Comox Valley Naturalists Society

March 2026 Newsletter

We respectfully acknowledge that the land on which we gather and operate is the unceded traditional territory of the K'ómoks First Nation, the traditional keepers of this land.

CVN's 60th Anniversary Celebration

Join the Festivities!

By Kathy Haigh

We're thrilled to invite you to a very special milestone—**Comox Valley Nature's 60th Anniversary Celebration**! This is a moment to honour our shared love of the natural world, reflect on six decades of community stewardship, and look ahead to the adventures still to come.

🎉 Anniversary Gathering

Sunday, April 26, 2026, 1:00–3:00 PM at Rotary Hall, lower level of Filberg Centre

Our afternoon together will include:

- Warm greetings, land acknowledgement and opening reflections
- A nostalgic **60-year slideshow** celebrating our history
- A break to enjoy **cupcakes, coffee**, and a walk through our **CVN timeline display**
- A beautiful **nature slideshow** featuring local birds, wildlife, forests, and more
- Fun **door prizes** interspersed with member anecdotes
- A heartfelt **thank-you** to our members, partners, and community

This event is open to CVN members and invited guests. We'd love to see longtime members, new faces, and friends of nature alike. Bring your curiosity, your stories, and your sense of wonder.

🌼 CVN 60th Anniversary — Volunteer Opportunities

We'd love your help in making our 60th Anniversary Celebration and April Nature Walks truly memorable. If you enjoy welcoming people, sharing your love of nature, or lending a hand behind the scenes, there's a place for you on the team. Kathy Haigh (kathyhaighcomox@gmail.com) is coordinating volunteers.

🎉 Anniversary Event Volunteers

Create Historic Timeline Display - use your graphic art skills as part of a team effort

Update CVN Historic slide show - a couple of folks needed to assist Kathy - use your

PowerPoint skills, gather photos or scans, run the audio-visual equipment in the Rotary Hall

Refreshments and Kitchen Crew - a few more helpers are needed in advance and day-of.

Setup Crew (12:00–1:00 PM)

- Arrange displays on side tables
- Assist with timeline and slideshow displays

Welcome & Greeting Team (12:45–1:15 PM)

- Greet guests at the door
- Direct visitors to displays and seating

Door Prize Assistants

- Help obtain prize items in advance
- Organize prize table day of
- Distribute draw tickets

April Nature Walks — Celebrating 60 Years Outdoors

All month long, we'll be highlighting our anniversary with a series of guided walks. Most outings are open to both members and the public—an ideal chance to share the joy of nature with others. Join us and learn about an aspect of our community you may not already be familiar with.

April Walk Schedule (specific details will be posted on the CVN website):

- April 5 — Birding (TBC)
- April 6 — Botany
- April 11 — TOTY: "Don't Fear Trees"
- April 12 — Vanier Nature Park
- April 18 — Wetlands Walk: Little River Nature Park
- April 19 — Birding (TBC)
- April 24 — Airpark Walk
- April 25 — TOTY: "Dune Stories"
- April 26 (morning) — Birding (TBC)

The Evolutionary Snow Lichen

By Loys Maingon

What's in a microbial mat left by receding snow? And what is it doing there?

Fig. 1a and 1b. Microbial mat left by receding snow. Mount Washington BC, Paradise Meadows (5 June 2025 8 a.m.) *Photo: Loys Maingon*

Fig 1b. *Photo: Loys Maingon*

Microbial mats form at the right temperature and pH in snowmelt and only last fleetingly. They consist mainly of the disorganized organic debris accumulated in the receding snow

column. The patterns they form are mainly the product of bacterial organization.

The analysis of the sample of a microbial mat formed at 8 a.m. at Paradise Meadows on June 5, 2025 showed that it consisted mainly of bacteria, cyanobacteria, Chlorophycae, fungi, yeast and some protists (*Galionella ferruginea*, *Chlamydomonas nivalis*, *Chlainomonas rubra*, *Trebouxia*, *Dolichospermum*, *Pseudanabaena catenata*, Nematoda, Tardigrada, Amoeba (*Spongomonas*), Ciliophora (*Frontonia*). This is consistent with what DNA analysis has shown to be found in subalpine and alpine snow. It is therefore of interest to consider that these are normal constituents of snow. It is also important to consider that these organisms were not dormant throughout the winter period. They are known to be active throughout the year and have an important function fixing carbon, year-round.

We take so many things around us for granted that we fail to appreciate just how really alive the world about us is. Perhaps nowhere is this truer than in our general lack of appreciation of what snow really is. More than a winter wonderland, snow, which is traditionally associated with winter cold, a period of dormancy and death, turns out to be a miracle of life that makes the regenerative power of spring possible, and is in fact essential to it. Snow holds the microbial elements and nutrients essential to structuring our northern terrestrial and aquatic ecosystems. This has tremendous implications for our understanding of evolution.

So, what is snow? Over the last decade polar and alpine scientists have come to realize that snow is much more than just frozen water. It is a missing link in our modelling of carbon cycles. As one researcher working in the Olympic peninsula put it, snow is "a cryptic photosynthetic system." Researchers also know that in the arctic around Svalbard, ocean productivity is driven by the input of organisms associated with snow algae plunging into the ocean. Researchers refer to this as "the snow rainforest" to describe the large variety and complexity of organisms that live in the snow.

There are two things we do not normally stop to consider.

First, "snow" is a blend of mineral elements and organic matter. It is peaty water, but not a single malt. The precipitation that falls as snow or rain is part of a global atmospheric condensation system - a distillation- which transports not just water and nucleation chemicals such as sulphur. The majority of organisms reproduce by sporulation. Pollen, fungal and bacterial spores, soot, volcanic ash and soot, and now microplastics, can remain airborne in the stratosphere for indefinite periods. (Little is known about the fate and duration of these essential constituents of rain and snow.) These particles constitute a reservoir for ice nucleation which will contribute to the formation of rain and snow, integral to precipitation. Heavier spores of algae and eggs of tardigrades are also carried in the lower atmosphere and incorporated in precipitation.

Second, snow is crystalline. Like water, it has optical properties. Therefore, when snow blankets a landscape, the blanket has a photic layer in the same way that a lake does. Depending on the structure of the snow, its chemistry, the density of particulate matter in the snow and the degree of sunlight, light penetrates snow creating a photic zone between 30 cm and 130 cm.

As any cross-country skier can attest, in subalpine environments below the treeline trees contribute branch and lichen debris. This adds to the bacterial, fungal, algal and faunal material, such as insects and "worms" that can become integrated into the snow. Essentially that is not very different from what researchers have observed in the Arctic and Antarctic. It is just a richer complex, as should be expected from temperate ecosystems.

So then, what does snow become? Polar and alpine researchers have found that the algae form a photosynthetic layer at the top of the snow. The question that arises, and which remains largely unanswered, is whether that layer forms an "organized system", or whether it is just a disorganized random assemblage of algae and fungi? Answering that depends entirely on taking an interdisciplinary approach to the data. Looking at the data from the point of view of a lichenologist, rather than as a glaciologist, a microbiologist, or a phycologist, the complex of organisms in the snow's photic zone forms an organized multipartner symbiosis consistent with the definition of what constitutes a lichen.

Lichens have long been considered anomalies in the world of biological taxonomy, because they are an undeniable symbiosis—different organisms living cooperatively together, contrary to the competitive dogma of Western science.

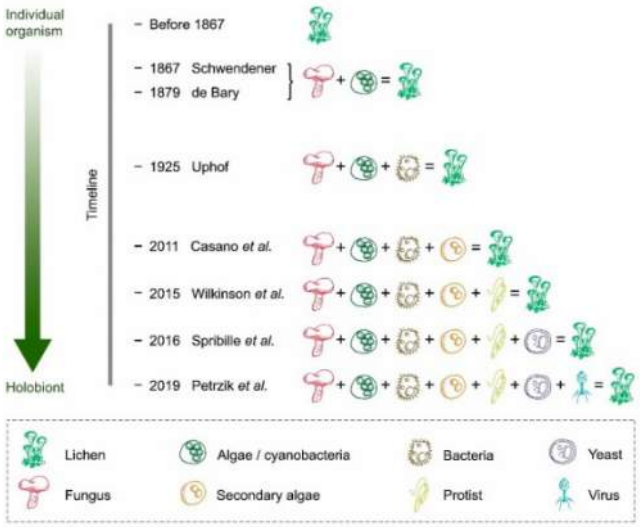

Fig. 2. Evolution of our understanding of lichens and the variety of symbioses in lichens. (From: Lourdes Morillas et al. (2022) "Lichen as Multipartner Relationships." Encyclopedia of Fungi).
[For the full-size diagram see https://tinyurl.com/Understanding-lichens.]

As the late Lynn Margulis correctly postulated in the late 1960s, much to her grief and much to the establishment's outrage, life on this planet has evolved as a series of symbioses merging archaea and bacteria. That is a simple fact we now teach in high school science today. As Figure 2 illustrates, lichens, which were first thought to be plants, were discovered to be a symbiosis in 1867. In 1925 Uphof revealed that lichens were a symbiosis of at least three partners: fungi, algae, and bacteria. Since 2011, thanks to DNA analysis our understanding of what a lichen is has been radically expanded to include the additional roles of yeast, a secondary alga, protists and a virus.

In light of these discoveries, "lichen" has had therefore to be redefined as "a multipartner relationship," by Morillas et al. in 2022.[1] The basic structure for that "multipartner relationship" remains essential to what defines a lichen. It consists of at least a bilayer of upper fungal hyphae housing algae usually forming a protective barrier that produces UV-protective

metabolites, followed by a loose spongy medulla housing carbon and nitrogen-fixing algae and cyanobacteria. If this is not directly attached to a rocky substrate, a third basal hyphal layer attaches the symbioses to a substrate.

In 2023 Caleb Schuler and Jill A. Mikucki published the results of a two-year PhD research project on Mt. Baker in a paper entitled: "Microbial ecology and activity of snow algae within a Northwest Pacific snowpack."[2] The project did a DNA analysis of the strata of the snow column at six sites. Their DNA analysis does not identify the constituents to species and is limited to families. While they do not seem to have realized the similarities with lichen structure and constituents, the distribution that their data reveals is consistent with that of a lichen as "a multipartner relationship."

The snow column consists of a covering layer of "watermelon snow" that is *Chlamydomonas nivalis* and *Chlainomonas rubra*, green algae that produce the red pigment astaxanthin, and some fungi. Astaxanthin is a UV blocker. The column below consists of loosely dispersed fungal hyphae, green algae and bacteria, together with cyanobacteria, viruses, yeast and protists. The basal part of the photosynthesizing relationship consists of a hyphal bed. The covering populations of *Chlamydomonas nivalis* do not merely produce astaxanthin to protect themselves, as is customarily thought. Here is altruism. They serve as UV-blockers to protect the photosynthetic activity of a much more complex lichen-like symbiotic organization.

So, when we look at snow, we are actually looking at a vast lichen-like template for the symbiotic organization of ecosystems and species. If this is correct, it has some interesting ramifications in how we view the evolution of life.

First, it challenges an old assumption that during the last Ice Age (and all Ice Ages before that) when much of North America was covered by two kilometres of ice there was no life. First the weight of ice had to exert pressure (and pressure is heat) and create a basal layer of water which would have harboured microbial life. Second, the covering of the glacier would have had photosynthetic properties driven by microbial organisms, much as glaciologists find today. Third, when glaciers retreated 10 to 12 thousand years ago the regeneration and re-population of life, the "re-greening" of North America was driven not only by a movement of macro-organisms from the south, but by the micro-organisms present in the snow. All confirming the basic axiom of biology: "Only life begets life."

There is continuity rather than sequence in evolution, in the same way that human evolution is increasingly understood to have been a continuous merging of species rather that a series of replacements. (We are all still genetically Neanderthals, though we claim Sapienhood.)

Second, there is the problem of viewing life as separate competitive units rather than as a symbiotic continuum. Paleontologists and taxonomists have long been bedeviled by two organisms that escape all attempts at neat pigeonholing. These are Prototaxites and Spongiophyton. Prototaxites was once thought to be a tree - a relative of gymnosperms - but it turned out to be more like a giant fungus, and now seems to belong to "an unknown branch of life."[3] More recently Spongiophyton, an unruly organism that seems to be neither a vascular plant nor a lichen, seems also to belong to "an unknown branch of life."[4] That may be life itself!

What the snow lichen may suggest is that evolution is not a neat set of sequences. It is more akin to a continuous variation on a broad template of multipartner relationships. Evolution is creative on a fairly simple theme of symbiotic variations that defy the comfort of hierarchy. And sometimes we have surprises outside the comfort of our expectations.

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1. Lourdes Morillas et al. (2022). Lichen as Multipartner Relationships. *Encyclopedia of Fungi* 2(3): 1421-1431 (https://doi.org/10.3390/encyclopedia2030096).

2. Caleb G. Schuler & Jill A. Mikucki (2023). Microbial ecology and activity of snow algae within a Pacific Northwest snowpack. *Arctic, Antarctic, and Alpine Research* 55:1 (https://doi.org/10.1080/15230430.2023.2233785) .

3. Colin Schultz (2013); Updated by Carlyn Kranking (2025). Giant, mysterious spires ruled the earth long before trees did: What exactly are these odd-looking fossils?. *Smithsonian Magazine* (https://www.smithsonianmag.com/smart-news/giant-mysterious-spires-ruled-the-earth-long-before-trees-did-what-exactly-are-these-odd-looking-fossils-13709647/)

4. Bruno Becker-Kerber et al. (2025). The rise of lichens during the colonization of terrestrial environments. *Science Advances* 11:44 (https://doi.org/10.1126/sciadv.adw7879)

Board of Directors for 2026

At the CVN Annual General Meeting on February 22, the following positions were filled by acclamation:

• President:	Betsy MacKenzie
• Secretary:	Eloise Holland
• Treasurer:	Brian Storey
• Past President:	Lynn Gray
• Wetlands Restoration:	Karen Cummins
• CVCP Representative:	Kathie Woodley
• Director at Large:	David Innes
• Director at Large:	David Orford

Many thanks to the retiring and continuing board members for their service to CVN!

The hard-working nomination committee subsequently found volunteers for the vacant position of BC Nature Representative and for a new Director at Large. **Warren Michelow** and **Whitney Peek** were appointed to the board at the March board meeting. Warren will take over from Denise Fredriksen as BC Nature Rep. Whitney will shadow Karen Cummins in her wetlands restoration work this year with a view to taking over from Karen in the future. Welcome and many thanks to Warren and Whitney.

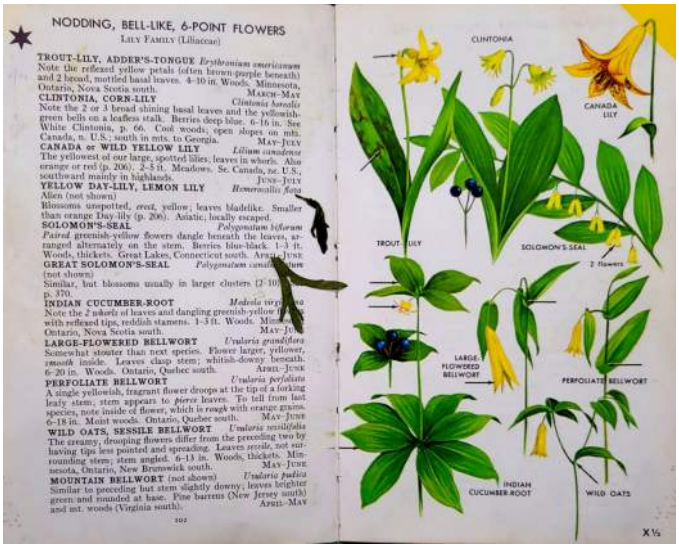
The nomination committee will continue its search for candidates for **vice president**. If you are interested in the position or in helping the nominations committee, please contact the committee via cvcp_rep@cvnature.ca.

Notes on Field Guides

By Eloise Holland

When I first started learning about native plants in the early 70s my family was living in the Ottawa Valley. The first field guide I used was ***A Field Guide to Wildflowers of Northeastern and North Central North America*** by Peterson and McKenny. We had a green-covered 1969 edition, and we just called it "Peterson's." I still have it, and it has a few notes inside from my father. "Spotted Joe-Pye-Weed found at Murphy's Point July 1974". When I flip through it, little bits of dried leaves fall out.

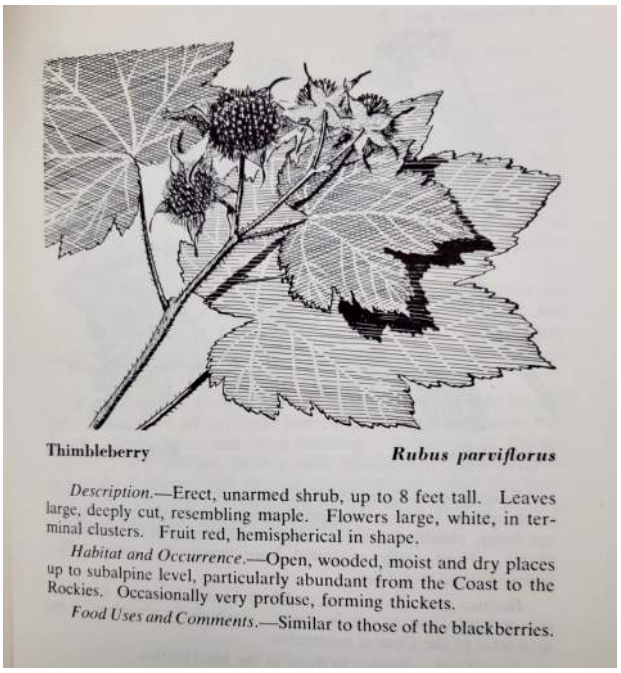
I think this book was one of the things that made me fall in love with looking at the natural world and learning the names of native plants. In Peterson's the plants are sorted by flower colour, and there are a few pages of coloured plates at the beginning of each section. I think this really appealed to that part of 10-year-old me that had to have the 64-pack of coloured crayons. I would spend hours poring over the colour plates and then became interested in the capsule descriptions of each family and the small symbols they used in the margins to introduce each one.



When we moved to British Columbia in 2018, my sister gave me the ***Plants of Coastal British Columbia*** by Pojar and MacKinnon. This is the book you are mostly likely to run into in the wild, on a Botany walk. Already mine is full of Post-it notes and is pretty well-thumbed. Pojar and MacKinnon is a simple but complete reference that includes land-based plants and a few aquatics. It has everything from trees to grasses, mosses and lichens.

Really, I don't need any other field guides to plants, but I find there are several others that have appeared on my bookshelf.

I was gifted the ***Guide to Common Edible Plants of British Columbia*** (1969). The charming illustrations by Frank Beebee are precise little works of art. This book is part of a series published by the BC Provincial Museum (as it was then called). It serves as a basic introduction to edible plants and is a good book for beginners.



Thimbleberry ***Rubus parviflorus***

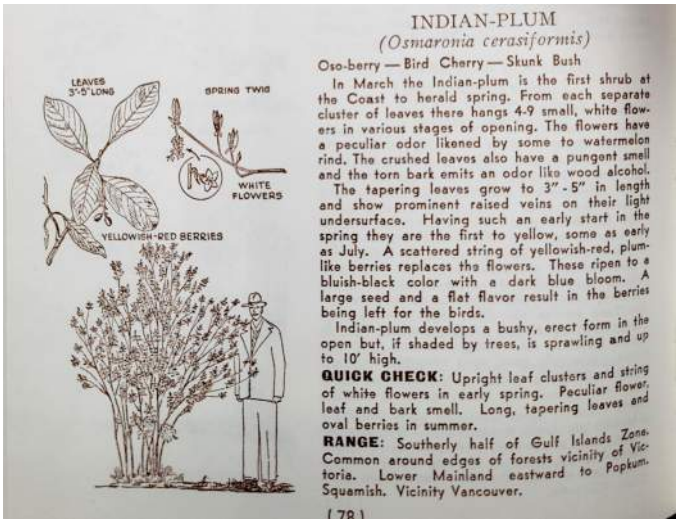
Description.—Erect, unarmed shrub, up to 8 feet tall. Leaves large, deeply cut, resembling maple. Flowers large, white, in terminal clusters. Fruit red, hemispherical in shape.

Habitat and Occurrence.—Open, wooded, moist and dry places up to subalpine level, particularly abundant from the Coast to the Rockies. Occasionally very profuse, forming thickets.

Food Uses and Comments.—Similar to those of the blackberries.

There were 28 different handbooks printed in the BC Museum series at that time, with soft paper covers, and you can still find them for sale second-hand. Today, Nancy Turner's ***Food Plants of Coastal First Peoples*** is an up to date and more rigorous source of information.

Another second-hand find is ***Trees, Shrubs and Flowers to Know in British Columbia*** by C.P. Lyons (1976). The descriptions are lyrical: "Hardhack usually masses in dense clumps in wet places and is crowned with such a showy display of fluffy pink plumes that it can't help but be noticed."



INDIAN-PLUM

(Osmaronia cerasiformis)

Oso-berry — Bird Cherry — Skunk Bush

In March the Indian-plum is the first shrub at the Coast to herald spring. From each separate cluster of leaves there hangs 4-9 small, white flowers in various stages of opening. The flowers have a peculiar odor likened by some to watermelon rind. The crushed leaves also have a pungent smell and the torn bark emits an odor like wood alcohol.

The tapering leaves grow to 3"-5" in length and show prominent raised veins on their light undersurface. Having such an early start in the spring they are the first to yellow, some as early as July. A scattered string of yellowish-red, plum-like berries replaces the flowers. These ripen to a bluish-black color with a dark blue bloom. A large seed and a flat flavor result in the berries being left for the birds.

Indian-plum develops a bushy, erect form in the open but, if shaded by trees, is sprawling and up to 10' high.

QUICK CHECK: Upright leaf clusters and string of white flowers in early spring. Peculiar flower, leaf and bark smell. Long, tapering leaves and oval berries in summer.

RANGE: Southerly half of Gulf Islands Zone. Common around edges of forests vicinity of Victoria. Lower Mainland eastward to Popkum, Squamish. Vicinity Vancouver.

(78)

The black and white plant illustrations include what I call "Lurking Man for Scale". Behind several of the mid-sized plants and shrubs the illustrator added a man in a Homburg hat...for scale? I have many questions...How tall was he? How high was his hat? Why is he wearing a suit and tie in the woods? To be fair, the text does state the height of the plants, but I find this choice both charming and hilarious.

This book also has keys to deciduous and coniferous leaf identification, elevation charts and a section called "Nature's Calendar" which shows bloom times.

It's worth noting that over time, classifications and names change, and what we know about plants is refined. With climate change, information about bloom time and range is also changing. In the end I'll keep using the more up to date guides and hoard the historical treasures with the hand-drawn illustrations on the lower shelves of my bookcase.

A Wonderful Oddity at Paradise Meadows

A lichen species dependent on the Canada Jay?

By Loys Maingon

Fig. 1a. Federally listed lichen species *Acroscyphus sphaerophoroides* ("crab's eye lichen") found in Paradise Meadows on December 12, 2025, right by the trail! *Photo: Loys Maingon*

Fig. 1b. Location (red circle) of lichen specimen in Fig. 1a at the top of a dead yellow cedar (*Callitropsis nootkatensis*). *Photo: Loys Maingon*

It is always something to celebrate when a rare organism that one normally has to go into remote areas to see shows up in one's backyard, literally "out your back door.". It is even more surprising when it turns out that it is in a location that one has passed by hundreds if not thousands of times. Yet that is what happened December 12, 2025.

It is not clear why it has not been seen before, given the large number of naturalists and a fairly high density of would-be lichenologists who have walked by it regularly. It is in a prime location at a trail juncture which sees a very high volume of pedestrian traffic.

This is a species at risk. It is considered endangered by human activities The federal Species at Risk Act (SARA), classifies endangered species as being either extirpated, endangered, threatened, or of special concern. *Acroscyphus sphaerophoroides* is classed at the lowest classification: "special concern." It is considered to be at risk from human activities such as logging, landscape level drainage and recreation.

Until about three or four years ago the species was not known to be on Vancouver Island. Dan Tucker, who was a student with SWI from 2019 to 2020, discovered it in a wetland north of Sayward by accident. He discovered a fallen lichen mass on the ground, which turned out to be *Acroscyphus sphaerophoroides*, a lichen that was until then mainly associated with wetlands around Prince Rupert. It has since then been found fairly frequently around subalpine wetlands of Vancouver Island. It is now a regular denizen of Strathcona Provincial Park, possibly associated with the presence of resident *Perisoreus canadensis*, the Canada Jay.

The global distribution of this lichen is limited to coastal wetlands, mainly in Canada, except for a single observation on the Olympic

peninsula, as indicated in Figure 2. There is therefore a possible overlap with the distribution of coastal Canada Jay populations (*Perisoreus canadensis pacificus*), which some have argued may constitute an entirely distinct species of jay. This suggests that it could be a lichen species dependent on the presence of a coastal species or sub-species of Canada Jay.[1]

Fig. 2. Distribution of *Acroscyphus sphaerophoroides* (Ref. iNaturalist).

Acroscyphus sphaerophoroides is an interesting lichen for several reasons. It is not clear how quickly it grows, but as Dan Tucker's find shows, its fate is directly tied to the longevity or duration of the dead snag on which it grows. Given that it develops on trunks sitting in water-saturated areas which are vulnerable to high winds and wet snow loadings, age is limited by climate extremes. This species of lichen is therefore vulnerable to climate extremes of wind and drought which are becoming more frequent as climate deregulation proceeds, as are coastal Canada Jay populations.

Additionally, it has long been taken to be associated with raptors. The question has always been: Why does it grow at the very top of dead yellow cedar (*Callitropsis nootkatensis*) trunks? And how does it get there? The untested general assumption has been that *Acroscyphus sphaerophoroides* develops at the top of the spire on which a raptor such as a Merlin (*Falco columbarius*) roosts overlooking a wetland in search of dragonflies or other large insects. The raptor would have deposited nitrogen and fungal spores or other lichen reproductive structures from which the lichen develops. One problem with this is that Paradise Meadows has the odd visiting raptor, but it does not seem to have long-term residents. I know of no direct observations to confirm this theory.

Since *Acroscyphus sphaerophoroides* locations are normally remote, there seems to be no actual record of bird observations associated with this lichen species. However, in this case we have regular observations of bird species found at Paradise Meadows using the particular group of trees where this specimen is found. In summer one can frequently observe *Perisoreus canadensis pacificus* perching on this group of trees. It is by no means the only bird to perch on these spires—resident Dark-eyed Juncos (*Junco hyemalis*), Winter Wrens (*Troglodytes hiemalis*), American Robins (*Turdus migratorius*), and Steller's Jays (*Cyanocitta stelleri*) have all been observed perching, but Canada Jays appear to be the most frequent perchers on these spires. Of these birds *Perisoreus canadensis pacificus* may be the best candidate, because it appears to scavenge around, and possibly ingest, fungi and myxomycetes. This raises interesting *speculative* questions which are worth considering and possibly investigating.

How did this specimen get to be in this location? If there is a relationship between *Perisoreus canadensis pacificus* and *Acroscyphus sphaerophoroides*, that may answer other questions of local and geographic dispersion and distribution. This lichen is rare because in its known locations there are usually only one or two thalli per wetland. The species range is

restricted to the northern Pacific coast and its climate, as is the coastal sub-species of the Canada Jay. It is unique to BC's central coast ecosystems, and the Olympic peninsula.

That range is further limited by the availability of suitable substrate (the top of a dead yellow cedar) , as well as by the presence or absence of wetlands, and possibly by the presence or absence of a dispersant such as *Perisoreus canadensis*. Forbidden Plateau, which has a large network of subalpine fens, is home to a relatively high proportion of observed *Acroscyphus sphaerophoroides* . We can map known distributions of this lichen by mapping the wetlands they inhabit. There are known nearby specimens in the fens of McKenzie, Divers and Rossiter lakes. If its reproductive structures are carried by *Perisoreus canadensis* then distribution should overlap with the territories of *Perisoreus canadensis pacificus*, some of which have been mapped by Dan Strickland. It may also suggest that regional distribution is limited by the distance from nesting territories that *Perisoreus canadensis* travel.

The location of this lichen at Paradise Meadows provides a unique research opportunity. Having a specimen at hand, in our back yard, may allow us to carry out regular direct observations to answer some gaps in our knowledge of this lichen's growth cycle, lifespan and faunal associations.

The extraordinary thing, however, is that Paradise Meadows sees a large number of people every year. The number of visitors grows by the year. The BC Park counter suggests that about 37,500 people visit Paradise Meadows between July and September of each year. That does not include the number of skiers and snowshoers who come to Mt Washington for fall and winter recreation. The cumulative annual number of visitors year-round at this specimen's location who walk or ski within less than 10 metres of this sensitive species every year may be around 80,000 people! In keeping with SARA's classification system *Acroscyphus sphaerophoroides* is known to be "a species sensitive to human activities."

Paradise Meadows is often treated as a sacrifice zone to tourism and dog walking. Notwithstanding this intense use, it annually yields up its complement of yet-unregistered rare and endangered species for those who care to look, and care to care for sensitive environments by respecting park regulations.

Credit is due. The discovery of this location shows that BC Parks regulations are working to meet conservation objectives. This aspect of conservation is easy and comes at no cost to the public. The simple observation of park regulations promotes good stewardship and protects endangered species for the enjoyment of future generations. Recreation and conservation can only co-exist if conservation values constrain recreation. It is a small price to pay. At a time of biodiversity and climate crisis when BC parks appear in satellite photos as islands in a sea of clearcuts, public use of the parks must be guided by a conservation ethos if we are to preserve our unique endangered species.

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1. https://www.birdforum.net/opus/Canada_Jay#Distribution

Wetlands Restoration Group on the Rotary Trail

Pulling Together

By Karen Cummins

These photos illustrate the last work parties on the Courtenay Rotary Trail in February and early March. We were back there to finish cutting English ivy vines growing up trees in the adjacent Dogwood Park.

Once ivy begins to grow up, as opposed to growing along the ground, it is stimulated to produce flowers and then fruit. The seeds in the fruit that mature in spring are spread by birds, starting ivy invasions in new territories. If left to grow to the top of trees the ivy can become dense enough to decrease light to tree leaves and so hamper photosynthesis and tree vitality. Heavy ivy masses in trees can also cause a sail effect in the tree canopy which can predispose the tree to storm damage.

Audrey with cleared tree. *Photo: Karen Cummins*

Since the end of September 2025, we have had 12 Pulling Together events along the trail. Thirty different people showed up to work a total of 220 person-hours, removing ivy and other invasive plants from an area of about 4,000 square metres. We can see from the progress of the past five months that we are on track to reach our goal of freeing native plants from ivy (and other invasive plants) in three of the project areas in this first year of a five-year project.

As we ranged through Dogwood Park focused on finding trees with ivy growing up their trunks, we were also surveying the ivy coverage—where is there no ivy, light or newly established coverage and where is the coverage heavy? As we begin Pulling Together again in mid-September, we will focus first on those new, light areas before moving to the heavier infestations.

Whitney at the March 1 Pulling Together work party. *Photo: Karen Cummins*

Our practice to notice and identify native plants as we work and consider the biodiversity that is supported by those plants was taken to another level by the time we had our last work party on March 1. Considering that spring seemed to come earlier this year, we asked CVN birder Peter T. if he could do a bird survey through our work area and let us know if he saw signs of bird nesting activity. After going to the project area at different times over two days, Peter reported, "…some territorial activity indicated breeding season getting underway—singing Spotted Towhees, American Robins, and a Varied Thrush, plus drumming and other noisy activity by flickers. The only definite nesting

activity was a raven carrying a large stick. I'm not sure about typical nesting dates for towhees, but they are ground nesters & therefore perhaps vulnerable to your group's activity." With those observations we are happy to leave this forest to the birds and return next fall. Thank you, Peter, for helping us with your expertise and demonstrating how inter-group cooperation helps all of us. Peter has, in turn, thanked us for introducing him to this area which is near his house and is "surprisingly 'birdy'.

Peter (2nd from right) with Botany Group at Nymph Falls on Feb. 3. *Photo: Karen Cummins*

Let us know if you want to join us in Pulling Together from September to March by emailing wetlands@cvnature.ca.

Big pile, big smiles. *Photo: Karen Cummins*

Wetlands Restoration: Stewardship in Little River Nature Park

By Karen Cummins

April 1 fast approaches and marks the first day of our weekly Wednesday work parties in Little River Nature Park from April through June. It is a special spot in nature, where a river runs through, that we are privileged to spend time in. Observing the changes and appearances over the seasons of birds, plants, insects and reptiles whilst removing some invasive interlopers.

Little River. *Photo: Karen Cummins*

Like stewardship projects on the Courtenay Rotary Trail, the Courtenay Airpark, or Vanier Garry Oak Restoration, volunteers are welcome to come even once, and their presence will be appreciated.

Yet, I believe that those of us who help regularly soon realize that stewardship is not a one-time event—to benefit both people and land it is best seen as a commitment that calls for showing up consistently if we are looking to grow a relationship with the land and with each other. Or if we are interested in reciprocity with nature—that is, if we want to know "what can I do for nature?" Reciprocity also calls us to do our best, to adapt our stewardship practices and goals to our observations and new understanding.

Join us by emailing wetlands@cvnature.ca to be notified of meeting spots and times.

New Email Addresses

Since mid-2023, CVN has had a Google Workspace account which lets us assign multiple user accounts identified by our own domain name. Most of our roles and functions switched to such accounts since then, and you would have noticed email addresses like president@cvnature.ca. Now, the last of the old ad hoc addresses created by individuals have been replaced by club addresses. The new such addresses include:

- membership@cvnature.ca
- birding@cvnature.ca
- bursary@cvnature.ca

In addition, David Innes, as a continuing board member has a new address, davidi@cvnature.ca, as he is no longer in the role of Past President. Also, our second new board member, Whitney Peek, has the address whitneyp@cvnature.ca while she is a Director at Large.

Finally, Frank Hovenden, leader of the Airpark restoration team, has changed his own address that he uses for this work to fhovenden321@gmail.com.

Please note these changes and **update your address books**.

Botany Group Leader(s) Needed

After several years of wonderful botany walks led by Karen Cummins and Véronique McIntyre, both co-leaders are now retiring from these roles. Therefore, the group is actively seeking a new leader or coordinator. If you would like to see the group continue, please consider volunteering. For more information, contact botany@cvnature.ca.

CVN Education and Outreach in 2026

By Karen Cummins

We have an amazing group of CVN members who come forward every year to help meet the public and share what CVN has to offer at eight community events from late April to mid-November.

Members who step up to help are often concerned that they "don't know enough." Talk to any of them after their first event and you will hear that the information required was either known to them, available in our booth, or provided by the experienced person on shift with them. They will say they met interesting people, often new to the area, who were happy to have questions answered or hear of the opportunities to explore and learn about nature through CVN.

The events are often in lovely natural settings with other environmental groups represented. The shifts are generally 2–3 hours long. We prepare a list of the events for the season in advance to enable members to sign up for community events that suit their schedule.

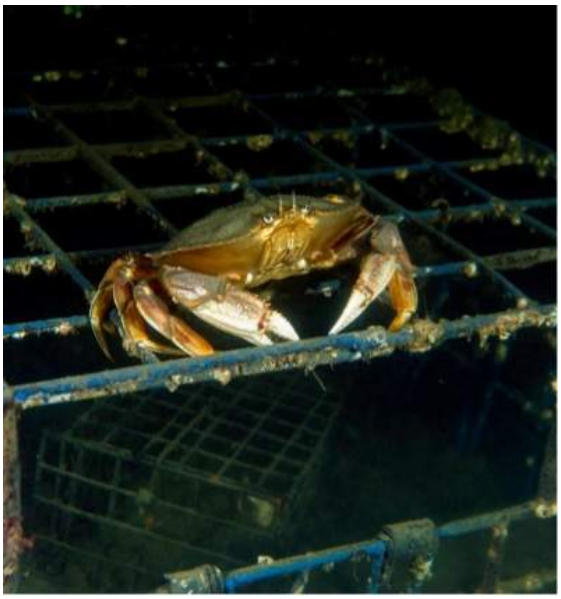
If you are interested in helping, please email Karen at wetlands@cvnature.ca.

Kathie and Barbara talking to attendees at the May CV Farmers' Market. *Photo: Karen Cummins*

Guest Presentations in 2025

By David Innes

Most of the presentations described here were recorded. If you missed one or would like to see it again, follow the link provided.



Dungeness crab in False Creek.
Photo: Fernando Lessa

The 2025 CVN general meetings were initiated in **January** with a Zoom webinar (because the church hall was not available) on ***Community science for crabs: Tracking larval Dungeness crab across the Salish Sea*** by Heather Earle of the Hakai Institute. Driven by communities and led by the Hakai Institute, the Sentinels of Change Light Trap Network is a community science project that uses light traps to investigate the ecology and dynamics of a critically important species—Dungeness crab. Taking advantage of their attraction to light (positive phototaxis) these floating traps allow one to track the arrival and abundance of the larval crab, alongside many other interesting marine organisms.

Three years in, the network has grown to 30 sites operated by diverse community groups across the Salish Sea, including several sites within K'omoks Nation territory and in the Comox Valley.

[Recording: https://cvnature.ca/recording-for-talk-on-tracking-larval-dungeness-crabs/]

Chum fry ready for release. *Photo: LRES*

Henry Ellis and Don Hicks gave an ***Introduction to the Little River Enhancement Society*** at the **March** general meeting. From their website (https://lresbc.ca/):

> Little River Enhancement Society (LRES) began operation in the early 1980's as an informal group of volunteers concerned about the degradation of the Little River watershed in the Comox Valley and loss of fish habitat. These concerns were evidenced by a severe decline in the number of fish (primarily coho, chum and pink salmon and cutthroat trout) spawning in the river system.
>
> Our operations are undertaken by a group of approximately 25 volunteers from all walks of life, united by a common interest in preserving and enhancing our traditional fisheries—Pacific salmon and native cutthroat trout. LRES undertakes a two-prong approach to fish conservation—river and streambed restoration and operation of a small-scale hatchery year-round.

River and streambed restoration enables the native stock to reproduce without human intervention. We have been very successful in this regard, and our fish surveys show a healthy population of coho fry/smolts and cutthroat living in the Little River and tributary streams.

LRES promotes awareness of our fish resource through the Stream to Sea school program and community involvement.

[Recording: https://cvnature.ca/recordings-for-the-two-march-meeting-talks/]

Common Yellowthroat. *Photo: Terry Thormin*

For the **April** meeting Robert McLennan, James MacKenzie and Dianna Talbot gave an overview of ***The Bird Friendly Cities Initiative in Comox***. A group of Comox Valley residents formed Comox's Bird Friendly Team to pursue the Bird Friendly designation for the Town of Comox. This initiative is part of the Bird Friendly Cities program run by Nature Canada. The program recognizes communities that have programs and volunteer organizations creating a safe environment for birds to thrive within their community.

For a community to be designated as Bird Friendly, it must satisfy criteria in several categories—threat reduction, habitat protection, restoration and climate resiliency.

The first goal of the Bird Friendly Team was to have the Town of Comox designated as Bird Friendly. (In the fall of 2025, Comox was awarded Intermediate Bird Friendly Certification level by Nature Canada.) They are aiming to have the rest of the Comox Valley and surrounding communities designated as bird friendly in the future.

[Recording: https://cvnature.ca/audio-slides-bird-friendly-comox/]

Tal Engel demonstrating a forest restoration technique.

Tal Engel (WolfTree Integrative Forest Rehabilitation) gave a presentation in **May** of his work ***Growing Old Growth: The relationships that define the future of our forests***.

Tal's talk presented an integrative and regenerative forestry approach to foster fire-resilience, moisture retention, and overall ecological integrity so that degraded forest ecosystems may endure the ever-increasing anthropogenic pressures, to one day become old growth forests. He presented evidence that for old growth forests to develop, far more than just time is required.

Tal holds workshops for community groups in which he first explores how industrial forestry has radically altered the structure, composition, function, and relationships essential for the growth of a resilient and healthy forest. The second part of the workshops covers methods he has developed to help dense young forests recover from a century of industrial forestry.

He focused on his theories relating to succession, pathology, and cultural relationships in forests and included an overview of forest ecosystems in crisis from other parts of the world.

Tal hosted a field trip at his farm in Merville where he puts his methods into practice.

[Recording: https://cvnature.ca/recording-for-talk-on-growing-old-growth-forests/]

Photo: Liam Ragan

Following the summer break, the **September** meeting hosted Liam Ragan (BC Nature and Rocky Point Bird Observatory) for his presentation ***2024—A Big Year: One birder's attempt to see more birds on Vancouver Island in a single year than ever before***.

Liam has studied Community-Based Conservation and is currently BC Key Biodiversity Areas Manager for BC Nature. He also volunteers on the Board of Rocky Point Bird Observatory as RPBO's First Nations Liaison. He is passionate about supporting communities stewarding nature, specifically to build relationships between naturalists and Indigenous communities.

Liam's Big Year in 2024 was to raise funds for RPBO and raise awareness of conservation work being done on the island.

[Recording: https://cvnature.ca/recording-for-talk-on-a-birding-big-year/]

Trillium Hibbersonii
Photo: Ian Cruickshank, CC-BY-NC-iNaturalist-Apr-2023

Bioblitzes are events where amateur and expert biologists converge on an ecologically important area and document biodiversity over several days. At the **October** meeting, Dr. Gerry Allen (UVic.) presented her experience with Bioblitzes and rare plants: ***Keeping current on BC plant diversity***.

BC has the highest plant diversity in Canada due to the high diversity of ecosystems. The BC Conservation Data Centre maintains a complete and regularly revised list of all plant species in the province (whether common or rare, native or not). However, we want to know more than just the list. Where are species found? In what habitats? Are they getting more common or less?

Bioblitzes provide new information, especially for less well-known groups like mosses and lichens. Dr. Allen described some plant biodiversity results from recent bioblitzes on Calvert and Quadra islands. She also discussed rare species, which typically require more targeted searches. An example is the discovery of many new populations of the currently threatened Hibberson's trillium (*Trillium hibbersonii*).

Diseased ochre star. *Photo supplied*

The presentation at the **November** meeting, the last general meeting for 2025, was by Carolyn Prentice (Ondine Pontier was also involved in the project but couldn't make the meeting). Carolyn and Ondine are with the Quadra Island office of the Hakai Institute. Carolyn provided a summary of ***Sea Star Wasting Disease Monitoring on the BC Coast***. She provided an overview of what sea star wasting disease is and what has happened since the initial outbreak over ten years ago, including the recent discovery of the bacterium *Vibrio pectenicida* as the causative agent of the disease.

[Recording: https://cvnature.ca/recording-talk-sea-star-wasting-disease/]

CVN meeting presentations for **2026** were initiated in **January** with Laura O'Brien (Tsolum River Restoration Society) giving an overview of the ***Tsolum River Watershed—River Resilience in the 21st Century***.

[Recording: https://cvnature.ca/recording-for-talk-on-tsolum-river-resilience/]

More meeting presentations are lined up for the coming months, so keep checking the CVN website and the President's email notices for information. We are especially excited about the April meeting when we will celebrate the 60th anniversary of the founding of Comox Strathcona Natural History Society that became Comox Valley Naturalists Society.

Swan Count Coordinator

A coordinator is needed for the CVN Swan Counts, starting in October 2026. CVN has been doing these counts for almost 40 years. Teams of swan counters go out every Tuesday from the end of October to the end of March.

The coordinator role consists of communicating with the swan counters to get their count numbers every week; emailing the results to all the individuals and organizations that have asked for the numbers; and occasionally arranging a substitute counter for someone who is away.

For more information or to volunteer, contact Krista Kaptein at krista.coordinator@gmail.com.

Birding Group News

After leading the Birding Group for seven years, Kelly Kline has stepped down from the role. Fortunately, we now have a new coordinator—**Heather Lindholm**. Many thanks to Heather for stepping up to keep the group going seamlessly.

Note also that the Birding Group now has a proper CVN email address—birding@cvnature.ca.

Caring Cards

If you are aware of a CVN member who is facing challenges at this time or is having a very special occasion who might appreciate a card from CVN, please contact cards@cvnature.ca.

Barbara M. has been ably and sensitively (and largely invisibly) handling this role for years. Thank you Barbara!

Field Trips and Nature Walks: General Information

Interest Group Field Trips

Birding Group: Birding walks are held weekly, most on Thursday mornings, and once per month on a Sunday. For information or to be included on the Birding Group list, send email to birding@cvnature.ca.

Botany Group: Typically meets for one walk per month, with occasional additional outings. An email is sent prior to the meeting to confirm location, time and topic. To be included on the Botany Group list, send email to botany@cvnature.ca.

Shoreline Group: Aims to have several field trips and/or guest speakers per year, with details communicated by email. To be included on the Shoreline Group list, send email to shoreline@cvnature.ca.

General-Interest Nature Walks

CVN offers opportunities for members and the public to participate in guided nature walks, ideally about once a month. These may focus on a particular theme or simply promote appreciation of our natural areas.

To learn about upcoming walks and register to attend one, visit the Events page on CVN's website (https://cvnature.ca/events/). Note that the number of participants for most walks is limited, and registration is required. Also note that a walk may be designated for the public only or for members only.

General Instructions for Field Trips

- All field trips are club events and reserved for members only unless otherwise stated.
- Meet either at the carpooling location (if specified by the leader) or the trailhead 10 minutes before the specified time unless otherwise announced. The carpooling location is usually the Driftwood Mall (Canadian Tire) parking lot, near Cliffe Avenue close to Boston Pizza. For trips going north, it is usually 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.

Participation by Non-Members

Other members of BC Nature are welcome on CVN members' field trips. Other guests can participate at the discretion of the trip leader (numbers may be limited). Those who are not CVN members must also sign our *Assumption of Risk, Release of Liability and Waiver of Claims* agreement.

Western Tanager. *Photo: Bruce Moffat*

About the Society

Website

https://cvnature.ca/

General Email Address

info@cvnature.ca

Mailing Address

Comox Valley Naturalists Society
P.O. Box 3222
Courtenay BC, V9N 5N4

Board of Directors

President: Betsy MacKenzie (president@cvnature.ca)
Vice-President: [vacant] (vp@cvnature.ca)
Secretary: Eloise Holland (secretary@cvnature.ca)
Treasurer: Brian Storey (treasurer@cvnature.ca)
Past President: Lynn Gray (past_pres@cvnature.ca)
BC Nature Representative: Warren Michelow (bcn_rep@cvnature.ca)
Wetlands Restoration Director: Karen Cummins (wetlands@cvnature.ca)
CVCP Representative: Kathie Woodley (cvcp_rep@cvnature.ca)
Directors-at-Large: David Innes, David Orford, Whitney Peek

Group Leaders and Other Volunteers

Membership Secretary: Aileen Williams (membership@cvnature.ca)
Bookkeeper: [vacant] (accounts@cvnature.ca)
Birding: Heather Lindholm (birding@cvnature.ca)
Botany: [vacant] (botany@cvnature.ca)
Shoreline: Yvette Crane and Mary Mitchell (shoreline@cvnature.ca)
Nature Photography: Bruce Moffat (moffat.images@gmail.com)
Vanier Forest Garry Oaks Project: Karen Cummins and Eloise Holland (vanier@cvnature.ca)
Airpark Restoration: Frank Hovenden (fhovenden321@gmail.com)
Environmental Heritage and Culture: Gordon Olsen
Swan Count: Ernie Stefanik, Krista Kaptein (krista.coordinator@gmail.com)
Program Committee: David Innes (davidi@cvnature.ca)
Bursary: Barbara Neilson (bursary@cvnature.ca)
Charles Brandt Memorial Committee: David Innes (brandt@cvnature.ca)
Trees of the Year: Verna Mumby (toty@cvnature.ca)
Education and Outreach: Karen Cummins (wetlands@cvnature.ca)
Website: David Orford (web_admin@cvnature.ca)
Facebook and Instagram: Eloise Holland (socialmedia@cvnature.ca)
Newsletter Advertising: Kathie Woodley
Newsletter Editor: David Orford (newsletter@cvnature.ca)

Constitution and Bylaws

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

Membership

Annual Fee: $30 for a one-member household; $40 for a two-member household; $10 for a youth voting member.

Includes membership in BC Nature.

The membership year is the calendar year (January to December), and payment for renewals is due by January 31.

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

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

An optional additional fee of $5 is payable if you wish to receive printed copies of *BC Nature* magazine (otherwise available online).

Pay at general meetings, on the website, or mail a cheque payable to Comox Valley Nature (with your completed form) to:

CVN Membership Secretary
P.O. Box 3222
Courtenay BC, V9N 5N4

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

General Meetings

A **monthly general meeting** is held most months except June, July, August and December. Details are given in the President's email notices to members. The current location for in-person meetings is the Main Hall of Comox United Church.

The **annual general meeting** is usually held in February.

A **picnic** is usually held in June instead of a general meeting.

Guest Speakers

Typically, one presentation by a guest speaker is held per month, either at an in-person general meeting or as an online webinar. Details are announced in the periodic email notices to members and on our website.

Newsletter

The newsletter is published three times per year (March, June, and November). The full-colour version is available on the website in PDF form, and a link is emailed to all members on the general email list.

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@cvnature.ca.

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

NatureKids

CVN 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/.

From our online Nature Viewing Guide

American Coot *Photo: Terry Thormin*

Ochre sea star. *Photo: Terry Thormin*