



"Know nature and keep it worth knowing"

The Magazine of BC Nature

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The Pitt-Addington Marsh is several miles down Rannie Road in Pitt Meadows. The marsh has the Pitt River on its west side and Pitt Lake at the north end, and is surrounded by mountains. In short: it is an area of extreme beauty.

The terrain caters to all levels of hikers/walkers. According to *All Trails* the elevation gain is a whopping 16 m, and yet it feels as if you are walking in the mountains. Every corner you turn there is another stunning view.

Tineke Goebertus

We reserve the right to edit submissions for length, style, and clarity.

All article references can be found in the digital edition of this magazine.

Objectives of BC Nature (Federation of BC Naturalists)

- To provide naturalists and natural history clubs of B.C. 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 among natural history clubs throughout B.C.
- To provide a means of communication between naturalists in B.C.

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President's Report

Recent projects in the news: if only things were either black or white!

Author - Nancy Flood

Lots of projects with an environmental impact—some good, some bad—have been in the news over the last few months. Listening to, and reading emails from, members of various BC Nature clubs, including my own, I've been struck by the diversity of opinions that can exist about the benefits or drawbacks of such projects—even when a simple read of the situation would seem to place them clearly in either the “good” or “bad” camp. Let's look at a couple.

First the bad news. As you doubtless know, in 2023 the Roberts Bank Terminal 2 (RBT2) project received government approval despite decades of vocal opposition from scientists, conservation groups, and individuals, as well as some municipal governments, First Nations, and unions. The deleterious effects of this project are many and well documented (<http://tinyurl.com/mrpcej2w>). Among other things, it will destroy or degrade habitat used by migratory species, including young salmon and many types of birds, especially Western Sandpipers. The noise and light from increased tanker traffic will negatively impact the ability of endangered Southern Resident Killer whales to hunt and communicate via echolocation—and of course, negative effects on fish populations will reduce their food supply. In April 2023 the federal Cabinet decided that the needs of “the public” were more important than these issues and the province fell into line in September, noting that since most of RBT2 would be on federally owned land, they had little control. These decisions “gobsmacked” many of us; Roger Emsley, formerly BC Nature's (BCN) Special Representative on RBT2, called it a “looming environmental disaster” (<http://tinyurl.com/yrj3succ>).

The feds did place 370 conditions on the project and the province placed 16 more. But few of those opposed to it think that these will have much effect. Hope now lies in two challenges to the project that will go to court this year—perhaps before June. One is from a coalition of environmental groups and will be brought forward by Ecojustice. They argue that the decision to move forward contravenes the Species at Risk Act; their goal is to ensure that the law created by the act is taken seriously and cannot just be ignored by whatever government is in power. The second case is being brought by the Lummi First Nation whose territory is just south of the border; they say that Canada failed in its obligations to include them in consultation process.

I'm sure most of us see RBT2 as a potential negative mark on Canada's environmental record. But it does have proponents: some don't care about the negative effects, and some think that the damage can be avoided or successfully mitigated. Twenty-six of the 48 First Nations that are affected, either in the port area or in territories that will be affected by the increased tanker traffic, have signed on to the project, signaling at least official (if not unanimous on the part of all members) support. There are always two sides to a story, which is what often makes for “battles”.

There are also good news stories, of course. One is the Draft BC Biodiversity and Ecosystem Health Framework, released by the government in November of 2023. Of this Framework, Peter Ballin, chair of the BCN's Conservation Committee writes that “We have never before experienced such a positive environmental outlook in government policy, which places conservation above extraction.” As you can read in his report elsewhere in this magazine, however, there are still concerns; does the government really understand what it has proposed? Will the citizens of BC, especially those that manage resources in both the public and private sectors, be able to “get” it? Education is clearly in order, as well as the creation of laws that can effectively translate the Framework's policies. So, it's not a perfect picture! Still, I urge you to read this section of the Conservation Committee report, which concludes with this ringing, hopeful sentence, “The enactment of this framework creates an opportunity for British Columbia to stand as a world leader for the preservation of a healthy planet.”

Another good news story is the Municipal Protected Areas Program (MPAP). This is designed to help achieve the 30 X 30 goals (i.e., to set aside 30% of land and water area for conservation purposes by 2030) announced by the Canadian government in December 2022 (at the COP15 meeting in Montreal). In recognition that not all protected areas need to be in wild places, the MPAP helps municipalities contribute by identifying areas with their boundaries that meet certain criteria. Again, as you can read elsewhere in the magazine, Kephra Beckett, BC Nature's Conservation Coordinator, has

Continued from page 3

been working hard on the MPAP, and successes are starting to accumulate; several cities have signed on and others are ready to do so. This is good news: many non-human species will benefit and people who can't get to more distant wild places (because of cost, accessibility issues, etc.) can still get their nature "fix." This may be especially important in light of new provincial legislation to promote more housing via increased density. More housing is vitally needed but we also need urban green spaces (<http://tinyurl.com/bdhzb4fw>).

But the MPAP makes some people worry. Protecting areas in municipalities might just be an easy way to get to 30%—and some wilder areas of particular importance for biodiversity might thus not be protected, such as habitats where some endangered species are found. In addition, ecotypes such as Coastal Douglas Fir, Interior Cedar

Hemlock, Ponderosa Pine and Bunchgrass, which are considered by many to be under-represented in BC's current protected areas, are not typically found in or near cities. There is also concern that some municipalities might designate areas under the MPAP, and then despite good intentions, not allocate sufficient funding or staff to properly manage them. Again—perhaps not a perfect situation.

So, all stories have two—or more perhaps—angles. I think that by listening carefully to those on the "other" side, or those who raise arguments against what we might think is perfectly straightforward, we can learn a lot. It might help us strengthen our own arguments and do a better job of defending our position. And it can't help but make us more compassionate—always a bonus!♥



Editorial

Author - Peter Ballin

The Humble Naturalist

It's hard to write about humility without seeming arrogant...but I'll try. My thesis is that deepening our humility allows us to be better naturalists, which, in turn, deepens our humility and helps us better define our place within nature. This happens to be a deeply personal never-ending journey, a journey of

learning and joy, and one that has no endpoint. For the summer edition of *BCnature*, I hope to share another article, *The Humble Environmentalist*, sorting out facts, and meeting the challenge of reconciling emotions with rational thought and effective activism.

Working Concept: the onion

We have all encountered the concept of unpeeling the onion. In an onion, each layer represents an integrated array of cells added with growth. I use the onion as a metaphor for our worldviews. Each time the word "onion" appears in this essay, it means take the necessary time to peel back a layer of your current way of seeing things in order to allow for a subsequent layer to emerge, moving to the next level of understanding. Which brings us to our next concept: understanding.

Concept Two: understanding

Most of my formal education lies in science. To be a scientist one must be ignorant. Otherwise, why would one embark on a quest for knowledge and understanding? But how much do we really understand? Just what is the knowledge that contributes to understanding? Do we really know or is it something that we have read or heard? Herein lies an apparent paradox. Our culture(s) persists through the transmission of what our ancestors believed, discovered and made, with obvious survival value (and sometimes not). We absorb this culture and think that we know and understand. We also have personal experiences that lead to knowledge

and understanding. Do our understandings and knowledge stay apace of our dynamic/ changing ecosystems? Can we modify the prescriptions of our lenses? Onion.

Concept Three: history
Naturalists study natural history. By contextualizing the present with a look to the deep past we may better understand today. We need to seek understanding of long-ago ecosystems and species to more deeply understand our present surroundings, and to look forward with some prescience. Most of us reference history to our lifetimes, meaning that our orientation points are pretty darn recent, even for us older folk. Do you ever wonder about what your home site or favourite nature spot looked like two hundred years ago, never mind centuries or millennia ago? Shifting baselines define normals that may not be. Onion.

So here comes an exercise to try. An opportunity to modify the prescription of your lenses. Take a solo field trip. You needn't go far; even a nearby yard or park will do, but it's better if it's a quiet spot. So

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dress comfortably for being still, and away you go!

- Stop walking at a place that appeals to you. Sit down if that's comfortable for you.
- Take a deep breath or several; quiet the mind and body and observe.
- Try using your eyes like camera lenses:
 - - Wide angle
 - - Telephoto
 - - Macro
- Onion. Look until you see, then look some more.
- Close your eyes if you feel comfortable doing so, and listen until you hear, then listen some more.
- Sniff the air until you notice smells, and then sniff some more.
- Touch what's around you (open your eyes to check for safety!)
- Onion. Consider yourself a witness.

If you add journaling and/or photography to this exercise, you will likely further expand your horizons. Enter notes, prose, poems, sketches,

reflections or whatever strikes you. Vicky Earle's new book, *Exploring Vancouver Naturehoods* (Midtown Press, 2023) may assist you in deepening your nature connection (even if you don't live in Vancouver). What you gather is knowledge and possibly teachings. You may also emerge with questions, whose answers may lead you to knowledge, understanding, and more questions.

Realize that you are an integral part of the place that you chose, as sure as molecules in you are temporary residents and will cycle back through the animals and plants and microbes around you. A recent Scientific American report quoted Daryl Van Tongeren, a psychology professor at Hope College: "When you limit yourself to only doing things the way you've always done them, you miss out on countless opportunities for growth, expansion, and novelty, and the things that strike you with awe, fill you with wonder, and make life worth living." ♡

Conservation Committee Updates

Authors - Peter Ballin and the Conservation Committee

I'm pleased that in recent months several clubs have posted their local environmental concerns to the Conservation Committee. A number of our members responded, and hopefully provided useful advice. Can we do the same for your club? Would your club like to have representation on the BC Nature Conservation Committee, so that we better represent your conservation interests?

In this issue we report to you about:

- BC Biodiversity and Ecosystem Health Framework
- Municipal Protected Areas Project (MPAP)
- Fish, Wildlife, and Habitat Coalition
- Old Growth Forests
- Wolves and Bears
- Mountain Caribou
- Marbled Murrelets
- Coastal Marine Strategy
- Baynes Sound
- Roberts Bank Terminal Two
- Tilbury LNG Plant
- Sakinaw Lake Sockeye
- Pink Mountain

BC Biodiversity and Ecosystem Health Framework

- In mid-November BC Nature wrote to the premier and several ministers expressing our appreciation of this monumental document. We have never before experienced such a positive environmental outlook in government policy, which places conservation above

extraction. We also expressed concern about achieving the goals of formal protection of 30% of B.C.'s

lands and waters by 2030 and 50% by 2050, and our remaining old-growth forests. We made a number of suggestions that you can read here:

<http://tinyurl.com/mmfm9e7c>

On January 29 we submitted a detailed response <http://tinyurl.com/38h6yjcr> to government indicating what BC Nature supports, where we have concerns, and what we suggest. We like the tone of collaboration and the paradigm shift of placing ecosystem health above all else. We have concern about whether government understands the difference between anthropocentric and ecocentric lenses, and how policy will be translated into effective laws and rules. We suggested some rewrites for clarity and meaning.

These are the headings in the draft:

1. Ecosystem Health and Biodiversity in B.C.
2. Purpose
3. Principles to Guide Our Shared Path Forward
4. Foundation
5. Actions
6. Conclusion and Next Steps



Photo: P. Ballin

White-Crowned Sparrow

You can read the draft framework here: <http://tinyurl.com/37uwzyru> Under “Actions”, the framework postulates three “pillars”:

Pillar 1: Taking a whole-of-government approach that demonstrates vision, leadership, and integration: including setting ecosystem health and biodiversity objectives and standards that apply across sectors, and integrating and aligning provincial government decision-making, policies, processes, and legislation that affect ecosystems.

Pillar 2: Fostering and supporting a broader whole-of-society approach that facilitates individuals, organizations, private sector, governments, and communities to conserve and manage ecosystem health and biodiversity and to advance sustainable communities and economies.

Pillar 3: Adopting an open and transparent process through evaluation, reporting, continuous collective learning, and adaptive management.

BC Nature suggested that we:

- Emphasize ecological education for all those involved: politicians, bureaucrats, stakeholders, and the public, so that we understand and share a common vision.
- Enlist the latest technologies to ensure that we deploy the most appropriate tools to achieve our goals.
- Recognize and act immediately on critical cases of endangerment:
 - Move quickly to protect those ecosystems most at risk.
 - Draft and pass a B.C. Species at Risk Act.
- Chart a clear path for effective communication between ministries and levels of government.
- Entrench the Office of Biodiversity and Ecosystem Health so that it is not subject to political whim.
- Expedite conversations, especially with Indigenous groups, which lead to swift enactment of laws.
- Clarify parameters for the establishment of Indigenous Protected and Conserved Areas (IPCAs) so that they become part of this

framework. Those IPCAs that protect rare and endangered ecosystems and species should receive priority.

The concluding paragraph of our response: We

cannot emphasize strongly enough that the proposed paradigm shift is monumental and requires extensive education to engage all of us. The policies, laws and rules that follow will not only regulate industry, and preserve biodiversity and ecosystem health: the new paradigm represents a moral shift from self-interest to concern for the common good of our people and our land for generations to come. The enactment of this framework creates an opportunity for British Columbia to stand as a world leader for the preservation of a healthy planet.

Municipal Protected Areas Project (MPAP) – Kephra Beckett, BC Nature Conservation Coordinator

Over the past quarter, significant strides advanced the Municipal Protected Areas Project with expanded collaborative efforts and increased uptake by local governments. One key highlight: the ongoing communication with Biosphere Reserves who are working on a similar project focused on Other Effective Conservation Measures (OECMs). OECMs are areas that meet the same standards as a Protected Area, but the primary purpose of the space is for something other than conservation of biodiversity (e.g. watersheds). Through a series of local gatherings and online regional meetings, we have been aligning our conservation strategies with the Biosphere Reserves, aiming to optimize efforts and mitigate redundancy.

We are now actively working on assessments of protected areas for three municipalities (location details are being kept private until final submissions are completed), and preparing to begin work with two-four new municipalities in the next few months. Once a local government has officially signed on to the project, we are contacting the relevant local clubs’ representatives to provide more specific details, such as dates of upcoming delegations, and opportunities for involvement.

Already we have increased participation from local governments three-fold from what we completed last year. With a momentum-building start to the year, BC Nature staff attended an annual gathering in Toronto in February, convening with other coalition organizations to strategize for the upcoming year. Additionally, monthly meetings with Environment and Climate Change Canada (ECCC) have been pivotal in maintaining synchronization with national conservation objectives and addressing emerging challenges proactively

Fish, Wildlife, and Habitat Coalition - Ben van Drimmelen Much of my winter volunteer time involved bi-weekly meetings with representatives



Photo: U. Easterbrook

Snow Geese in flight

of some 27 organizations of the Fish, Wildlife, and Habitat Coalition of non-government organizations. The focus was preparing a submission for the provincial government’s Biodiversity and Ecosystem Health Framework initiative and related proposed amendments to the Wildlife Act. In addition, I participated in a Stakeholder Wildlife Dialogue session hosted by the Minister’s Wildlife Advisory Council.

In November BC Nature signed on to a letter from the Coalition to George Heyman, Minister of Environment and Climate Change Strategy and Lana Popham, Minister of Tourism, Arts, Culture and Sport to support Wildsight’s request for an Environmental Impact Assessment of the Zintcon All-Season Resort development in the Central Selkirk Mountains. These mountains are home to sensitive wildlife populations such as Mountain Goats, Wolverine, Grizzly Bears, and Mountain Caribou that have been disturbed and displaced by intensive exploitation of the backcountry. The letter cautions that potential unmitigatable adverse impacts will significantly contribute to the cumulative effects on an already heavily impacted landscape.

I devoted some time to drafting a potential policy on BC Nature support for proposed two to four additional protected areas as B.C. works up to protecting 25% of government-administered land by 2025 and 30% by 2030. I propose that we actively support only proposals that include several ecotypes that are badly under-represented in our current protected area network. (We would take no position on proposals that did not include those.)

Old Growth Forests - Several members of our committee have been monitoring the progress of ancient forest protection. Even though B.C. is leading the way among provinces and territories, having conserved 19.6 % of land in the province, concerns remain. Canadian Parks and Wilderness Society reports that:

- Less than one third of Old Growth Management Areas (OGMAs) in B.C. is actually old-growth. What the B.C. government counts as ‘protected’ and uses to conserve biodiverse old-growth forests do not meet



Photo: B. Robson

Grizzly Bear

conservation standards and contain little old-growth.

- By area, the majority (58 %) of legal OGMAs are young forest.
- Active forestry cut blocks overlap 27,300 hectares of legal OGMAs in the province, an area 68 times larger than Stanley Park.
- 37 % of the approximately 22,000 legal OGMAS in B.C. do not contain any old trees.
- Boundary changes permit logging.

This *Narwhal* article provides a good summary: <http://tinyurl.com/32h85e4p>

Wolves and Bears - Jacqueline Sherk

Wolves: By the time this edition reaches us, winter will be near its end, and hence so will the government’s annual wolf cull, if only for another year. Winter is the time of year that the wolf cull actually takes place, and this is due to snow cover in the high country. Snow cover allows helicopters to locate and zero in on wolves – they are much easier to find and chase down against a blank canvas of snow. More than 1900 wolves have already been exterminated in the last eight years (at a taxpayer cost of more than \$10M) as part of the province’s Caribou Recovery Program. The program is purported to prevent extirpation of Woodland Caribou herds, but it is clearly a scapegoat that our government uses as it continues to permit all manner of industries year after year in critical caribou habitat. Wolves, being wolves, not to mention other predators as well, take advantage of all the clear cuts and logging roads to gain easy access to the herds.

Bears: The year 2023 saw the highest number of Black Bears killed (603) by Conservation Officers in B.C. in the last 10 years, and this number reportedly doesn’t always include cubs. Bear advocates are calling on government for greater scrutiny of the Conservation Officers, saying that the number of deaths reflect poorly on how the province values wildlife, and that the high number of deaths highlights the need for oversight and an audit of the Conservation Office Service.

BC Hydro suddenly cancelled its plans to begin filling the Site C Dam reservoir in November last year, which brought huge relief from conservationists and concerned citizens across the province who had become aware of the issue of bears hibernating in the 128 km flood zone. The filling of the dam would have drowned both Black Bears and Grizzly Bears in their winter dens. Hydro said it planned to remove the bears using traps or snares to capture, tranquilize and place the bears in artificial dens made of plywood and

straw bales located several kilometres away. While it was welcome news that the bears' hibernation period wouldn't endure such a disturbance, and would even be likely to result in mortalities, many voiced opinions that the plan appeared to be an afterthought and showed a disregard for the animals in the planning of the project, already eight years in the making. The Wilderness Committee noted that there are at least 24 known active bear dens in the area.

The issue of bear den protection amounts to even more concerns than the Site C dam example. In many areas, Black Bears experience a critical loss of dens due to old-growth logging and land clearing for resource extraction. Such is the case on Vancouver Island where one family in Duncan this past fall discovered a Black Bear hunkered down under their back porch where it had been living unknown to them for several weeks before it was discovered.

It's worth reiterating from our Summer 2023 publication that there is currently no protection for Black Bear dens in B.C. other than on Haida Gwaii and in the Great Bear Rainforest. The B.C. Green Party has twice proposed legislation to ensure protection for bear dens as part of the Wildlife Act, but that proposal has yet to reach a second reading.

The Grizzly Bear Stewardship Framework (GBSF) and Commercial Bear Viewing Strategy drafts proposed by government in July last year were closed for public comment at the end of October. One item of particular concern in the proposal for the Great Bear Rain Forest was the suggestion that responsibility for Grizzly Bear management could be changed from provincial to regional boards. Scientists and conservationists then raised concerns that regional boards might take the prerogative of opening up hunting of the grizzlies in areas of their jurisdiction.

Grizzly Bear hunting, i.e., sport/'trophy' hunting, has been banned in B.C. for more than five years, but is still considered a contentious issue because hunting groups such as the BC Wildlife Federation, with a membership of some 43,000, have openly stated that they fully support a return of trophy hunting of grizzlies. As stated in a letter from the Ministry of Water, Land, and Resource Stewardship to BC Nature in January this year, "the hunt remains closed to all licensed hunting and there are no plans to re-open the Grizzly Bear trophy hunt". The letter also clarified "that Grizzly Bear stewardship would not be delegated to regional committees composed of hunting and trapping groups, and that the proposed regional structures would only be on an advisory, not

decision making basis".

Mountain Caribou - Joan Snyder

The Columbia North and Central Selkirk populations census yielded low sightings due to last year's very low snowpack. Snow levels so far this year do not bode well for sightings on this year's survey.

The 2023 census for the Central Selkirk herd was conducted on February 23-24 and completed on March 9, with snow levels at 76% of the mean for late February. More snow is needed to get the caribou up and above the trees so that the March 2024 survey can count how many of the calves from the maternity pens survived to the age of 10 months. The total population of the Central Selkirk herd stands at 25 animals, with eight new male calves and one new female calf. In spite of the small decline from the previous census, the biologists have high expectations that numbers will grow for 2023/24, based on the maternity pen's success in increasing calf survival and the hope that predator management can continue to control mortalities from cougars and wolves.

In the July 5, 2023 B.C. Caribou Recovery Program Update the Partnership Agreements are seeking approval from the Cabinet to initiate engagement with First Nations and stakeholders. The Central Partnership Agreement Land Use Objectives (LUOs) call for a Habitat Restoration Implementation plan. The priority areas of this plan have been identified and the report and mapping products should be finished by this summer. Phase 2 of the plan will begin in the fall.

Marbled Murrelets - Alan Burger, Greg Ferguson and Peter Ballin

The Marbled Murrelet is an endangered migratory seabird that nests in coastal old-growth forests and is listed as Threatened in Canada. Past BC Nature president Alan Burger made most of a career studying these birds, which nest high up in large old trees. Males and females alternate feeding at sea with nest duties. The nests are very difficult to spot, thus habitat protection based on identifying individual nests alone is ineffective. The Migratory Bird Act protects only nests and not the wider habitat the birds require, but the Species at Risk Act (SARA) is supposed to protect critical habitat.

Last November, the Sierra Club of BC and the Wilderness Committee partnered with Ecojustice to take the federal government to court to advocate for the protection of migratory birds and their habitats across Canada...and won! See page 10, Ben van

Conservation Report continued from page 8
Drimmelen article regarding this court case! What is "critical habitat" for endangered or threatened species?

Some links to this good news:
<http://tinyurl.com/4tnb33ya>, <http://tinyurl.com/98hhrpja>, <http://tinyurl.com/464fbv7w>, <http://tinyurl.com/5xnbzjej>



American Coot and its young

Coastal Marine Strategy - On

November 30 Peter attended a webinar hosted by the Canadian Parks and Wilderness Society entitled "Turning the Tide on B.C.'s Coastal Habitat." Speakers from environmental non-governmental organizations (ENGOS) and government presented on coastal habitat loss, changing coastlines and how sea walls result in a loss of the land/sea connection, coastline protection and restoration, and blue carbon. The latter talk highlighted the importance of kelp and eelgrass in shore protection and carbon sequestration, and the role of the ocean in capturing carbon: one-third of atmospheric CO₂, which leads to a lowering pH. Charlie Short pointed out that we have no established baselines for comparison to changes that happen, which I interpret to mean that we require state of the environment reporting to advise mitigation. Richmond Councilor Michael Wolfe addressed the issue of rising sea levels and the need to protect low-lying land with dykes, and pointed out that no provincial dyking authority exists. Richmond works with ENGOS and Tara Martin's lab at UBC, and has hired a habitat restoration specialist. I was pleased to see the cooperation between governments, university research, and ENGOS in addressing coastal concerns. Coastal clubs, do you wish to be involved?

Baynes Sound - This highly productive section of the Salish Sea lies off the shores of Courtenay, Comox, and Royston. Angela Hansen, BC Nature IBA Assistant Coordinator, has been working with Dorrance Woodward of the Association for Denman Island Marine Stewards (ADIMS) to prepare an action memo regarding conservation concerns and desired actions to improve the Baynes Sound intertidal ecosystems within the K'omoks IBA and Key Biodiversity Area (KBA) for sea ducks, other wildlife, and humans who harvest and shelter in Baynes Sound. A number of Conservation Committee members have provided feedback to Angela's very well researched and thorough letter of concern regarding the negative impact of the shellfish fishery.

At first glance, increased density of ocean-filtering organisms such as clams and oysters would seem

to be of benefit. However, the authors, in their draft letter, point out that "the cumulative impacts of anti-predator netting on the intertidal ecosystem and overwintering water birds, specifically sea ducks and diving ducks in Baynes Sound are not well understood. Aggregations of 30,000-60,000 water birds occur each year during herring spawn

and about a third to half of those are waterfowl. A twenty-year study shows that these species' populations have been trending downwards in the Salish Sea, aka the Strait of Georgia between Vancouver Island and mainland, but not on the outer coast of Vancouver Island (Ethier *et al.* 2020). This suggests possible environmental stressors unique to the inner coast affecting water bird populations." Anti-predator netting excludes diving seabirds from more than half of the clam beds, and leads to the birds foraging in more exposed areas, resulting in reduced energy gain. "DFO's shellfish aquaculture management has not taken the food requirements of birds into account when evaluating new shellfish tenure applications. Since current tenures cover 80-90% of the shoreline of Baynes Sound, including estuaries, it is clear that the management practices and locations of the tenures do not take the conservation of the ecosystem or wildlife into account."

BC Nature will raise concerns for a healthy Baynes Sound ecosystem with the Department of Fisheries and Oceans. As of this writing, we are planning a meeting of BC Nature staff, the Conservation Committee, and the Baynes sound advocates to refine our presentation to government.

Roberts Bank Terminal 2 (RBT2)- An "Independent Scientific Body" is now reviewing the approved RBT2 proposal. All the public information available about its future work and the RBT2 project in general will be posted on this government website:
<http://tinyurl.com/bpa8m64s>

Tilbury LNG Plant - Anita den Dikken
There have been no recent public announcements regarding the FORTISBC application. I checked with the B.C. Utilities Commission and found that on March 23, 2023 they had paused their review of the FORTISBC Tilbury application for expansion of the Tilbury LNG plant. BCUC has asked for further information from the applicant to justify its request. Right now, this application appears to be in limbo.



Photo: T. Quinn

Sockeye Salmon

Sakinaw Lake Sockeye

- Last fall the Department of Fisheries and Oceans engaged with First Nations, Indigenous organizations,

wildlife management boards, and stakeholders who might be affected by a listing decision for Sakinaw Sockeye.

Sakinaw Sockeye inhabit Sakinaw Lake on the Sunshine Coast. A captive breeding program was employed due to a large population decline in the 1980s and 1990s. Sakinaw Sockeye today descend from hatchery fish. The government's request for input states that "Sakinaw Sockeye are locally adapted to their environment and differ from other Sockeye Salmon in terms of their early and extended river-entry timing and extended lake residence prior to spawning. Adults are also smaller compared to other Sockeye Salmon and experience lower fecundity and smaller egg size, while smolts are generally larger in size. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assessed this population as endangered in 2002, 2003, and 2006, and the Government of Canada declined listing Sakinaw Sockeye in Species at Risk Act in 2005 and 2007. Most

Natural Justice

What is "critical habitat" for endangered or threatened species?

Author - Ben van Drimmelen

As part of the process of listing and protecting endangered and threatened birds under federal laws, the department of Environment and Climate Change Canada issues "Protection Statements" for recovery strategies. The *Species at Risk Act* prohibits the destruction of any part of "critical habitat" of endangered and threatened species. Sounds good, but for migratory birds "critical habitat" can only include habitats identified in the *Migratory Birds Convention Act*. That Act, originally passed in 1916, only lists migratory birds, eggs, and nests, so the government concluded that "critical habitat" for recovery plans for migratory birds includes only nests. That narrow interpretation ignores almost all of the habitat that recovery strategies describe, such as breeding territories, nesting habitat, foraging areas, and so on.

Two conservation organizations went to court disputing such a restricted interpretation. They

recently, COSEWIC reassessed this population as endangered in 2016."

Conservation Committee member Larry Dill completed a federal government survey on behalf of BC Nature, and recommended that SARA list the Sakinaw Lake Sockeye, despite some concerns about the genetic integrity of the population.

Pink Mountain - Since you read Ron Long's article in the last issue of this magazine, the issue of making Pink Mountain a protected area has once again come to the forefront! Ron has worked with BC Nature Executive Director Stewart Guy, IBA Coordinator Liam Ragan, and Conservation Committees Peter Ballin to plan a path forward. The BC Nature Board of Directors approved a motion to pursue protected status for Pink Mountain. Ron's energetic actions include:

- Drafting an updated resolution on Pink Mountain protection to be approved at the upcoming AGM.
- Strategizing with the Blueberry River First Nation to make Pink Mountain an Indigenous Protected Conservation Area, with band members involved as Guardians and educators.
- Planning for the installation of signage on the summit, advising visitors of the sensitive habitat, the endangered marmot population, and the rare plants.
- Preparing for continued research and information sharing at Pink Mountain this summer. ♡

argued that critical habitat includes all of the habitat necessary for the survival or recovery of a listed wildlife species. At a minimum, this should include whatever was described as a species' "critical habitat" in a recovery strategy.

The court looked at the purpose of *Migratory Birds Convention Act*: "protecting and conserving migratory birds – as populations and individual birds". To protect both individuals and populations, more than just nests would need protection. Further, that *Act* sometimes explicitly refers to protecting more than just nests – for example, it prohibits depositing substances harmful to migratory birds "in waters or an area frequented by migratory birds".

The court acknowledged the obvious - that species need more than a nest to survive or recover as a population. The *Species at Risk Act* requires that a

recovery strategy address threats to the survival of a species in question, including loss of habitat. It is intended to protect the most essential habitat of listed endangered and threatened wildlife species. That can go well beyond “nests,” depending on the species in question.

Habitat loss and degradation is a key threat to the survival and recovery of most of the at-risk migratory birds covered by the Protection Statement. Thus, it was not reasonable for the Minister to limit that critical habitat to “nests” alone. The Protection Statement was rejected and had to be revised by the

The ‘Future Generations’ Trap

Author - Brian Wilkes

We’ve heard a lot lately about the endangered Southern Resident Killer Whales, as we have heard about the plight of many different animal or bird populations over the years. Mountain Caribou, Spotted Owls, and Vancouver Island Marmot come to mind. The usual plea is that we need to preserve these species for the benefit of future generations. Likewise, landscapes are ‘set aside’ as in parks and protected areas, under the rationale that they will benefit future generations. Examples include Canada’s National Parks: “the parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations”. And so-on. We’ve all heard the use of this phrase a hundred times.

On the surface, a dedication to future generations seems like a laudable goal. Indeed, much has been dedicated to protection under the concept that by doing so, we retain options now, for the possibility that some future generations may exercise different options later. A good recent example is the Kunming-Montreal Global Biodiversity Framework in 2023, through which many countries or regions are trying to dedicate up to 30% of their lands and waters to some form of protection by 2030. Again, a laudable goal – driven largely by benefiting future generations, noting in the preamble to the Framework, including “the threat that [biodiversity loss] poses to nature and human well-being”.

I consider that using “benefit to future generations” as a principal rationale for nature protection or conservation is a trap. I call it the future generations trap. This is a trap because it confines us to continue to believe and act as if nature belongs to us and exists solely for our use, including use by future generations, that the only value nature has is its utility value to us humans, now and in the future. This value isn’t always monetary either; aesthetic value is now

government in accordance with the court’s reasons. *Postscript* – Even with the broader interpretation, most critical habitat of threatened or endangered species cannot necessarily be protected by the federal government. Provinces manage most of the land, so the federal *Species at Risk Act* can normally only apply on federal lands – just 1% of B.C. If B.C. fails to protect endangered or threatened species’ habitats on provincial lands, the federal minister may specify protection of critical habitats on provincial lands by making a protection order. However, this potentially intrusive power is controversial and very rarely invoked.) ♡

firmly established as a utility value. We operate within a set of values, beliefs, and behaviours that have, I believe, resulted in our current environmental predicament. We know these values, beliefs, and behaviours are deeply rooted in our collective psyche. They have been inculcated in the west by Judaeo-Christian tradition but are present in other cultures as well. They operate as the basis of our natural resource extraction economies. Science and technology have given us power over nature. The usefulness of nature is constantly reinforced by the processing and sale for profit of parts of nature: fish, forests, minerals, wildlife. It has worked so far, and has made us rich, but has also left us living in a soup of contaminants within declining global ecosystems.

Being trapped in this ‘future generations’ mindset, we have given ourselves permission to undertake what some have called the 6th great species extinction event. We are now busily changing both the atmosphere and ocean chemistry in problematic ways. It’s a mindset that stems from the arrogant position of thinking we own and have mastery over nature and embodies the idea that we can decide now what people in the future will want. We consign the ownership and on-going mastery of nature to future generations, and in doing so, we are passing this destructive mindset on to trap the generations to come.

It’s difficult to say how to get out of this trap. Changing our values and beliefs will take time. The starting point is to recognize that we are trapped in this malignant mindset and will continue to be trapped until we collectively realize it’s not working for us. As naturalists, we tend to see the connectedness of people and nature; less ownership and hegemony, and more openness and acceptance. Let us apply these values, and demonstrate that there are better alternative ways of being in the world. ♡

BC Nature Webinars

Author: Kephra Beckett, Conservation Coordinator

In the past year BC Nature has begun to embrace the use of webinars as a valuable tool for engaging with members across the province. These online sessions have facilitated new connections and provided opportunities for exchanging important ideas and perspectives. High attendance at events such as the “Introduction to Bats”, an “Evening with Dr. Jennifer Bonnell”, and informational sessions about on-going BC Nature projects have demonstrated the appetite and need for expanding our online offerings.

Looking ahead, BC Nature is set to elevate its webinar experience further with a lineup to both inform and inspire attendees. Collaborations with partners like Canadian Parks and Wilderness Society will explore topics such as Marine Protected Areas, providing insights into their on-going conservation efforts. Due to popular demand, a follow-up bat session is in the works to delve deeper into their biology and protection. BC Nature also aims to enhance the webinar experience by inviting knowledgeable individuals to share their expertise on environmental conservation and biodiversity.

With a commitment to providing valuable content, BC Nature prioritizes catering to a variety of interests. We welcome input on potential speakers and topics, recognizing the value of diverse subjects. Together, let's continue to explore and appreciate the wonders of nature through these informative sessions.

Please feel free to reach out to me about ideas or requests for future webinars: conservation@bcnature.ca 🐦



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Rose-faced Parrot © Chris Charlesworth, Ecuador 2023

ECUADOR ~ October 16 to 30, 2024. Price: **\$6,850**, from Quito. Leaders: Nelson Apolo Jaramillo & Chris Charlesworth.

TEXAS ~ *Upper Coast Migration*. April 17 to 23, 2025. Price: **\$4,850** from Houston, Tx. Leader: Chris Charlesworth.

NEWFOUNDLAND ~ July 1 to 7, 2024. Price: **\$3700**, from St. John's. Leader: Ian Cruickshank and Chris Charlesworth.

SASKATCHEWAN ~ *Cranes and geese*. October 1 to 6, 2024. Price: **\$2800**, from Saskatoon. Leader: Chris Charlesworth.

GUYANA ~ November 7 to 20, 2024. Price: **\$8600**, from Georgetown, Guyana. Leader: Avery Bartels & local guides.

SRI LANKA ~ February 20 to March 6, 2025. Price: **\$7150** from Colombo, Sri Lanka. Leader: Avery Bartels.

ALBERTA ~ *Winter Owls*. March 6 to 8, 2025. Price: **\$1700** from Calgary, AB. Leader(s): Gavin McKinnon.

All prices in Canadian dollars. Prices based on double occupancy



Atlantic Puffin. © Chris Charlesworth

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BC Naturalists' Foundation Update

Honouring BC Naturalists' Foundation Legacy Donors

Author - Stephen Partington, President, BC Naturalists' Foundation

2024 marks the 34th anniversary of the inception of the BC Naturalists' Foundation. During those years, 18 legacy donors have posthumously invested in the Foundation's dream to create an enduring and increasing degree of financial self-sufficiency in support of the British Columbian naturalist community.

Many of these people were widely known among naturalists locally and/or across the province. Others were friends of just a select few.

Among the founding directors of the Foundation, Joe Lotzkar and Peter Legg left bequests to the Foundation. With Joe, the Foundation was the beneficiary of an insurance policy. Peter's legacy was extended by Pauline Legg who also bequeathed money to the Foundation in her will.

The other legacy donors to the BC Naturalists' Foundation so far: Ursula Easterbrook, Gerard Bloem, Rolf Kellerhals, Howard Telosky, Norm Pursell, Dick Greyson, Melda Buchanan, Edna Robinson, Kay Beamish, Anton (Tony) Stramitz, Elizabeth Walker, Rosemary Fox, Nancy Braithwaite, Joyce Folbigg, and Cathy Aitchison. Note please that this list may be incomplete as the records of the Foundation have suffered from successional scattering over the years.

The cash principal of these bequests, as with all cash donations to the BC Naturalists' Foundation, has been preserved and indexed to inflation within the Foundation's portfolio. Nevertheless, during this 34-year period the Foundation has filled 211 grants totaling greater than \$330,000 for Club Support, scholarships, publications, strategic planning, and operations.

A bequest to the BC Naturalists' Foundation is in my will. Please put one in yours. ♡



Start donating to the BC Naturalists' Foundation today

E-transfer - send a donation directly to the foundation by using e-transfer through your bank to foundation@bcnature.ca

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North Vancouver, BC V7G 2R9

The Art of Stopping

Author: Dave Manning

Things are changing rapidly, and we daily witness the diminishment of Nature across the globe. But as Wordsworth once wrote, "We will grieve not, rather find strength in what remains behind."

As ageing creeps along, or for some of us advances rapidly, we must make opportunities to be in a natural environment—to another day, and perhaps this is a day to be up from the lounge, away from the computer, radio, TV, and out the door, rain or shine, cold or hot, day or night, strengthened by what still remains.

Whether for a minute or an hour, I sometimes use a technique called The Art of Stopping. Alone or with others, stop at intervals and take a moment to just stand or sit. Scan all around and listen, eyes open or closed, or take some deep breaths to sniff out what's there ... or touch a tree's bark ... or tongue some rain on a leaf.

As you stroll along, stop, enrich your experience with objects in Nature, in no hurry, content to consider what is right there at hand.

I used this technique one summer day. I stopped to move my vision across the landscape. And there, 20 metres away was a Columbia Black-tailed Deer, a doe, peeking at me from behind some sword ferns. For a few wondrous seconds, our eyes fixed on one another, and time stopped in the eternal. I then moved

Seeking candidates for the BC Nature Board

There will be two vacancies in the BC Nature Board of Directors at the May 2024 AGM: Treasurer and Director-at-Large.

For Treasurer we require a registered accountant or someone with equivalent financial experience.

Please find a complete job description for this position on our website or visit the CPABC website under "volunteer opportunities".

If you would like to volunteer for either of these positions (or nominate someone suitable) please notify the BC Nature office manager@bcnature.ca



Photo: B. Heschko

Trumpeter Swans mid-flight

on, letting her be. Had I not stopped to look about, I'd never have seen her, missing that treasured encounter.

You can employ this practice back home or anywhere else. During your daily activities, wherever you are, stop sometimes to just feel the moment. The Art of Stopping—make it part of your day-to-day life. ♡

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Birds in the Offing on Haida Gwaii

Author: Margo Hearn

Stormy seas blast the beach and thousands of Common Goldeneye ride it out. These small diving ducks spend the winter in nearshore waters along the coast and had found shelter from the storm in South-east Harbour, Tlell.

Goldeneyes are tidy little ducks. There are two species, Common and Barrow's; male Commons have a white patch like a full moon on their face, male Barrow's have a crescent moon. Although female birds are no less attractive, they have subtler colouring; they are the ones that need concealment to protect their downy young. The males don't stick around to do the hard work although pair bonds last for years. Barrow's Goldeneyes, surprisingly, nest in tree cavities. Downy young were seen sticking close to their mother in Mosquito Lake one spring. Unlike Common Goldeneyes, they are not offshore feeders and generally spend the winter in the calmer waters of Masset and Juskatla Inlets and other inland waters.

Harlequin Ducks gather near the creeks draining into Hecate Strait. Their slate blue and red colours are separated by dashing white lines. They are named after the Harlequin, a colourfully dressed character in the 'Comedy of Arts' in Italy and France. The ducks sit on the rocks in the sun before they leave for their nesting grounds. They go as far as the Rocky Mountains where they feed in the rushing rivers and lay their eggs in shallow ground nests or rock crevices about 15-30 m from the water. Harlequins were once a very common bird in eastern Canada, but they have almost disappeared from there. They are now on the 'endangered' list and are of 'special concern' in the rest of Canada. There is only one 'possible' nesting record for the islands, although the birds have been



Photo: Margo Hearn

Male Harlequin Ducks with their beautiful plumage

seen on the small islets in Masset Sound and Inlet during nesting season. These lovely ducks have a keen sense of when a big southeasterly storm is due. Thousands were seen flying up from the Cumshewa-Skedans area one calm December evening; the storm hit overnight and next morning over one thousand birds rode the waves in Shingle Bay, sheltered by the lee of the land.

A few Anna's Hummingbirds continue to overwinter on Haida Gwaii. As spring approaches, Rufous Hummingbirds have begun to join them at feeders, especially in the Skidegate Inlet area where it is a few degrees warmer than at the north end of the island. It remains to be seen whether flowering plants will be early this year. A January cold snap set everything back and the daffodils haven't furthered their length in almost a month. The Currant bushes often attract hummingbirds, but the blossoms are late.

There's noise in the trees. Robins are practicing for the big chorus, Fox and Song Sparrows are already settling in and the Varied Thrush's with its long drawn-out "tweeee" could be heard from the forest. Swallows should show up soon and the warblers will be back any day as we look towards the long light of summer. ♡

Caribou North: The Kennedy Siding Success Story

Author: Walter Thorne

The majestic Woodland Caribou was once a common animal throughout Northern B.C. This species is the only member of the deer family where the bulls and cows both grow antlers; they were heavily relied upon by Indigenous people for food, clothing, and more.

Due to a combination of factors including moose incursions, logging, and hunting by wolves, the number of caribou in the north has drastically declined.

One declining northern herd of interest to the Indigenous people, including McLeod Lake, West

Moberly, and Sauteau First Nations peoples is the Kennedy Siding herd. It was named for the nearby Kennedy railroad siding.

By 2013 “only 36 members were left with predictions they would completely disappear by 2015.” Up to 2013, the herd had declined an average of 9% per year. This dire situation ultimately resulted in the declaration by the Committee on the Status of Endangered Wildlife in Canada, that the herd was endangered (currently listed as ‘Threatened’ under the federal Species at Risk Act.)

With enthusiastic Indigenous support, a real effort was launched in 2014 to reverse the decline and possible extirpation of caribou in that region. The alarm resulted in a joint First Nations and government plan to save the caribou. Doug Heard, a caribou biologist and adjunct professor with University of Northern B.C., was tasked with coordinating the plan.

Since the animals traditionally gathered in the fall and early winter, the idea was to provide supplemental food (high quality grain pellets, especially designed for caribou) in a feeding regime administered by local First Nations participants.

From the beginning the October, November, and December program was a success. The caribou were somewhat separated from threats, and the downward spiral of the population was halted. Over the decade since 2013, the herd has increased by an average of 16% per annum.

One tremendous benefit of the feeding program was the public interest and education. The caribou have attracted wildlife paparazzi from near and far. School groups, First Nations elders, and roadside tourists are



Photo: M. Phinney

Sparring Caribou show at Kennedy Siding

frequent visitors. Now there is a *YouTube* feature on them; just search for Kennedy Siding Caribou. The sparring adult male bulls have become rock stars for the environment. The news media from Vancouver and beyond have taken an interest.

Although heartened by the results, Doug Heard and his assistant researcher Lauren Elviss, a UNBC grad researcher, caution all of us to realize the feeding program alone is not the only factor leading the caribou resurgence. The controversial wolf kill program is another factor contributing to a Woodland Caribou resurgence in the north.

Fortunately for the Central Mountain Caribou herds, there is also a maternity pen program that is underway west of Chetwynd. So far results look very promising, and the Klinse-Za caribou herd is also increasing.

Doug Heard, now a retired biologist, estimates the current Kennedy Siding caribou population at 150 (truly a resounding success).

For folks wishing to see these fascinating creatures, you need only travel the Hart Highway from Prince George toward Dawson Creek. You will find these easy-to-view caribou each fall, two kilometres up Kennedy Road, just eight kilometres north of the Mackenzie junction. ♡

Welcome to the new Federation members!

Native Bee Society of British Columbia |

Nature Fort St. James

Vancouver Avian Research Centre Society

Further details to emerge about these organizations in upcoming *BCnature* issues.



Photo: D. Fraser

Reading what's happening at Kennedy Siding

Back to Basics

Ephemeral Wildflowers

Author – Terry Taylor

Spring is the season to look for little annual wildflowers, which only present themselves for a short interval of time. They festoon open sunny sites during the spring; for the rest of the year, the only evidence of their existence are the seeds that lie dormant in the soil. They are best seen on rocky outcrops. Habitats such as these usually have moist soil during spring rains but dry out rapidly once those rains stop.

Looking for spring wildflowers is like looking for autumn mushrooms. You are never certain of what you will find. The number of plants, and even the species flowering, can vary from year to year, depending upon the amount of rainfall, when it comes, soil temperature, amount of sun, etc. Those seeds need to germinate and produce next year's seeds before the thin soil dries out. If the season is too dry, however, not all is lost, because seeds of annual plants tend to be long lived, and can remain dormant for many years, until just the right conditions arrive. This is why you may see some flowers one year and not see them again for several years.

Plants such as these are often species at the northern edges of their ranges. The east coast of Vancouver Island and the Southern Interior are the places to go in April and May to see them. Farther north, they disappear or become less common. The Garry Oak bluffs around Victoria have many more annual wildflower species than similar sites farther north on the Island.

Many introduced weed species are also annuals. They tend to grow in open, disturbed areas such as road edges, cracks in the sidewalk, and plowed fields. Many of these are annual grasses. If you visit the grasslands of the Interior or the Garry Oak bluffs of Vancouver Island, the grasses you see are very likely to be invasives that have replaced the native ones. Such sites are fragile, and overgrazing, addition of nutrients, and trampling favour invasive species over the native ones. On the coast, Scotch Broom is one of the problem plants. Not only does it shade out native plants, but it is a legume and adds fertilizer to the soil. The native plants here are adapted to a low-nutrient environment. The additional nitrogen from broom increases the growth of introduced species which outcompete the native plants.

One of the most common ephemeral flowers in both the Interior and along eastern Vancouver Island is the Blue-eyed Mary (*Collinsia parviflora*). The appearance of its tiny blue flowers announces that the spring



Photo: R. Taylor

Blue-eyed Mary (Collinsia parviflora)

wildflower season has arrived. It is a good example of a true ephemeral, and these little flowers are very fleeting. The seeds can germinate in March, while the soil is still moist, and by May those seeds have been dispersed and the plants have shriveled and vanished. For the next nine months, only the seeds remain.

Another feature of summer dry sites are vernal ponds. These are shallow temporary wet spots where water accumulates in the winter. And they are also habitats for very rare native annuals that can grow nowhere else. They are also very sensitive to disturbance. Some vernal pools around Victoria used to contain several endangered species that are now extirpated.

The spring wildflowers, along with the spring migration, are some of the jewels we as naturalists look forward to after the cold of winter. But please remember how fragile these habitats are. Most of them have now been lost, and those that remain are under threat. ♡

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Letters to the Editor

On behalf of the Invasive Species Council of BC (ISCBC), we would like to respond to the Editorial in *BCNature*, Winter 2023, Vol.61 No 4. Entitled: “*Why I Question the Wisdom of Invasive Plant Removal*” Author – Olga Lansdorp.

This is a very disappointing article as this fails to recognize all the good work being done by volunteers across B.C. that are working to restore diversity to green spaces that were once infiltrated by invasive species. Yes, as with all work, there need to be ‘checks and balances’ which our Council, along with our many partners, work to provide. Many invasive plants are introduced by people whether intentionally planted or “dumped” into green spaces. We know that invasive species are one of the five top drivers internationally and in B.C. - to the loss of biodiversity. With good practices, we can help restore the resiliency of our green spaces and key habitats.

It is wise and commendable for all those volunteers who have spent hours and hours removing high-impact invasive species such as English Ivy, Scotch Broom, Himalayan Blackberry, or Common Burdock from community spaces to enable native species to reclaim their spot. This is often not easy work and takes hours of dedication. This requires collaboration-across the volunteers, landowners, invasive species experts, and the local government (for disposal). Thanks to these efforts, we have seen community spaces restored to provide habitat for so many species of birds, insects, and plants that had left the area.

Yes, there are responsible practices to consider. Each project must ensure permission for access to the site, determine the high-priority invasive plants (or others), best management practices, how to restore the site, and how to dispose safely of the invasive species. ISCBC and our regional affiliate organizations all have information on how to organize effective community weed pulls. We encourage people to be alert, report invasive species, and take action to help restore community spaces. We encourage any interested person and organization to get involved-see our website or give us a call www.bcinvasives.ca.

The real question is - What can I do to reduce the impacts of invasive species in my community? Get involved! Make a difference! ♡

Gail Wallin, Executive Director, Invasive Species Council of BC

Re: Conservation Models at Odds: The ‘North American’ vs the ‘Compassionate’ Conservation’ models. Inspired by the BC Nature Fall 2023 Conservation Chair Opinion/Preamble

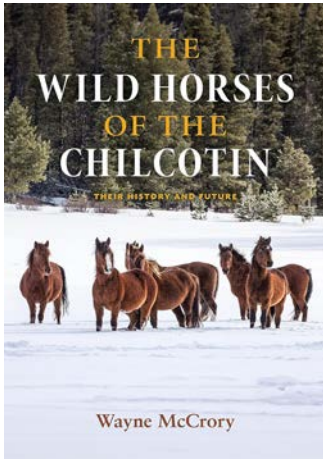
I have found myself time and again feeling confounded by sport hunters calling themselves conservationists. It’s just a term and not a professional designation, so I must allow that it’s up to an individual to choose to identify in any way they might choose. Personally though, I feel offended that someone who willfully kills animals for sport or pleasure would call themselves a conservationist. After all, the word is defined in the Oxford dictionary as ‘one who advocates or acts for the protection and preservation of the environment and wildlife’.

In my search for understanding, I’ve become aware that there are different ‘models’ of conservation, and that the one we are most familiar with (even if we don’t realize it) is called ‘The North American Model’. It is so named because it has its roots in Canada and the U.S. Within the tenets of the NA Model, there is a doctrine of ‘hunter-funded conservation’ which means that funds collected for hunting and fishing licenses are used to benefit conservation initiatives. Even so, considering that the obvious motive of sport hunters is not to simply make donations to conservation, I’m therefore no less skeptical of them identifying as conservationists (in keeping with the *Oxford Dictionary*). Sport hunters willfully destroy wildlife, very often just for photos and the collection of animal parts they save as trophies.

There is a newer model of conservation that has been gaining prominence. It’s called Compassionate Conservation and I’ve learned that it is evolving as response to ethical concerns about the outdated North American model. In this new model, members of a population are valued as individuals, rather than just an expendable member of a larger population.

Compassionate Conservation recognizes the sentience of non-human animals, their own cognitive nature, and most importantly, their capacity to feel joy and pleasure, fear and pain, and suffering and loss. In my opinion, it leads to a model of conservation that acknowledges our likeness to other animals and therefore that they are deserving of our compassion and empathy. These are the attributes of a conservation model I can agree with, and I personally embrace this newer, evolved model of Compassionate Conservation. ♡

Jaqueline Sherk



Book Review

The Wild Horses of the Chilcotin: Their History and Future

Author: Wayne McCrory

Available: Harbour Publishing, 368 pages

Cost: \$39.95

Reviewed by Larry Pynn

Wayne McCrory began his wild horse journey with skepticism two decades ago. The B.C. wildlife biologist and conservationist had negative feelings towards feral animals, including wild horses, due to their potential impact on local ecosystems.

But the more he investigated, the more he came to see wild horses in a different light.

Working alongside the Xeni Gwet'in First Nation in B.C.'s Chilcotin region, McCrory concluded that wild horses have suffered from a legacy of misguided bounties and culls, and that cattle grazing and logging have done far more damage to the landscape.

Horses also have a special place in the history books, McCrory learned. Turns out they evolved in the Americas millions of years ago but died out during the last ice age. Thanks to the Bering Land Bridge that once linked today's Alaska and Siberia, horses continued to survive in Europe and Asia.

The Spanish conquistadors brought the horse back to the Americas via Mexico in the early 1500s, where it soon spread from one Indigenous tribe to another, reaching the northern Rockies and central plains in the first half of the 1600s.

European explorer Simon Fraser reported Indigenous people with horses in the Chilcotin during his epic expedition down the Fraser River in 1808.

McCrory's research includes extensive DNA testing which revealed that horses in the more isolated Brittany Triangle, 120 km SW of Williams Lake, still have traces of Spanish/Iberian blood, but are mainly descendants of the Canadian Horse, first introduced from France in 1665, with a surprising dash of Yakut horse from east Russia in the mix.

Today, the wild horses of Sable Island in Nova Scotia are a rare exception, afforded federal protection in a National Park Reserve. In the Chilcotin, wild horses receive partial protection through Indigenous governance in the Eagle Lake Henry ?Elegesi Qiyus (Cayuse) Wild Horse Preserve.

As McCrory sees it, wild horses are an important part of the predator-prey ecosystem and have earned their place in the wilderness. "They are unique, with a wild spirit that belongs only to them, as untamed as the wind." ♡

Larry Pynn is a veteran environmental journalist living in Maple Bay, Vancouver Island.

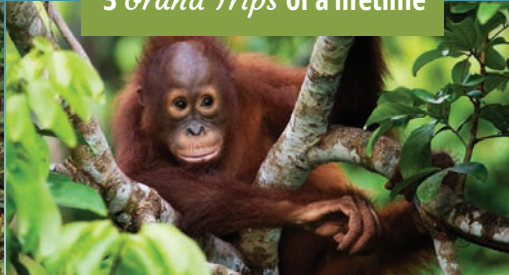
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Bamfield Christmas Bird Count: Sharing data and expanding community in an Important Bird and Biodiversity Area (IBA)

Authors: Hannah Hickli and Aiva Noringseth

Christmas Bird Count (CBC) season is a light amidst the long winter for the birding communities of the Northern hemisphere. The origins of this community science venture are well-known: originally a hunting competition centred around Christmas, where men would hunt birds and count their quarry, it has transformed into a community naturalist tally that has now been running for more than 100 years. Last season the CBC was facilitated by almost 80,000 volunteers worldwide, counting more than 40 million birds in a single day. Many of the southern Vancouver Island counts accumulate a few dozen to a few hundred participants each, and Victoria's CBC boasts the most field participants in North America, with growing popularity every year.

In January 2024, two youth ornithologists and B.C. IBA surveyors from Victoria traveled to Bamfield (the shores, waters, and islands of which are significant components of the Barkley Sound IBA) to volunteer with one of the seasons' latest CBC counts on southern Vancouver Island. Bookended by the phenomena of fall avian migration on the leeward side, and the multi-trophic-level spectacle of the herring spawn in the new year, this community science venture lands in the slower winter birding season. Winter is also a season for people to recede and return to traditions, the annual CBC representing one of a few strong community events tying the coldest and darkest nights of the year together.

As we rolled into Bamfield, we were welcomed by community members who put us up in their homes, took us out on their boats, and gave us food and directions to 'birdy' hotspots the village has to offer. As is expected for a CBC, the weather did not make for easy outdoor fun, and a storm met us as we set out on the water in five teams that morning. Bamfield pleasure craft, a steely Coast Guard vessel, and the local water taxi piloted the CBC surveyors with intrinsic knowledge of the waters and habits of these frequent winter storms. While we scanned the unbirded horizons, rain, hail, and lightning scattered our senses, keeping most of the hardened (and comparatively wiser) avian community outside our reach. Despite the weather mess, we picked up dabbling ducks filling estuarine sloughs, crows sheltering on rocky islets, and swans overhead in the morning light. Rather than a survey or an internal



Photo: Aiva Noringseth

Killdeer surveying a storm-wracked beach in Bamfield

competition, the Bamfield CBC vibe tends towards a community celebration, where wisdom, spaghetti, and stories are shared. Sometimes CBCs are not about resulting numbers, but about taking the opportunity to connect with community in an otherwise isolating and deep-rooted season.

Much like the foundation of the *eBird* platform, whose users power an unrivaled quantity of data on spatiotemporal dynamics of birds, the community science born out of the CBCs provides valuable scientific data while coupling with opportunity for localized outreach and learning ventures. There is power in the under-appreciated: across most metrics of surveying birds there is a bias towards monitoring the breeding season and the CBC represents an incredible effort put into measuring the abundance and location of birds at their winter sites. Decades of CBC data echo long-term ornithological studies: certain bird populations are declining in certain areas, and many birds are experiencing northward shifts in range likely due to warming climate. For example, according to CBC data, wintering Ring-necked Duck are ranging northward, where counts have increased over the past 50 years. How will this be reflected in future IBA thresholds for the species?

In large and small communities, the Christmas Bird Count is a chance for participants to intentionally engage with the natural world around them and attune to the diversity and abundance of the winged beings that share this place and time. We thank the Bamfield community for organizing a warm and successful CBC. Lead organizer Daniel Zayonc, reflecting on the social and scientific possibilities offered by empowering CBC in smaller communities, says: "Reinforcement from Victoria was welcome

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support for the Bamfield CBC. While our town has a strong biology influence, expert birders are hard to find. Everyone learned some new facts or species.”

The CBC tradition reminds us that gathering data for bird conservation involves rallying together for ourselves, as well as the birds. ♡

Insects – We need to know more about them!

Author: Angela Hansen, Assistant Coordinator, IBA program

Very few people love insects. Indeed, most people commit time and resources to avoiding, deterring and eradicating them. I personally have never feared insects or spiders, although some rather distressing experiences with large clouds of mosquitoes at Stave Lake as a youth developed into a healthy loathing for that specific type of fly. But I have always wanted to know more about insects, so last September I began a personal journey of discovery.

I started by taking a one-semester insect biology class at the University of the Fraser Valley, taught by Professor Debbie Wheeler. On the first day of class, I started my very own insect collection, with a rented butterfly net that I swung around with enthusiasm in the campus garden and managed to get a live wasp into a small sample jar without getting stung.

In brief, all insects are arthropods. They are invertebrate animals in the phylum Arthropoda, which is divided into four subphyla: Chelicerata (spiders, mites, ticks, and scorpions), Crustacea (shrimp, crabs, lobsters, and others), Myriapoda (centipedes and millipedes), and Hexapoda (all other insects). The largest subphylum is Hexapoda, and within it there currently are 30 orders.

In the last few months, I have learned four main lessons about insects:
First, they are fascinating and amazing. Insects are a wonderful way to study evolution and adaptation. The vast array of colouration, mimicry, camouflage, and interesting forms is astounding.

Secondly, insects are incredibly important components of terrestrial ecosystems worldwide. In terrestrial and freshwater environments, the most abundant and diverse group of animals are insects, and they are integral in all food webs. They have many important ecosystem services and roles, including pollination, pest control of other insects, as food for other animals (including humans), as effective decomposers of plant and animal matter, and they produce many useful substances that humans have harvested for thousands of years (silk, honey, wax, dyes).

Thirdly, insect biodiversity and abundance are facing

many threats, the biggest being habitat loss and fragmentation. As the habitats required for rare, endemic and highly specialized species are lost, a homogenous assemblage of generalist insect species replaces

them and overall biodiversity is lost. This is what has happened to many of the insect species specialized for Garry Oak habitats on the southern coast of B.C. The Vancouver Island Shieldback (*Steiroxys cf. strepens*), an endemic flightless species of large shieldback katydid was only discovered in 1930, was rarely seen with fewer than 10 observations and last seen in the small Mt. Tolmie Park on Vancouver Island in 2011. Despite great survey effort in succeeding years it has not been seen or heard since. It was designated endangered in 2022, but its population has been decimated by the invasive European Common Wall Lizard (*Podarcis muralis*), and its specialized and already limited Garry Oak ecosystems have been completely fragmented and lost to human development, so it could already be extinct.

Finally, the largest obstacle to conservation of insect biodiversity and threatened species is our own ignorance. Most people, and many biologists, don't give much consideration to insects, so it's not surprising that only 70 insect extinctions have been documented since the year 1500, when, if the extinction rate is equal to the rate birds have gone extinct due to human impacts, the number should be closer to 44,000 species. I am now collecting conservation stories about insects in B.C., and I am excited to learn about the current work that naturalist groups in B.C. are doing for insects and to share those stories with BC Nature members.

In December I was sitting in a Mexican Restaurant in Vancouver, warming up with a bowl of soup after spending a few hours in Stanley Park with my spotting scope looking at water birds, and I noticed



Photo: Jean Hort

Moth Fly or Drain Fly
Diptera: *Psychoda* sp

Continued from page 22

some tiny flies gathering on the window. In the past, I would have thought it was gross to see flies in a place where I am eating, but instead I was curious and jumped up for a closer look. They turned out to be Psychodid Flies (Moth Fly or Drain Fly), with lovely spot patterns on their hairy iridescent little wings, and I scooped most of them into a collection jar I had in my pocket. I took them back to share them with the other students, and look at them under the microscope that I now have for looking at insects at home.

I have been studying birds for many years now, and I appreciated the role that insects play as food for birds, but I never imagined how important insects really are, or how fascinating they can be.

“To know [them], is to love [them]”, so I guess I am an amateur entomologist now.

If you would like to share a story about insects in BC, please reach out to me at:

iba.a.hansen@bcnature.ca ♡

What Do Successful Western Purple Martin Chicks Eat? Progress Report 2

Authors: Alison and Jonathan Moran, Rocky Point Bird Observatory

Western Purple Martins that breed along the west coast of North America (B.C., Washington, Oregon, and California) are a distinct subspecies (*Progne subis arborescens*). Unlike the relatively abundant eastern subspecies (*P.s. subis*), they are of conservation concern throughout their range.

These birds are cavity nesters. Competition and loss of suitable cavities for nesting has been recognized as a major driver in the Western Purple Martin

population decline. On the coast in southern B.C., a nest box recovery program has enabled the population to increase from approximately five pairs in the 1980s to more than 1,200 pairs by 2018. However, despite these conservation efforts, only 5,000 pairs were estimated across the entire breeding range, from SW B.C. to SW California (Western Purple Martin Working Group, 2018).

Western Purple Martin are aerial insectivores.

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Since insect availability has been identified as a major driver in the decline of many species in this guild (when a community of birds uses the same class of environmental resources), we were interested in determining what prey was being provisioned to nestlings in successful colonies on southern Vancouver Island.

Initial Results - We received bioinformatics results from the lab in late December, and in January, the work of ground truthing the taxa began. That stage is now complete, and the data are showing some fascinating trends. Most interesting is the predominance of honey bees, wasps, and wasp mimics (stingers 38%, stinger-mimics 35%, neither 27%). Yet, while these birds appear to be specializing in stinging insects and their mimics, such as hover flies, there is an absence of native bees like Bumble Bees.

Surprisingly, and presumably because of a focus on stinging prey, the Western Purple Martin nestling diet favoured prey items without an aquatic life stage. This is interesting because there is increasing evidence that arthropod prey from aquatic systems are of higher quality (elevated omega-3 fatty acids)

Wings over the Rockies Nature Festival - Then and Now

In 1996 a group of enthusiastic naturalists and adventurers got together with the desire to share the beauty of the Upper Columbia Valley. The following year, with the support of local businesses, government, wildlife specialists and patrons like the wildlife painter Robert Bateman, the first nature festival was born, celebrating the return of Spring. Over the following years, the festival expanded from a birding event to a true nature festival.

The rich and varied habitats found along the Columbia River, flanked by the Canadian Rockies and Purcell Mountains, offer a welcoming environment for wildlife, and for the birds returning to their nesting sites.

Wings over the Rockies Nature Festival is based out of the mountain town of Invermere, BC, Canada, with the events stretching from Golden to the north, down to Wasa in the south. One of the premier Nature Festivals in Western Canada, participants can choose from more than 100 events during the seven



Male Western Purple Martin

than those from terrestrial environments. Taxa with an aquatic life stage were also detected. Dragonflies and damselflies were present, but not highly represented (despite being a favourite with photographers!). Flies, beetles, and pond dwellers like Water Boatmen, were also common.

Thanks to the robust level of sample analysis (triplicate DNA amplification with complementary primer sets), followed by the latest bioinformatics pipeline available, these data are also providing a much richer picture of the food web and ecosystem than merely as direct dietary items. We can see parasites of the birds, like fleas. We have also detected parasites of their prey, such as the bee fly, and even possible food items from the guts of prey being fed to the nestlings.

Our next tasks are to query the data set for information about dietary preference for nestlings, items relative to nestling age, site-specific differences and inter-year differences. A paper will be submitted to a peer-reviewed journal following the full analysis.

Thank you to the donor who funded this study, we very much appreciate your generous funding, without which this work would not have been possible. ♡

days: in-the-field excursions, luncheons, evening presentations, a gala dinner with keynote address, and large music concert.

Come and join us May 6 - 12, 2024 for the week-long nature festival. Our theme this year is Wings 'Way Over' the Rockies - The Big Picture. The festival will focus on the interconnections of wildlife, landscapes, people and beyond into the starry skies. The live music concert will feature the Juno award nominated duo "Over the Moon" band. The traditional gala dinner will feature keynote speaker, Bob McDonald, CBC Radio Quirks & Quarks host.

The 2024 Events Calendar preview will begin March 28, 10:00 AM MDT. On-line ticket sales will begin April 9, 10:00 AM MDT. www.wingsovertherockies.org.

Come join like-minded lovers of nature and enjoy the wonders of the Upper Columbia Valley. ♡
See advertisement - Page 25

Wings over the Rockies

NATURE FESTIVAL

MAY 6-12, 2024

WINGS 'WAY OVER'
THE ROCKIES -
THE BIG PICTURE

100+ events

Online Auction

Online Events Calendar

Preview begins

Thursday, March 28

10am MDT

Online Ticket Sales begin

Tuesday, April 9

10am MDT



Music Concert

Over the Moon

Friday, May 10, 2024



Gala Dinner

Keynote Speaker

Bob McDonald

Saturday, May 11, 2024



www.wingsovertherockies.org

It is Our Responsibility to Control Invasive Species

Author: Joanne Sales, Executive Director Broombusters Invasive Plant Society

In an editorial in BC Nature's Winter editorial Volume 61 No.4, Winter 2023, the writer questioned the wisdom of invasive plant removal. As the founder of Broombusters Invasive Plant Society, I'd like to speak to why it is our responsibility to control invasive species.

The web of nature is delicately balanced. At first glance, it seems robust, but time and study are proving just how fragile that balance is. Species do not evolve alone, but in relationships that take thousands of years to develop. The Monarch Butterfly's survival depends on one plant alone - Milkweed. Ivy is pulling down forests in Oregon. Ecologists in Africa fear the mighty lion may meet its demise because an invasive ant is eating the native ants which had protected the acacia trees by swarming up the nostrils of elephants. What? The point is, we don't know the impacts of new or lost species, sometimes until it is too late.

Some native people called plantain from Europe the "white man's footprint". Today plantain is naturalized. It's widespread. It fits in. But some invasive species have no intention of "fitting in." Scotch Broom, Common Gorse, English Ivy, Japanese Knotweed, and Kudzu are examples. If free to grow, they dominate, forming dense monocultures. Native plants cannot compete. So, what is our responsibility here? What do we owe the living species that our actions are harming now?

Captain Walter Grant brought Scotch Broom seeds to Sooke in 1850. For many decades, broom was ignored because – well, it has pretty flowers. Then it was ignored because it was already everywhere. But the spotlight is now on this plant. Scotch broom has spread from the Island to the mainland. Due to the widespread distribution of Scotch Broom and the loss of the native grasses and native plants, the Union of BC Municipalities, in 2023, passed a Resolution calling for the "Control of Scotch Broom" in B.C.

My personal concern in 2006, was that broom was taking over farms on either side of our blueberry farm. I asked Qualicum Beach and Minister of Transportation and Industry, "Why don't you clear the broom?" Not enough staff. "Well, if we cut it,



Photo: Joanne Sales

Spring 2023. Where BC Hydro lines cross Highway 19, near Nile Creek Substation, mid-Vancouver Island.

will you dispose of it?" Yes! Photos demonstrate that broom was there and now it's gone. If we hadn't taken photos of Qualicum Beach in 2006, newcomers would not believe that broom once lined the roads. Because the native plants and grasses now look so natural.

According to a scientific study, "Scotch Broom is the invasive species doing the greatest harm to species at risk in BC." - the "Top offender of biodiversity." In addition, Scotch Broom is also at the top of the FireSmart's list of HIGHEST risk, flammable plants. It breaks my heart to see forests cleared or burned. Will our forests grow back? Not if broom moves in first as this prevents reforestation. Meadows of wildflowers and pastures are even more vulnerable.

Scotch Broom can grow just about anywhere. It can photosynthesize all winter. A single plant can produce 18,000 seeds that can sprout for 50+ years. Snapping seedpods fling seeds 2-3 metres away. It releases chemicals to discourage competition. It's toxic to grazing animals. It even produces beautiful flowers.

We cut broom not because we hate broom, but to preserve what we love. Broombusters advocates cutting mature broom. We don't pull broom by the roots. Pulling disturbs the soil, encouraging broom seed germination. If cut properly at ground level, the plant will die in the summer's dry heat, allowing native plants and seedlings to thrive.

We cannot immediately solve climate change, but cutting broom is something we can do! ♡

"Scotch Broom poses a significant fire hazard in British Columbia due to its highly flammable nature, rapid growth, and fire-adaptive traits. The plant's volatile oils make it an easy ignition source especially during the summer months when the plant dries out. Its ability to spread quickly and form dense stands increases the fuel load, impeding the fire management efforts, causing further spread into the natural forests, elevating the risk of wildfires." Terry Peters, Retired Fire Chief Powell River

Wildfire Mitigation in Urban Woodland Parks: Striking a Critical Balance

Author: Glenda Hanna, PhD

Forested parklands within cities and towns in B.C. collectively provide essential habitat for millions of birds and other wildlife, as well as important outdoor and nature-based recreation, education, and health and fitness opportunities for people. Unfortunately, with high temperatures and droughts caused or exacerbated by climate change, combined with substantial fuel load build-up due to decades of fire suppression programs, municipalities are pressed to conduct wildfire risk reduction programs to protect not only the park assets themselves, but important adjacent infrastructure.

The critical emerging issue is this— how should wildfire risk reduction treatments in our urban woodland parks be implemented so they significantly reduce the risk of a wildfire growing out of control while also conserving forest ecology (e.g., biodiversity, habitat) and park user values (e.g., connection to nature, aesthetics, recreation opportunities, etc.).

A case study can illustrate how inappropriate wildfire mitigation treatments can negatively impact forest ecology and park user values. In 2022, the City of Salmon Arm contracted a local forestry services company to mitigate wildfire risk in about half of a large (39 ha), very popular, forested park: Little Mountain Park. Members of the Shuswap Naturalist Club (SNC) who frequent this park became alarmed at the impacts they observed, including the removal of many small to mid-sized trees (to reduce potential fuel “ladders” to bigger trees), and also at a notable loss of deciduous understory and ground cover.

The result was the loss of

biodiversity and wildlife habitat and significant negative impacts on the park user experience. Park visits became eerily silent, with almost no birds singing or squirrels chattering, sightlines increased by 100s of metres, and urban traffic noise became more perceptible. With little to no light penetrating the mature tree canopy, there has been almost no regrowth evident to date, and little is expected for years.

The SNC responded by forming a subcommittee focused on Urban Woodland Parks and writing a submission to the city recommending changes in future similar projects, including:

- Process - secure independent expert scientific input/review by a Registered Professional Biologist and include a meaningful public consultation process to identify park user values
- Prescription treatment approaches;
 - Selectively remove non-deciduous trees of different ages vs. just small/mid-size trees
 - Emphasize pruning of lower branches of small to mid-size trees vs. cutting them down
 - Incorporate the judicious removal of some large trees to allow more light penetration
 - Leave, or even actually plant more, fire-resistant broad-leaved trees and shrubs to hasten understory development and support wildlife habitat

Recognizing the massive potential impact on wildlife and



Photo: G. Hanna

Rather than cutting down small to mid-size trees to reduce ladder fuel fire risk, often a better approach is to prune dead branches 3 m or 50% up from the base, whichever is less.

citizens of the current aggressive approach, BC Nature took up the mantle and wrote relevant Provincial government offices. It reiterated the SNC’s concerns and recommendations, noting that because the Government of BC funds, directs, and/or supervises many of these wildfire mitigation projects, it should ensure the criteria reflect the varied purposes of municipal parks.

The Province’s response directed the nature federation to the BC Wildfire Service Fuel Management Prescription Guidance document. The name of this document reflects its strong focus on the “manage fuel” side of the equation. While it does include some line items related to water, wildlife, recreation, etc., these guidelines were not written with urban parklands in mind, so do not reflect any need for nor process to

Continued from page 27

execute, a conscious re-balancing of objectives in the criteria or prescription process.

In December 2023, Salmon Arm unveiled planned wildfire mitigation projects for the rest of Little Mountain Park and for another popular large park, Park Hill (50 ha). The more than 30 members of the SNC who showed up to the Open House were pleasantly surprised that the new contractor brought a different approach; one that reflected the recommendations of the SNC and BC Nature. It included:

- In both parks, leaving the deciduous understory and ground cover and focusing treatment on cleaning up small diameter woody debris on the ground (think 'kindling'), pruning lower branches of trees (up to 3 m up or a max of 50% of tree height, whichever is less), and judiciously selecting out only smaller trees that, by their location, would likely present significant ladder fuel issues.
- Focusing treatments in Little Mountain only within 10-15 m on either side of the major trail in the park, recognizing that fires would most likely be human-caused along this corridor.
- In Park Hill, focusing treatment within a 100 m buffer area along two subdivisions and significant

infrastructure abutting the park.

Of note, while the proponent followed the City's criteria for this project, it was given a hard time by the BC Wildfire Service for not taking a more aggressive fuel-management focused approach. They stuck to their guns and ultimately received their funding, a victory that establishes an important precedent that other communities can raise in their funding applications, if challenged.

Decisions about the best level and types of wildfire mitigation treatments in parks in communities across BC must be undertaken with a general view to reducing fire risk while conserving forest ecology and park user values, and it must also consider the unique circumstances of a given park and its location. For example, the Salmon Arm Fire Department supports the new, balanced approach because fire department response times are very good in this city; there is little risk of a wildfire in one of the parks growing out of control. The equation may work out differently in some other municipalities; the priority should be on rational decision-making vs. grabbing a one-size fits all model. ♡


BC Nature's Wildfire Mitigation in Urban Woodland Parks
Zoom Meeting

April 25, 2024 - 7:00 pm
Register <http://tinyurl.com/yk65rfw2>

BC Nature members across B.C. have a role in supporting wildfire mitigation efforts in their communities while ensuring municipal parks are not excessively compromised by these projects.

If you are interested in learning more or discussing this topic further with your own region in mind join us on April 25, 2024

Please direct questions related to Zoom registration to Kephra Beckett, Conservation Coordinator: conservation@bcnature.ca



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Golden-Crowned Kinglet
Photo Credit: The Wanderer

Registration opens April www.crestonvalleybirds.ca



BC NATURE CONFERENCE & ANNUAL GENERAL MEETING REGISTRATION FORM

Hosted by Arrowsmith Naturalists - May 9 - 12, 2024 – “Taking Action for Nature

Qualicum Beach Civic Centre – 747 Jones St., Qualicum Beach, V9K 1S7



Registration available online: <https://arrowsmithnats.org/bc-nature-agm-2024/>

Updated Schedule is available online at above link for the AGM

Name:		Club:	
Address:		City:	
Postal code:	Telephone:	Email:	
Non-members must join BC Nature (\$35 annual membership) or a Member Club to attend		March 15	Extended Amount
For other meetings, please Tick if applicable			
Club Representative/Director () Executive ()			
Full registration – all presentations, field trips, birding. Does not include Saturday banquet and the following three outings (Butterfly World, North Island Wildlife Recovery Centre, and Forest Bathing). These are charged separately (below)		\$160.00	
OR Thursday evening only – speaker and refreshments		\$25.00	
OR Friday only – early birding, speakers, light lunch, field trips		\$75.00	
OR Saturday – early birding, field trips, light lunch		\$45.00	
Saturday Banquet – Guest speaker, silent auction, awards		\$55.00	
Vegetarian/Vegan Yes () No ()			
North Island Wildlife Recovery (NIWRA) – Price includes GST and Gratuity if applicable		\$12.50	
Butterfly World - Price includes GST and Gratuity if applicable		\$10.00	
Forest Bathing with Tara - Price includes GST and Gratuity if applicable		\$10.00	
Early Morning Birding Friday am () Saturday am ()			
		Amount due	

Field Trips: Please rank trip choices each day (1, 2 or 3) – will be assigned by order of registration.

Field Trip Location (Offered both Friday and Saturday unless otherwise specified)	Rated	Rank your choices - 1, 2 and 3	
		Friday 10 th	Saturday 11 th
1. Rathrevor	Easy	NA	
2. Big Qualicum Riverside – Indigenous-led native plant walk	E-M	NA	
3. Thames Creek	Moderate	1 spot left	
4. Little Qualicum Falls	Ch	NA	
5. Little Mt. Boulder City	Moderate	NA	
6. Top Bridge	E-M		NA
7. North Island Wildlife Recovery Centre \$12.50	Easy		
8. Butterfly World \$10.00	Easy		
9. Forest Bathing with Tara – Heritage Forest \$10.00	Easy	NA	
10. Workshop - Ways to Engage the Public (& gain members)	Easy	NA	
11. Seaside Nature	Easy	4 spots left	NA

Sunday, May 12th Farewell Outings – All Sunday Outings Full

PLEASE NOTE: NA – Not available on this day, Ch – Challenging, E-M – Easy to Moderate

Signed Waiver required for all participants. Online Registration - <https://arrowsmithnats.org/bc-nature-agm-2024/>
e-transfer to anatsmembers@gmail.com or cheque to Arrowsmith Naturalists, PO Box 1542, Parksville, BC V9P 2H4

* (NEW) Bats and Nocturnal Wildlife Field Trip

Meet at Qualicum Beach Civic Centre, 747 Jones Street, Qualicum Beach, BC

Friday, May 10, 2024, 7- 9:30pm (Sign-up sheets will be at registration desk May 9 & 10)

Appreciating Bats 7pm - 8pm - Interactive presentation by Paula Rodriguez de la Vega, Provincial coordinator, BC Community Bat Program. Why are bats so amazing? They fly like birds, but they are so much more mysterious. Do they have hollow bones? Can they sing? Do they see like owls? Can they hawk like flycatchers? Come learn more about these unique mammals of the night and how you can help them.

Sunset Bat and Wildlife Walk - 8:15pm - 9:30pm - Join Linda Brooymans, Mid-island coordinator, BC Community Bat Program.

Bats start to come out around sunset (8:28pm). Join Linda and local Bat Ambassadors for a walk around St. Andrews Waterfront Park to listen for and watch for bats. Historically, the lodge used to have a bat colony in the attic. Currently, there are several bat boxes that may be occupied, where we can watch bats as they exit and learn how to do a bat count. We'll also be watching for nocturnal wildlife. Come stay up late with us! Morning birding is still possible after a cup of coffee.

Other potential sites, if bats are not active at St. Andrews yet. Little Qualicum River.



North in the Spring #27 - West Coast, Whales, and Western Sandpipers

Author - John Neville

The West Coast is known worldwide for its rugged natural beauty. Surfers ride the big waves all year-round at Long Beach, Pacific Rim National Park Reserve. Last summer I followed my granddaughters into the water. They frolicked, swam, and screamed for nearly three hours in the waves. I only lasted three minutes because of the cool temperature. The salty-tang in the air, the roar and motion of the waves, and sharing their joy was all I needed.

One spring, we camped just beyond Ucluelet on the peninsula amid the trees and Salal. Just across the road above the rocks was a rugged trail leading out to the lighthouse. It winds between old-growth Cedar and gnarled firs. Below, the waves are close and sometimes deafening! The big rollers crash and roar, creating white spume and foam. Before retreating, each hissing wave is overwhelmed by the next green roller. Early in the morning I awoke to: Varied Thrush with their referee-like whistles, domestic vocal calls of a Bald Eagle (from the nest), and the rattles of Belted Kingfisher. Below the campsite was a nature trail overlooking Spring Cove, with an outlet to Barkley Sound. It's very calm with mudflats, brackish water, Eelgrass, Ribbon Worms which irrigate the mud, ancient Clam Gardens, Dungeness Crab, and the area also contains the Barkley Sound-Ucluelet Important Bird and Biodiversity area.

Approximately 20,000 Grey Whales migrate past the West Coast in spring and fall. In the spring, most of them travel to the Bering Sea, the main area where they feed. Their yellow baleen plates capture enormous quantities of plankton, diatoms, and copepods to sustain their huge bodies. Their approximately 22,000 km round trip is one of the longest animal migrations. Approximately 200 stay in Barkley Sound for the summer, and smaller groups stay in the Salish Sea. Shallow oval depressions up and down the West Coast mark areas where they dig out places to feed in the mud. There are hundreds of these hollows around Whidbey Island WA. Lying on their side, they suck material off the bottom through the side of their mouth. The baleen plates are suspended from the upper jaw and sift food from the mucky bottom. Filtering is helped by small hairs on the inside of the baleen plates. In addition, they may feed on Herring spawn, krill, and small crabs. Good places to see them are Barkley and Clayoquot Sounds, Rose Spit and Sandspit on Haida Gwaii, and whale-watching trips from Tofino. In the fall, they travel

south to lagoons on the coast of Baja California where they give birth and breed. Pregnancy lasts 11 months or until the following year in the Baja. One birth every two years is the norm.

We once took a memorable trip in a government-approved panga boat to see the whales in Laguna San Ignacio, Mexico.

The contact with the whale was very respectful. It was also very intimate. We went alongside a female; she seemed to fully accept our presence. A lady in the second panga reached out and was able to stroke her rough skin. These monster mammals can reach a length of 14.9 m. and weigh 36 tonnes. You could just hear the souging of her breath and smell the dank fishy odour from her twin nostrils, as she expelled just under 1 cubic m (or 35 cubic ft) of air! The fountain of mist slowly condensed and spread out above her. If you are trying to identify them they have 7 to 14 bumps or knuckles down their spine but no dorsal fin. The black skin is mottled and blemished by barnacles and whale lice. The increasing number of barnacles in older whales create white patches. I couldn't help wondering how far back in evolutionary time had our mammalian ancestors diverged?

Long Beach and the shoreline around Tofino are also crowded with shorebirds in late April. Prior to the COVID19 epidemic this phenomenon was celebrated by the Shorebird Festival, a popular event in Tofino each year. To reach the Tofino Mudflats Wildlife Management Area at Browning Passage, turn onto Sharpes Road and drive to the parking lot. Check out when the next Tofino Shorebird Festival is, view this site, under the Events tab: <https://raincoasteducation.org>



Spring Cove Nature Trail

Continued from Page 30

One of the amazing spectacles is the large amorphous flocks of Western Sandpipers over the mudflats. They can number up to 1,000 or more! They appear like a swarm of insects, changing shape constantly in a seamless fashion and beautifully coordinated, like smoke in the wind. The flock swoops and bends with constant twittering calls, as each bird acts in concert with the whole! At the end of April and the beginning of May, they stop to replenish their layers of fat before continuing north. We were too early this year for the main migration. Western Sandpipers start in Panama and stop at various places to feed on their way to sub-arctic Alaska. They are robin-sized, weighing 15-20 grams. In springtime they are distinguished by red caps and backs. As soon as the snow melts, the males establish territories using their shrill whistles and choosing places where their red spring plumage blends with the environment. Incubation duties are shared by the parents. Read all about the Western Sandpiper on the Cornell Lab of Ornithology website. https://www.allaboutbirds.org/guide/Western_Sandpiper/overview#



Photo: R. Van Leeuwen

Grey Whale, Laguna San Ignacio

That year, we counted 60 Western Sandpiper, 40 Dunlin, three Black-bellied Plovers, and a noisy, low-flying flock of Snow Geese (our first of the year).

Claude Debussy captured some of our pleasure visiting the West Coast, its harmony of sight, sound, and smell, with his beautiful music *La Mer*. ♡

Naturalists Mentor Rosamund Pojar

Author: Walter Thorne

Rosamund Pojar from the Bulkley Valley Naturalists in Smithers, is a veteran environmentalist and advocate for nature. She is an environmental dynamo who is credited with founding the Bulkley Valley Naturalists more than 40 years ago. Throughout that time, Rosamund and her husband Jim have tirelessly promoted the causes of nature throughout the province from protecting migratory songbirds from habitat loss (from roadside brushing) to presentations on a variety of nature subjects.

Rosamund is a respected botanist, an accomplished author, and co-author with books and publications such as *Trees and Shrubs in Winter*, *Plants of Northern British Columbia*, *Alpine Plants of British Columbia*, *Alberta & Northwest North America*, and *Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia & Alaska*

Rosamund also authors a weekly



Rosamund (left) leading a youth nature presentation in Smithers

naturalist column called "Nature Nut" in the *Smithers Interior News*, *Kitimat Sentinel* and other northern newspapers. Her column is very well-researched and usually showcases a variety of wildlife and often includes great pictures.

Rosamund continues to organize the Christmas Bird Counts and continues to reach out to those, young and old, who are curious about nature. We salute her dedication to nature. ♡



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