Remembering Dr. Richard (Dick) Stace–Smith
Self–Guided Geology Hike
A Living Fossil in our Midst

The Magazine of BC Nature

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Objections 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.

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Elders Council for Parks BC
Free Summer Outreach Programs

June 21, 2017 – 11:00 am – Summer solstice nature walk in Pacific Spirit Regional Park – facilitated by Roy Jantzen author of “Active Vancouver” – Pacific Spirit Regional Park

July 28, 2017 – 11:00 am – Old Growth Conservancy nature walk – led by David Cook – Old Growth Conservancy, West Vancouver

August 15, 2017 – 11:00 am – Hollyburn Lodge nature walk – presentation by Hollyburn Heritage Society (Bus from North Shore Neighbourhood House – seats limited/small fee)

Please check the Elders Council for Parks website for ongoing updates and other outings that will be updates as arranged.

http://www.elderscouncilforparks.org/
Guest Editorial
Care of our Waterways

By Mark Angelo

British Columbia is blessed with a river heritage that is among the finest in the world yet, our waterways continue to face an array of pressures. These range from pollution and urbanization to industrial development, the excessive extraction of water, and climate change.

When the provincial election was looming, a group of BC’s largest conservation, and recreation groups, representing more than 275,000 individuals, came together to ask all provincial political parties to develop policies and positions relating to the management of rivers and watersheds as part of their election platform.

Among those leading the campaign are the Outdoor Recreation Council, the BC Wildlife Federation, the BC Federation of Drift Fishers, along with many other key groups, and all with significant public outreach across our province. The campaign’s goal was to generate a greater public awareness of the importance of these issues and persuade all political parties to take in–depth positions on these matters.

Promoting and generating such discussion is timely in that many British Columbians view the proper care of rivers, and our water resources in general, to be among our most pressing environmental issues. It’s also my belief there would be strong public support for a multi–faceted approach aimed at addressing a host of important issues pertaining to rivers and water.

Among the key elements proposed was the need for a significant new “Watershed Sustainability Fund” aimed at supporting key river restoration and management projects. Many waterways could benefit from this, ranging from the Cowichan River, which suffers chronic problems with low summer flows – to the Seymour River, where work is currently underway to restore fish passage after the devastating rock slide in 2014 – to Fraser Valley tributaries with numerous flood–control structures in need of upgrading to enable the passage of salmon to significant stretches of blocked habitat.

In addition, such a fund would strive to maintain and improve the ecological flows and functioning of watersheds, while investing in river and wetlands infrastructure to improve the resilience of watersheds to climate change.

A portion of the fund’s budget should also be allocated to non–governmental organizations, such as local stream–keepers and river guardians, to help fund their river and stream–restoration efforts.

To achieve this, such a fund would have to be significant in size. By comparison, over the past year, the province allocated $75 million to Forest Enhancement, while tens of millions of dollars in new funding have been directed to BC Parks. These announcements were commendable. But in the view of many, our waterways are imperilled and equally deserving.

In addition to the need for a new funding program, there are a number of other river–related policies that should be embraced.

To name but a few:

• Reinvigorate the BC Heritage Rivers Program, which has languished since 2001. This program helped provide a greater focus and profile for key rivers and proved beneficial from a planning and public–awareness perspective;
• Ensure the actual on–ground implementation of the Water Sustainability Act, so that truly appropriate flow regimes do, in fact, exist on rivers and streams that have regularly suffered from excessive water extraction at the expense of wildlife;
• Work with the federal government to review how the Fraser River estuary is managed and initiate a much–needed process to develop an environmental sustainability plan for the estuary area;
• Develop a plan to revitalize the provincial government’s ability to monitor properly and protect the environment and freshwater resources;
• Ensure climate change is adequately considered in all future decisions that relate to river management, water extraction, diversions and water licensing;
• Explore additional dam–decommissioning possibilities for older structures that have outlived their usefulness in light of the recent success in removing six outdated dams along Britannia Creek, which had significant environmental and public–safety benefits;
• Develop a more precautionary approach to the way potentially polluting developments in sensitive areas are assessed. This should be aimed at identifying key problems at an earlier stage, which could save a vast amount of time and effort by locals and conservation groups in opposing projects that should never have gotten off the ground in the first place.

The above list is just a sampling of our recommendations and isn’t meant to be all–inclusive. However, our groups believe the components listed would formulate a sound basis for river–related policies.◊

Mark Angelo is the Outdoor Recreation Council rivers chair, and founder and chair of BC and World Rivers Day. He is also Chair Emeritus, BCIT Rivers Institute, and an Order of BC and Order of Canada recipient for his river conservation efforts.

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Letters to the Editor

A regular reader of BCnature for 20 years, I believe that the letter I wrote regarding the fall 2016 issue was my first. Here already is the second, as I feel compelled to congratulate my colleague Dr. Shepherd (Winter 2016) for his brilliant contribution regarding car-free lifestyle. His observations, philosophy and commitment resonate strongly with me. I have been a cyclist and a naturalist since childhood. I claim to be the first person in history to record both 3,000 life birds and 300,000 lifetime bike kilometres! For the past 33 years I've also been practicing family medicine. During the first 13 years of my career, I worked as a locum (substitute) doctor in 52 communities across the country, from Yukon to Baffin Island, from Newfoundland and Labrador to Haida Gwaii. It was an excellent opportunity to become intimate with Canada's biodiversity. For the first six years I owned a motor vehicle, but stints in several Arctic villages with no road access helped convince me of the appeal of living car-free. I quit driving in 1991, and have rarely even boarded a taxi since then. Self-propelled for most trips, I take transit, bus, train, and an occasional plane when wandering further afield. No engine runs just for me, wherever I may be in the world.

As a sideline to the full-time practice that I've worked for the past 20 years here in Whistler, I also provide foreign visitors with private house calls to hotels and condos. Even in a snowy ski resort, there are surprisingly few days when the roads are not rideable, in which case I walk, jog or cross-country ski.

Most people immediately grasp the obvious benefits of a car-free life. As Dr. Shepherd mentioned, it saves money, it saves the environment, and it saves your coronary arteries. But many are surprised to learn that living car-free saves something even more precious, TIME. Especially if one factors in the number of hours motorists spend working to support their vehicle expenses, I estimate that my travel time budget is less than 50% that of the average Canadians, but in fact it is essentially zero. Whenever I move from A to B, I'm double-tasking, either enjoying essential physical activity that others practice in a gym, or I am reading in one of my five languages on transit.

Like Dr. Shepherd, I think physicians should display more leadership in influencing society's transportation choices. Environmental considerations aside, I often remind my patients that transit is 100 times safer than driving, a particularly important consideration on our notoriously dangerous Highway 99. I treat the aftermath of car crashes almost daily. I have yet to treat a serious injury related to transit. Especially with clients struggling with weight issues, I like to emphasize that legs still make a fine form of locomotion, even in a culture so obsessed with comfort and convenience that the car has essentially become an orthopaedic device. Years ago, doctors played a vital role in exposing the profound dangers of cigarette smoking, campaigning for measures to make its practice less convenient and more expensive. I believe it is time that the medical community similarly identify driving as a dangerous dependency and likewise favour interventions to render the habit less convenient, more expensive, and slower. I hope we can soon reverse a 100-year trend and enjoy a clean, green, quiet, efficient, healthy transport system that is safe for both wildlife and humans, centred on humankind rather than autokind. ♦

Dr Thomas DeMarco, Whistler Medical Clinic

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President’s Perch
From Your President
By Alan Burger

I’m just home from the Lillooet AGM and, once again, impressed and inspired by the enthusiasm and wealth of knowledge of our BC Nature members. Our 53 clubs are fortunate to have dedicated volunteers who continue to build the nature-loving foundation that is key to our society and long-term well-being. A huge vote of thanks to Vivian Birch-Jones and her team of organizers in Lillooet for an excellent, well-run meeting with unique field outings and presentations. This was proof that a club in a relatively small town can host our annual spring meeting with great success.

At the Lillooet AGM members approved of some important changes. We now have a revised constitution and bylaws, thanks to the work of the sub-committee headed by past-president Kees Visser. The revisions meet the requirements of the new BC Societies Act, and also allow us greater flexibility in managing our society. The AGM approved a $2 raise in membership dues, which will go a long way to keeping BC Nature in better financial shape. We also approved seven resolutions brought forward by clubs and our conservation committee. These will be posted on the BC Nature website.

Our AGM was a good place to appreciate the amount of work and dedication from our committees and representatives. Here I will emphasize a few key issues from the reports presented. The Communications Committee, headed by Claudia Copley, is responsible for bringing you this magazine, plus our website, the regular e-News messages, and other publications. The Education Committee, headed by Margaret Cuthbert and Walter Thorne, does excellent work with schools, clubs, educators, and parents to promote nature knowledge. BC Nature continues to have a close working relationship with NatureKids BC (which welcomed a new executive director Louise Pederson) and the BC Important Bird Diversity Areas (IBA) program, headed by Krista Kaptein. Krista was also responsible for drafting our successful application for a BC Gaming Grant, which helps to fund the IBA program, the BCnature magazine, and the Nature Viewing Guides provided on our website. Bill Kinkaid is the major contributor to the Viewing Guides.

Our Conservation Committee, headed by Peter Ballin, continues to be extremely vigilant and active, involving BC Nature in many environmental issues that are important to our membership. In the past year BC Nature sent out more than 20 letters and press releases dealing with environmental concerns. BC Nature is working with Nature Canada and naturalist organizations across the country to promote and assist the Canadian government’s goal of increasing the protected areas in Canada to 17% of terrestrial and freshwater areas and 10% of marine and coastal areas by 2020. This is one of the targets that Canada committed to in the 2010 Aichi Convention on Biodiversity.

BC Nature continues to collaborate with Professor Chris Tollefson and his team from the UVic Environmental Law Centre and the non-profit Pacific Centre for Environmental Law and Litigation (CELL). Professor Tollefson represented BC Nature and Nature Canada (pro bono) in the successful application to the federal Court of Appeal, which in June 2016 overturned the Harper government’s approval of the Enbridge Northern Gateway pipeline. This legal team is also providing input on behalf of BC Nature to the review of the Federal Environmental Assessment Act, which we hope will lead to more open, fair, and scientifically rigorous reviews of industrial developments in Canada.

We have several special representatives dealing with issues that concern BC Nature members. Penney Edwards is our representative on the Outdoor Recreation Council. Our vice-president Virginia Rasch represents BC Nature on the panel providing environmental input to the Columbia River Treaty, which is being re-negotiated between the Canadian and US governments. Roger Emsley is our representative on the proposed expansion of the Roberts Bank Container Terminal, which I described in the last BC Nature magazine. Our executive, committees and representatives put in huge amounts of volunteer time to benefit BC Nature and nature in BC – many thanks to you all!

We lost two clubs in the past year (Campbell River and Nanoose Bay) but it is likely that we will revive the naturalist club in Nanaimo. In April, John and Heather Neville gave a presentation in Nanaimo and led a discussion on reviving the club. A local steering committee is being formed to guide the formation of this club. I’ve also been in discussions with people interested in establishing BC Nature federated clubs in Golden, Revelstoke and Pemberton. Keeping our existing clubs connected is also important. In the past year I visited and gave presentations to the West Kootenay Naturalists (Castlegar), Vermilion Forks Naturalists (Princest, Victoria Natural History Society, and Kamloops Naturalists.

At our AGM members also got a glimpse of the major contributions from our office manager, Betty Davison. She handles hundreds of requests from clubs and deals with more than 6,000 members. Betty also manages our website, does the lion’s share of the magazine formatting, manages the books and bank accounts, and hundreds of other things that arise in our complex organization. Many thanks Betty!

From time to time we get a note from a member requesting that BC Nature spend less time on environmental advocacy and focus more on nature articles in the magazine. My belief is that BC Nature can do both, providing science-based input on key environmental issues as well as improving nature knowledge and environmental education. We do need more magazine articles celebrating BC’s nature and wildlife. I put my pen (or rather my computer and camera) where my mouth is and contributed a short article in this magazine on a little critter that I regularly find, quite literally, in my backyard. I urge you to follow this lead and tell us all about some neat bit of nature in your backyard.

Christine Ryan Accepting her BC Nature Award at the Science Fair
Natural Mistakes
A Bluffer’s Guide to Birding
By Clive Keen

Birding, like all avocations, has a vocabulary of its own, and birders tend to forget that the world out there sometimes hasn’t a clue what is being said. The latest edition of the author’s book Birding: A Different Kind of Guide thus starts with a longish glossary. A subset of those terms, though, works really well as a Bluffer’s Guide to Birding. Learn up the following, and you’ll be able to pass yourself off as an expert at dinner parties.

Bill. The thing that normal people call a beak.

Birders. Birdwatchers who take themselves seriously.

Birdy. Lots of birds around, as in “This is a really birdy spot.”

Countable. Not all bird species spotted can receive an official tick. Your aunt’s escaped pet parrot and Colonel Sanders’ best are but two of the many examples that the powers-that-be won’t accept.

Crippling view. Birders’ code for “extremely good view of an uncommon bird.” Yes, weird.

Dip, dip out. To twitch (see below) unsuccessfully, i.e. to rush off, sometimes for great distances, to find a rarity and then fail to do so. Something for beginners to look forward to.

Dirt bird. Common birds that beginners need to remain disdainful about.

eBirders. People who are confident enough, even if they shouldn’t be, to report their sightings to the eBird database.

Empid. Any of the ten North American members of the genus Empidonax flycatchers that are small, visually nondescript, hide behind foliage, and are so similar to one another that you’re allowed to say you find them “hard.”

Endemic. A bird found only in a particular area. Rarity chasers get really excited about that sort of thing.

Fallout. Not much fun for birds, but a jackpot for birders. Bad weather during migration can lead to huge flocks making an emergency landing into a small area.

Fledgling. A young bird that has gained flight feathers and is just about to leave the nest. You can demonstrate your smarts by distinguishing them from nestlings: recently-hatched birds totally unable to fly.

FOY. Not as good as a lifer (see below), but good news for listers (see below), as in “That’s my FOY Wilson’s Phalarope.” It just means “first of year.”

Grip, grip off. To see a bird which other birders missed and gleefully tell them you’ve seen it. The greater the glee, the greater the gripping off.

Jizz. The “vibe” of a bird that allows you to administer a correct tick.

Kettle. A delightful sight for hawk watchers: a big group, sometimes huge, of raptors (see below) soaring in thermals during migration.

Lagoons. An existentially disturbing term for British birders, brought up with romantic notions of blue lagoons in Pacific islands. It means “septic sludge ponds,” which, for all their olfactory disadvantages, are great places to see birds.

LBJ. Little Brown Job. Usually one of the sparrows, or something sparrowish. It’s more acceptable to say “It was an LBJ” than “Blowed if I know.”

Lifer. A bird species you see for the first time. Beginners should keep quiet about it if it’s a dirt bird (see above), but if it’s something rare, you can celebrate with a lifer dance (see next).

Raptors. Birds of prey like hawks, owls, and eagles. You’ll get double points at a dinner party if you know that “hawk” is officially the wrong name for falcons.

Pelagic. Birder shorthand for a birding trip way out in the ocean. Most serious birders “do a pelagic” every now and then to add albatrosses, storm-petrels etc. to their lists.

Pish, pishing. Not what you might think – it’s making a pishy, breathy, sort of noise with flexible lips and tongue pressed against palate, in the vain attempt to attract an unseen bird.

Plumage. Posh word for feathers.

Passerine. A normal sort of bird, capable of perching. If you call them songbirds, you won’t be too far out. Fully half of all bird species are passerines, which is why it’s a classification most birders remember and use, unlike “Odontophoridae,” which rarely passes a birder’s lips.

Peep. One of the small shorebirds (see below). You’ll never guess what sound they make.

Sexual dimorphism. Sorry, it’s not kinky in the least. It just refers to the male and female looking different.

Shorebirds. Bird types that hang around the edges of water, beloved by all discerning birders.

Stringy. A suspect identification, usually involving claims to have seen a rarity. The fear of being considered a stringer (a repeat offender) keeps most of the birding world honest.

Twitch. To travel great distances to see rare birds, to the bemusement of regular folk and the entertainment of moviegoers.

Vocalizations. Beware of saying that you have heard a bird’s song, as a birder egghead might pounce on you. “Vocalization” is safer, because birds don’t just sing. “Chickadee–dee–dee,” for instance, is not the bird’s song, but its contact call; its song is the more concise “Cheese–burger.”

For information on the book containing the full glossary, go to https://traybonbooks.com/.
Conservation Report
By Peter Ballin, Chair Conservation Committee

This year the Conservation Committee welcomed Jim Bryan and Roger Emsley to its ranks. They bring depth of knowledge and histories of focused environmental action to the committee. Hugh Westhues resigned and we thank him for his dedicated work.

The BC Election: As of this writing we are yet to vote, but BC Nature submitted a letter to party leaders and many cabinet ministers and critics (17 in total), requesting to know their stances on the following issues:

- Climate change and its effects on habitats and species in BC;
- Existing and future fossil fuel project expansions (e.g., liquefied natural gas, Trans Mountain pipeline, and other tar sands oil exports and shipping, coal expansion);
- Site C dam and associated loss of wildlife habitat and farmland;
- Species and ecosystems at risk, particularly steps towards their conservation and legislated protection;
- Approach to wildlife management, and in particular the proposal to separate wildlife management to an independent agency;
- Aquaculture, particularly concerns over the expansion of fish farming and regulations;
- Old-growth logging and raw log exports;
- Harmful pesticides (e.g., neonicotinoids);
- Invasive species management (e.g., banning the import, sale, and use);
- Protected areas management and establishment of new protected areas, both terrestrial and marine (e.g., South Okanagan-Similkameen National Park);
- Farmland protection and its sustainable management (e.g., diversification, stewardship, restoration, etc.);
- Transportation initiatives and consequences (e.g., public transit, proposed bridge replacement of George Massey Tunnel);

As of late April we had received NO REPLIES. Did we overwhelm them? We plan to follow up with those elected.

Wildlife Management in BC: Government recently proposed to privatize some wildlife management under the auspices of the BC Wildlife Federation. We have no details of the plan, since the announcement came just prior to the election call in late March. We note the absence of consultation with citizens and groups with non-consumptive interests in wildlife, although a government communication indicates input from “local, regional, and provincial wildlife associations”.

BC Nature issued a press release; here follow some excerpts: “Nature-lovers across BC are expressing concern over a proposed new method for managing wildlife in the province. Speaking on behalf of BC Nature, president Dr. Alan Burger said “Our members are alarmed by recent statements by government ministers indicating that wildlife management might be handed over to an external agency supported by special interest groups, specifically hunters and guide-outfitters”. This model of wildlife management will undoubtedly work against the interests of the vast majority of British Columbians, added Burger. “This proposal is flawed at several levels” stated Burger. The BC Nature website contains the entire press release: http://www.bcnature.ca/wp-content/uploads/2012/06/BCNature-People's-letter.html.

Solar Power Generation Resolution: Submitted by the Rocky Mountain Naturalists Club of Cranbrook, and vetted by the conservation committee, the resolution has BC Nature supporting in principle the development of alternate energy sources to mitigate climate change, and urging the development of science-based laws, policies, and guidelines specific to the development of solar power generation in our province. The resolution recommends placing facilities on already highly-impacted lands such as brown lands, and excluding agricultural and crown land. BC Nature would also recommend to the provincial government that it revoke all existing applications for crown land for the purpose of investigating the feasibility of solar power generation, and place a moratorium on all applications and utility-scale solar power production in the province until it develops legislation, policies, and means to ensure compliance. This resolution was presented to the membership at the Lil’louet AGM and was passed.

Mount Polley: The January 2017 BC Nature letter to the Prime Minister and Ministers of Justice and Fisheries and Oceans did not gather sufficient traction to reverse the stay of proceedings against the provincial government and the Mount Polley Mining Corporation. Consequently, we, the taxpayers, contributed $40 million to the cleanup of the 2014 Mount Polley dam breach. Furthermore, Mount Polley Mining Corporation was granted permission to drain treated mining wastewater into Quesnel Lake, a large glacial lake and the source of drinking water to residents of the town of Likely.

Pipelines: BC Nature and Nature Canada will not directly challenge the federal government decision to approve the TMX (Kinder-Morgan) pipeline, but may join other groups as intervenors in court cases challenging this decision.

Wells Gray Park: A UNESCO World Heritage Site: Dr. Catherine Hickson and the Wells Gray Wilderness Society propose to make Wells Gray Provincial Park a UNESCO World Heritage Site. BC Nature concurs that Wells Gray is a jewel worthy of such designation, and wrote a letter to support the proposal. As a true wilderness devoid of through roads and encompassing remote mountains and rivers, Wells Gray has an ecologically complex and geologically unique landscape. Its destination-worthy attributes include inland temperate rainforest, three major rivers, and Helmcken and many other waterfalls. The Trophy Mountain flower meadows, diverse array of lichens, and endangered...
Conservation Report Continued

mountain caribou feature among its biological attractions. History becomes evident through the signs of volcanic/glacial interactions. **Pink Mountain:** BC Nature registered support with the Minister of Environment for the establishment of an Ecological Reserve on Pink Mountain, in northeastern BC. Information provided by the Pink Mountain Biodiversity Research Initiative, including a report produced by Ron Long (who wrote about Pink Mountain in a recent BC Nature Magazine) has revealed incredible biodiversity. The summit plateau contains a 2.2 km² centre of diversity that supports almost 200 species of flowering plants: no other site of this size in northern BC contains as many rare and Red- and Blue-listed plant species. Butterfly diversity mirrors the plant diversity, with almost 30% of the species known to BC, as well as an estimated 200 species of moths living in this desirable habitat, making Pink Mountain a butterfly and moth hotspot in Canada.

All BC’s large ungulate species except Mountain Goats occur on Pink Mountain, including the Blue-listed Northern Woodland Caribou and Stone Sheep, which lamb in the area. An astonishing concentration of grouse and ptarmigan live here: six of the seven BC species. Isolation from the main Rocky Mountain range has likely led to the unique biodiversity here. Pink Mountain, lying within the Yellowstone-to-Yukon wildlife corridor, offers great biological research potential, not only to conserve its biodiversity, but also to explain it. However, it is threatened by industrial activity and off-road vehicles. BC Nature urges that a wind farm not be built on Pink Mountain, and that wind farms undergo rigorous environmental impact assessment wherever they are placed.

**Fraser River Crossing:** BC Nature submitted a letter to Premier Clark, opposing the bridge construction over the South Arm of the Fraser River, replacing the George Massey Tunnel. BC Nature raised concerns about the lack of a comprehensive environmental review encompassing the river and its biologically valuable habitats. Some of our concerns:

- Opening the waterway to large ocean-going ship traffic, which are currently unable to clear the 12m deep tunnel. For these ships to pass, the Fraser River would have to be dredged, coupled with dike construction along the shoreline, and rip-rap placed to combat erosion. Dikes would compromise circulation patterns for valuable marshlands. A deeper river would lead to increased stream velocity and allow greater intrusion of seawater upstream;
- Migrating salmon and all that they affect;
- Seawater contamination of irrigation systems of agricultural lands upstream;
- Increased river velocity would increase erosion and siltification of the delta, with possible severe negative consequences for juvenile salmon and a host of other species that utilize the rich estuary as a nursery and a transition habitat in their migrations, including internationally important migratory birds;
- Possible ensuing industrialization of delta lands and encroachment onto farmlands in the Agricultural Land Reserve;
- Concerns about climate change. We question a future in coal and LNG ports along the banks of a dredged Fraser River;

The Fraser River Estuary and surrounding wetlands are highly-complex ecologically. Extensive estuarine marshes and waters of prime habitat value exist directly downstream of the proposed bridge. These areas support Canada’s largest wintering habitat for waterfowl and birds of prey, a BirdLife International IBA. The estuarine ecosystem also links to the apex predators in the Salish Sea, the endangered Southern Resident Orcas. All this in addition to the challenges of predicted rising sea levels.

**Protected Areas across Canada:** BC Nature signed on to a letter from Nature Canada and CPAWS to the Minister of Environment and Climate Change and Alberta’s Minister of Environment and Parks regarding the Pathway to Canada Target 1 Initiative. Canada has a commitment, under Aichi Target 11, to protect at least 17% of our land and inland waters by 2020. The letter commends the governments for cooperating to achieve their goals and lists several recommendations to help implement them. One of them is to exceed the 17% beyond 2020 – “The scientific evidence is clear that nature needs much more than 17% protection if biodiversity and ecosystem goods and services are to be maintained, particularly in the face of climate change. The 2020 target is thus an interim goal, not a final destination. The signatories therefore recommend that the Pathway process develop a long-term, evidence-based plan to scale up protection concurrent with the effort to protect at least 17% by 2020.”

The list of environmental concerns that affect naturalists does not diminish. Remember that BC Nature can support the involvement of your club in those issues that concern you locally.

---

**Whiskeyjack Nature Tours**

**THE SUNSHINE COAST FOR NATURALISTS**

**24-28 July 2017 (5 days)**

Cost $1650 (dbl occup) + 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 fjords and green islands. We visit the Sunshine Coast’s scenic highlights, including world famous PRINCESS LOUISA INLET and the SKOOKUMCHUCK RAPIDS, We also visit Jedediah Island and Thormanby Island and take a sunset cruise to Hotham Sound. The Sunshine Coast’s culinary offerings are an important part of this tour and we will sample the best available. All meals (except for 4 dinners) are included.

Leader: Tony Greenfield

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The 2017 Herring Run: Parksville–Qualicum Beach Area

*By Rosemary Taylor*

March 8, 2017: we were out with a friend chasing herring! We saw the run starting in Parksville a few days earlier, and then it moved down the coast and, by the time we saw it on March 8, it was a few kilometres further south. It’s very unpredictable as to when and where it happens: last year it took a different route between Denman Island and Texada Island and we missed it altogether. It may be happening in one bay, but not in another bay right next door. I was with my birding group earlier in the week at a nearby river estuary, and the run was in full force there then. Birds everywhere – by the hundreds, if not thousands, so one way and another we have many days to enjoy the spectacle as it moves around.

When the herring spawn, the seas go a lovely tropical aquamarine blue, the boats go out in force, sea lions, gulls, and eagles all congregate in their masses. Scoters and other seabirds gather in the thousands in long rafts out on the water to feast on the herring eggs. Brant Geese congregate along the shores of eastern Vancouver Island to refuel on herring eggs before continuing their migration to breeding grounds in Alaska and the north, and are celebrated by the Brant Festival in Parksville and Qualicum Beach.

Gulls gather by the hundreds on the rocks and an eagle fly-by will get them moving, but they just take off and settle right back down again. They fill the air and flock around the fishing boats.

The water really turns an exotic pale blue colour and changes at a distinct straight line offshore, to the normal darker blue.

Black sticks sticking up out of the water are sea lion flippers. They raft up, and are obviously stuffed to capacity as they’re not chasing fish!

Everywhere you look are boats: they each have quotas and fishing times, and they all gather in the areas where the fish are running. On any shore during the herring fishery you hear the clank, clank, clank of boats winding in their nets, and if you look carefully at the bow of the boats on the water you’ll see a net full of live herring being hauled in.

On the way home we called in at the fish dock where much of the catch is landed, and little fork–lift trucks were running around picking up great big containers of fish and loading them into huge cavernous trucks. Within a very short time those fish will end up in Japan, where they buy them for their roe. The flesh will probably turn up either in pet food, fish fertilizer, or sea soil.

We bought some in the fish store on the dock and fried them up when we got home, but they weren’t all that good, and we had to admit that they didn’t taste as good as they smelled. We now know that this isn’t the best time of year to buy herring, but now nobody fishes for them when they’re not full of roe.

So although we don’t have Snow Geese on this side of the water (which I really miss, and have to go over to Vancouver in the fall to get my “snow goose fix”), we do have the herring run. Sometimes it just lasts for a day or two, but this year we had several more days to witness it. It is a real feast of activity to enjoy, and everyone gets out there: artists with their canvases, everyone else with a camera of one kind or another, just watching a nature documentary taking place in real time before their very eyes! ◊

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The rocks that can be seen throughout much of Seymour Provincial Park are primarily volcanic rocks formed between 100 and 150 million years ago, during a geological period called the Lower Cretaceous. They were extruded, probably by volcanoes, hundreds or thousands of kilometres somewhere out in the ancient Pacific Ocean. These volcanic rocks were pushed by the movement of the Pacific crustal plate eastward until they were driven up against the mainland of North America approximately 60 million years ago. In Seymour Provincial Park they cover an area three by six kilometres from the parking lot north to First Pump Peak, west to Dog Mountain, and east down to Indian Arm. Because of their similarity in composition and age to the rocks that form Gambier Island, they are called the Gambier Group. Soon after their arrival onto the North American mainland they were intruded by molten magma which crystallized to form the Granitic rocks that now underlie them. These granitic rocks can be seen elsewhere in the park, including on the peak of Mt. Seymour. During their 100 to 150 million year old life, the volcanic Gambier Group rocks have undergone very little change despite their movement across vast distances of the Earth’s crust. The rocks can now be clearly identified as volcanic flows, tuffs, flow breccias, vent breccias, agglomerates, and ash fall deposits, all of which attest to their very violent birth out of the vents of volcanoes.

We will now take a self-guided tour to visit points of geological interest along the nearly seven kilometres of trail from the parking lot to the peak of Mt. Seymour via Dinkey Peak, Mystery Peak, Brockton Point, First Pump Peak and Tim Jones Peak (formerly Second Pump Peak).

Stop 1. On both sides of the lower parts of the Manning ski-run can be seen massive flows of a volcanic rock called Andesite, containing fragments of a similar rock of a slightly different colour which represent an earlier flow disrupted by the later flow. There are also rounded inclusions of Epidote (a bright green mineral), within the Andesite. These rocks make up the rock-cuts of the ski-run as well as the glacially-smoothed and ice-scored (striated) pavement forming parts of the ski-run surface. Veins composed of Quartz, Calcite, Epidote, and Red Jasper can be seen cutting the Andesites in places, as well as fragments in the gravels used to form the surface of the ski-run. The composition of Jasper is micro-granular Quartz, which can be many colours such as red, yellow, brown, green, or blue. In this case it is red due to the Iron content.

Stop 2. At Dinkey Peak you will see rounded green cobbles of Epidote lying in volcanic rocks. The cobbles are thought to have originally been fragments of Limestone caught up by the lava as it flowed across a coral reef flanking an ancient volcano. Low grade metamorphism has rearranged the mineral and chemical composition of the limestone to epidote, a calcium-aluminium-iron-silicate mineral.

Stop 3. 100 metres north of Brockton Point is a thin but conspicuous band of whitish, weathering rock that shows fine laminations. This is volcanic ash probably deposited in a small lake or pond, because the band cannot be traced very far. This again attests to a violent history of volcanic activity.

Stop 4. As we approach the pass between First Pump Peak and Tim Jones Peak, we cross from volcanic rock on the south side in fault contact to granitic rock on the north side. A fault separates the two. A volcanic dyke of much younger age than the volcanic rocks and the Granitics has selected the fault as an easy point of entry. The presence of the fault is indicated by shattered rock and lacy Quartz veins and has created a zone of erosional weakness forming a topographic low in the pass between First and Tim Jones Peaks. Oxidation of Pyrite in the fault zone and the dyke has resulted in a coating of rust (iron oxide) over the rocks. The rusty rocks assist in identifying the trace of the fault.

Stop 5. Halfway down the north side of Tim Jones Peak is the contact between the agglomerate and Granitic rocks which form the peak of Mt Seymour.

Stop 6. On the approach to the peak of Mt. Seymour (sometimes referred to as Third Peak) is a glacial pavement of granitic rocks which have been intruded by at least two approximately three-metre thick dykes of fine-grained dark volcanic rock, probably of basaltic composition and probably of a similar age to the one seen at Stop 4.

A more detailed account of this self-guided field trip will be posted on the Geology Section page of the Nature Vancouver website www.naturevancouver.ca.
Christine Galliazzo – BC Nature Volunteer Appreciation Award

Submitted by Lillooet Naturalists Society

If there is a positive activity or event going on in Lillooet, Christine Galliazzo will be there, working quietly in the background making it all a success. Christine is an outstanding community volunteer. She joined the Lillooet Naturalists in 2004 and has been an active member since. For the past five years Christine has also served on our board and volunteered to do the secretary position, which entails minutes and letters and all the behind the scenes work to keep the business of the Society in good order.

For well over a decade Christine has lead the Bluebird trail work, monitoring and maintaining our Mountain Bluebird nest box project. Christine routinely puts out the call for volunteers to help out and, over the years, hundreds of us have gone along for the day and enjoyed the outing. But it is Christine who is always, always there and keeps the project moving along. She can truly take credit for the success of hundreds of fledged Mountain Bluebirds, along with a number of Tree Swallows and the occasional wren.

Christine incorporates education in everything she does; the volunteers learn about the birds and their natural history along the way. Children have also been brought into the project, both on the expeditions and in activities such as building nest boxes at workshops in the community and at schools.

She regularly presents to our group, brings in expert speakers on the topic, and is an ambassador for the birds and the project to our community as well as visitors.

When a call goes out for volunteers from our Society, Christine puts her hand up. For example, our restoration project has a citizen science initiative monitoring reptiles and Christine faithfully checks the boards and keeps records on this large project. Christine also serves on the Lillooet Library board, the Lillooet Music Society board and she has been very active with Skate Lillooet. She recently spent a day helping construct a playground for the children at the Recreation Centre. Oh yes, and she has a busy family life, is a proud grandmother, and has a full-time job. Christine is an outstanding community member and volunteer and the Lillooet Naturalists appreciate her efforts and amazing positive energy.

◊

Jean Crowe – BC Nature Club Service Award

Submitted by Kamloops Naturalists Club

Jean arrived in Kamloops in 2007 and joined the Kamloops Naturalists (KNC). Within two years, she had become a director–at–large, then vice–president, and in 2012 started the first of two 2–year terms as president. Over her terms on the executive, Jean has led the club to a position where it has growing enrolments, a very strong reputation in the community, and a solid financial situation.

At the time Jean arrived we noticed several signs that the club was in trouble. Finances were solid and members still volunteered for projects, but it was becoming increasingly difficult to find individuals to take over crucial leadership positions in the club, probably as a result of the age demographics of our membership. Under Jean’s leadership the club has become stronger. She worked very hard to bring in new, young professionals as members, and developed a strong partnership with the Nature Conservancy of Canada to protect critical habitat near Kamloops. Under Jean’s leadership, the club also developed a relationship with BC Parks and the City of Kamloops to promote opportunities for public education about wildlife. Finally, Jean led the development of a community consortium (including the BC Wildlife Federation and Grasslands Council of BC) to review Environmental Impact Assessments filed by a proponent of a local mine. These efforts brought significant positive attention and respect to the club.

Upon stepping down as president, Jean has remained active in the club as treasurer and one of the most engaged volunteers, contributing to her wonderful legacy. KNC is a highly respected organization within the region, it has an active field trip program with well–attended education programs that are open to the public, and a healthy young naturalist program. The club membership has continued to grow and is currently at the largest it has been in its 45–year history. Perhaps even more importantly, Jean has recruited a number of young leaders in the community to continue her good work well into the future.

◊
Helen Robinson – BC Nature Club Service Award
Submitted by Comox Valley Naturalists

Helen and her husband Robbie (George) Robinson have been active members of the Comox Valley Naturalists Society (CVNS) since joining in 1989. Helen clearly recalls her initial inspiration to learn more about botany, during a spring field trip with CVNS to the Tsolum River Flats with the very knowledgeable Betty Brooks and Norma Morton.

Although Helen majored in biological sciences, her career was in bookkeeping. In 1991 she took a distance education course in wildflowers from Athabasca University with Dr. Lochan Bakshi. After this formative course, Helen hosted botany meetings and workshops on detailed topics such as lichens, and led many nature walks. She has compiled numerous plants lists for nature sites in the Comox Valley.

Helen was one of the key members involved during the Spring 2016 AGM hosted by CVNS, leading several field trips. She continues to share her knowledge with long-time and new CVNS members and is considered one of the top botanists in our club.

Helen also served from 2008–2012 as Volunteer Warden for the Comox Lake Bluffs Ecological Reserve, established to protect unusual dry-site plant communities. Following in the steps of Chris Pielou, the previous Reserve Warden, Helen worked with BC Parks to monitor the Ecological Reserve, gave presentations and led field trips to the Ecological Reserve, to continue to advocate for its responsible use.

Helen’s most recent achievement was the compilation of a comprehensive plant checklist for the Comox Valley. Ten years in the making, this professional 22-page publication includes herbaceous plants, shrubs and trees of the Comox Valley, and was printed for the 50th Anniversary of CVNS. This project no doubt inspired other naturalists at the conference as much as it has inspired our own club. More than 140 copies of the publication have been sold and Helen asked for the proceeds to go toward interpretive signage at Kin Beach Provincial Park.

◊

Orville Dyer – The BC Nature Recognition Award
Submitted by South Okanagan Naturalists Club

For almost 35 years, Orville Dyer has worked tirelessly as a biologist with the province of BC, to conserve the natural spaces and species of the South Okanagan and Similkameen valleys.

Orville started out in the days of recreational fisheries and big game hunting, but he was instrumental in the restructuring of the provincial government to focus as well on non-game species such as reptiles, amphibians, bats, arthropods, birds, and plants.

In the early 1990s, Orville Dyer was at the forefront ranking approximately 150 species regarding their level of endangerment, placing them on either red- (endangered) or blue- (threatened) lists. Many of the species are at risk because of habitat loss and degradation. Orville was instrumental in creating wildlife management areas such as South Okanagan Wildlife Management Area (SOWMA) in 1994 and recommending important bird areas such as Osoyoos Oxbows, White Lake, and the area around Kilpoola Lake. He was involved in the earliest recovery efforts for Burrowing Owls in the South Okanagan and has been recognized at least once, perhaps twice, as Provincial Biologist of the Year.

Orville was at the centre of the science and strategy of the South Okanagan Critical Areas Program, and the South Okanagan Conservation Strategy (SOCS) 1990. He was also instrumental in the development of the Okanagan Wildlife Habitat Atlas (1998). This important groundwork, and connection to partners such as the Canadian Wildlife Service, Nature Trust of BC, UBC, and RBCM, culminated in the establishment of the South Okanagan Similkameen Conservation Program (SOSCP) in 2000. The SOSCP now has more than 40 partner organizations.

With the passage of the federal Species at Risk Act in 2002, and the province taking a formal role in participating in recovery planning for species at risk, Orville took on the chair or co-chair position for innumerable species recovery teams such as the Southern Interior Invertebrates Recovery Team (five species), Southern Interior Rare Plants Recovery Team (17 species), Southern Interior Reptiles and Amphibians Recovery Team (11 species), and other individual species such as Pallid Bat and Western Screech Owl. Orville enthusiastically participated in numerous stewardship initiatives over the course of his career, including private land stewardship and BC Nature’s Wildlife Tree Stewardship Program. He readily provided plant and wildlife data, habitat mapping, direction, and guidance.

◊
The North Okanagan Naturalists’ Club welcomes BC Nature and its affiliated club members to our beautiful region for the 2017 Fall General Meeting at the Village Green Hotel in Vernon. The three-part theme of the Conference has attracted speakers and presenters who will highlight threats, challenges, and successes in each of the subject areas. A well-known local published historian will talk on the impact of commercial ranching on natural grasslands and a climate change adaptation scientist will speak on assisted seed migration in certain forest species. His work has recently drawn the attention of National Geographic magazine. Our Saturday evening banquet speaker will be a professional geoscientist speaking on the impact of climate change on water supply and demand in the Okanagan basin.

Early morning birding and field trips will include visits to our local provincial parks, the Swan Lake Reserve, as well as new trails adjacent to the Predator Ridge and Sparkling Hills resorts. The Okanagan Valley’s newest “rail trail” will also be featured. If that is not enough, then come earlier and stay longer to enjoy the apple harvest, winery/cidery tours, and the many attractions for which the Okanagan Valley is renowned. For the latest and more detailed information please go to our website at www.nonc.ca. The registration form and full conference schedule are available on page 29 and 30 of this edition of BC Nature.

From BC Nature Office

A volunteer is needed to help out with BC Nature social media and website maintenance. No experience necessary, however a knowledge of Facebook and Twitter would be a great help! This volunteer position would be initially around two–three hours a week for training. Help out from the comfort of your own home wherever you are in the province!

After training is complete, we believe that the social media and website updating will take approximately an hour of your time per week. For further information, please email manager@bcnature.ca or telephone 604-985-3057.

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Critical Wetland Habitat Under Threat In The Peace Valley

By Ana Simeon, former Peace Valley campaigner with Sierra Club BC

On World Wetlands Day, February 3, 2017, we heard that BC Hydro was set to begin logging a stretch of the Peace River Valley that includes Watson Slough, a significant wetland sheltering at-risk species, in preparation for the Site C dam reservoir.

Watson Slough is used by both Trumpeter Swans and neotropical migrants as a feeding and resting area on their spring and fall migration. At-risk species such as Yellow Rail have also been observed at Watson’s Slough. The wetland is home to beavers and a multitude of other species. For decades, Watson Slough has been used to educate local schoolchildren about ducks and other birds, vegetation, fish, and amphibians. The school program was supported by Ducks Unlimited and the Peace River Regional District.

The Peace River Regional District and a number of conservation groups have asked BC Hydro to hold off destroying Watson Slough for now, since it wouldn’t be flooded before 2024, and there is no engineering reason to destroy it this early in the project timeline.

This is only one of the many losses British Columbia biodiversity will suffer with the construction of Site C dam. The Federal Joint Review Panel – whose largely negative findings on Site C were ignored by the provincial and federal governments – found that the Site C dam would cause significant adverse effects on wetlands, especially valley bottom wetlands (of which Watson Slough is a prime example), migratory birds, fish and fish habitat, rare plants, and at-risk species including Western Toad and a number of bird and butterfly species. The Panel also concluded that most of these effects cannot be mitigated.

Residents of the region, including First Nations and other citizens’ groups, are questioning the rush to destroy the highly-biodiverse Peace Valley and prime farmland for Site C. The dam will saddle taxpayers with a costly white elephant that BC Hydro itself admits wouldn’t be able to pay for itself for at least another 70 years.

More information is available at peacevalley.ca, sierraclub.bc.ca, or desmog.ca

BCnature cover photograph submitted by member Haley Crozier. This tidal pool photograph was taken at Butze Rapids just outside of Prince Rupert. In the photograph you can see a small sampling of the more than 1,000 sea anenomes varieties that can be found all over the world.
By Bev Ramey

Born May 2, 1924 and raised on a farm in Creston, British Columbia, Dick grew up part of a large family in a rural setting. He continued with post-secondary studies (UBC and Oregon State University) and obtained his doctorate in Agriculture, leading to a career with Agriculture Canada.

Dick’s career with Agriculture Canada is widely recognized for his research on plant viruses. His citation on receiving the Order of British Columbia in 1999 reads: “internationally recognized as a scientist for his work in viruses causing disease in plants. During his 40–year career as a research scientist with Agriculture Canada, his findings have been important to British Columbia’s agricultural industries and also in the wider fields of medicine and human health.”

The Order of British Columbia citation also noted that Dick “was an early leader in efforts to protect biodiversity and conserve our environment for future generations, particularly the protection and preservation of wildlife and the essential habitat upon which they depend.” It is these volunteer contributions for conservation over more than half a century through which we naturalists remember Dick.

Dick contributed extensively to orderly running of naturalist organizations. He served as president of the Vancouver Natural History Society (now Nature Vancouver, 1960–62), then as president of the BC Nature Council (1966–69), he led the formation of the Federation of BC Naturalists (FBCN – now BC Nature) in 1969. Dick served as FBCN president (1981–83), as Conservation Chair with the joint Vancouver NHS – FBCN Committee in the 1970s, then the FBCN Conservation Committee Chair (1985–1994), and its Resolutions Chair (1985–1994, co–chair until 2006). Dick was also a founding director of the BC Naturalists’ Foundation in 1990, served as treasurer of the Fraser River Coalition, and a director of the Save Our Parklands Association.

Dick is remembered for these extensive organizational contributions. However, for anyone who participated with him in meetings or educational workshops, the memory that shines strong is his skilled chairmanship, always conducted with diplomacy and carefully crafted inclusivity. We remember his patience in leading committee discussions and his energy in organizing educational workshops. Somehow he always managed to respectfully involve all points of view.

As a gracious coordinator for conferences and symposia, Dick contributed greatly to education and increasing awareness about the environment. This was not an easy task as the workshops typically involved stakeholders from all perspectives: scientists, government staff, industry, and public/conservation concerns, including those of naturalists and hunters. Dick unfailingly set a respectful tone and ensured that all viewpoints were fairly aired. Some will remember participating in symposia that Dick helped organize, including:

- Parks in British Columbia (1983);
- Bits & Pieces – Symposium on Natural Diversity (1987);

Dick is also remembered for his hiking capabilities, described by Margaret Bear in her Discovery profile as “Onwards and Upwards”. Kelly Sekhon, leader for the two Himalayan hikes (1996 and 1999) and former president of the Vancouver Natural History Society, remembers that “We celebrated Dick’s 75th birthday in a small village in Sikkim a few days before the start of our trek to Goecha La at about 16,000 feet above sea level. Our local guide was very impressed by Dick’s ability to hike to that elevation.” Kelly also recalls that he had difficulty keeping up with Dick, despite being 25 years younger.

Naturalists Donald and Fiona Flook were also part of that hiking tour. Donald recalls how participants appreciated Dick’s responses to their natural history questions. Subsequently back in BC, Donald experienced “Dick’s wisdom when he represented the FBCN on the Steering Committee of the Pacific Coast Joint Venture, an international wetlands conservation program. When we began participating in FBCN General Meet-ings, Fiona and I appreciated the skill and tact with which Dick shepherded our club’s resolutions”.

Dick’s skills earned him the position of co–chair with industry and government staff of the provincial Forest Land Use Liaison Committee during the heated discussions of the late 1970s and 1980s. He set a high standard for polite dialogue, based in science. Other examples of his efforts during those decades include improving the dialogue among stakeholders for the better management of the Pitt Wildlife Management Area. This was especially appreciated by the Alouette Field Naturalists. Other provincial issues at that time included the proposed Hat Creek thermoelectric project and government recognition of non–game species of wildlife. Through respectful dialogue with multi–stakeholders several successes were achieved in the Lower Mainland: establishing Pacific Spirit Regional Park (and protection of Camosun Bog), Minnekhada Regional Park, and the VanDusen Botanical Gardens (1975).

Some will remember Dick through his “gentle” enlisting of us as volunteers to take on a task, which he would describe as easy, but of course the endeavour would often turn into a much bigger undertaking, but certainly with rewards. However, Dick was always available to help with advice and suggestions on how to work things through. Jude Grass remembers this well, as it was Dick who encouraged her to become the Vancouver Natural History Society president (1978–80), yet it was also Dick who frequently gave her ongoing support and advice. Another example of enlisting volunteers is shared by Peter Ballin, who remembers about thirty years ago that Dick suggested he join the executive of the FBCN. And now Peter has done so . . . “not having realized that agreeing to chair the Conservation Committee meant becoming part of the executive!”

Louise Irwin remembers Dick as being very good at organizing people. She recalls that when she would speak up at a meeting, Con’t P. 16
Dick Stace-Smith continued

Dick would often enlist her help with, “Would you look into that, Louise?”

Anne Murray remembers getting to know Dick through the Boundary Bay Conservation Committee and the proposal “Ours to Preserve - A Boundary Bay Biosphere Reserve” in 1992. Anne recalls: “It was Dick who asked me to become vice-president of the FBCN and began my association with the federation! What a persuasive man he was and so polite and courteous always. A real gentleman!”

Others remember Dick as, in the words of Stephen Partington, “the friend across the alley”. Stephen also recalls working together with Dick on viruses of raspberries (Raspberry Bushy Dwarf Virus) and championing several conservation issues together.

Duanne Vandenberg recalls her first, of many, memories of Dick was how welcoming he and his wife, Joan, made her feel, “when as a ‘bussing’ out-of-town new Director, they offered to put me up overnight in their home after the monthly Directors’ meeting. I was always made to feel very welcome, a kindness I have fondly remembered to this day”.

In recent years Dick reflected that work as Conservation and Resolutions Chair did have an impact on government and political direction. He remembers travelling to Victoria to meet with politicians over the years, including a very positive trip with Elton Anderson and Bert Brink to meet with Minister Kieran. Representatives from the Federation would meet with government officials a couple of times a year and review progress on specific issues.

Dick also reflected that positive changes were typically slow and incremental, but were gradually taking place, such as improved awareness of environmental values of the Fraser River estuary, as well as establishment of Provincial Parks and improving management for non-game species. He commented about the future: “Many of the same issues will continue in the future, with issues such as problem wildlife and development of wetlands. In some ways the 1950s, 1960s and 1970s were the lucky generations. There were tremendous opportunities, abundant natural resources, and wilderness. Now we all recognize resources are finite and all stakeholders are struggling to hold onto their diminishing resource.”

Dick worked hard to improve management of the Fraser River estuary and organized two conferences involving environmental representatives, government staff, and industry. During the first conference, Dick worked together with the fiery Barry Leach. What a dynamic team! The improved dialogue amongst all stakeholders resulted in greater recognition of the ecological values of the Fraser and designation of certain zoned areas for ‘no development’. Scientific research has recently shown that unfortunately the supposed ‘mitigation’ areas restored as habitat banking to compensate for development have not generally been successful. The ‘no development’ designation and leaving nature alone is a much better approach. If Dick were here with us today, he would be promoting this science-based finding widely.

Dick and his wife Joan were a devoted couple, and equally keen naturalists. Back in the 1950s and 1960s Dick, Joan, and their kids joined several of the Vancouver Natural History Society’s week-long summer camps. In later years, many will remember Dick and Joan travelling to Federation (BC Nature) AGMs and Conferences and camping comfortably in their Westfalia van.

Dick and Joan were wonderful hosts. Dick loved to bake and the sumptuous goodies he created invariably came from their beloved garden’s treasures. In each transition of their life together, from their beautiful home of many years to condo life, and to care home life, they did so with grace and love.

Judy Williams, co-chair of the Fraser River Coalition remembers how “Dick and Joan opened their home to the Coalition for our meetings . . . Always, Dick had a smile and twinkling eyes when he greeted me wherever they lived. I like to think of him and Joan now being together again for an eternity. I compare his life to the Fraser which begins as a trickle at birth, to the tumultuousness of youth, to the full energy of the middle years and the slowing of the elder years until finally reaching the encompassing mystery of the ocean.”

In a letter of thanks to Dick written in 2015, Bev Ramey – on behalf of BC Nature and the BC Naturalists’ Foundation – noted the many contributions that he had made since the 1960s. She expressed appreciation on behalf of all naturalists for Dick’s foresight and leadership in establishing the Federation of BC Naturalists (BC Nature) as a legal society in 1969 and for his assistance in the establishment of the Foundation in 1990. Dick wrote in 1968 that “the primary considerations for incorporating as a federation were to obtain a solid financial base and the stability to ensure activities in shaping government policies when it came to environmental preservation; the latter considered to be under increasing threat”. Naturalists around the province are indeed grateful to Dr. Dick Stace-Smith for his contributions over more than 50 years to improve environmental protection and public appreciation of nature.

Dick’s family has established a scholarship in his name at UBC to support the studies of undergraduate or graduate students in the Faculty of Land and Food Systems (Agriculture). Gifts are appreciated to this scholarship. www.memorial.supporting.ubc.ca/richard-stace-smith

References:

Photographs courtesy of the Stace-Smith Family
Focus on IBAs: Skookumchuck Prairie and the Issue of Solar Power

By Dianne Cooper

Most of the time, the Prairie in the northwest section of this Important Bird and Biodiversity Area (IBA) sits quietly unnoticed by humans. People drive quickly by on Highway 93/95, heading to work at the pulp mill or going between communities nestled in the valley. Their eyes are more likely drawn to the grand sweep of the Rockies dominating the eastern horizon, giving little notice to the fields and open stands of pine, nor the life abounding there at times.

Winter and autumn are especially quiet except for the foraging Rocky Mountain Elk, White-tailed and Mule Deer scraping off the thin layer of snow to reach the dried grasses below. How many humans notice the odd fresh mound of soil atop the snow? That’s evidence of the seldom-seen American Badger, surviving the winter by feeding on Columbian Ground Squirrels.

In the summer, humans enjoy their holidays at Wasa Lake Provincial Park in the southern section of the IBA. Little do they realize that the lake and the Kootenay River meandering nearby are also part of the Skookumchuck Prairie.

In spring, the local farmers in their tractors or the rural residents along Moan and Wolf Creek Roads may notice very subtle movement out on the Prairie. There, sweeping just above the top of the grass stems, is the small head of a large dusky brown bird, standing about 30 cm at the shoulders, striding gracefully and quietly through the bunchgrass. It’s not until the bird comes out to forage on the recently-tilled or greening fields where its namesake feature can be seen clearly. Here, the longest bill of any North American shorebird, (up to 22 cm), is obvious. This bill is useful for probing for earthworms, picking off alfalfa cutworms, or sweeping the grasses for insects. The bird’s full length of up to 60 cm and its wingspan of up to 89 cm can finally be appreciated as it flies about “curlew-ing” at competitors, ravens, or other threats. This is, of course, the Long-billed Curlew.

While the curlews are busy raising a family in the dry fields, over in the pine-dotted western section of the main Prairie, very few people notice the dozens of green-hued, dark purple birds with the pink-blushed breast quietly fly-catchinmg from dead or dying trees – the Lewis’s Woodpecker. This species doesn’t vocalize much, unless you are too near its nest. Also not often noticed are the Common Nighthawks migrating or nesting, nor Olive-sided Flycatchers passing through to higher elevations.

A significant population of Long-billed Curlew (SARA Special Concern, BC Blue-listed) was first recorded here in 1972 by long-time local naturalist Mildred White. In 1985, Penny Ohanjanian was tasked with discovering how important this area was for curlews. She found that the combination of native grassland and adjacent agricultural land was prime habitat for curlews. The size of the grassy fields and the shorter height of the grasses, made so by light cattle-grazing in the autumn and ungulates year-round, make predator detection easier for this ground-nesting Curlew. Adjacent agricultural fields provide good foraging for adults. Twenty-two pairs of this nationally-at-risk species were found, representing 1% of the Canada’s population at the time.

The Skookumchuck Prairie IBA was designated in the early 2000s for its value to curlew, as well as to Lewis’s Woodpecker (SARA Threatened, BC Blue-listed), and American Badger (SARA Endangered, BC Red-listed). It is the only IBA in the East Kootenays. Since then, it has sat quietly, the curlew population has apparently been stable, and perhaps has even helped seed populations nearby.

At the time the IBA was designated, Lewis’s Woodpeckers used a handful of traditional nesting trees along the forest edge but these are largely abandoned now. Much forest ingrowth was occurring, as in the whole of the Rocky Mountain Trench since European settlement, and looked likely to continue.

Habitat restoration work in this IBA was carried out from 1987 to 2013, most recently by the Rocky Mountain Trench Natural Resource Society. This has included cutting and removal of saplings, prescribed burning, understory spacing, and extensive harvesting of pine. Attention has been given to leaving trees suitable for Lewis’s Woodpecker. Open pine grassland has been restored on more than 1,300 hectares – with great success! In June 2016, on a short two-hour survey through a small part of the restored lands, the author found four Lewis’s Woodpecker nests with chicks. If you look at the “historical imagery” on Google Earth, comparing 2004 to 2014, the changes are dramatic.

Unfortunately, the online views of vast swaths of flat land have also been noticed by developers of renewable energy wishing to build utility-scale solar arrays. Since 2015, 10 applications for Crown land have been made to the Ministry of Forests, Lands, and Natural Resource Operations for the purpose of “investigating the feasibility of developing solar power generation facilities”. To date, all proposed solar array locations for British Columbia are in the East Kootenay and no other district.

The Land Office has granted, and the Regional District of East Kootenay has supported, three companies’ requests for approximately 6,200 hectares in the valley bottom. They can use this Crown land for five years to install equipment to measure

Con’t P. 18
The ecological health of the Skookumchuck Prairie is still evident. The return of birds like the Vesper Sparrow, Lewis’s Woodpecker, and 210 other bird species, along with the meadowlark’s song, are signs of spring. However, the snow has lingered, delaying this season.

The remaining curlew territories are half and half private land. The impact of solar arrays in their vicinity is unknown. The developers in the East Kootenay have no inherent legal protection. We attempt to protect them as best we can. They are an important part of the region.

The BC Nature Land Office received many comments about the solar applications. Many said that, while they support renewable energy, they believe these lands are more valuable ecologically as is rather than as electricity generators. Those comments were heard; the last two applications were rejected because they pose an unacceptable risk to an already endangered ecosystem (MFLNRO Reason for Decision). Any British Columbian can submit comments. Please write or keep writing to the Land Office and your representatives to tell them where you think solar arrays should and should not go, while there is still a chance to make your preferences perfectly clear.

This year, the Skookumchuck Prairie IBA will host the curlews with special attention. A researcher with Bird Studies Canada, Dr. David Bradley, is here to study them. With the help of specialist Dr. Jay Carlisle from Boise State University, Idaho, he hopes to attach satellite transmitters to four birds to document their migration movements and breeding chronology. At least 19 Long-billed Curlews have returned to the Prairie this year, finding it much as it has been for decades.

Record snowfalls have delayed spring almost everywhere in the province, including the East Kootenay. The sorrowful Western Meadowlark returned at their usual time, but there were no meadows for them in which to lark! They had to use the gritty roadsides for a while because the fields were still covered with a foot of snow! Now, in mid-April, the fields are finally snow-free and once again alive with the meadowlark’s powerful song. We impatiently await the arrival of the Vesper Sparrow, Lewis’s Woodpecker, and more of the 210 bird species recorded in this IBA. Their return and success are not only signs of spring but also that the ecosystem is still healthy.
A Living Fossil in Our Midst
By Alan E. Burger, President, Nicola Naturalist Society

One never expects to find a living fossil in one’s backyard, yet this little critter, about 25 mm long, is exactly that. Relatives of grasshoppers, crickets, and katydids, Hump-wing Grigs belong to the Family Heteroptera, and are members of a superfamily of insects that date back to the Triassic Period (200–230 million years ago). Most species in this group are known only as fossils but five species survive today, with very widespread distributions – one is found in Russia, one in India, and three species in western North America.

Two of these species occur in the British Columbia Interior. Cyphoderris buckelli is generally in hot lowland habitats with Ponderosa Pine or Douglas-fir. Cyphoderris monstrosa is usually at higher elevations in Spruce and Lodgepole Pine habitats. These two species are hard to tell apart. According to James Miskelly, a volunteer research associate at the Royal BC Museum: “For a positive identification you need to see the abdominal terminalia of a male”. A job for a specialist.

In the high-elevation spruce and pine forests where I live in the Kane–Voght Valley near Merritt, we get C. monstrosa. Every summer I find several of these charismatic insects in our garden or even inside the house. Their wings do not develop but remain as tiny stumps just behind the head-shield. Being flightless and lacking the muscular hind-legs of grasshoppers and crickets, these insects creep about in a rather humble manner. Hump-wing Grigs remain under the leaf litter most of the time, but in spring and summer evenings they emerge to climb up to feeding sites. C. monstrosa mostly climbs Lodgepole Pine trees (and sometimes other species) to feed on buds and male cones. The males also climb up trees at night to sing (stridulate) by rubbing their legs against their tiny stumps of wings, producing a loud, high-pitched trill up to two seconds long. This attracts females. C. buckelli is less of a climber – it feeds and sings in shrubs or low vegetation. If you are in the higher open pine forests in the dry BC Interior and hear singing at night from up in the trees, you don’t need to see the singer to know it is the monstrous living fossil – Cyphoderris monstrosa.


Book Review

We have all heard enough news stories in recent times about the expanding presence of ticks, and the serious diseases they can cause, to know that these little arthropods can present a problem to humans and other animals. The prediction is that in 2017 ticks will be plentiful, so this book may be very timely. It is an excellent reference for scientists and for the public when one encounters a certain species of tick and wishes to identify it, understand its life cycle, what diseases are thought to be associated with it, its natural history, and where in Canada it normally occurs.

Ixodidae and Argasidae are families in the order Ixodida, Phylum Arthropoda. Ixodidae are hard ticks with a dorsal shield and Argasidae are soft ticks. There are as many as 907 known species of ticks worldwide and 40 of these live in Canada. They are attracted to carbon dioxide most particularly, but also to host odours, sudden changes in light, temperature, and vibrations. They are unable to leap from the ground, or jump from trees, so they normally climb grass or brush and wait for a possible host to approach close enough to climb on them. Ticks are very hardy and can endure long periods of environmental stress. They are even able to survive without food (blood) for several years.

The black and white drawings in this publication show extensive detail of each tick species including male and female parts, larval stages, etc. Maps throughout the book indicate where species presently occur. A large portion of the book is devoted to keys to help identify species and provide some detail of each one.

A section of the book concentrates on diseases and the animals that are likely vectors, which geographic areas might be a cause for concern, how the disease presents, treatment, etc. Some ticks are known to carry pathogens including viruses, bacteria, and protozoans which can cause Lyme borreliosis, relapsing fever, tularemia, Rocky Mountain spotted fever, Q fever, Colorado tick fever, Powassan encephalitis, paralysis, and maybe others. Ticks are able to transmit microbes through saliva, coxal gland fluid, regurgitation, and feces.

Much more needs to be known about ticks in light of a changing climate: it is possible they will become more prolific and expand their ranges. Both humans and birds visit foreign locations and potentially transport ticks from one destination to another. It is also important to note that there are new pathogens discovered all the time, so consulting up-to-date information is advised.
The Vancouver Natural History Society is excited to invite you to join us during our centennial year for the 2018 Conference and AGM of BC Nature on the University of British Columbia (UBC) campus. This will be one of the many highlights of our year-long celebrations. Our theme is “Promoting Health in Nature: Past, Present, and Future.” Speakers will cover a range of thought-provoking topics regarding the importance and role of urban forests and parks to human health and in “Nature Play”. Current information on biodiversity strategy, restoration projects, and species at risk will be presented. We will also hear about the history of naturalist activities and how citizen science today makes a difference.

Inexpensive lodging is available in the student residences (Gage Towers) which will make it easy to join the early morning birding in the UBC Botanical Gardens. Many distinctive opportunities are available on campus, including behind-the-scenes tours at both the Beaty Biodiversity Museum, and in UBC Forestry Research laboratories. Nature walks are planned through the surrounding beautiful Pacific Spirit Regional Park, UBC Farm, and nearby at Jericho Beach.

Further afield you can explore the coastal marine environment via boat or join an intertidal walk. Other tours include Lighthouse Park (West Vancouver), Maplewood Flats Conservation Area (North Vancouver), and the Riverview Arboretum (Western Canada’s First Botanical Garden, in Coquitlam near Colony Farm). Be sure to leave time to visit the exhibit we are co-producing with the Museum of Vancouver.

The evening dinners are offered at two unique venues, Friday at the UBC Botanical Gardens and the Musqueam Cultural Pavilion on Saturday.

Look for complete details on activities and registration in the winter issue of BCnature, and later this year, online at both bcnature.ca and naturevancouver.ca. We look forward to exploring, mingling, and learning together.

School District 73 – Cariboo/Mainline Regional Science Fair was held April 7, 2017. There were more than 200 projects submitted. There were two BC Nature Awards of $75 plus a perpetual trophy given to the winners of this Regional Science Fair. I awarded Ty Butler from 100 Mile Elementary School the regional trophy and the BC Nature cash award for his project – “Organic Oil Absorber.”

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Look for complete details on activities and registration in the winter issue of BCnature, and later this year, online at both bcnature.ca and naturevancouver.ca. We look forward to exploring, mingling, and learning together.
The Trumpeter Swan Conference: November 2016

By Eric Marshall

The Trumpeter Swan, Cygnus buccinator, breeds in Alaska and Yukon during the summer and in the fall adults and their young head south. On Vancouver Island they arrive in early November and many stay on Vancouver Island for the winter, while others head further south into the United States. By late March they start their migration back to the breeding grounds.

The Cowichan Valley Naturalists’ Society and the Somenos Marsh Wildlife Society have, for the past eight years, counted the number of swans and geese found in our area. A similar survey is also carried out in the Comox Valley. The number of trumpeters at first increased and has now levelled off.

The Somenos Marsh Wildlife Society organizes a WildWings Festival in the fall as a way of welcoming the trumpeters to our valley. The Festival starts with an art exhibit where local artists are encouraged to display nature-related pieces. On the last weekend of the festival there are birding and nature walks in Somenos Marsh and the Cowichan Estuary.

In 2017 the Trumpeter Swan Society was invited to hold their annual conference in Duncan as part of the WildWings Festival and the BC Naturalist’s Foundation provided a grant of $1000 towards organizing the conference. The Trumpeter Swan Society is based in Plymouth, Minnesota, and aims to restore the Trumpeter Swan, which was almost extirpated in the 1930s, to its former numbers. There is a separate population of trumpeters in that part of the United States.

The conference, Swans and Agriculture Working Together, consisted of a public forum on November 18, 2016 and a dairy farm field trip on November 19. More than two-thirds of the 75 people who registered for the conference came from south of the border. The greatest success of the conference was bringing together a diverse group of stakeholders to discuss mutual concerns, opportunities, and limitations of existing programs in addressing wildlife depredation issues faced by the farming community. Tamara Leigh, a communications consultant who specializes in Canadian agriculture, moderated the forum. The speakers were:

• Oliver Balme who described the issues facing his dairy farm: there is not much that farmers can do to keep aerial or ground intruders from causing damage to their crops and existing government programs are limited in the compensation they provide.

• Christine Terpsma from the Delta Farmland & Wildlife Trust reviewed their programs and successes, which, in part, are due to their receiving a large endowment from the Vancouver Airport Authority.

• Graeme Fowler, project coordinator with the Comox Valley Waterfowl Management Project, reviewed their experiences. The local swan population has tripled over time, yet the valley remains an attractive area to farm. Graeme administers and delivers the BC Provincial Agriculture Wildlife Compensation Program to farmers on behalf of the BC Ministry of Agriculture. This compensates farmers for wildlife damage to forage crops grown as livestock feed.

• Tom Reid, the manager of the Vancouver Island Conservation Land Management Program, described this partnership program involving the management of more than 110 conservation areas on Vancouver Island, the central coast, and Haida Gwaii. Tom also described his experience working with local agricultural producers in managing areas for waterfowl, including over-wintering trumpeter habitat.

• Dr. Gary Ivey serves on the Board of the Trumpeter Swan Society and is their lead on Oregon’s Trumpeter Swan restoration project and works with the Rocky Mountain population. He spoke about the success and need for more collaboration between farmers and conservationists.

• Derek Masselink is the new Regional Agrologist with the BC Ministry of Agriculture in Duncan. He used the opportunity to introduce himself and to encourage farmers to contact him over any wildlife issues. He recognizes that it is a growing issue for local farmers.

For the field trip component, 52 people boarded a school bus to visit several Cowichan Valley dairy farms to hear from farmers experiencing wildlife damage to their crops. They expressed their thoughts, frustrations, and the ideas they had about reducing their financial losses to wildlife. The Somenos Women’s Institute provided a delicious locally-sourced lunch.

Efforts are now underway to establish a working group to bring farmers and conservationists together to incorporate some of the ideas that were discussed. They will be using the Delta Farmland & Wildlife Trust and the Ducks Unlimited Comox models to help introduce practices and programs to alleviate losses faced by farmers in the Cowichan Valley. The Somenos Marsh Wildlife Society have asked Derek Masselink to initiate this process.
Repeatedly I have been told stories about how one’s experience in nature as a youth has changed their life and has inspired them to pursue a career in science and nature. As naturalists we all work to inspire and connect others to enjoy nature with this hope. We are especially fortunate to be positioned to mentor people of all ages, to increase their knowledge of nature and encourage their interest in science. An example of this is participation as judges in Science Fairs; it fills a need and can be gratifying.

In Canada, there are a half million students participating in Science Fairs, with 5% of those nominated by their school to go to one of 100 Regional Fairs. Five hundred students across Canada are then nominated for the Canada–Wide Science Fair.

Students participating in Science Fairs likely have increased concentration and time management, research, communication, and presentation skills. These young people enjoy meeting their fellow science peers and science professors and are encouraged to attend university and keep asking questions. I hope all our members who enjoy time with young people share their knowledge of nature and assist students with their Science Fair projects. Three months, from December to March, (judging and awards in April) is the period to help, but mentoring can be anytime. You can make a great difference in a youth’s future!

Olivia Li, a Grade 11 student from Earl Marriott Secondary School in Surrey, and Elizabeth Schulz, a Grade 12 student from Fraser Lake Elementary Secondary, have both been successful at the Taiwan International Science Fair, held February 5–11, 2017. Ms. Li received a Bronze Medal in the Microbiology category for her project “A Novel Selection Process for the Conversion of Conventional Bacteria into Electrotrophs.” Ms. Schulz received a Silver Medal in the Animal Sciences category for her project, “Investigating the Effect of Coloured Light on the Behaviour and Learning of Lymnaea stagnalis.” Ms. Li (L) and Ms. Schulz (R) were accompanied by Jennie Copeland (M), chair of the Northern BC Regional Science Fair. (Photograph top right)

BC Nature supports BC Science Fair students with a $75 award to two students in each of the fourteen regions. We strongly encourage BC Nature members to attend their regional Science fair award ceremonies on behalf of BC Nature to present the award. Meeting the students and viewing their projects can be personally very satisfying. Are these youth our hope for the future? I believe so! †

Below are the list of winners and their topic for this year:

<table>
<thead>
<tr>
<th>Region</th>
<th>Student</th>
<th>Topic</th>
<th>School</th>
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<tbody>
<tr>
<td>Cariboo/Mainline</td>
<td>Kyle Wallace</td>
<td>Glaciers</td>
<td>Horse Lake Elementary</td>
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<tr>
<td>Central Interior</td>
<td>Kassidy Patrick</td>
<td>Exploring Phototaxis</td>
<td>St Mary’s</td>
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<td>Central Okanagan</td>
<td>Patrick Geertz</td>
<td>Is Any “Buggy” There?</td>
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<td>East Kootenay</td>
<td>Isaic Meulenberg</td>
<td>Contagion: A Disease Board Game</td>
<td>Parkland Middle School</td>
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<tr>
<td>East Kootenay</td>
<td>Hannah Brewer</td>
<td>Brewers Bees</td>
<td>The Fernie Academy</td>
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<td>Fraser Valley</td>
<td>Kevin Haver</td>
<td>Eagle Bodies</td>
<td>Dasmesh Punjabi School</td>
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<tr>
<td>Greater Vancouver</td>
<td>Joyce Xi</td>
<td>Drowning in Acid: The Effects of Ocean Acidification</td>
<td>Hillcrest Middle School</td>
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<tr>
<td>Greater Vancouver</td>
<td>Nerissa Kassis, Emmy Bos</td>
<td>Le carbonate de calcium: une remplacement aux retardateurs de feu</td>
<td>Kitsilano Secondary</td>
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<tr>
<td>Northern BC</td>
<td>Kyra Taylor</td>
<td>Hydroponic Forage: A Feasible Equine Feed Alternative</td>
<td>Energetic Learning Campus</td>
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<tr>
<td>Northern BC</td>
<td>Kolton Johnson, Kagan Wollen</td>
<td>Restore That Colour</td>
<td>Freedom Thinkers</td>
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<td>Northern Vancouver Island</td>
<td>Tristan Mardell</td>
<td>What Form of Weather Sampling is Most Accurate?</td>
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<tr>
<td>Northern Vancouver Island</td>
<td>Samuel Lawrence</td>
<td>A World Without Bees</td>
<td>Gold River Secondary</td>
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<tr>
<td>Pacific Northwest</td>
<td>Chloe Williston</td>
<td>Thar She Blows! Where To Find Whales And Dolphins On The BC Coast</td>
<td>BV Education Connection</td>
</tr>
<tr>
<td>Pacific Northwest</td>
<td>Wren Williston</td>
<td>What’s A Snail’s Pace? Are Snails Really Slow?</td>
<td>Muheim Memorial Elementary School</td>
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<tr>
<td>South Fraser</td>
<td>Cole Borntraeger</td>
<td>Pharmaceuticals in Wastewater, Duckweed is Salvation for the Environment</td>
<td>Southpointe Academy</td>
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<td>Vancouver Island</td>
<td>Anastasia Castro</td>
<td>Microplastic Ocean Pollution</td>
<td>Glenlyon Norfolk School</td>
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<tr>
<td>Vancouver Island</td>
<td>Emma Airwell</td>
<td>Oh Deer</td>
<td>Other</td>
</tr>
<tr>
<td>West Kootenay &amp; Boundary</td>
<td>Liam Ingram</td>
<td>Can We Fish Better?</td>
<td>Trafalgar Middle School</td>
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<tr>
<td>Yukon/Stikine</td>
<td>Robin Elliot</td>
<td>Bison or Caribou Temperature</td>
<td>Holy Family Elementary</td>
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<tr>
<td>Yukon/Stikine</td>
<td>Christine Ryan</td>
<td>Yukon Essential Oils</td>
<td>Del Van Gorder School</td>
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</table>

Below are the list of winners and their topic for this year:
The Lillooet Naturalists hosted the BC Nature AGM in the beautiful Fraser canyon and mountains around Lillooet this past May. Our itinerary featured hikes and walks, birding, bats, St’at’imc cultural tours, natural history presentations, a tour of our restoration work and native plant nursery, ethnobotany, a geology outing, wildflowers, an organic farm tour, a train trip (that turned out to be a very scenic bus trip), and more. Final registration was 158, with guests, volunteers and presenters swelling that number to 200 for the Saturday dinner, awards and presentations. We were pleased that our Mayor joined us for a number of the events.

Penstemon, Saskatoon, and Arrow–leaved Balsamroot were in bloom, and animals were singing and displaying, so visitors had opportunities to view them during their outings with our local experts. For example, a bat flew into Splitrock while we were talking about bats and a garter snake graced a Mock Orange bush for all to see on the Splitrock restoration tour. A Long–billed Curlew was seen on the back–country birding outing and Western Screech–Owls and Spotted Bats were heard in the evening after dark.

Local catering featured as much Lillooet grown organic food as possible. First Nations culture was woven into many of the events and we enjoyed a traditional welcoming at our meetings at Xwisten. Elder Bill Machell at T’it’q’et got the fire going in the winter house and visitors joined him there for that experience. First Nations guides joined many of the outings to offer their cultural expertise. We had all our knowledgeable naturalists on duty as well. Participants noted in their feedback that they very much appreciated this local expertise on their outings and that our passion for our ‘place’ was evident throughout.

There were presentations on butterflies and moths, fishers, grasslands, and wolverines. Local photographer Ian Routley wound up the events with a slideshow celebrating our biodiversity and beautiful natural landscapes. Awards included a surprise volunteer award for Lillooet naturalist Christine Galliazzo (see p. 11), and Bob Peart, the incoming President of Nature Canada, presented the 2016 Nature Canada Douglas H. Pimlott Award to George Scotter from Kelowna. See the Spring 2017 edition of BCnature.

Financial support for our activities was received from the Squamish Lillooet Regional District, our MLA, Interior Savings Credit Union, the Lillooet Foundation, and BC Hydro’s Fish and Wildlife Compensation Program. These contributions meant we could reimburse presenters and acknowledge volunteers generously. Thousands of hours of volunteer time went into the event and the community was supportive from the start. Feedback from the participants was very positive overall and noted the friendliness and hospitality of Lillooet. Local artisans donated items for the raffle and we added an Echo Meter Touch bat detector to sweeten the pot. Profits from the event are shared between the Lillooet Naturalist Society and BC Nature, and go into funds for ongoing education and conservation activities.
NatureKids BC Update
Kids Contribute to Citizen Science

By Louise Pedersen, Executive Director NatureKids BC

Citizen science – Crowd sourcing of conservation data by the general public is becoming increasingly popular, and has been shown to be an effective way to help youth learn about the environment, have a conservation impact, and connect them to their community – all while being outdoors. Last year, NatureKids BC launched the two-year long pilot initiative: “Bird Aware Cat Care: Youth Citizen Scientists Protect Birds and Keep Cats Safe in BC.” It is part of a national effort led by Nature Canada called “Keep Cats Safe & Save Bird Lives” and involves a number of other organizations, including the Stewardship Centre BC.

Canada’s bird populations are in trouble; some species have declined by more than 90%. These declines are mainly due to habitat destruction and climate change, but it is estimated that cats cause approximately 200 million bird deaths each year. With the help of our members, we’re trying to understand what some of the barriers are for keeping cats indoors and how feasible it is to use alternative strategies to reduce the risk of bird predation by free-roaming cats.

So what did we find? The results from the initial survey indicated that cat ownership among the 81 NatureKids member respondents is similar to that of Canadian households in general, approximately 35%. Approximately 82% of NatureKids member pet cats go outside, with 78% having unlimited access, or access for the majority of the day, to roam freely outdoors. Only 2.5% of respondents knew that an estimated 200 million birds are killed annually by free-roaming pet cats. The majority of respondents said that their cat “Never” or only “Sometimes” (86%) chases and catches birds. Fewer than half said that their cats never bring home dead birds. Approximately 36% had never use any sort of bird-catch deterrent on their cat.

The survey respondents with cats were invited to participate in an experiment which included three components: 1) control data on “normal” cat behaviour, 2) treatment data of cat behaviour while utilizing one of three bird-catch deterrents, and 3) bird observation data. The three experimental bird-catch deterrent treatments that were randomly assigned and tested included: 1) use of a brightly-coloured collar 2) use of a collar-bib or 3) attempting to walk cats on a harness and leash versus free roaming. In total, 13 youth from nine NatureKids nature clubs from across BC volunteered to be Junior Scientists.

Although our sample size and timing and duration of our experiment to date has not yet provided strong evidence for a reduction in bird predation through the use of three types of cat deterrents, our project has informed a large group of people in many communities throughout BC about this issue. It has also been informative for us regarding barriers that prevent cat owners from helping conserve bird populations as well as the need for continued education.

In Year Two, which started this spring, the pool of youth citizen scientists will be expanded by allowing non-cat owners to collect data on birds and cats visiting their garden and by including potential partner groups (including Scouts and Guides) through recruitment and engagement activities. As well, the experiment will be repeated during the critical spring/summer bird breeding season. After an extensive education and outreach campaign, a second online survey about members’ awareness, attitudes, and perceptions about the impact of cat predation on birds and other wildlife, and their willingness to modify their cat husbandry, will be conducted and compared with the results from Year One as one measure of success. Finally, a public education video and campaign, based on the two years’ worth of data, evaluations, and surveys will be created and distributed through the NatureKids network and partner organizations.

This project is undertaken with the support of the Government of Canada, the Vancouver Foundation, HCTF and the Gosling Foundation.

In other news: We have finally launched our new website (www.naturekidsbc.ca). Some of our favourite features include: Upcoming Explorer Days are viewable in calendar format, a blog keeps you up-to-date, it features all our volunteer nature club leaders, and it has a fresh, modern look. From the website, you can also sign up for our monthly e-newsletter, NatureKids Buzz, which lets you know what’s new and what’s coming up. Check it out!

Nature Club Updates:

New leaders:
• Cheri Naslund and Crystal Kean, Oceanside club taking over from long-time volunteer of 16 years, Alison Bakker – thank you so much Alison;
• Hayley Datoo, Comox Valley; thanks to departing leader Rene Jorgenson;
• Jenni Stol and Jen von Gradulewski, Nelson; thanks to departing leader Kristyn McIntosh;
• Katrina Conwright, Cowichan Valley – Krystle Fedak, North Okanagan;
• Crystal Wallace and Roxanne Wallace has started a NEW club in Merritt;

Looking for leaders for:
• TriCities, Prince George, Delta Home Learners, Kelowna, and Victoria ♥
Lookin’ Out My Backdoor: Nature Photography in BC
Mona Lisa Mornings
By John Warden

Walking along the seawall at Lochside Waterfront Park near Sidney-by-the-Sea, the air was warm and thick. Looking out over the water, a fine, misty haze softened my view of the southern Gulf Islands. It’s a Mona Lisa morning, I said to myself, thinking of Leonardo da Vinci’s masterpiece.

Da Vinci began his painting of model Lisa del Giocondo in 1503 and over the four years that it took him to complete his masterpiece, he introduced the sfumato brush technique. Sfumato is an Italian word that comes from sfumare, meaning “to tone down or to evaporate like smoke.”

Leonardo himself wrote in his notes on painting that ‘light and shade should blend without lines or borders, in the manner of smoke’. In his essay Leonardo and Sfumato, Alexander Nagel states that sfumato is not only a painting technique, but also the visual qualities produced by it: both the blending of tones or colours in gradations of imperceptible minuteness, and the effects of softness and delicacy this produces.

Neil Collins, editor of The Encyclopedia of Fine Arts explains further: “Colours or tones are blended by the artist in such a subtle manner that they appear to melt, one into another, without perceptible transitions, lines, or edges.” It is as if a veil of smoke has been placed between the painting and the viewer, toning down the bright areas and lightening the dark ones, so as to produce a soft, imperceptible transition between the differing tones.

I wonder what Leonardo would have thought of the high dynamic range (HDR) imaging that has become so popular in photography recently. In theory, toning down bright areas of a photograph and lightening the dark ones is the goal of HDR. Often though, the results are very disappointing; with over-sharpened, over-saturated images that bear no resemblance to reality. And that’s the thing. For da Vinci, sfumato was not a special effect. Rather, it was his attempt as an artist to portray more realistically what he saw as the infinitely subtle continuities of light and shadow that he observed in nature.

This isn’t to say that I don’t think that there’s a place in nature photography for bright colours and hard edges. Of course there is and those types of images tell a bold and dramatic story. Mona Lisa mornings though, give us a chance to explore the softer side of nature photography and those stories are written in poetry.

Let’s look at some of the words that are used to describe sfumato and then see how they apply to some of my photographs from around Vancouver Island.

References:
The BC Naturalists’ Foundation annually supports projects of BC Nature Clubs through the Club Support Grants program. In February 2017 the Foundation provided $14,000 to BC Nature to support projects for nine BC Naturalists clubs.

- Bulkley Valley Naturalists – Bulkley Valley Perpetual Nature Diary Project to promote an awareness of the rich diversity of wildlife that occurs in the Bulkley Valley, to showcase Bulkley Valley nature artists, and to get kids involved in nature through school art programs;
- Comox Valley Naturalists Society – Wetland restoration project to remove invasive plants, and replace them with native plants;
- Cowichan Valley Naturalists’ Society – Bring Back the Bluebird Project; a multi-year project aimed at re-establishing a breeding population of Western Bluebirds to their historic range in Cowichan Valley;
- Delta Naturalists Society partnering with École Secondaire Burnside Secondary School, Grade 10–12 – Environmental Studies course – Project to undertake naturalization of Chalmers Park by removing much of the existing, non-native, invasive plants such as large blackberry growth and replacing with native plants;
- Kitimat Valley Naturalists – Kitimat Bat Condos Project to replace a maternal bat colony roosting site which was lost when an old building was demolished. An estimated 1500 bats were displaced by the demolition;
- Langley Field Naturalists – Budding Bird Enthusiasts Brochure is a project to make available a comprehensive brochure with pictures and short descriptions of the birds in the Langley area;
- Lillooet Naturalist Society – Project to partner with the local conservation officer and the local angling groups to assist with tagging and monitoring to assess the population status of the Lillooet mid-Fraser River area White Sturgeon;
- Pender Island Field Naturalists – Membership brochure project to augment a recently-updated and professionally redesigned website that has been very successful and well received;
- Rocky Point Bird Observatory – Nocturnal Owl Migration Monitoring Project: An ongoing project started in 2002 that aims to understand the migration patterns and biology of the Northern Saw-whet Owl.

All these projects involve considerable volunteer time on the part of club members. In most cases the club support grants provide only a portion of the total project budgets, but the clubs are often able to use the Foundation’s support to leverage funds from additional sources. The successful clubs have all agreed to recognize the Foundation and BC Nature in publicity about their projects. The annual grant from the Foundation to BC Nature for club support is made possible through the investment earnings from the capital of the BC Naturalists’ Foundation. Over the 25 years since its formation, the Foundation has distributed nearly $175,000 in grants to BC Nature and its member clubs for conservation and education projects. As the Foundation’s invested capital grows, its earnings are able to provide increasing amounts of grants to support naturalists’ projects.

Regarding the appointment of members and election of Directors of the BC Naturalists’ Foundation, the Club Directors of BC Nature appoint the members of the Foundation and nominate its Directors. All current Foundation Director’s terms extend for at least one more year with the exception of Kees Visser whose term ended in May. Kees agreed to stand for re-election. The Foundation Directors elected all of its officers at its May 5th AGM. The Foundation welcomes new members, as appointed by BC Nature. The Foundation greatly appreciates the contributions and support from naturalists throughout BC. ◊
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photo by Jeremy Bensette
jeremybirder.com
The Feeling of Accomplishment

By Terry Taylor

To see a new bird. To stand on a new summit. To win the lottery. What do these all have in common? Fifty years ago, the Vancouver psychologist Dave Pellin summed it up with his theory that the driving force behind success is the feeling of accomplishment. Different people get it from different goals and stimuli, but the underlying drive is the same.

There is ample opportunity all around us for naturalists to find feelings of satisfaction, or we would not continue with our favourite activities year after year, and decade after decade. There is no denying the feeling of accomplishment for the birder when that new migrant is added to the list. The wildflower lover certainly has such feelings on coastal bluffs in the spring, and in the alpine meadows during the summer. For the mycophile the most wonderful time of the year is the arrival of the first autumn rains, with its promise of the mushroom season.

I distinctly remember that feeling one summer day on a naturalist outing through an old-growth Douglas-fir stand. An old veteran tree had fallen sometime within the previous few years. On the trunk was the Agarikon Bracket Fungus (Laricifomes officinalis). Having searched for it many times without success, I was elated. It is reputed to have medicinal value, and only occurs on old trees. There are few of these still remaining, and so the agarikon, previously common, is now rare.

Spring is a time we all look forward to, especially after the past winter. Everyone looks for their own indicators of its return. The migrating birds, the budding leaves, and the ephemeral wildflowers all come to mind. For me it is the liverwort Lophocolea. It grows on logs in our coastal forests. For most of the year it is very inconspicuous, its small pale green leaves closely appressed to the bark surface. In the early spring, however, it produces myriads of shiny black spore cases. These are held aloft on translucent stems about a centimetre tall. They are very ephemeral, but for the careful observer, they proclaim the promise of warmer days ahead. Look closely around you and you will probably find things you never knew existed.

During the summer after the snows have left the high country, there are many accomplishments beckoning. That is the time when the summits and all their beauty become available. It is hard to match the expanse of a large alpine meadow in full flower. Since the growing season is so abbreviated in the mountains, the plants need to flower profusely in a short period of time. Some species bloom right against the melting snow, while others come later after the snow has left, and the early bloomers have gone to seed. You can, however, often see both phases within a short hike of each other. On a shaded north facing slope where the snow remains, look for flowers such as anemones, snow lilies, and spring beauties. The south side of the same ridge may be covered by a field of blue lupines. These meadows are the moist sites. On the ridge crest we find the white and pink of the mountain heathers. Although most of the high country requires effort and fitness, there are a few places where the less mobile of us can drive to the alpine.

We all need mental stimulation, and naturalists are fortunate in that there is always something new to see or find, even in the most familiar of places. What aspect of nature gives you your feeling of accomplishment?

Dates to Remember – 2017

- June 2, 2017 – Rene Savenye Scholarship
- Manning Park Bird Blitz – June 16–18, 2017
- September 21–24 FGM – Vernon (NONC)
- September 4 – 7 Telegraph Cove Camp
- September 24 World Rivers Day

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June 2, 2017 – Rene Savenye Scholarship
Manning Park Bird Blitz – June 16–18, 2017
September 21–24 FGM – Vernon (NONC)
September 4 – 7 Telegraph Cove Camp
September 24 World Rivers Day
BC Nature Conference and Fall General Meeting
September 21 - 24, 2017
“Lake, Grasslands and Forests”
Hosted by North Okanagan Naturalists’ Club (NONC), Vernon

Thursday, September 21
1:30 – 3:30 pm  BC Nature Executive Meeting ......................................................... Monashee Room
4:00 – 6:00 pm  Club Directors’ Meeting – light dinner provided ........................................ Monashee Room
4:00 – 7:30 pm  Registration – Hotel Lobby with coffee, tea and mini-muffins

7:30 – 9:00 pm  “The Impact of Ranching on Our Grasslands” by Ken Mather ............... Sierra Room
Coffee, tea and cookies served following speaker

Friday, September 22
6:00 – 8:00 am  Early Morning Birding (pre-registration required) ....................... Meet leaders in hotel parking lot
7:30 – 9:00 am  Registration - Hotel Lobby with coffee, tea and mini-muffins

9:00 – 9:15 am  Welcome by NONC President, Harold Sellers & Okanagan Indian Band Elder, Mollie Bono
9:15 – 10:00 am “Pining for Home: Is Assisted Migration ‘Playing God’?” by Dr. Greg O’Neill ........... Sierra Room
10:00 – 10:30 am Coffee, tea and baked goods will be served ........................................ Sierra Room
10:30 – 11:15 am “Watershed Protection in a Dry Climate” by Jennifer Miles & Renee Clarke .......... Sierra I
“Crossing Home Ground: A Grassland Odyssey” by David Pitt-Brooke ........................ Sierra II
11:15 – noon  “How Wetlands Will Secure the Quality of our Future” by Carrie Nadeau ............... Sierra I
"Shrimp Fishing and other Related Issues in our Lakes” by Jason Webster ................... Sierra II
Lunch on your own
1:30 – 4:30 pm  Field Trips (pre-registration required) .............................................. Meet leaders in hotel parking lot

Saturday, September 23
6:00 – 8:00 am  Early Morning Birding (pre-registration required) ....................... Meet leaders in hotel parking lot
7:30 - 8:30 am  Breakfast on your own
9:00 - noon  Field Trips (pre-registration required) .............................................. Meet leaders in hotel parking lot

Noon  Soup & Sandwich Buffet Lunch will be provided
1:30 – 4:00 pm  BC Nature Fall General Meeting. Chair Alan Burger................................. Sierra Room
“BC Habitat Conservation Trust Foundation” by Brian Springinoto
Coffee, tea & cookies will be served

Free Time
6:00 – 10:00 pm  Banquet (pre-registration required) - “The Impact of Climate Change in the Okanagan” by Scott
Smith, Guest Speaker; Silent Auction Winners, Awards, Closing Remarks
No Host Bar throughout evening, Silent Auction (cash or cheques only)

Sunday, September 24 – Travel Home Safely
For delegates who would like to stay a bit longer and enjoy the area, two field trips have been arranged
9:00 am - noon  Field Trips (pre-registration required) .............................................. Meet leaders in hotel parking lot

For Your Information

Venue - Village Green Hotel, 4801 27 Street, Vernon  http://www.villagegreenhotel.com
Meeting rooms: Sierra Room (Sierra I / II combined)  Sierra I or Sierra II for smaller venue
Accommodation – block booking rate of $89 plus taxes at Village Green Hotel; for more hotels check www.nonc.ca
Early Morning Birding: Friday am - Swan Lake or Kalamalka Lake  Saturday am - Swan Lake or Okanagan Lake
Field Trips - meet leaders in hotel parking lot
Friday & Saturday: Allan Brooks Nature Centre, Bishop Wild Bird Sanctuary, Grey Canal, Kalamalka Provincial Park,
Middleton Mountain Park, Predator Ridge Resort Trails, Swan Lake Bird Sanctuary
Friday only: Kalamalka Forestry Centre   Saturday only: Aberdeen Wetlands  Sunday only: Rimrocks & Rail Trail
Please check NONC website for field trip descriptions www.nonc.ca

BCnature  Summer 2017 29
**Non-members must join BC Nature ($20 annual membership) or a Member Club to attend events**

<table>
<thead>
<tr>
<th>Options (GST &amp; gratuities included where applicable)</th>
<th>By July 21</th>
<th>After July 21</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Registration - all presentations, field trips, birding</td>
<td>$125.00</td>
<td>$150.00</td>
<td>$</td>
</tr>
<tr>
<td><strong>Note: does not include Saturday Banquet</strong></td>
<td></td>
<td></td>
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<tr>
<td>or Thursday Evening: speaker, coffee, tea, cookies</td>
<td>$20.00</td>
<td>$20.00</td>
<td>$</td>
</tr>
<tr>
<td>or Friday: early morning birding, speakers, field trips</td>
<td>$60.00</td>
<td>$70.00</td>
<td>$</td>
</tr>
<tr>
<td>or Saturday: early morning birding, field trips, buffet lunch, FGM</td>
<td>$80.00</td>
<td>$90.00</td>
<td>$</td>
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<tr>
<td>Saturday Banquet - Guest Speaker, silent auction, awards</td>
<td>$45.00</td>
<td>$45.00</td>
<td>$</td>
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</tbody>
</table>

**Amount Due - Please enter the total here**

**Will You Attend?**
- Directors’ / Executive Meeting on Thursday afternoon: _Yes_ ☐ _No_ ☐
- Early Morning Birding: _Friday am_ - Swan Lk ☐ or Kalamalka Lk ☐ _Saturday am_ - Swan Lk ☐ or Okanagan Lk ☐

**Field Trips**
- Please rank trip choices each day (1, 2 or 3) - will be assigned by order of registration & preference.
- Waitlists will be maintained to accommodate participants, but spots cannot be guaranteed once trips are fully booked.

<table>
<thead>
<tr>
<th>Field Trip Locations (offered on Friday &amp; Saturday, unless otherwise specified)</th>
<th>Rated</th>
<th>Rank Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fri</strong></td>
<td><strong>Sat</strong></td>
<td><strong>Sun</strong></td>
</tr>
<tr>
<td>1) Allan Brooks Nature Centre (Admission Fee - paid by entrant)</td>
<td>easy</td>
<td>n/a</td>
</tr>
<tr>
<td>2) Bishop Wild Bird Sanctuary</td>
<td>easy</td>
<td>n/a</td>
</tr>
<tr>
<td>3) Grey Canal - Silver Star Road to Rugg Road</td>
<td>easy</td>
<td>n/a</td>
</tr>
<tr>
<td>4) Kalamalka Provincial Park</td>
<td>difficult</td>
<td>n/a</td>
</tr>
<tr>
<td>5) Middleton Mountain Park</td>
<td>moderate</td>
<td>n/a</td>
</tr>
<tr>
<td>6) Predator Ridge &amp; Sparkling Hills Resort Trails</td>
<td>moderate</td>
<td>n/a</td>
</tr>
<tr>
<td>7) Swan Lake Bird Sanctuary</td>
<td>easy</td>
<td>n/a</td>
</tr>
<tr>
<td>8) <em>Friday only</em>: Kalamalka Forestry Centre</td>
<td>easy</td>
<td>n/a</td>
</tr>
<tr>
<td>9) <em>Saturday only</em>: Aberdeen Wetlands</td>
<td>easy</td>
<td>n/a</td>
</tr>
<tr>
<td>10) <em>Sunday only</em>: Rimrocks Trail</td>
<td>moderate</td>
<td>n/a</td>
</tr>
<tr>
<td>11) <em>Sunday only</em>: Okanagan Rail Trail - Kekuli Bay</td>
<td>easy</td>
<td>n/a</td>
</tr>
</tbody>
</table>

We recommend good walking shoes/boots, bring water, snacks & hiking poles (moderate-difficult levels).

**Plan to carpool. Are you able to share rides in your vehicle?** _Yes_ ☐ _No_ ☐

**How to Register**
1) **Registration and Waiver Forms** - available for download on NONC website: [http://www.nonc.ca](http://www.nonc.ca)
   - Registration Form - complete one form per person.
   - Waiver Form (read carefully & sign) - complete one form per person.
2) **Payment** - make cheques payable to North Okanagan Naturalists’ Club. Note: NSF Cheques will be charged $45.00.
3) **E-transfer Payment** - this option is also available. To enquire contact Ruth Drennan at [vernon2017fgm@shaw.ca](mailto:vernon2017fgm@shaw.ca)
   - If using E-transfer scan registration, signed waiver and email PDF documents to Ruth Drennan.
4) **Mail registration, signed waiver and payment to North Okanagan Naturalists’ Club, PO Box 473, Vernon, BC V1T 6M4**
5) **Registration will become effective on the date the payment and all completed forms are received.**
6) **Registration confirmations and receipts will be sent by email when possible.**
7) **Cutoff date for registration – August 22 or when maximum capacity is reached.**
8) **NO refunds after August 15. Note that refunds are subject to a $10 administration fee.**

**Program, Bird Watching, Field Trips, Hotels, General Information** – available on NONC website [http://www.nonc.ca](http://www.nonc.ca)

**Accommodations** – block booking room rate of $89 plus tax at Village Green Hotel [http://www.villagegreenhotel.com](http://www.villagegreenhotel.com)
North in the Spring – A Day in the Sage

By John Neville

I am going to write a series of articles exploring parts of British Columbia in the spring. Our route will start at the Washington border, and use Highway 97 as a rough guideline, rather like the needle on a compass, always guiding us north. If you have information or photographs to add please submit them to John Neville songbird@saltspring.com. Please label them Springtime.

Several years ago, after ascending Old Richter Pass near Osoyoos, we entered a protected area, following parallel tire ruts across several cattle guards. It was a beautiful early morning among the sagebrush, with Western Meadowlarks and Brewer’s Sparrows declaring their territorial rights. I was soon out amongst the lonesome sage, microphone in hand. Brushing against twigs the aroma filled my nostrils. The land began to rise steeply and I heard a thin, slightly hoarse song with very little pitch change. It was not a Lark Sparrow. Perhaps a rare Bell’s Sparrow! The old name, Sage Sparrow, seemed more appropriate. The range of the Bell’s Sparrow only just enters into Canada. The bird began to move further away, up the slope. This brown-gray bird ran between the sage and rocks ahead of me. He allowed me to record his song from a distance. Without much thought I continued to ascend after the bird, until the slope became a cliff. Using one hand and two feet I climbed, while holding the microphone in the other hand. When I reached the top I sat down on a rock to catch my breath. Instantly I was challenged by loud barking. Although the Coyote seemed aggressive, there was no way I could quickly retreat down the cliff. I simply stayed still and turned on the recorder. Later I learned that this was the alarm barking of a male Coyote protecting his den.

In the afternoon the hot sun caused thermals to rise to the wind to blow. I used a camp seat amongst the sage to try and record the Brewer’s Sparrow. The wind was a problem, so I kept my earphones on to record between gusts. In the distance I could hear cows mooing. Suddenly I was alarmed by the loud bellowing of a bull. The ground began to shake as a herd of animals stampeded towards me! Gathering up my equipment, headphones flying behind me, I ran down the track towards our jeep. Heather was writing a letter and surprised to see me as I slammed the car door. Ten seconds later large bulls passed on either side of the vehicle. The bulls were quickly followed by 50 cows and five cowboys on horseback, complete with chaps, whips, 10-gallon hats, and dogs! It was a real cattle drive.

Sometime later I was again out on the trail when a single rider approached. He was herding one bull and was curious about what I was doing on his ranch? I explained my equipment and our belief that we were in a Protected Area. There were certainly no signs. He quickly became very friendly and welcomed me, as long as I respected the land. He also explained to me about the Coyote den on top of the cliff. He had been up there that morning and seen the cubs. I enjoyed meeting a rancher with such a positive attitude towards wildlife.

Two weeks later we stopped in the same area and from about 10 metres away, two young coyote cubs emerged from the sage. Join us next time, heading North in the Spring.

Volunteers Needed

CAMPS – BC Nature needs a few volunteers to assist us to organize Camps. What’s involved? Time to make phone calls in setting up a camp by arranging accommodation, meal planning, outings and speakers in conjunction with a sponsoring BC Nature club or the camp committee. If you are interested and need more information, please email Heather Neville – Camp Coordinator at songbird@saltspring.com.

SOCIAL MEDIA – One volunteer to commit to two or three hours per month to assist with updates to the BC Nature Facebook, Twitter and some website updates. Training included! If interested, please email Betty Davison, Office Manager, BC Nature, manager@bcnature.ca
Spotlight On Distinguished Naturalist Mentors

A mentor is a nature enthusiast who helps to make our motto “Know Nature and Keep It Worth Knowing” with emphasis on youth. A mentor devotes time to educate our budding naturalists and scientists by providing services such as tours, lessons, slide shows, camps, Science Fair guidance, Scouting, Guiding, and nature appreciation.

Nature Mentor: Liz Walker

Liz Walker has always taken the second half of our motto about nature, “Keep it Worth Knowing” very seriously. From early days with the Western Canada Wilderness Committee and the Surrey Environmental Coalition, to her role now as President of the White Rock and Surrey Naturalist Club, she has demonstrated a fierce commitment to conservation. The number of hours Liz has spent in meetings and presentations and public hearings are impressive!

Equally impressive, however, is that early on she realized the importance of reaching out to young people and sharing her understanding and love of the natural world. From the early 1980’s with the Western Canada Wilderness Committees Boundary Bay Birdathon to her role as Education Committee Chair of the White Rock and Surrey Naturalist Club, she has found innovative ways to involve children in learning about and appreciating our local flora and fauna. Thousands of school children have benefited from her intertidal explorations at Crescent Beach and 1001 Steps in Surrey, and come away with an understanding of the importance of beach etiquette, along with an exciting new appreciation for the critters that occupy that zone.

Often when we have information booths at festivals and fairs, they are geared toward adults and are a trifle boring. Liz has developed several displays over the years that truly engage and allow children and adults to participate actively in learning about such topics as pollination. Her combination of creativity and genuinely welcoming manner is a powerful one.

An effective mentor is someone who both teaches skillfully and models by their example. Liz does this well and has done it for an impressively long time!

Nature Mentor: Anthea Farr

Many BC Nature Naturalists mentor in their community, in the schools and as leaders with NatureKids. Anthea Farr is one very special Naturalist Mentor who has contributed so much of her time and knowledge to connecting youth to nature in these many ways over decades in the Fraser Valley. Anthea has been a co-leader of the Nicomekl NatureKids Club (Surrey, Langley, Delta, White Rock area) for more than 15 years! In Anthea’s own words, “I think it’s very important to connect kids to nature. Even kids already keen about birds, or mammals, may have little knowledge about plants, or bugs, or other parts of nature.” My co-leaders and I try to present a wide variety of Explorer Days, so the kids get a more complete picture of how everything is connected. For example, it is very satisfying to know that one of our NatureKids members can now name four native ferns, and is teaching other kids in their school something about botany”. And, upon the benefits of being a volunteer, Anthea says one gets “a feeling that you are doing something really worthwhile, which could help the planet in the future. And you can actually get energy from the enthusiasm of these kids. Plus you will learn from others, big and small – that never stops”. BC Nature and NatureKids wish to acknowledge Anthea Farr for her generous dedication as a volunteer mentoring youth in BC.

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