# Comox Valley Naturalists Society

March 2023 Newsletter

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# Black Oystercatchers vs. Fanny Bay Oysters

And the winner is...

By Bruce Moffat



Black Oystercatcher at Ships Point.

Photo: Bruce Moffat



Ships Point Park, just south of Fanny Bay, is leased as a tidal area for commercial oyster production and the local Black Oystercatchers are wise to it. At low enough tide you can see many bags of oysters, mussels and clams lying on the sand and rocks.

Most often I try to go after high tide when the birds are hungry after waiting for their dinner to be revealed. They are shallow waders and wait for the shellfish to be exposed.

As a regular birder, this is my number one spot to go for the best chance of observing these cartoonish birds and their behaviours. Black to dark brown mixed feathers, pink legs adorned with jet black toenails, set off by the brilliant carrot orange beak and egg-yolk yellow eyes. Not to forget their harsh scream of a call!

New birders sometimes comment to me they heard that these birds don't eat oysters. Perhaps they have seen or heard they eat mussels and clams. With those they have an easier time cutting the adductor muscle directly between the opposing shells with a stabbing motion after inserting their narrow, sharp bill. Or birders have seen them take worms or crabs---the sea's bounty is open to them for all these.

But here at Ships Point Park, the oyster is king. With the oyster's ragged, undulating shell edge, a different entry strategy is needed. With millennia working on the problem the oystercatchers know precisely where to drill a small hole in the shell right by the adductor muscle. Once the shell is breached they can not only quickly gain entry into the tasty meal by cutting the muscle, they use the hole as a convenient carry handle so they can pick up their prize and move it to a more private feeding location.



Black Oystercatcher at Ships Point.

Photo: Bruce Moffat

The YouTube video linked here is a tribute to this wonderful, fascinating bird, documenting this feeding behavior: https://youtu.be/JOAO8GQZfYO.

#### **Board of Directors for 2023**

At CVN's online Annual General Meeting on February 15, the following directors were elected by acclamation:

Vice President: David Innes
Treasurer: Isabella Erni
Secretary: Kathie Woodley
BC Nature Rep.: Sharon Niscak
Wetlands Restoration: Karen Cummins
Projects: Loys Maingon
Director-at-Large: John Neilson

We are grateful for the continued service of these directors, most of whom have served in past years and agreed to stand for re-election this year.

Note, however, that we continue to be lacking a **President**. We encourage any member who has an interest in serving on the Board in this role to contact David Innes at cvncoordinator@gmail.com.



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# Wetland Restoration Group Report

By Karen Cummins

## Spring Plans

As we begin to emerge out of winter's shadow, the stewardship and outreach work of this group comes ever closer.

We will be helping with whatever plans Frank Hovenden has for the Courtenay Airpark (contact fhovenden@shaw.ca to be put on his work party contact list). This is a long-standing community restoration initiative in the heart of Courtenay that Frank has overseen from the start over 25 years ago.

The Wednesday Eyes on Nature walks and work parties in Little River Nature Park will start April 1. Do join us if the adventure into stewardship activities that root us in our home place appeals to you. One early project that we will focus on is further smothering of small reed canary grass clumps (followed by the reseeding of native grasses in the fall). The strategic shrinking of Dalmatian toadflax in the ecologically sensitive estuarine plain is another. We have been monitoring the population of this plant and its attendant biocontrol stem beetle as it very slowly but persistently has continued to expand its range. Conversation, laughter, good exercise in a beautiful workplace and cookies are standard operating procedures. Contact Karen at karen.cummins@shaw.ca to be put on the email list.



Karen follows a Dalmation toadflax rhizome from the parent plant to a new plant.  $Photo: Angela\ D.$ 

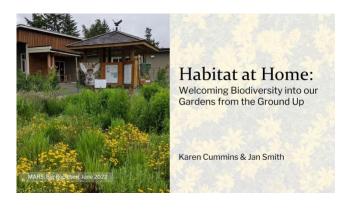
Cooperating with other restoration initiatives, such as ivy removal in Mack Laing Nature Park, MacDonald Wood Nature Park and Baynes Dr. Park on Ships Point, is another very rewarding experience and a way to meet other like-minded people in our community. For the information and schedule for the Baynes Dr. Park work party days in March see the new Facebook page for the Friends of Fanny Bay Parks

(https://www.facebook.com/people/Friends-of-Fanny-Bay-Parks/100090680718576/) or connect with Kathryn at eliminateinvasives@outlook.com.



Ivy removal at Baynes Park: (clockwise from left) Karen, Véronique, Dorothea, Lise, Pam. *Photo: Kathryn Hardy* 

MARS (Mountainaire Avian Rescue Society) has developed a tool lending library specifically for the removal of invasive plant species in our community. The priority for the tool lending in the spring will be to community stewardship groups but anyone can make a request. To borrow the tools, go to the MARS website https://marswildliferescue.com/tool-library to find the request forms.



MARS will also be hosting a presentation in May, **Habitat at Home**, on using plants native to this ecosystem on our properties to enhance wildlife habitat.

Guided walks of the native plant gardens that have been planted over the last two years will be part of this presentation.

## CVN Education and Outreach Needs You!

Last year the Wetlands group provided info about CVN groups and activities to the community at 5 public events. At present we have invitations to 7 public events from spring to early fall. Please consider coming to help us for a couple of hours to meet interested folks with whom we will share CVN naturalist opportunities as well as information on invasive plants and their threat to our native ecosystems.

From small children to the elders, and from new residents to those who have always lived here, we hear many interesting questions and thanks for providing the resources for people to connect with nature.

## **Airpark Restoration Report**

In December, Frank Hovenden posted his annual report on the restoration activities at the Courtenay Airpark for 2022 on CVN's website. Be sure to check it out here: https://comoxvalleynaturalist.bc.ca/wp-content/uploads/2022/12/Airpark-Report-2022.pdf.

# Vanier Garry Oak Team Report, March 2023

By Jim Boulter

The lack of snowfall in Courtenay this winter has allowed earlier visits to the City's Vanier Nature Park, and a head start is very welcome as we have a busy year planned. The City has given us an okay to tag the oaks, and has asked for a polygon map of the invasives in the park. We see this request as a move towards letting us begin invasive control later this year.

We would like to begin control of the invasive plants before any major tree work is done, as once sunlight can reach the soil the invasives can be expected to take off. The removal of the holly and sweet cherry will occur in the fall, well away from the bird breeding season. Our prime objective, which is to subordinate the overtopping conifers to the oaks, is not planned for this year.

We hosted our first walk on the February 24, with Art M. and Kelly K. of the CVN Birder group, and Jocie B., leader of the Botany group. Both groups were very positive to the idea of holding a number of surveys during 2023 to get baseline statistics on the wetland Garry oak ecosystem. Currently only the 2015 botany survey conducted by Helen R. for CVN and a 1-day bird

survey from 2012 are known to us. Also present was a resident whose property is above the Park.



Art M., Kelly K., Jocie B., Eloise H., Karen C. and Frank H., at the first Vanier Forest walk of 2023.

The Birders suggested drawing attention to the Park by creating an eBird "Hot Spot" which may be up soon. John N. has created an iNaturalist project, which already had over 20 photos of the Park on start-up, as all iNaturalist observations are geo-referenced.

The iNaturalist project is here: https://www.inaturalist.org/places/vanier-nature-park-bc.

We have a work party to start tagging the oaks with permanent metal tags, scheduled for the second week in March. We have previously identified about 120 trees in 2021, including about 65 oaks, with wood stakes which are now fading fast. In addition to tagging the trees, we will confirm the diameter at breast height (DBH), the general health of the tree, the tree's GPS, and taking photographs of the individual oaks.

An ecological assessment of the Vanier Forest was done in 2012, and eight shallow test ground wells were handbored to about 1 meter below grade. We began monitoring these wells and recording the water table level weekly in December of 2022, in an effort to learn basic data of the response of the permeable soil layers to the recharge and discharge processes. You can find more on this assessment on our web page at:

https://comoxvalleynaturalist.bc.ca/resources-for-vanier-forest-garry-oaks-project/

The principal grove has two major streams flowing through it from the north. The larger is a man-made trench (Tributary 1) which is wet most of the year, especially during storm events. This trench is about 1

meter deep and 1.5 meters across. Two small streams from upland weeps provide a low, but steady, flow into the trench.

Tributary 2 is the most productive of the streams coming from weeps above the Park. On our walk last month Eloise H., a local resident whose property abuts the Park, allowed us access to the spring which is on her property. The spring that is the source for Tributary 2 flows from a sand layer just below ground level.

With the addition of streams below the oak grove and on School District property, these tributaries form Towhee Creek, which flows down the high school property, under Headquarters Road and through the CVEX property to the Tsolum River.

We will start working on the invasive polygon mapping later this month, and hope to complete it in April. Meanwhile the City is closely following our activities, and assessing our plans.

If you would like to be kept apprised of the work we are doing in Vanier Nature Park to help preserve and restore this rare and unique wetland ecosystem, drop us a line a <code>jaboulter@shaw.ca</code> to be added to our mailing list. The Vanier Garry Oak team would like to thank all our supporters, and welcome new names.

### **Bylaw Change**

If you missed our Annual General Meeting in February, please be aware of the following bylaw change that was enacted there.

The membership period is now formally defined as the calendar year. In addition, the grace period for renewals, starting in 2024, will be up to January 31 rather than the former 90 days after year end.



# Tree of the Year 2023 Nomination Phase Ending

One nomination story

By Karen Cummins

The nomination phase for this year's Tree of the Year event has likely ended (March 15) by the time you are reading this (if it is before March 15, you are still welcome to submit a tree nomination on the CVN website). Our committee is likely busy confirming the last of the tree nominations. David O. is adding the last tree descriptions to the CVN website, and Roger Chayer and team will be finalizing the cycle routes to tour the trees. The tour and voting phase begins April 1.

There are plenty of challenges to sharing this event community wide. Finding a nominated tree is the beginning of the adventure for the team checking nominations. Confirming the tree identity can be another.



Nominee #1.

Photo: Karen Cummins

The first tree nominated this year was listed as "Ash", a very large genus with many species. The first clue came from Kay, the present owner of the property, who confirmed the rumour that this ash was brought to the Comox Valley as a seedling in 1862 with William Harmston via a boat from England. A photo of the tree in leaf, generously shared by Kay, showed compound pinnate leaves with 7–11 leaflets. A close look at the grey-brown and rounded stems that curve upwards on the lower branches, as well as the striking black, velvety buds, and the ridged and furrowed bark of the trunk definitively revealed it as common or European ash

(*Fraxinus excelsior*). This tree was widespread throughout Britain and Europe (but not Portugal) in 1862 and remains so today. It is, however, threatened there now by the spread of ash dieback disease.

As we eyed the copious fruit, the "keys", still hanging from the tree, I wondered about what wildlife here recognized these seeds or valued them as food? In England it would be bullfinches. Is it possible that woodpeckers, owls and nuthatches here would value the large trunks of this tree for nesting, just as different species of these same birds do in England?

The other story within this story is that of the other residents of this valley in 1862. This date rang in my memory until I confirmed that this was the same year many new settlers arrived with not only seedlings but smallpox. The epidemic that swept up and down the BC Coast resulted in the devastating loss of 90% of the indigenous population. The "empty" Garry oak prairies that occupied the river bottoms and nearby ridges were easily converted to "farmland" as if this land had not previously been stewarded for food, medicines and spiritual needs by the Pentlatch people.

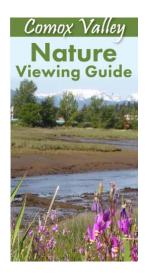
Today we see this very large, venerable tree as a keeper of valley history and that of the lives of the three families that have lived on this land since this tree was planted. This tree is blameless and has done its best to live up to the stature expected of the genes of a European ash. Kay has stewarded this tree since 1968 and welcomed our tree team onto the property to measure and look closely at this tree and show us the many photos of it through the years where it was the prominent backdrop of family photos.

This is just one of the many stories carried by the nominated trees and the people, wildlife and other plants connected to them. Please find these stories on the CVN website along with photos and the cycle tour maps. Get out and see these trees and vote for your favourite. We welcome your feedback about this event! Email us at cvn.toty@gmail.com.



# CVN Nature Viewing Guide Update

A member opportunity By Karen Cummins



A sincere thank you to the 14 CVN members who have stepped up to help update the information on the 20 nature viewing sites to be covered in the upcoming revised version of our popular *Nature Viewing Guide* brochure: Isabella I., Kathryn H., Judy M., Jennifer H., Joy D., Jim B, Brooke B., Veronique M, Bonnie Z., Ann, Lynn G, Ann T., Don L. and Debi L.

These folks are treated to reading about a nature viewing site that may be a favourite or one they may not be familiar with. They then explore the site to confirm details such as access, facilities, and regulations, as well as other naturalist observations they may make. Kathryn has generously offered to edit the actual files that go to the printer. David O. will update the corresponding information on the website.

An exciting development has occurred that means the remaining 24 online nature viewing sites on the CVN website will be updated and improved as well. CVN member and photographer Bruce M., has gathered permission to use any of the photos from the CVN Photography Group. He has, as well, gained the cooperation of the Comox Valley Photographic Club to do panoramic photos and drone videos that will be gradually added to the online sites.

Please get in touch if you are interested in helping us review nature viewing site information and checking the sites (Karen at cvnwalk@gmail.com).

# A Hot Plant?

Thermogenesis in plants By Véronique McIntyre

During a recent walk in snow-covered Little River Nature Park, I noticed a strange phenomenon—the whole park was white, except for the green round mass of kinnikinnick (*Arctostaphylos uva-ursi*) behind the fence that faces the bigger pond (Fig. 1).



Fig 1. Kinnikinnick standing out in the surrounding snow.

Photo: V. McIntyre

Upon closer examination it turned out that the absence of snow was following exactly the edge of the plant (Fig. 2).



Fig 2. Kinnikinnick standing out in the surrounding snow (detail).  ${\it Photo: V. McIntyre}$ 

What could cause this snow melting pattern? Some plants are well known for their ability to produce heat (a phenomenon called **thermogenesis** [1]). And it turns out they do it the same way as animals. Each of our cells contains organelles (thus called because they function like an organ, but are microscopic) called mitochondria. These perform **cellular respiration**—they turn sugar into usable energy via many chemical reactions. The byproducts of some of those reactions are carbon dioxide (CO<sub>2</sub>) and water. Also heat.

Heat is not a usable form of energy and usually just dissipates. That's why we feel hot when we exercise—our cells use lots of sugar and oxygen to produce lots of CO<sub>2</sub> (which we breathe out), water (which we keep in), and heat. Plant mitochondria perform cellular respiration 24 hours a day (whereas plants need light to perform photosynthesis, whose end products are those very sugars and oxygen that feed cellular respiration). In other words, plants are factories that transform the energy from the sun, which neither we nor they can use directly, into another form of energy, sugar, that is usable for moving, growing, reproducing, etc.

Now, there is a difference between producing some heat, which all plants do, and producing enough heat to melt the snow around you. To do that, plants need two proteins (AOX and PUMPS for short [2]) to be produced together. These two proteins enable chemical reactions (they are enzymes) and are found on the inner membrane of all plant mitochondria. Being produced together means that the corresponding genes on the heat-producing plants' DNA are co-expressed. The two enzymes are also expressed in higher amounts than in other, non-heat producing, plants. The genes for the two proteins are said to be co-regulated [3].

In some plants, such as a few species of skunk cabbage, this effect is achieved by the cells containing more mitochondria than in other plants, again requiring changes to their DNA expression [4 and 5]. Most plants are not able to use their DNA in any of those ways. And so far, this has not been studied in kinnikinnick.

By the way, the skunk cabbage that grows around here (*Lysichiton americanus*) has not been proven to be thermogenic either, contrary to what many people think, and in contrast to the native eastern skunk cabbage, *Symplocarpus foetidus*. The latter can raise its temperature up to an amazing 35°C warmer than its surrounding environment, melting up through ice and snow in the eastern frigid environment [6].

So, if kinnikinnick were to be proven not to be thermogenic after all, what could account for the snow

neatly melted on and around it? Maybe it simply traps the soil heat that formed during a sunny day? At temperatures close to zero, that might be enough to turn the snow that falls on it into water. It would not explain the neatly melted areas that outline the branches at the edge of the patch though. Science is as much about asking questions, as about answering them...

#### 1. https://en.wikipedia.org/wiki/Thermogenic\_plant

- 2. Y. Zhu, J. Lu, J. Wang, F. Chen, F. Leng, H. Li (2011). "Regulation of thermogenesis in plants: the interaction of alternative oxidase and plant uncoupling mitochondrial protein." *J. Integr Plant Biol.* 2011 Jan, 53(1):7-13 (PMID 21205176; DOI 10.1111/j.1744-7909.2010.01004.x)
- 3. Y. Onda, Y. Kato, Y. Abe, T. Ito, M. Morohashi, Y. Ito, M. Ichikawa, K. Matsukawa, Y. Kakizaki, H. Koiwa, K. Ito (2008). "Functional coexpression of the mitochondrial alternative oxidase and uncoupling protein underlies thermoregulation in the thermogenic florets of skunk cabbage." *Plant Physiol.* 2008 Feb, 146(2):636-45 (PMID 18162588; DOI 10.1104/pp.107.113563) [This publication has beautiful pictures of parts of plants that emit heat as seen with an infrared camera.]
- 4. Y. Ito-Inaba, Y. Hida, T. Inaba (2009). "What is critical for plant thermogenesis? Differences in mitochondrial activity and protein expression between thermogenic and non-thermogenic skunk cabbages." *Planta* 2009 Dec, 231(1):121-30 (PMID 19859730; DOI 10.1007/s00425-009-1034-z)
- 5. R. Li, J. Li, S. Wang, R. Wang (2022). "Novel insights into floral thermogenesis: In vivo analyses of mitochondrial dynamics in Nelumbo nucifera flowers." *Int J Mol Sci.* 2022 Oct 8, 23(19):11950 (PMID 36233249; DOI 10.3390/ijms231911950)

6.
http://wildandfreemontana.blogspot.com/2011/06/notall-skunk-cabbages-are-created.html

Véronique suggests that if you have a question, an interesting connection, or a photo that points to a special adaptation you would like to learn more about, send it her way (via <a href="cvncoordinator@gmail.com">cvncoordinator@gmail.com</a>). She might be able to do a little research and write-up about it like this one. She encourages CVN members to contribute to the newsletter: "the more everybody contributes, the more interesting it becomes."



# CVN Webinars in 2022

By David Innes

CVN continued with a successful webinar program during 2022 as a way to connect with our members during the suspension of in-person meetings. CVN has taken a cautious approach to resuming in-person events following the Covid-19 pandemic. We are optimistic about a gradual return to normal activities. Stay tuned!

Again we thank Loys Maingon for organizing webinars through the Canadian Society of Environmental Biologists. Webinars are recorded and can be accessed either through the CSEB website (https://csebscbe.org/category/news-and-events/) or the CVN website

(http://comoxvalleynaturalist.bc.ca/category/guest-speakers/). In addition, John Neilson has played an important role in contacting potential webinar speakers and arranging for promotional material.

The first webinar in January was by **Dr. Brian Starzomski** and **Kate McKeown**, "Using iNaturalist to document biodiversity patterns in BC Parks".

iNaturalist has become an important citizen science tool for documenting species sightings and can contribute to a better understanding of biodiversity in various regions around the globe. iNaturalist is very useful for generating a biodiversity inventory in British Columbia where the species diversity is greater than anywhere else in Canada. BC is vast, and traditional data collections methods alone cannot survey all corners of the province. In the year since the 2022 webinar, the project (https://www.inaturalist.org/projects/bc-parks) has grown significantly with over 660,000 observations, 11,000+ species and 9,000+ observers. Observations are predominantly in southern BC Parks such as Strathcona (38,626), South Okanagan Grasslands Protected Area (26,750) and E. C. Manning Park (19,168). The project has a very useful map showing the current distribution of observations in BC Parks. The project is worth checking out and CVN members can contribute their own observations.

The CVN AGM was held in February with short presentations by Frank Hovenden (Airpark Restoration), Karen Cummins (Wetland Restoration and Tree of the Year), Jocie Brooks (Botany), Kelly Klein (Birding, swan count and Christmas bird count) and Jim Boulter (Vanier Nature Park Garry Oak Tree Survey). It was great to see that our groups remain so active with support from CVN members helping as volunteers.

Thomas Munson gave a webinar in February, "Garry Oak Ecosystems – Benefits to Urban Areas." Thomas

worked as Environmental Technician for City of Victoria Parks, in restoration, and management of Garry oak ecosystems. Now, as Senior Environmental Planner for District of Saanich, he works to protect these same ecosystems from development activities. Less than 5% of the rare Garry oak ecosystems exist in their natural form on Vancouver Island. Despite their rarity, they perform valuable ecological, cultural and economic functions in our urban areas. Examples of successful management were discussed from urban areas in Victoria and Saanich, and these examples could be beneficial if applied to the northern range of Garry oak ecosystems in the Comox Valley. More information can be found at

https://www.saanich.ca/EN/main/community/natural-environment/environmental-planning/saanich-ecosystem-mapping.html.



Photo: Oceana Canada

A series of three webinars was presented in March focussed on fisheries. Isabelle Jubinville of Oceana Canada (https://oceana.ca/en/) presented their 2021 Fishery Audit (https://oceana.ca/en/reports/fishery-audit-2021/). The report found that fewer than one-third of Canada's fisheries are considered healthy. The health status of a third of stocks remains uncertain, due to insufficient data. Up-to-date audit information can also be found at https://fisheryaudit.ca/. Dr. Ian Perry (Emeritus Scientist with the Pacific Biological Station of Fisheries & Oceans Canada) gave a presentation on "The State of the Salish Sea" covering questions such as "Is the Salish Sea warming?" and "What is the current condition of the Salish Sea ecosystem?" His research expertise includes the effects of the environment on

larval, juvenile and adult stages of finfish and invertebrates; the structure and function of marine ecosystems; and ecosystem-based approaches to the management of marine resources. In addition to his recorded presentation to CVN, a similar presentation on the Salish Sea can be found on YouTube (https://www.youtube.com/watch?v=NJRGuXUGPh0). The final webinar in this series was presented by Rebecca Schijns (who is also with Oceana Canada): "The State of Canada's Fisheries: Status of Data-poor Stocks." As noted by Isabelle Jubinville the statuses of a third of Canada's fisheries are uncertain, which limits policy actions and informed management necessary to sustain healthy populations. Oceana Canada has conducted new assessments using a data-limited tool to estimate the status of "Uncertain" fisheries to help Canada's progress towards rebuilding fisheries and sustaining marine biodiversity.



Taylor's checkerspot butterfly.

The April webinar switched from the marine to the terrestrial environment and provided "An Update on the Checkerspot Butterfly Recovery Project" by Jennifer **Heron** (Provincial Invertebrate Conservation Specialist) and Chris Junck (Conservation Biologist with Garry Oak Ecosystems Recovery Team). Taylor's Checkerspot Butterfly (Euphydryas editha taylori) had a historical range from Hornby Island, southeastern Vancouver Island and south into Oregon. The species was thought to be extirpated in Canada by 2000 since no checkerspots were found on the last known sites on Hornby Island. However, new populations were found on Denman Island in 2005 and near Campbell River in 2018. Recent recovery activities for Checkerspot butterflies are ongoing in Helliwell Park on Hornby Island. More information can be found at

https://engage.gov.bc.ca/bcparksblog/2022/05/13/beau tiful-butterflies-in-helliwell-provincial-park/.

CVN webinars resumed following the summer break in September with two presentations by students who worked for the Strathcona Wilderness Institute (SWI) during the summer of 2022. **Jack Bindernagel** presented a summary of a few of the "Species of Conservation Concern..." which utilize the habitats found in the park, and explored the significance of the park as it relates to their conservation. These species include Donn's small limestone moss (*Seligeria donniana*), Black Swift (*Cypseloides niger*), Common Nighthawk (*Chordeiles minor*), oldgrowth speckleberry lichen (*Pseudocyphellaria rainierensis*), *Sticta weigelii* (a foliose lichen), Salish daisy (*Erigeron salishii*), and cliff dwarf-primrose (*Douglasia laevigata*).

Community science platforms such as iNaturalist provide large datasets to researchers and have been used to document flora and fauna in Strathcona Park. A second summer student, **Steven Hayward**, presented a summary of an analysis to determine "Can Community Science Measure Vascular Plant Elevation Changes in Strathcona Park?" Software programs can provide elevation data based on GPS coordinates and evaluate the current flora dataset of Strathcona Park as a first step to see if this is a useful approach to track plant elevation changes in the park. More information on the research programs at SWI can be found at

https://strathconapark.org/.

We all know that extensive logging continues to be a problem for forest habitats on Vancouver Island. One negative consequence is the effects of logging on watersheds. David Weaver gave an overview in his September presentation titled "Logging in Your Watersheds – A Hydrological Report Card". David is a retired Professional Forester and is currently Vice-President of the Beaufort Watershed Stewards (https://beaufortwater.org/). Their website has a wealth of information and articles such as "Mapping Beaufort Groundwater with Geophysics" and the watershed health report card

(https://beaufortwater.org/index.php/2021/12/08/wate rshed-report-card/) that formed the basis for Dave's presentation. Beaufort Watershed Stewards is also sharing their stream sampling data via Data Stream and provides water temperature data for several streams in the Beaufort watershed. The link to the data visualization can be found on their website.

The Comox Valley is fortunate to have several regional parks. For the October meeting, **Mark Harrison**, Comox Valley Regional District Manager of Parks,

provided an overview ("Towards a Regional Parks Service") of the new Regional Parks and Trails Service recently established by Comox Valley Regional District. The presentation explored the service establishment process, why the service is needed, and the potential service deliverables. More information can be found at: https://www.comoxvalleyrd.ca/projects-initiatives/past-current-projects/regional-parks-service-establishment-review.



Alexandra Morton is a well-known advocate for protecting the marine environment, in particular drawing attention to the negative consequences of salmon aquaculture on wild salmon. Her presentation in November ("What We Need to Do to Rescue Wild Salmon from Further Decline") was followed by a discussion of the topic. She has published a book (Not On My Watch) outlining the problem, and her website (https://www.alexandramorton.ca/) has videos covering topics such as the Fraser River sea lice problem and the effects of salmon farms on herring fisheries.

The final webinar for 2022 was given in December by David Stapley, Joy Wade and Chanchal Cabrera on the "Biodiversity of the Morrison Creek **Headwaters.**" The unique environmental features of the Morrison Creek headwaters have resulted in a biologically rich ecosystem, home to many endangered and threatened species including the one-of-a-kind Morrison Creek Lamprey. Volunteers with the Morrison Creek Streamkeepers (https://morrisoncreek.org/) and the Comox Valley Land Trust are trying to preserve a forested area around the Morrison Creek headwaters. The Comox Valley Land Trust, in partnership with the BC Parks Foundation, has been leading a campaign to purchase the headwaters so that it is preserved from logging and development forever. A crowdfunding campaign launched in November successfully raised the remaining 20 per cent of the funds. The announcement can be found at

https://bcparksfoundation.ca/projects/parks-bank/morrison-headwaters/.

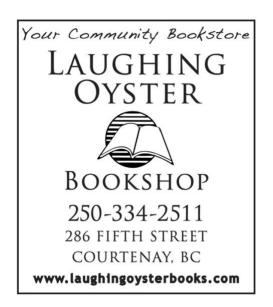
CVN thanks all the presenters, organizers and members for another successful webinar series. We look forward to interesting webinar presentations for 2023 and perhaps a return to in-person presentations in the fall.

# NatureKids Comox Valley Update and call for help

By Karen Cummins

NatureKids Comox Valley is a chapter of NatureKids BC which is focused on "engaging BC children and their families in the diversity, complexity, and wonder of the natural world." For many years CVN has had close ties with NatureKids. Many of the leaders have been both CVN members and parents of children aged 5 to 12. There are many common interests, goals and activities that are shared by both CVN and NatureKids.

At present this group is without a leader. If anyone can help with this group, please let us know at cvnsecretary@gmail.com.



# **Upcoming CVNS Activities**

# General Instructions for Field Trips

- All field trips are club events and reserved for members only unless otherwise stated. Typically, one walk each month is open to the public.
- Meet either at the carpooling location or the trailhead 10 minutes before the specified time unless otherwise announced. The carpooling location is usually the Dogwood Mall (Canadian Tire) parking lot, near Cliffe Avenue close to Boston Pizza. For trips going north, it is the Courtenay Country Market on Hwy 19A about 2 km north of Veteran's Memorial Parkway.
- Participants are responsible for their own safety.
- Walks typically take at least 2 hours.
- Wear clothing and footwear suitable for the conditions.
- Bring water and a snack (or lunch for longer trips).
- No dogs please.

### Schedule

This information reflects planning as of our publishing date and is subject to change. For general club activities, watch for the latest information and additional details in the Board's periodic email announcements and on the website.

To be notified of the activities of a particular interest group, contact the Group Leader and ask to be added to the group's contact list.

Although some interest-group field trips have resumed, no in-person general meetings or weekend walks have been scheduled at the time of publishing.

### Reminder for Field Trip Leaders

All field trip participants who are not CVNS members must sign our Informed Consent and Assumption of Risk Agreement before participating.

Until further notice, all participants must continue to follow CVN's COVID-19 protocol (vaccination, agree to special waiver, distancing, etc.).

# About the Society

## Website

https://comoxvalleynaturalist.bc.ca/

General Email Address

cvncoordinator@gmail.com

Mailing Address

Comox Valley Naturalists Society Box 3222

Courtenay BC, V9N 5N4

**Board of Directors** 

President: [vacant] (cvncoordinator@gmail.com)

Vice-President: David Innes (cvncoordinator@gmail.com)
Secretary: Kathie Woodley (cvnsecretary@gmail.com)
Treasurer: Isabella Erni (TreasurerCVNS@gmail.com)

BC Nature Director: Sharon Niscak Project Director: Loys Maingon

Wetlands Restoration Director: Karen Cummins

Director-at-Large: John Neilson

Group Leaders and Other Volunteers

Membership Secretary: Dianna Colnett

(cvnsmembership@gmail.com)

Birding: Kelly Kline (cvnbirds@gmail.com)
Botany: Jocie Brooks (cvnbotany@gmail.com)

Shoreline: [vacant]

Photography: Bruce Moffat (moffat.images@gmail.com)

Weekend Walks: Loys Maingon Conservation: Loys Maingon

Garry Oak Restoration: Loys Maingon

Vanier Forest Garry Oaks Project: Jim Boulter

Airpark Restoration: Frank Hovenden

Environmental Heritage and Culture: Gordon Olsen

(cvncoordinator@gmail.com)

Swan Count: Ernie Stefanik, Krista Kaptein

(ernie.stefanik@gmail.com)

Comox Valley Conservation Partners liaison: Kate

Panayotof

Speakers Planning: David Innes Bursary Committee: Barbara Neilson

(cvnbursary@gmail.com)

Tree of the Year Committee: Karen Cummins

(cvn.toty@gmail.com)

Education and Outreach Committee: Lyndsay Fraser Coffee Committee: Judy Chrysler, Kelly Kline

Website: David Orford

(site\_info@comoxvalleynaturalist.bc.ca)

Facebook: Jillian Jones (cvnaturefacebook@gmail.com)

Newsletter Advertising: Kathie Woodley

Newsletter Editor: David Orford

(newsletter@comoxvalleynaturalist.bc.ca)

## Constitution and Bylaws

Available in PDF form on this web page: http://comoxvalleynaturalist.bc.ca/about-us/

## Membership

Includes membership in BC Nature.

Membership form (including the Informed Consent and Assumption of Risk Agreement) is available at meetings and on the website. This must be completed each year.

Fee: \$30 per year per household (1 or 2 adults plus children 18 and under)

Discount of \$16 if you are already a paid-up member of BC Nature (either directly or through another club).

Pay at general meetings, on the website, or mail a cheque payable to Comox Valley Nature to: CVNS Membership Secretary Box 3222

Courtenay BC, V9N 5N4

Membership runs for the calendar year and is considered lapsed if not renewed by January 31. Lapsed members are removed from the CVNS and BC Nature membership lists.

Change of address, phone number or email: Please advise the Membership Secretary.

## Meetings

When in-person meetings resume, they will follow the schedules described here.

**Monthly general meetings** are held on the 3rd Sunday of the month at 7:00 p.m. in the Florence Filberg Centre, 411 Anderton Avenue, Courtenay.

**June meeting**: Picnic at a designated location.

No general meeting in July, August, or December.

**Bird meetings**: First Thursday of the month, 7:00 p.m. at the Filberg Centre Soroptimist Lounge, Courtenay. For information or to be included on the birding group list, send email to cvnbirds@gmail.com. Birding walks are held weekly, most on Thursday mornings, and once per month on a Sunday.

**Botany meetings**: Second Monday of the month at a member's home. An email is sent prior to the meeting to confirm location, time and topic.

Botany walks (weather permitting) precede or follow the meeting and are also scheduled at other times. To be included on the botany group list, send email to <a href="mailto:cvnbotany@gmail.com">cvnbotany@gmail.com</a>.

#### Newsletter

The newsletter is published 3 times per year (March, June, and November). The full-colour version is emailed in PDF form to all members on the email list, and a few printed copies (black and white) are available at general meetings and in the CVNS outbox in the Evergreen Lounge at the Florence Filberg Centre.

The newsletter depends on your contributions. Please consider contributing an **article** or **note** on any topic of interest to other members such as natural history, conservation activities, trips, unusual sightings, or a book review. **Photos** are also appreciated, either with a story or stand-alone. You can send your contribution by email to newsletter@comoxvalleynaturalist.bc.ca.

We would appreciate receiving articles by the first day of the publication month. All articles are subject to editing.

### **NatureKids**

CVNS has a cooperative relationship with NatureKids Comox Valley, a separate nature club for children which is part of the NatureKids BC organization. For more information, see https://www.naturekidsbc.ca/.