

Photo courtesy of Helen Davidson

We respectfully acknowledge that we live within the unceded traditional territories of the Snaw-naw-as People and the Qualicum First Nation, the traditional keepers of these lands.

We intend to nurture better understanding and pursue opportunities for collaboration with our First Nations neighbours.

PRESIDENT'S CORNER

Hello everyone. As I write this the sun is shining, bringing a welcome break to the warm(ish), very wet winter we've had so far. I notice that the snow geese are back, grazing in the community park, and a small flock of Brant that is wintering over in the area can sometimes be spotted on the gravel bar at the mandala end of the sea walk. And because it has been warm, broom is putting out blooms, and my yarrow seed heads have a green haze on their surface as seeds sprout while still lodged in the head.

Our Stewardship Committee fought the good fight against Spurge Laurel. Lamium, Broom, Ivy, Spotted Knapweed and Holly right up until December at the Englishman River Estuary, Others of us have been working on invasives removal at French Creek Nature Preserve. And then we were heart broken when the private land next to the Nature Preserve Pond was logged for potential construction—for which there is not yet a permit. We hoped to be able to buy this land with fundraising partners—and still do!

Development would put the heron colony at risk as well as the biodiverse wetlands, pond, and red-listed skunk cabbage-red alder ecosystem within the proposed building site.

Defense of protected areas and 'should be protected' areas will continue to be a concern for the near future. Environmental protection doesn't seem to be a government priority.

On the bright side, the sun is shining, and the birds are singing and it's time to get outside and enjoy nature! See you out there!

OFFICERS AND CONTACTS

President: Elizabeth Thorne	Stewardship: Dave Hutchings
Past President: Sally Soanes	BC Nature Contact: Liz Bredberg
Vice President: Sally Soanes	Website: Kerry Baker
Treasurer: Pat Newton	Newsletter: Liz Bredberg
Executive Secretary: Randy Richardson	Facebook: Tom Constable
Meeting Secretary: Randy Richardson	Outreach Contact: Sue Wilson
Membership: Bonnie Mullin	Email & Zoom: Liz Bredberg
Special Projects: Lynne Brookes	

Club/Membership Information: Check our <u>website</u> or <u>Facebook</u> page or write to: Arrowsmith Naturalists, Box 1542, Parksville, BC, V9P 2H

If you know of someone who needs a few words of comfort or encouragement please contact our Outreach Person, **Sue Wilson** 250-248-7280, <u>http://susiebird@gmail.com</u>

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CLUB ACTIVITIES

Our mild winter (to date) has combined with the energy and enthusiasm of Arrowsmith Naturalists to enable us to participate in many activities these past months. We have taken part in Outings, Stewardship, and special events such as the Christmas Potluck and the Christmas Bird Count.

Outings

A trip to Big Qualicum fish hatchery on November 28 was led by Maggie Green. ANat vitality persevered, despite a wet day.



Photos by Bonnie Mullin

The **Hemer Park Outing**, led by Mark Mazurski, took place on a chilly January 18th, as shown by Bonnie's photo of hair ice. As had been promised, the lake provided views of swans, hooded mergansers and wigeons.



The Outings committee has sent readers a report and an invitation:

Outings for 2025 by Toni Wyckoff

Hello Members, yes, it is raining but it's not snowing except on beautiful Mount Arrowsmith. We have had our first outing in January to the Parksville Wetlands. 32 Members had a rainless day as Judy gave a recap of the previous happenings in the park. We took our time examining the new plantings and enjoyed talking to people we had not seen for a while. Several new members joined us. We did have quite the discussion over a bird that was unfamiliar to us but IBIRD gave us the answer. It was a female Redwing Blackbird with a little too much red on the head and throat for us to be sure. Liz Thorne was the only one to guess this.



Upcoming;

Jan 18: Hemer Park, south of Nanaimo. An easy walk with a good chance to see swans in the lake Jan 29: French Creek Estuary to see the new spring plantings and also the reason we are so up in arms over the destruction by a development Co.

Feb.8: Morden Colliery, south of Nanaimo, an easy historic walk through the woodland.

Feb 19: Lantzville Trails. This will be a bit harder as we follow the creek up to the waterfall.

Please check our web-site for updates and outings later in the year. If you are interested, we still have a couple of spots in June to fill.

Mark will send out Emails a week before the outing giving you times, directions, descriptions and where to meet if you car pool. Always wear good foot wear, dress for the weather and don't forget water and a snack as outings can go longer depending on the amount of people attending.

HAPPY HIKING from The Outing Committee; Judy & Mark Mazurski, Jeanne & Rob Schippers, Maggie Green and Toni & Ron Wyckof

Stewardship

Stewardship has long been a major part of the Arrowsmith Naturalists' activities.

Dave Hutchings reports on our work in the Englishman River Estuary:

STEWARDSHIP REPORT January, 2025

HOLY COW.... it's 2025 already!!!

It's hard to believe that this year the ANats are going into our 21st year of stewardship on the Englishman River Estuary (ERE). During the 1990's, the Nature Trust of BC acquired the estuary lands as a nature reserve consisting of both a degraded saltwater marsh and a second-growth forest encompassing roughly the area between the Englishman River and the Parksville Community Park, excluding the area taken up by the Surfside RV Resort. Recently, a welcome new addition has been the Mariner Way property, the site of the former Englishman River Art Gallery.

In 2004, the Arrowsmith Naturalists volunteered to act as stewards with an initial focus on removing invasive plants. Much of the area of saltwater marsh was overgrown with Scotch broom and that became the target of our efforts for more than 15 years. With much of the broom removed by cutting and pulling out of the soil, what remains are small seedings which can be monitored and removed with much less effort.

With the broom more or less controlled, we turned our attention to the forested areas of the ERE. Here we discovered invasive plant species such as daphne (spurge laurel), English holly, some spotted knapweed - which exists in a limited area - and patches of English ivy and lamium. In particular, the forest area allows English holly and daphne to thrive; consequently, both species are widespread as they take advantage of favourable growing conditions and seed dispersal. So over the past year and a half, these two species have been our focus. However, with our limited human resources and and as a result of our research on control of invasives, we have decided that English holly (which ranges from seedlings to 30-foot trees) requires our immediate focus.



Nevertheless, this does not mean we can ignore the regrowth of Scotch broom. Because of the persistent seed in the soil, seedlings pop up still in areas which have been cleared of standing broom. The good news is that most of these "broomlets" can be pulled easily from the soil, and for those of us who wish to avoid the sometimes uncomfortable work of removing holly, pulling broom seedlings from moist soil offers an easier challenge.

Over the fall and winter, volunteers from the ANats, MIVHES and others assisted the Nature Trust crew in planting hundreds of native nursery-grown shrubs and trees at the Mariner Way site. Additional rich soil was brought in to establish planting beds for the new plants. Even with the new planting, large areas of the site are still available for revegetation. And this presents a welcome opportunity for those ANats who feel neither able or willing to tackle invasive plants.

At the suggestion of the Nature Trust, we plan to collect seed from the native shrubs, forbs and grasses which grow on the ERE. The feeling is that native plants from the area may have adapted in ways which make them better candidates for growth on the Mariner Way site. So, if you fancy adding seed collecting to your gardening skills, you can be a valuable addition to our stewardship team. Terry Taylor, who many of you know as a very knowledgeable botanist, has agreed to act as a mentor for this new project. At this time, we are planning to collect seed both during the Spring and then again during the Fall.

Preserving and restoring natural areas in an urban environment is challenging but also very rewarding. Stewardship work such as ours is vital and few areas offer both the challenges and the rewards of the Englishman River Estuary reserve. Please join us as we begin another year of stewardship. Typically, we meet at the ERE at 9:30 am on the first and third Thursday of each month. You are welcome to come out whenever you can. For more information or to place your name on our callout list, contact me at <u>dhutchings40@shaw.ca</u> or 250-752-1613.

Dave Hutchings Stewardship Coordinator

French Creek Estuary Nature Preserve

Arrowsmith Naturalists continue with removal of invasive vegetation in the French Creek Estuary Nature Preserve (FCENP).

In addition, club members have taken part in delivery of informative flyers to homeowners in the surrounding area, telling of the potential damage to the nesting heron population, to the preserve, and to surrounding properties posed by clearance and construction in an adjoining privately owned hectare. (Please see below, under "Advocacy.")

Christmas Potluck and Christmas Bird Count

Our annual Christmas Potluck has traditionally taken place immediately after the Christmas Bird Count. It was shifted to December 6 this year, and the Bird Count moved to January 5th

First Annual Christmas Luncheon

By Toni Wyckoff

We had great response with 50 people coming to our first ever December Luncheon.



Many excellent dishes were brought by the attendees. There is nothing better than a pot-luck as the variety is amazing and people tend to bring their favourite dish.



We had a couple of awards given out. "Our Champion for Nature" to our outgoing treasurer **Helen Davidson** . (write-up is separate in newsletter). ANats' Hamilton Marsh Calendar was presented to a longtime member who still takes time to visit us from Cowichan. **Genevieve Singleton** helped out with

the AGM last May and over the years she has led trips here and around Cowichan Bay and brings us a wealth of Botany knowledge. Not to mention her warm smile.



Sally did her best "dreaded quiz" all on Christmas questions. I think our table did the worst with 3 correct. Who knew that Swedish children leave porridge for Santa or Frosty's nose is not a carrot but a button.

Lynne had us singing an Anats version of the Twelve Days of Christmas. Each table was designated one of the gifts. It got quite boisterous as everyone put all their effort into standing and singing out their gift. We were bouncing up and down like yo-yos. A sample of the gifts; "Four Calling Frogs, Three Black bears, Two Dragonflies" and Sally was the "Ruffed Grouse in a Pine Tree."

Thank you to all the helpers that made this a fun day. The clean-up was so fast I didn't even see it happen. We always leave the room spotless.



The 34th Annual Christmas Bird Count Report Held on the S⁺ of January 2025

Jeanne Schippers



The weather was a mix of fog & cloud but very little wind, also since the tide was high most of the morning, it made it a bit more difficult to spot ocean birds..

The total Species observed was 104 on count day and 11 additional species during count week.

The 2024 total bird count of 25,659 is about the same as 2021 count of 25,345 and better than 2022 count of 18,587. The average of the last 10 previous year count is 28,602.

The number of Bird count participants was 52 including 16 new counters in the field.

There was a high count of Bonaparte's Gulls of 1164, compared to a 10 year average of 29, also this year a high count of Western Grebes 222 compared to 18, and Pine Siskins 3,400 from 1300.

There was a low count of White Winged Scoters 46 down from 10 years average of 104, as were Black Scoters down to 17 from 140, and Starlings down to 783 from 1676.

Some species like Black Scoters, Western Grebes, etc vary a lot in our area as they usually winter in Deep Bay and in the middle of the straight so at times are very hard to see and you need to spend a lot of time on the water.

Species rarely seen were Band tailed Pigeon (1), Eared Grebe (1), Mourning Dove (1). Spotted sandpiper (1) first time seen in the last ten year & Yellow Billed Loon (1) was found this year same as last year, and before that the last previous count day sighting was in 2010.

Also, this years count of Bald Eagles was 258, the highest count was 451 in 2013 and 132 in 2022, making 2024 closer to the 300 average.

The 47 feeder participants, including 12 new counters put in 70.5 hours of effort and counted 2,097 birds (last year 2179).



We had our traditional Potluck in December instead of the night of the count, since many birders have said that they were too tired from the long day of walking, driving etc. to attend. And as usual thank-you to everyone that brought dishes, and to Toni Wyckoff & her crew who helped in making it a fun evening.

Support for the feeder count was provided by: Buckerfield's * Mulberry Bush Bookstore * Cultivate Garden & Gift * North Island Wildlife Recovery Centre

Our count results contribute to the 125th National Audubon Society Christmas Bird Count, North America's longestrunning citizen science project. Each year upwards of 2,000 circle counts are held in the Western Hemisphere by volunteer groups, with British Columbia conducting more than 90 counts. https://www.audubon.org/conservation/science/christmas-bird-count

A summary of the Christmas Bird Counts held in British Columbia can be found on the Birds Canada website: www.birdscanada.org/bird-science/Christmas-bird-count

As usual our 34th annual Christmas Bird Count, proceeded quite well with Lynne Brookes coordinating the Feeder Count, and Susan Knoerr organizing and compiling the Field Count with the help of Sandra Gray and Jeanne Schippers. The Arrowsmith Naturalists members and the rest of the birding community came once again to make this another great count year. Not to forget the support of the private landowners who allowed access to large tracts of farm and forest for this day, and the co-operation of whoever provided the good weather (no rain) for our count day.ANYONE INTERESTED IN PUTTING THEIR NAME FORWARD FOR FUTURE COUNTS PLEASE LET US KNOW

ADVOCACY

In the spirit of our commitment to "know, enjoy, and preserve nature," Arrowsmith Naturalists play active roles as advocates for natural areas and for policy.

Most recently, we have been involved in the protection of the French Creek Estuary Nature Preserve and an adjoining privately owned hectare. A development permit has been issued for the hectare, which has been logged and a road built into it. As described above, we have been actively involved in delivering flyers to the adjoining neighbourhoods and in letter writing, to the press, to RDN and city council members, to members of provincial and federal legislature, and to the property owner

The following is a version of one of many letters that have been sent:

Threat to the French Creek Estuary Nature Preserve and Great Blue Herons

Lynne Brookes

January 2025

I am deeply concerned about a recent RDN decision to provide a permit to allow the damage that occurred on the 1-hectare floodplain property that is a contiguous part of the Nature Preserve ecosystem. The RDN Parks Department manages the Nature Preserve for the BC Parks Foundation—yet neither they nor the RDN, Board of Directors let alone local residents—were notified that the RDN Planning Department had provided a permit to the developer-owner to clear out vegetation and build a preliminary gravel road. Surprisingly, staff is not required to notify others—not even when there is a potential negative effect to a property the RDN manages.

The morning after the permit was Issued, the Ir had heavy duty equipment roll In and the chainsaws and crew began their work. The seven mostly deciduous trees the growing heron colony uses (11 active nests in 2024) were left standing *as required* but the coniferous and deciduous trees that protected the nests from the elements and predation are gone. All this damage and yet no building permit for this property has been issued.

Yes, this is privately owned land. No, a floodplain adjacent to a Nature Preserve, with Red-listed wetlands and a large pond bordering and below the planned development, at-risk Coastal Douglas-fir Forest, a recorded archaeological site, is *not* a logical place for "development." The Qualicum and Snaw-Naw-As First Nations wish to halt development of these traditional lands and have sent letters to the BC Parks Foundation (owner of most of the Nature Preserve) regarding their concerns. An effort to purchase this environmentally sensitive land and compensate the developer continues.

For another perspective on this issue, an international study of 529 bird species population trends over the last 50 years showed a catastrophic loss of 2.9 billion adult breeding birds in Canada and the U.S.—a decline of almost 30% of wild bird populations in all environments including a 37% decline in shorebirds. (Annual report, Cornell Lab of Ornithology, 2019.) "These bird losses are a strong signal that our human-altered landscapes are losing their ability to support birdlife" stated conservation scientist Ken Rosenberg.

Cutting down forest, exposing Blue-listed Heron nest trees, floodplain "raising" with many tons of fill, destruction of the onsite Red-listed wetlands, and potential runoff damage to the large Nature Preserve pond just downhill, is precisely the "human-altered landscape" that impacts the ability of birds and other wildlife to persist.

Canada has pledged to protect 30% of our land mass and oceans by 2030. When it's known that biodiversity loss is accelerating due to human action, I believe allowing destruction of this sensitive 1-ha property is reprehensible.

The best way forward to protect biodiversity would be for the developer and the RDN to cease plans and permit issuance for future building on this site and for this 1-ha to be purchased and added to the French Creek Estuary Nature Preserve.

Attached is a list of the FCENP's ecological designations and values: In Dec 2024 the FCENP was designated as one of Canada's Protected Areas by Environment Canada to protect its wildlife, their habitat, and to conserve and enhance biodiversity.

For more information and to take action please go to: <u>https://www.saveestuarylandsociety.ca/</u> and click on the "CONTACT" button at the top of the page.



Photo by Denise Foster

Ecological Designations and Values of the French Creek Estuary Nature Preserve and Area

Ecological Framework of Canada (EFC)

The FCENP falls within the Eastern Vancouver Island ecoregion of the Pacific Maritime ecozone as identified in the Ecological Framework of Canada. Eastern Vancouver Island is designated as an 'EcoCrisis' region and is among the most at-risk areas in southern Canada, while supporting more biological diversity than anywhere else in B.C. This ecoregion is vital for both national and global biodiversity, providing critical opportunities for the conservation and restoration of habitats for endangered species, migratory birds and marine wildlife. Its natural ecosystems are facing significant challenges from development, industrial use and the introduction of invasive species. (Nature Conservancy of Canada).

It lies within the <u>Mount Arrowsmith Biosphere Region</u>, a designated UNESCO biosphere reserve, one of only three in BC.

It Is part of the Provincially designated <u>Parksville-Qualicum Beach Wildlife Management Area</u>. "The abundance and diversity of natural resources found in this WMA are outstanding on a global scale."

It is situated within a designated Important Bird and Biodiversity Area, home to 135 native avian species and confirmed sightings of 192 native and migratory birds (<u>Important Bird & Biodiversity Areas Canada</u>).

In Dec 2024 the FCENP was designated as one of <u>Canada's Protected Areas</u> by Environment Canada to protect its wildlife, their habitat, and to conserve and enhance biodiversity.

Biogeoclimatic Ecosystem Classification (BEC)

The FCENP is in the Coastal Douglas-fir Moist Maritime (CDFmm) subzone. This forest type is ranked as critically imperiled as part of the Douglas-fir/dull Oregon-grape ecological community and is on the provincial Red List in British Columbia. It is characterized by Douglas-fir, grand fir and Western red cedar, with salal, dull Oregon grape, sword fern and oceanspray in the understory.

The 10 wetlands located in the FCENP are classified as Red-Alder - Skunk Cabbage swamp, a provincially red-listed wetland defined as an ecological community that has or is a candidate for endangered of threatened status in BC. Endangered ecological communities are facing imminent extirpation or extinction and threatened communities are likely to become endangered if limiting factors are not reversed (BC CDC, 2024).

Red-Alder - Skunk Cabbage swamps are found in the Coastal Douglas-fir, moist maritime Biogeoclimatic subzone 11 site series (CDFmm/11) and are associated with nutritionally rich low-lying depressions commonly associated with streams and rivers (Mackenzie and Moran, 2004, South Coast Conservation Program. 2010). Red-Alder -Skunk Cabbage swamps are found on south-eastern Vancouver Island from its most southerly tip northward to between Courtenay and Parksville therefore are at the northern extent of their documented range. A portion of one wetland is located on the 1ha private land.



The Sensitive Ecosystems Inventory of Southeast Vancouver Island and the Gulf Islands (SEI) systematically identified and mapped specific rare and fragile ecosystems. Sensitive Ecosystems have significant biodiversity values and provide critical habitat features necessary for the survival of threatened and endangered plant and animal species. The sensitive ecosystems found within the FCENP are listed in Table 4.

Table 4: Sensitive Ecosystems identified within the FCENP²⁵

Sensitive Ecosystem Type		Description	Location within FCENP	
Wetland	marsh (WN: ms)	Both freshwater and tidal marshes are present	Freshwater marshes are located within the historical channels. A small portion of Tidal Marsh is located adjacent to French Creek in the Southeast corner of the FCENP.	
Riparian	mature coniferous deciduous forest (RI:6)	Consists of mixed forest dominated by Douglas-fir, Sitka spruce, Western red-cedar, Grand fir and Big leaf maple.	Next to French Creek in the Southwest corner of the FCENP and immediately downstream of the bridge. The remaining areas along the creek bank area and adjacent to the pond are considered degraded Riparian areas.	
Older Forest	conifer dominated (OF: co)	Average tree age of 100 years or older	Forested areas in the western extent of the FCENP. Covers approx. 62% of the FCENP	

Species at Risk

The prevailing factor responsible for endangering species today, as defined by the Committee on the Status of Endangered Wildlife in Canada (COSWIC) is habitat degradation or loss. There are twenty-two Species at Risk observed at or near the FCENP. This includes the Red-listed plant, Northwest cinquefoil and fifteen Blue-listed species including the Great blue heron, Purple martin, Dun Skipper (a rare butterfly), Northern red-legged frog, the Wandering salamander and many coastal bird species. The fact that such a small area supports a large number of species at risk highlights its high conservation value.

MEMBERSHIP MATTERS

We have a tradition of giving Champion of Nature awards to our members. This year we gave two awards, one to Helen Davidson and one to Gary and Ronda Murdock.

Champion of Nature Award by Toni Wyckoff

One of this year's recipients is **Helen Davidson**. She has been our treasurer for the past 6 years with very efficient record keeping. We learned to get our receipts in on time and cash our cheques immediately or suffer her wrath.

Helen worked for months on last year's AGM. She set up the registration, took in money, documented everyone's preferences, banquet requests, outings, and answered hundreds of questions. When people showed up saying "they had paid for the banquet" Helen went home and brought the whole documents to give some a touch of reality, gently but firmly.

When there is a request for help, she is the first to put up her hand. Packing shovel and pick to planting trees, clippers and fork to invasive plant pulling, work gloves for table set-up, clean-up at events, and traffic vest to parking details. The last Mushroom Festival, she was helping pack stuff in for set-up and out at the end, all during an Atmospheric River.

Then there were the 3 summers of drought that created a need for plantings to be watered at the ERE. Last summer she was at French Creek's new plantings every week. DO NOT SPILL A DROP, Sally learned the hard way.

The Englishman River Estuary, Mariner Way, Shelly Creek, The French Creek Preserve, Fay Smith Memorial and The Qualicum First Nations have all seen Helens' handy work. There are probably some I have missed.

Helen was not familiar with our ocean birds when she arrived here in 2017. Now she is an expert as she does the Coastal Bird survey twice a month, the Christmas Bird Count and the Brant Count. You will see her carrying her scope and binos down at the beach.

She is the best editor and has the sharpest eye of anyone I know. We all count on that eagle eye of hers to keep us on our toes.

Helen has rarely missed an outing and often leads them. She accompanies Liz B down to Hamilton Marsh for her weekly blog.

On top of all that she delivers meals on wheels every Friday and helps on days when needed. In the past she worked at the Food Bank and did books for a Qualicum organization. A well-deserved award!!



RONDA AND GARY MURDOCK CHAMPIONS FOR NATURE AWARD By Toni Wyckoff

Gary and Ronda Joined Arrowsmith Naturalists in Jan 1999

In the early 90's, Ronda was employed by the Brant Wildlife Festival. Gary was in forest management and retired in 2000 This all led them to their love of nature and the battle to preserve it.

They advised the club on local and provincial forestry issues. Kept us up on local land and water issues that affected where we live. Also on habitat and animal conservation.

They urged action and got results re Parksville Wetlands creation. Then when it came under threat again. Gary & Dave Hutchings GPSed the area that was proposed to be cut down for a swimming pool, parking lot and sports fields. This was a big help to explain to residents the extent of destruction to the wetland and local water wells.

They voice their opinion at City Council meetings when nature comes under fire again and again and again.

They have monitored Bald Eagle nests and joined in on Christmas Bird Counts. Helped water the plantings at the Englishman River Estuary.

They led many club outings and used their van to transport more people to areas, cutting down on gas emissions.

They operated a wildlife tourism business that highlighted many local areas which taught people how to respect our environment and the flora and fauna within it. They also sent many to the A. Naturalists membership.

In 2019 they volunteered as Citizen Scientists to observe and document the impact of climate change on the plants and forest in Milner Gardens

Gary is still involved with the club as he makes the name-tags that you wear today. They are well deserving of this award



...a bit more about the Name Tags, from Bonnie Mullin, our Membership officer.

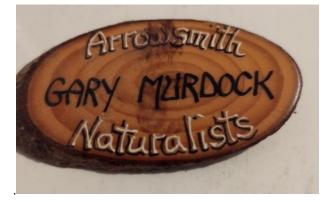
Name Tags for Members

Hello Arrowsmith Naturalists! If you would like to have a handmade name tag, we have them!! Member Gary Murdock generously offered to make these.

How to order:

You can order at any General Meeting <u>or</u> send me an email requesting what you would like printed on it; can be your full name, just first name, first name and last initial.....

And do you want the magnet or pin closure?Payment: <u>Cost is \$15.00</u>. Payment can be made by cash, cheque (made out to Bonnie Mullin) or by etransfer directly to <u>live2hike@shaw.ca</u> I need payment before I place the order.



A REPORT FROM BROOMBUSTERS

BEAUTIFUL FLOWERS ON AN AGGRESSIVE BULLY.

Something unusual happened in the first two weeks of January this year. Sixty-five new volunteers signed up for Broombusters – in the middle of winter! No doubt it was because of the heartbreaking fires in Los Angeles. We are all worried about wildfire.

Globally, grasses, shrubs, and trees that humans have introduced to new ecosystems are increasing wildfire occurrence and frequency. The invasive and alien bufflegrass and guinea grass contributed greatly to the tragic wildfire in Lahaina, Hawaii in 2023. A fire in Chile in 2024 killed 134 people and burned 71,000 acres; studies point again to non-native plantings. *On Vancouver Island, our flammable, invasive plant is Scotch broom.*

Climate change has expanded our vocabulary. Ten years ago, most of us had not yet heard the term "atmospheric river." Recently, I wanted to deepen my understanding of firefighters' terminology: fuel load, ladder fuel, flash fuel, fire continuity and urban interface fires. Once I did, it was clear - Scotch broom checks all the boxes.

Broom's dense thickets create massive fuel load. Broom is a flash fuel - it ignites quickly with high oil content and naturally occurring dead branches. As a ladder fuel, broom lifts fire vertically. Thick and broad stretches of broom will spread fire horizontally – fire continuity. The abundance of Scotch broom within our communities could contribute to wildland-urban interface fires.

The new volunteers are wise to want to eliminate Scotch broom from their communities. They will join over 600 volunteers who cut broom for over 6000 hours in 2024.

In 2023, the Association of Vancouver Island Coastal Communities (AVICC) and the Union of BC Municipalities (UBCM) passed a resolution calling for the "Control of Scotch broom." I heard a newsperson on the radio laughing, "A BC resolution about a plant?" Ha ha.... He hadn't gotten the memo. Scotch broom is not your every day, run-of-the-mill, friendly plant. It's a dangerous bully!

Concerned about biodiversity? Scotch broom is the worst offender of biodiversity. According to research for ISCBC, "Scotch broom is the alien invasive species doing the greatest harm to species at risk in BC."

Concerned about native plants and animals? Scotch broom crowds out native species. The long-living, prolific seeds remain viable in the soil up to 70 years. It's toxic to grazing animals. It spreads like wildfire. This is all bad news....

But one quality of the plant has gotten us into very serious trouble: Scotch broom keeps trees from growing. Forestry hates it, as the industry loses millions in lost timber sales. But BC Hydro loves it for the same reason. Broom on the powerlines keeps trees from growing. That would be fine if broom were not also a volatile flash fuel, which FireSmart lists as "highest risk". We're in trouble.

Fortunately, Broombusting is fun. Not always, but often enough.

#1: You get to go outside and pretend you are 10 years old. You cut down big bushes and throw them in piles. Wait, let me correct myself - "You STACK them in piles." Bonus #2: You get to see the fruits of your labor every time you drive down that road or walk that trail. (A little hit of dopamine.)Bonus #3: You are part of a community of folks who *Think Globally, Act Locally*.

Every plant species is unique. Scotch broom spread freely for 175 years because people were using the wrong methods of removal. With some plants, like Japanese knotweed, you must dig up every tiny piece of root. But broom spreads from seeds, not from roots or plant pieces. Broom roots will die if the plant is cut at ground level, followed by the dry heat of summer. But if we dig or pull up broom, we disturb the soil and expose the prolific, sun-loving seeds to the light. We end up with even more broom!

The world we cherish is in crisis. There is so much that we want to do but cannot do. But this is something we can do.

Cut the Bloomin' Broom!

Check Broombusters's website: www.broombusters.org

Submitted by Joanne Sales, Executive Director of Broombusters Invasive Plant Society



ANats Nature Notes:

From Terry Taylor:

Our Mossy Lawn

Our back lawn is on the north side of the house. On the north side we have a tall hedge. It is a narrow lawn and the house, on the south side, blocks sunlight even in the summer. Even in the driest summer the grass stays green. Even the small amount of grass there is. It grows in clumps. Most of the area is moss, which I prefer anyway.

When we moved here, eleven years ago, it was a monoculture of spear moss (*Calliergonella cuspidata*). It is called spear moss because the plant has a long, pointed tip. Spear moss is a species that grows in wet lawns that tend to remain wet for most of the year. And this lawn with its total shade was ideal for it. As far as I could tell there were no other moss species present. The whole area belonged to healthy spear moss, and nothing else.

But things changed. Rainfall decreased, and summers became hotter and drier. A couple of years ago I looked at the lawn, and it was still luxuriantly moss covered, but by a totally different moss! There is no longer any spear moss there. It is completely covered and replaced by bent leaf moss (*Rhytidiadelphus squarrosus*). Squarrose means curved back, and the leaves bend backwards, away from the stem. It is a moss of moist, not wet lawns.

Bent leaf moss is the commonest lawn moss. Because of the bent leaves, the apex of the stem forms a star like summit. How it was able to so completely change this environment so rapidly I do not know, as previously I did not see any of this species present. It is small organisms, like mosses and lichens that often respond rapidly to environmental changes. Our lawn seems to have crossed a climate tipping point, and it did so very rapidly.



Photo by Rosemary Taylor

Three Bright Planets

A clear night at the present time is an excellent time to look at the night sky, as the three brightest planets are all visible in the early evening. We very seldom experience that opportunity. They are Venus, Jupiter, and Mars. To tell if you are looking at a bright star or planet is fairly easy. Stars twinkle and planets shine with a steady light.

The brightest is Venus. The time to see it is the early evening when it first becomes dark enough to see the stars. It is a brilliant white and located in the southwest. Later in the night it is not visible as it sets early. The Evening Star is Venus when it is in the western evening sky.

To the south is another bright planet, but not as bright as Venus. This is Jupiter. Also a bright white. It is to the left of the Pleiades star cluster, and above Orion. Orion is the constellation with the three diagonal stars forming its belt.

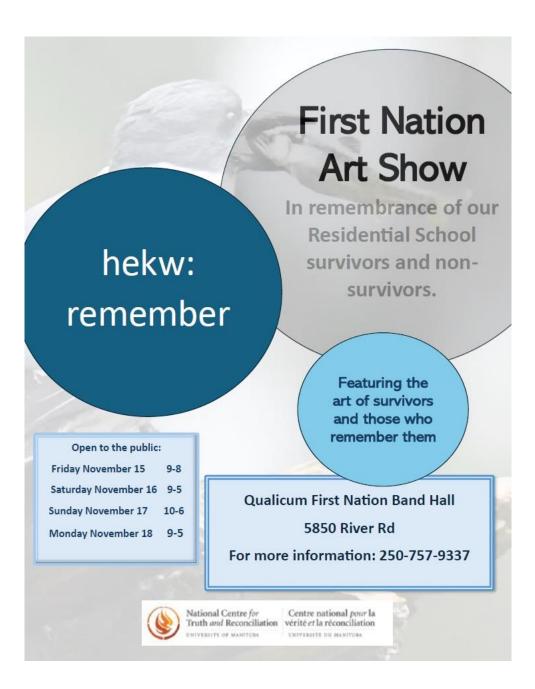
The third bright object is Mars. It is in the east. It is also bright, but less so than the other two planets. It has an orange yellow tint from the iron oxides of its deserts. The two stars to its left, that form a vertical pair, are Gemini, the Twins, Castor and Pollux.

This is also the time of year to see the brightest stars in the sky. On winter evenings they form a beautiful display in the southern sky.

Terry Taylor.

Qualicum Art Show

Many ANats members attended *Hekw: Remember*, an art show in remembrance of residential school survivors and non-survivors. It was an impressive and powerful display of a variety of art forms, and a strong reminder of the impact of the residential schools on the First Nations and of the resilience of the survivors.



ANats members share their love of nature with the community:

From Teri Hitch:

DOCENTING FOR NATURE:

At the moment, I am blessed to live a hop and a skip away from Seaside Nature Park, so go there often. It's very rewarding to see the space we helped to create being used and loved. It is also an opportunity to engage people more in the park and the "nature-magic" of surrounding seaside area.

This week, I met a young father with his two preschool-age sons, very close to the site. I asked them if they knew about the Park, and they didn't know it was there. So I invited them for a tour! The father was most appreciative of the "engagement" and what the Arrowsmith Naturalists and Streamkeepers have achieved. We also talked about the foreshore, and he asked many questions. He said they come to the area a lot, and will be revisiting the park. He was most complimentary about the park from both an educational point of view, and how well maintained it is, including the new skins on the signs.

Another time, I saw a young man sitting in his car, looking like he wanted to talk to someone. He had just come from firefighting in Alberta. I invited him for a tour. He loved what he saw, and asked thoughtful questions. He seemed grateful for the tour, and the human contact. Nature is healing, and possibly the park helped him recover from very difficult experiences he recently had.

The park is used by a variety of groups, too. The Cowichan Naturalists (birders) meet there about once a month. A drumming group meets there regularly. Cyclists use the spot for resting.

The park has also been a good place to connect with others also concerned about huge concrete and styrofoam block that landed near the park, and Grandon Creek. (This relic probably from an oyster farm is about 7 cubic meters in size, and styrofoam pellets continue to contaminate the area. Incidentally, over the past several months, many have tried to get this garbage removed)

The success of the park, teaching opportunities (nature, First Nations Art/culture, the rich foreshore, etc). continues to grow.

Arrowsmith Naturalists and Streamkeepers have left a legacy of education and appreciation for our natural world.

Teri Hitch

READING MATERIAL

Notes from Christina Kinney at Mulberry Books,

This month, we're excited to feature three captivating books that celebrate the beauty and wonder of birds and nature. "A World on the Wing: The Global Odyssey of Migratory Birds" by Scott Weidensaul takes readers on an extraordinary journey, following the epic migrations of birds across the globe. Richard Cannings' "Birds of British Columbia and the Pacific Northwest" is an essential guide for bird enthusiasts, offering detailed insights into the diverse avian species of the region. For those looking to explore the natural beauty of Southern British Columbia, "Wildlife Weekends in Southern British Columbia" by Roy Jantzen provides a perfect companion, highlighting the best spots for wildlife watching and nature adventures. These books, along with our extensive selection of nature-related titles, are available at The Mulberry Bush Bookstore. Come and discover the wonders of nature through the pages of these remarkable works.

At The Mulberry Bush Bookstore, we are passionate about supporting nature and our community. We regularly host events that promote environmental awareness and conservation efforts. Our partnerships with local nature organizations help us contribute to preserving the natural beauty of our surroundings. By featuring books that inspire a love for nature, we aim to educate and engage our community in the importance of protecting our environment. Visit us to explore our wide range of nature books and join us in our mission to support and celebrate the natural world.

COMING EVENTS!!!

- 1 February, 10:00 am-3:30 pm: Seedy Saturday—Qualicum Beach Civic Centre
- 4 February, 6:30-7:30 pm. World Wetlands Day. MABRI speaker event, MABR Public Outreach Centre, 124 West 2nd Ave. Qualicum Beach
 - Check MABRI website for future events. <u>https://www.mabr.ca/upcoming-events</u>
- 17 February, 1:00-4:00 pm, Coombs Family Day, Coombs Fairgrounds
- 13 March, 3-4 pm, Brant Wildlife Children's Festival, Arrowview Elementary School, 650 Bennett Road, Qualicum Beach
- 4 April-7 April, Brant Wildlife Festival
- 28 April, time and date to be determined: Traditional Plant Workshop with Kim Recalma and Nancy Turner
- 22-24 May, Merritt, BC Nature Annual General Meeting

"......Nature stretches out her arms to embrace man. Only let his thoughts be of equal greatness."--Ralph Waldo Emerson