow—on barren rock. Its peeling bark, like a snake shedding its skin bit by bit over several months, may help remove pests or infections. This continual shedding makes Arbutus a symbol of impermanence: if not bark and leaves, then clusters of white, urn-shaped flowers or stout red berries.

Arbutus love the sun. Hence they favour south-facing slopes. In fact, the northern side of the peninsula—whose south perimeter my dad and I are skirtirng—does not harbor a single Arbutus along its outer edge. Their wood burns hot and long, though some Salish peoples won’t use Arbutus for firewood due to its sacred status: the Arbutus has been called the Tree of Depth and Integrity. In the USA they refer to this tree as Pacific Madrone, taken from the Spanish word madroño, meaning strawberry tree, due to the bright red berries (most assuredly less palatable than actual strawberries) which it showcases in the autumn. As much as landowners covet Arbutus—even when lots are cleared for development, the Arbutus trees are invariably left standing—its curving wood is useless commercially.

Our changing climate leaves the Arbutus especially prone to disease. Leaf pathogens are not often a serious threat, but root rot, Arbutus canker, and Madrone canker can cause not only die-off (losing branches and leaves) but death itself. Of course, there is good fungus too: a 2012 study published in the American Journal of Botany found strong evidence of Arbutus menziesii being not only an important player in forest regeneration after disturbance, but that its roots are a haven and nexus for symbiotic mycorrhizal fungi that help with absorption. When Arbutus first starts to grow, their above-ground stem is one-twentieth the length of the root below, in urgent search of a source of water in this bare, coarsely drained terrain.

Such roots now hold my gaze. The trunk above is stark in its dichotomy: one-half is vibrant, the other ashen. As my eyes follow the shore, I take note of the number of Arbutus branches and trunks that still stand upright despite lacking life. I know they drop branches due to drought or being outcompeted for light by Douglas-fir, yet it seems that most Arbutus are either partially dying or mostly dead. Add to this fact that on Mayne Island, where deer outnumber humans, there is no new recruitment of Arbutus because their young shoots are browsed out of existence. I start to worry that we are losing the Tree of Depth and Integrity. In 1995 a symposium was held at the University of Washington to discuss Arbutus, with the resultant book The Decline of the Pacific Madrone. We need another group of thoughtful, committed citizens to carry this inquiry forward.

As my Dad and I scurry along the sandstone shore, I realize the Arbutus roots actually help hold the slope above me together. This sacred tree is more than peeling bark and twisting branches, more than sinuous and aesthetic beauty, it is a symbol of unity and determination. Let us honour its legacy by conserving its habitat and delving further into the mystery of this remarkable tree that stands apart.

Lee Beavington is an author, photographer, and instructor for KPU’s Amazon Field School, and teaches Ecology, Genomics, and Advanced Cell and Molecular Biology in the lab and field. His doctoral research at SFU explores wonder in science education. More about Lee at www.leebeavington.com.
## BC NATURE CONFERENCE
### AND ANNUAL GENERAL MEETING
May 12 to May 15, 2016
Hosted by the Comox Valley Nature
“Celebrating Nature for 50 Years and 100 Years of Conservation”

### CONDENSED PROGRAM
For changes/updates visit [www.comoxvalleynaturalist.bc.ca/bc-nature-agm](http://www.comoxvalleynaturalist.bc.ca/bc-nature-agm)

**Thursday, May 12**
Registration from 8 am – 12 pm & 3 pm – 6:30 pm

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>9 am</td>
<td>Lunch on your own</td>
</tr>
<tr>
<td>12 pm</td>
<td>Lunch on your own</td>
</tr>
<tr>
<td>1:30 pm</td>
<td>Lunch on your own</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Executive Meeting, Filberg Centre Rotary Hall</td>
</tr>
<tr>
<td>4:00 pm</td>
<td>Directors Meeting, Filberg Centre, Rotary Hall</td>
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<tr>
<td>4 pm</td>
<td>Supper on your own</td>
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<tr>
<td>6 pm</td>
<td>Wine &amp; Cheese with Cash Bar Filberg Centre</td>
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<tr>
<td>6:30 pm</td>
<td>Pre-Conference Welcome</td>
</tr>
<tr>
<td>7 pm</td>
<td>Terry Thorarin Photography Show</td>
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<tr>
<td>7:15 pm</td>
<td>Leslie Baird, Mayor of Cumberland</td>
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<tr>
<td>7:30 pm</td>
<td>Kevin Flesher, Poet Laureate</td>
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<tr>
<td>8 pm</td>
<td>Dr. Richard Hebdy: Climate Change in the Comox Valley</td>
</tr>
<tr>
<td>9 pm</td>
<td>Krista Kaptein (Important Bird Areas)</td>
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</tbody>
</table>

**Friday, May 13**
Registration: 8 am – 10 am & 3 pm – 6:30 pm

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6 am</td>
<td>Morning Birding Outing</td>
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<tr>
<td>8 am</td>
<td>Artisan Breakfast at Filberg Centre</td>
</tr>
<tr>
<td>9 am</td>
<td>Welcome: Andy Everson &amp; Norma Morton</td>
</tr>
<tr>
<td>9:30 am</td>
<td>Lunch on your own</td>
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<tr>
<td>10:25 am</td>
<td>Tsolum Restoration: Jack Minard</td>
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<tr>
<td>11:20 am</td>
<td>Estuary Restoration: J. Sutherst Project Watershed</td>
</tr>
<tr>
<td>12:15 am</td>
<td>Lunch on your own</td>
</tr>
<tr>
<td>1:30 pm</td>
<td>Field Trips (Mitlenatch leaves at 12:30 pm*)</td>
</tr>
<tr>
<td>6 pm</td>
<td>Cash Bar, Filberg Centre</td>
</tr>
<tr>
<td>6:30 pm</td>
<td>($CVNS 50th Birthday Dinner</td>
</tr>
<tr>
<td>8:15 pm</td>
<td>Presentation of CV Plant List: Helen Robinson</td>
</tr>
<tr>
<td>8:30 pm</td>
<td>Keynote Speaker Dr. Briony Penn</td>
</tr>
<tr>
<td>10 pm</td>
<td>Hall closes</td>
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</tbody>
</table>

**Saturday, May 14**
Registration: 8 am to 10 am & 3 pm – 6:30 am ($)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6 am</td>
<td>Morning Birding Outing</td>
</tr>
<tr>
<td>8 am</td>
<td>Artisan Breakfast at Filberg Centre</td>
</tr>
<tr>
<td>9 am</td>
<td>BC Nature AGM, Keynote Speaker, Steven Price BSC</td>
</tr>
<tr>
<td>12 pm</td>
<td>Lunch on your own</td>
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<tr>
<td>1 pm</td>
<td>BC Naturalists’ Foundation AGM</td>
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<tr>
<td>1:30 pm</td>
<td>Field Trips (Quadra Island leaves at 8:30 am*)</td>
</tr>
<tr>
<td>6 pm</td>
<td>Cash Bar, Filberg Centre</td>
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<tr>
<td>6:30 pm</td>
<td>($AGM Banquet: M/C Loys Maingon</td>
</tr>
<tr>
<td>7:30 pm</td>
<td>Awards</td>
</tr>
<tr>
<td>8 pm</td>
<td>Keynote Speaker: Dr. Val Schaefer</td>
</tr>
<tr>
<td>9 pm</td>
<td>Raucous Auction with Loys Maingon</td>
</tr>
<tr>
<td>10 pm</td>
<td>Hall closes</td>
</tr>
</tbody>
</table>

**Sunday, May 15**
8 am – 1 pm
Field Trips (Quadra Island leaves at 8:30 am*)

Notes:
- ($ means extra costs; see Registration Form
- Th = Thursday, F = Friday, S = Saturday, Su = Sunday
- * Field trips involving BC ferries are time sensitive. ** Not covered by BC Nature insurance; requires CVN waiver

### Workshops:
- Child Nature Workshop (Th)
- Birding Workshop (Th)
- Photography Workshop (Th)
- Comox Valley Rare and Endangered (Th)
- Watershed Restoration (Th)

### Additional Field Trips may become available if we have
Have an early spring. Watch our Website for Details.

### Field Trips: Time Critical on some
- Morning Birding Outings (F & S)
- Harold Macy Woodlot (F)
- Estuary Archeology & Restoration (F & S)
- ($VIU Research Station (F & S)
- Point Holmes Foreshore (F)
- Mitlenatch Bird Sanctuary (F, S, & Su)
- Kin Beach Native Plant Botany (F)
- Morrison Creek Headwaters (F & S)
- Allan Brooks and Mack Laing Tour (F)
- Comox Lake Ecological Reserve (Su)
- ($Innisfree Farm Botanical Gardens (F & S)
- Mountaineer Avian Rescue Society (F)
- Cumberland Community Forest (S)
- Vanier Garry Oaks & Towhee (S)
- ($ Tree Island Sand Dunes* (S & Su)
- Bear Creek Park Hatchery & Wood Ducks (S)
- ($Environmental Poetry Tour (S)
- ($Quadra Island Museum & BBQ (Su*)
- ($Mount Helliwell & Hornby Island* (Su)

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Bcnature  Spring 2016  29


**BC NATURE CONFERENCE AND ANNUAL GENERAL MEETING MAY 12-15, 2016**

Hosted by Comox Valley Nature

“Celebrating Nature for 50 Years and 100 years of Canadian Conservation”

REGISTRATION FORM

For changes/updates visit [www.comoxvalleynaturalist.bc.ca/bc-nature-agm](http://www.comoxvalleynaturalist.bc.ca/bc-nature-agm)

| Name: ________________________________ | Club: ________________________________ |
| Address: ________________________________ | City: ________________________________ |
| ____________________________ | Postal Code: __________________________ |

Tel: ____________________________ E-mail: (Please type/print clearly): ____________________________

**DIETARY REQUIREMENTS**

- Vegan
- Vegetarian
- Lactose Free
- Gluten Free

**How to register**

1. Complete the above Registration Form (one form per person). The PDF Form on the Website is fillable.
2. A signed Waiver Form is required for each Registrant. Read carefully and sign.
3. Make cheques payable to Comox Valley Nature. Mail Waiver, Registration, and payment to CVN, Box 3222, Courtenay, BC V9N 5N4. Registration will become effective on the date the Cheque cashed.

**Please indicate all dietary requirements clearly with check mark.** We will accommodate if possible.

Additional Field Trips may become available. Check the Website for latest details and updates. Confirmations will be sent by Email or Canada Post. For more information email to cvbcagm@gmail.com. No refunds after April 1. Prices indicated may be subject to change due to circumstances beyond our control.

Further details on the Conference Program, Accommodations, and Field Trips are available at [http://comoxvalleynaturalist.bc.ca/bc-nature-agm/](http://comoxvalleynaturalist.bc.ca/bc-nature-agm/)

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### Registants must include one of the following 5 Registration Packages

<table>
<thead>
<tr>
<th>Package Description</th>
<th>Rec’d By Mar 15</th>
<th>Rec’d After Mar 15</th>
<th>$ Amount</th>
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<tbody>
<tr>
<td>Full Registration includes all Activities (some with limited number of places), except those with additional charges. It does not include the Birthday Supper or the Banquet.</td>
<td>$135</td>
<td>$150</td>
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<tr>
<td>or Thursday May 12 only (Workshops, Presentation, Wine and Cheese with Cash Bar)</td>
<td>$40</td>
<td>$50</td>
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<tr>
<td>or Thursday May 12 Evening Social only (Presentation, Wine and Cheese, with Cash Bar)</td>
<td>$20</td>
<td>$25</td>
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<tr>
<td>or Friday May 13 only (Presentations, Field Trips, and Workshops. Birthday Supper not included)</td>
<td>$75</td>
<td>$80</td>
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<tr>
<td>or Saturday May 14 only (Field Trips and Annual General Meeting. Banquet not included)</td>
<td>$60</td>
<td>$70</td>
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<tr>
<td>Friday May 13 CVN Birthday Supper with Cash Bar</td>
<td>$35</td>
<td>$40</td>
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<tr>
<td>Friday/Saturday /Sunday May 13/14/15 Mitlenatch Island Tour (Car Pool and Boat)</td>
<td>$95</td>
<td>$105</td>
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<tr>
<td>Friday/Saturday May 13/14 Innisfree Farm Botanic Garden (Car Pool)</td>
<td>$10</td>
<td>$15</td>
<td></td>
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<tr>
<td>Saturday May 14 Banquet with Cash Bar</td>
<td>$45</td>
<td>$50</td>
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<tr>
<td>Friday/Saturday May 13/14 VIU Marine Research Station (Car Pool)</td>
<td>$20</td>
<td>$25</td>
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<tr>
<td>Saturday/Sunday May 14/15 Tree Island (Car Pool, Boat, &amp; Tree Island Waiver)</td>
<td>$20</td>
<td>$25</td>
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<tr>
<td>Saturday May 14 Kevin Flesher Environmental Poetry Tour (Car Pool)</td>
<td>$10</td>
<td>$15</td>
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<tr>
<td>Sunday May 15 Quadra Island Trip (Includes Bus, Ferry, BBQ Salmon Lunch and Museum Tour)</td>
<td>$87</td>
<td>$95</td>
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<tr>
<td>Sunday May 15 Mount Helliwell on Hornby Island (Car Pool, includes Ferry)</td>
<td>$35</td>
<td>$40</td>
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</tbody>
</table>

*New club membership (required for non-members)

BC Nature membership available through [www.bcnature.ca](http://www.bcnature.ca)

Comox Valley Nature (Individual memberships $30, Family $40) $30-$40 $30-$40

GST included where applicable. **TOTAL**: Please enter the total here

**Please number, for each day, your 1st, 2nd and 3rd choices for Workshops and/or Field Trips in the Table below. Participants assigned by order of Registration and preference. We will try to accommodate all Participants. We will maintain wait lists for fully booked trips, but spots not guaranteed once the trip has reached maximum participation. Check website for limits and details. $ indicates extra costs for the activity.** For prices, see Table above.

### Thursday May 12

<table>
<thead>
<tr>
<th>Morning Workshops</th>
<th>Morning Field trips</th>
<th>Afternoon Workshops</th>
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</thead>
<tbody>
<tr>
<td>Child Nature Education</td>
<td>Morning Bird Outings</td>
<td>Afternoon Field trips</td>
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</tbody>
</table>

### Friday May 13

<table>
<thead>
<tr>
<th>Morning Workshops</th>
<th>Morning Field trips</th>
<th>Afternoon Workshops</th>
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</thead>
<tbody>
<tr>
<td>Birding Workshop</td>
<td>Afternoon Field trips</td>
<td>Afternoon Field trips</td>
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### Saturday May 14

<table>
<thead>
<tr>
<th>Morning Workshops</th>
<th>Morning Field trips</th>
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</thead>
<tbody>
<tr>
<td>Afternoon Workshops</td>
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### Sunday May 15

<table>
<thead>
<tr>
<th>Morning Workshops</th>
<th>Morning Field trips</th>
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</thead>
<tbody>
<tr>
<td>Afternoon Workshops</td>
<td></td>
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</tbody>
</table>

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### DIETARY REQUIREMENTS

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*Please indicate all dietary requirements clearly with check mark.* We will accommodate if possible.
The Western Screech-Owl (*Megascops kennicottii*) is a small, essentially non-migratory owl that lives and breeds in British Columbia (BC). Two subspecies are recognized: *M. k. kennicottii* along the west coast and *M. k. macfarlanei* in the valleys of the southern central and eastern interior. Both subspecies are often associated with riparian and low-to-mid elevation forests (0-600 m), but they can also be found along forested edges and in treed urban and suburban environments. Nesting and roosting occurs in natural cavities or those excavated by large woodpeckers, such as the Pileated Woodpecker (*Dryocopus pileatus*) and Northern Flicker (*Colaptes auratus*). The species may also use nest boxes.

Range of the interior and coastal subspecies of Western Screech-Owl shown in black and red, respectively. Coastal range shown is all land below 300 m elevation, excluding Haida Gwaii (Province of BC).

The Western Screech-Owl and its nests and eggs are protected in BC by the Wildlife Act and both subspecies are listed under Canada’s Species at Risk Act (SARA): *M. k. macfarlanei* as Endangered and *M. k. kennicottii* as Special Concern. The Committee on the Status of Endangered Wildlife in Canada recommended *M. k. kennicottii* be listed as Threatened on SARA in 2012, given ongoing population declines and threats, but Governor-in-Council has yet to decide on this reclassification.

Both subspecies have declined significantly over the last 15 years, primarily due to habitat loss and fragmentation. The population of the *macfarlanei* subspecies is at its northern extent in BC and is estimated to be between 175 and 250 breeding pairs, which is larger than previous estimates based on recent survey efforts and is apparently stable or slightly decreasing. The *kennicottii* subspecies has decreased by >90% in the southern part of its range (Metro Vancouver, Victoria, and the Gulf Islands) and has likely declined in central and northern coastal forests, but the magnitude of the decline is unknown. The Province estimated the breeding population to be between 750 - 1500 individuals in 2013.

The main threats to Western Screech-Owls are the loss and fragmentation of riparian habitat and low-elevation forests including the removal of wildlife trees. The majority of degraded areas are associated with urban, agricultural, and forestry development. The spread in distribution and subsequent predation on Western Screech-Owls by Barred Owls (*Strix varia*) is tied to the loss of intact habitat. Roadkill is also a known threat and its incidence and significance is believed to be high, especially for small populations.

The Province of BC completed a recovery strategy and plan for the *macfarlanei* and *kennicottii* subspecies in 2008 and 2013, respectively. Both documents highlight the need to protect priority breeding habitat throughout the species’ range and to assess and mitigate current threats. Knowledge gaps, especially for the *kennicottii* subspecies, include its distribution and abundance, home range, habitat requirements and the impact of Barred Owls. Fortunately for the *macfarlanei* subspecies, it is listed in the Category of Species at Risk under the Province’s Forests and Range Practices Act, allowing the Province to establish Wildlife Habitat Areas on Crown lands as protective measures against resource development. However, this is not the case for the *kennicottii* subspecies.

Naturalists can help Western Screech-Owls in a number of ways. Preferred habitat, such as mature and old-growth coniferous and deciduous forest near water bodies can be protected, enhanced, and restored on private, municipal, crown, and federal land. Surveys can be completed for both subspecies in the spring (February to March) through the BC-Yukon Nocturnal Owl Survey program (http://www.birdscanada.org/volunteer/bcowls/), other existing initiatives, or as a self-directed club project. A recording of the territorial call of the Western Screech-Owl can be broadcast to enhance detection. Surveys for the *kennicottii* subspecies are particularly needed north of the Lower Mainland and southern Vancouver Island. Please contact the author if you’d like more information or assistance with helping Western Screech-Owls in your area.

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**Where have all the Western Screech-Owls Gone?**

By Greg Ferguson

The Western Screech-Owl (*Megascops kennicottii*) is a small, essentially non-migratory owl that lives and breeds in British Columbia (BC). Two subspecies are recognized: *M. k. kennicottii* along the west coast and *M. k. macfarlanei* in the valleys of the southern central and eastern interior. Both subspecies are often associated with riparian and low-to-mid elevation forests (0-600 m), but they can also be found along forested edges and in treed urban and suburban environments. Nesting and roosting occurs in natural cavities or those excavated by large woodpeckers, such as the Pileated Woodpecker (*Dryocopus pileatus*) and Northern Flicker (*Colaptes auratus*). The species may also use nest boxes.

Range of the interior and coastal subspecies of Western Screech-Owl shown in black and red, respectively. Coastal range shown is all land below 300 m elevation, excluding Haida Gwaii (Province of BC).

The Western Screech-Owl and its nests and eggs are protected in BC by the Wildlife Act and both subspecies are listed under Canada’s Species at Risk Act (SARA): *M. k. macfarlanei* as Endangered and *M. k. kennicottii* as Special Concern. The Committee on the Status of Endangered Wildlife in Canada recommended *M. k. kennicottii* be listed as Threatened on SARA in 2012, given ongoing population declines and threats, but Governor-in-Council has yet to decide on this reclassification.

Both subspecies have declined significantly over the last 15 years, primarily due to habitat loss and fragmentation. The population of the *macfarlanei* subspecies is at its northern extent in BC and is estimated to be between 175 and 250 breeding pairs, which is larger than previous estimates based on recent survey efforts and is apparently stable or slightly decreasing. The *kennicottii* subspecies has decreased by >90% in the southern part of its range (Metro Vancouver, Victoria, and the Gulf Islands) and has likely declined in central and northern coastal forests, but the magnitude of the decline is unknown. The Province estimated the breeding population to be between 750 - 1500 individuals in 2013.

The main threats to Western Screech-Owls are the loss and fragmentation of riparian habitat and low-elevation forests including the removal of wildlife trees. The majority of degraded areas are associated with urban, agricultural, and forestry development. The spread in distribution and subsequent predation on Western Screech-Owls by Barred Owls (*Strix varia*) is tied to the loss of intact habitat. Roadkill is also a known threat and its incidence and significance is believed to be high, especially for small populations.

The Province of BC completed a recovery strategy and plan for the *macfarlanei* and *kennicottii* subspecies in 2008 and 2013, respectively. Both documents highlight the need to protect priority breeding habitat throughout the species’ range and to assess and mitigate current threats. Knowledge gaps, especially for the *kennicottii* subspecies, include its distribution and abundance, home range, habitat requirements and the impact of Barred Owls. Fortunately for the *macfarlanei* subspecies, it is listed in the Category of Species at Risk under the Province’s Forests and Range Practices Act, allowing the Province to establish Wildlife Habitat Areas on Crown lands as protective measures against resource development. However, this is not the case for the *kennicottii* subspecies.

Naturalists can help Western Screech-Owls in a number of ways. Preferred habitat, such as mature and old-growth coniferous and deciduous forest near water bodies can be protected, enhanced, and restored on private, municipal, crown, and federal land. Surveys can be completed for both subspecies in the spring (February to March) through the BC-Yukon Nocturnal Owl Survey program (http://www.birdscanada.org/volunteer/bcowls/), other existing initiatives, or as a self-directed club project. A recording of the territorial call of the Western Screech-Owl can be broadcast to enhance detection. Surveys for the *kennicottii* subspecies are particularly needed north of the Lower Mainland and southern Vancouver Island. Please contact the author if you’d like more information or assistance with helping Western Screech-Owls in your area.

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**Western Screech-Owl (** *Megascops kennicottii* **)**

By Wikipedia Commons

Range of the interior and coastal subspecies of Western Screech-Owl shown in black and red, respectively. Coastal range shown is all land below 300 m elevation, excluding Haida Gwaii (Province of BC).

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**By Wikipedia Commons**
Spotlight on a BC Nature Federated Club
Comox Valley Nature (Comox Valley Naturalists Society)

Comox Valley Nature, affectionately known locally as “CVN,” has agreed to host this year’s BC Nature AGM as part of its 50th anniversary celebrations.

Formally incorporated in 1966 by a handful of dedicated environmentalists, naturalists and birders, spearheaded by Keith and Norma Morton together with noted ornithologist Theed Pearse, the then “Comox-Strathcona Naturalists Society” encompassed both the Comox Valley and Campbell River. The society went on to become the home of well-known British Columbian Comox Valley environmentalists, such as the legendary Ruth Masters, and Melda Buchanan who took part in every major environmental campaign in BC between 1964 and 2004. It remains to this day an important and committed voice in the North Island’s environmental community. In 1964 CVN was born out of a concern for the planet’s environmental state that swept North America after Rachel Carson’s *Silent Spring*, and remains to this day dedicated to handing a rich sustainable environment to future generations.

*K’omoks* means “land of plenty”. As the largest estuary north of the Lower Mainland, and possibly, the richest agricultural valley on Vancouver Island, the Comox Valley is the northernmost extension of a mild Mediterranean climate and diverse ecosytems that include endangered Garry oak ecosystems extending south to Redding, California. It is therefore no surprise that the Comox Valley has been a mecca to Canadian conservationists, such as Alan Brooks, Percy Taverner, Hamilton Mack Laing, and Ian McTaggart-Cowan, since the beginning of the twentieth century. Since its inception CVN has been at the forefront of conservation efforts promoting the expansion of BC’s first provincial park, Strathcona Park, as well as the creation of numerous local regional parks, and the Comox Lake Ecological Reserve, and remains involved daily in the future of these and other conservation areas.

CVN has drawn on the 150-year success of the Ottawa Field Naturalists’ Club, Canada’s oldest naturalist club founded 101 years before CVN, in 1863. Early on, just after 1945, the Ottawa Club developed and incorporated child and youth nature education in its “Macoun Club.” CVN works to support young families and welcomes participation and input from people of all walks of life with no age or gender discrimination and has an enviable demographic of a mean 55 years of age. CVN is itself a federation of various “groups”, from which other societies have budded over the years. CVN meets for formal lectures on a monthly basis. It is also the umbrella for a number of sub-groups (All-Weather Weekend Walkers, Birding, Botany, Garry Oak restoration, Wetland restoration, Photography, and Young Families.) CVN has incorporated the young families and children within its executive and in its group activities. Club walks are scheduled 52 week-ends per year, and each month one naturalist-guided walk is open to the public free of charge. Perhaps the most interesting and refreshing workshop CVN is offering this year is “Child Nature Education”, at the Hand-in-Hand Nature pre-school, led by our young vice-president and child educator, Jarrett Kretzel – an eye-opener for all. It is a landmark for the future of all Canadian nature clubs, from which all, adults and children, can learn to build a sustainable and caring environmental future.

The 200 member society has an educational and conservation mandate which it fulfills with regular public outreach, Christmas, Spring and Shore bird counts, environmental restoration and invasives control programs, Garry Oak restoration and nursery, as well as involvements in conservation heritage. CVN is currently involved in a number of regional conservation projects, such as the Vanier Garry Oak restoration, and works with 28 other local environmental societies, such as Project Watershed, MARS, and the recently-constituted Mack Laing Heritage Society, which grew out of a CVN group, and is this year’s recipient of a 2016 Heritage BC award. In 2016 CVN is inaugurating a new campaign to save the wetlands of the Morrison Creek Headwaters. CVN looks forward to welcoming BC Nature and friends to the Comox Valley between May 12 and 15, and contributing to a renewed social and environmental commitment to meet the 1.5°C targets of COP21 for the future of forthcoming generations, and radical environmental change in BC, to make Melda Buchanan proud!

BCnature is published four times a year by the FBCN, 1620 Mount Seymour Road, North Vancouver, BC V7G 2R9

Your Hosts: Comox Valley Nature Executive and 50th Anniversary Committee at the Comox Estuary Nature Viewing Site