



Langley Field Naturalists



To encourage nature appreciation, conservation and education

c/o Secretary, 203-9018 208th Street, Langley, BC, V1M 2Y8

www.langleyfieldnaturalists.org

e-mail: langleyfieldnaturalists@shaw.ca

Newsletter

June 2016

ARBOUR DAY 2016

This Township of Langley annual celebration of its urban forests includes the planting of trees to honour members of the public who have passed away, but left lasting legacies.

This year the Township of Langley honoured ten recently deceased volunteers on April 24th by planting trees in their memory at Noel Booth Park. Those honoured were:

Dale Ball - Brookwood businessman and community volunteer

Harry Hunt - Aldergrove Star photographer

David and Pat Esworthy - avid equestrians

Glenn Ryder - renowned environmentalist

Judy Benson - Langley pioneer

Drew Waska - community volunteer

Diane Pona - former Langley School District trustee

Bea Jackman - Aldergrove historian

Freda Lynch - Langley pioneer

Larry Hope - established Hope Redwoods natural area

Three of these in particular had connections with the Langley Field Naturalists:

Glenn Ryder was one of the club's founders; a self-taught, lifetime naturalist and recorder of a mass of local and regional natural historic data. In his memory was planted a *Chamaecyparis nootkatensis* 'Pendula', a Weeping Alaska Cedar.

Larry Hope, a long time LFN member and supporter, donated the Hope Redwoods Nature Park to the Township. He is commemorated by a *Catalpa speciosa* 'Aurea', a Golden Catalpa.

Drew Waska, born and raised in Fort Langley, was a member of the Nicomekl Enhancement Society and volunteer at the Nicomekl Fish Hatchery. His commemorative tree is a *Pyrus fauriei*, a Korean Sun Pear.

LFN members assisting and witnessing the plantings were Phil and Juanita Henderson, Annabel and Rhys Griffiths, Jude Grass and Bob Puls.

Guests were able to take home a seedling and a bag of compost, and were able to make a contribution to the park and the environment by planting shrubs and plants.

Bob Puls



Jude Grass & Phil Henderson plant the Glenn Ryder tree
Photo: Bob Puls

THURSDAY JUNE 16TH

**Langley Field Naturalists
Annual General Meeting
and
Members Night Social**

Programme: Members pictures
(about 10 each please)

Please bring a savory or sweet finger
food to share

LANGLEY FIELD NATURALISTS 2015-2016 DIRECTORS

President: Bob Puls
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Vice President: Sharon McVeigh
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Past President: Jude Grass
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Membership:
& Newsletter: Sheila Puls
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Webmaster: Lisa Dreves/Joan Taylor

REPRESENTATIVES & CONVENORS

Historian & Librarian: Toots Tucker
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Meeting Greeters: Tessie Copeman / Rebecca Tin Tun

Refreshments: Cecily Isler / Monica Newman
604-514-9697 ~ pcangus@telus.net

Forslund-Watson: Ryan Usenik
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Parks & Environment (City): Lisa Dreves
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Campbell Valley Park Association: Jude Grass

Derby Reach Brae Island: Anne Gosse

Nature Kids: Anthea Farr
604-576-7731 ~ YNCNicomekl@gmail.com

Member Participation Committee: Joanne Rosenthal
604-455-0116 ~ jrrose77

**Meetings are held on the third Thursday of each month
from September to June, starting at 7.15 pm
at the Langley Community Music School,
4899 207 St. Langley
Executive meetings are held
on the first Wednesday of each month Sept - June
at the LEPS office or at Executive members' homes.**

PRESIDENT'S MESSAGE



This will be my last report before the LFN-AGM after which I may, or may not, enter my 9th year in this position.

The BC Nature AGM in Comox was interesting and instructive as these meetings always are, although the talks about global warming were rather disturbing. Many of the talks and field trips are reported in this newsletter by other LFN members who were in attendance.

As we move towards the AGM, I would like to take this opportunity to thank the executive for their fabulous support over the past years: Sheila for the newsletters and keeping the memberships up-to-date, Jude for the indoor programs and Campbell Valley Park Partner leadership, Gareth for taking over the outdoor programmes and arranging numerous field trips, Anthea for her continuing support of NatureKids, Lisa for representing us on PERC and the 101 other supportive roles she has through LEPS, Toots for keeping the library intact, Anne, Kathy, Joanne, Sylvia, and Lilianne for publicity, membership participation and helping keep the association moving forward. Then there is Ryan leading the Forslund/Watson Wildlife Area through a challenging year and, never to be forgotten, Cecily for overseeing the social times, Ian for keeping track of our finances and, most important, Joan for secretarial assistance. And to everyone for supporting the club events and all the other jobs you do in the background.

I think this fills my allotted space in the Newsletter, so I will leave you with a photo of my new pet that is residing in my woodshed.

Bob



Blossom the Skunk

Photo: Bob Puls

BUTTERFLIES FEED AT DEAD ROBIN



Butterflies at dead robin

Photo: Al Grass

If the question "What do butterflies feed on?" was posed to most people, the answer would most probably be plant nectar. Butterflies, after all, like sweet things. Flowers are where we most often see them feeding which is why we plant butterfly gardens. There is however, another side to butterfly feeding behaviour – some say a dark side! This became clear when we discovered green anglewings ('commas') feeding on the liquid oozing from a dead robin.

This discovery was made in the Skagit Valley Provincial Park, at its south end. In other words, the butterflies were feeding on carrion. Apparently butterflies do this because their sugary diet lacks salts. It is well-known that butterflies are attracted to fresh animal droppings like cow "patties" and fresh urine. They also gather around puddles and seepage areas in so-called "puddle parties". Robert M. Pyle (*Butterflies of Cascadia*) recorded butterflies feeding on fresh coyote droppings. The coyotes had been feeding on blueberries. There are also records of butterflies feeding on dead fish.

Carrion, urine, "poop", oh yes and nectar – the other side of butterflies.

Al and Jude Grass

BIRDS ON THE BAY NEST BOX PROGRAM

As the Nest Box Coordinator for the Friends of Semiahmoo Bay Society (Birds on the Bay), my job is to find locations where nest boxes can be installed to help compensate for the loss of suitable natural nesting sites. LFN Members are helping with this program in the following locations:

Brae Island – Metro Vancouver have installed a number of Purple Martin boxes which Anne Gosse and her team are monitoring on a regular basis. If anyone would like to help with this easy activity, which consists of walking to the end of the island and watching the boxes for half an hour or so on a summer's evening, please call Anne.

Marvin Marsh (Aldergrove Regional Park) – LFN were invited to help with the monitoring of the new wetland that was created along 0 Avenue in 2013 and we have installed a number of Tree Swallow and Wood Duck boxes there. Bob Puls installed most of the swallow boxes around the marsh but a couple were installed on the high ground overlooking the marsh. While those around the marsh have attracted swallows, the ones on high ground have been taken over by House Wrens, which Bob tells me makes this the most easterly recorded location of this species in the Valley.

Brydon Lagoon – With the help of Wim Vesseur and Ryan Usenik, I have installed two Wood Duck boxes in the Brydon Lagoon area. Ryan and Tom Wildeboer subsequently helped me to install six Tree Swallow boxes in the marsh. Tom kindly donated the posts and the post pounder which they used, while I watched of course, to install the posts in record time. Rhys Griffiths has kindly volunteered to monitor these boxes.

Campbell Valley Park – Metro Vancouver have just completed construction of a new wetland in the NW corner of the Park and invited LFN to install six Tree Swallow boxes there. Metro installed the posts on which Wim and Tom installed the boxes (see photo). We later heard from Metro that swallows were inspecting the boxes the following day so we have high hopes for the success of that location. Wim Vesseur has kindly volunteered to monitor those boxes.

If anyone knows of a suitable location where we could install nest boxes or wants to help with this program (donating materials, building boxes etc.) please feel free to call me at 604 576 6831 or e-mail me gareth@intergate.ca.

Gareth Pugh



Installing a nest box in Campbell Valley wetland

Photo: Gareth Pugh

THE WHITE-LINED SPHINX MOTH



White-lined Sphinx Moth

Photo: Al Grass

The sphinx or hawk moths comprise a family of large moths that are sometimes mistaken for hummingbirds. When feeding at flowers, the sphinx moth has its long proboscis for sipping nectar. When not in use it is coiled under the head. The white-lined wingspan is given as 63 – 93 mm. It feeds both by day and night, visiting a variety of flowers like evening primrose and petunias.

Caterpillars of sphinx moths have a spine-like structure near the posterior, but it is not a stinger. Look for it on a wide variety of larval food plants, including fireweed, apple and tomato.

Other hawk moths to be looked for locally include the Bedstraw Hawk moth (on fireweed) and eye hawk moths.

Al Grass

MOUNTAIN VIEW CROWN LAND BOB'S BLOG MARCH AND APRIL 2016

March 11th 2016

Wednesday night and all day Thursday we experienced a full gale force wind with rain. We lost power Wednesday night and it finally came back on at 7.55 am Friday morning. Tom had planned to clear the wind-falls on the trail on Thursday but sensibly did not go out in the wind.

So Friday morning I set out with a group of 11 naturalists, somewhat apprehensive as to what we would find fallen on the trail. We progressed in the usual slow LFN style, with most of the women not having read the 'bring rubber boots' warning, until we reached the temporary bridge across the trail at which they refused the water jump and headed up to the railway and back down to the trail at the Trans-mountain Pipeline crossing. By this time we had seen many lichens, including a piece of *Lobaria* (Lungwort) which was in the

Mountain View property and not accessible to us.

Continuing along the Crown Land west trail, we made it to the Fawn Lily site by 11 am, at which point we turned for home. Meg then discovered a piece of *Usnea longissimi* - Methuselah's Beard, a new lichen species for the site - turned out there was a mass of it growing right up the south side of the trunk of just one Red Alder tree.

Twenty species of birds were tallied, including a pair of Brown Creepers entering a probable nest site and our first Rufous Hummingbird (male) of the year. Gareth spotted a Red-breasted Sapsucker.

March 18th 2016

Took another trip in to the trail camera and changed SD card - seems I have miss-set it and it is now taking photos once/hour as well as when motion activated. Deleted many frames (200)! I collected some more lichen specimens, in particular *Leptogium saturninum* which I knew occurred just past the trail camera location. They have been photographed and added to the collection which now numbers 50 MV specimens. Currently I am entering them into the Museum Excel spreadsheet.



Leptogium saturninum

Photo: Bob Puls

March 22nd 2016

Walked the west trail as far as the Fawn lily patch - no flowers yet. Saw white-wash below the first cedar tree and looked up to find a barred owl looking down at me - 'who, who - Anne where are you', sorry not with me today!

Collected more lichen samples and found some new ones, now have 33 identified and 16 still to be pinned down. Climbed the fence to collect the *Lobaria* we had seen on the 8th which turned out to be *oregana* rather than *pulmonaria*.

A Douglas squirrel greeted me on the return trip.

April 8th 2016

Collected the SD card from the trail camera and

a few more lichen specimens. Fallen trees are blocking the trail and in need of chain saw work.

April 22nd 2016

Walked the north trail from 240th street again and collected the SD card from the trail camera. Some deer are back and appear to have leucistic characteristics, with at least four individuals having been documented. Continued along the trail to where it is blocked by fallen branches and collected a couple more lichens. On the return trip I photographed what I took to be a Yellow-headed Bumble bee, but it didn't look quite right.



Eastern Bumblebee

Photo: Bob Puls

Further scrutiny revealed its identity as *Bombus impatiens* the Common Eastern Bumblebee, an import from the east which seems to have been naturalized in the Fraser Valley, a new species for the site. Then I spotted a warbler singing in the tree tops which had much yellow on the head; playing warbler songs on my I-pod identified it as a Townsend's, another new species and the 100th bird species recorded on the site. My lichen collection for the site is now at 84, but I only have 62 identified so there must be some duplication or additional species to be identified.

Bleeding heart are in full bloom and the trilliums are about over. The deciduous trees are all in bloom. Many Red-breasted nuthatches were calling loudly and I estimated at least 3 pairs were present.

Bob Puls

GREEN ROOFS

On April 25th I attended a Township of Langley Council Meeting to specifically hear Dr. Maureen Connolly (Director of BCIT Centre for Architectural Ecology) make a presentation regarding Green Roofs; she was assisted by Ron Schwenger, Principal of Architects SBP in Vancouver.

Along with our expanding urban development, we have

a real opportunity to make better use of our land mass, she said, by building green roofs, both in residential and industrial/commercial building construction. Such roofing helps air quality, creates urban green space and provides diversity of urban habitat. Such roofs mitigate against flooding in heavy rain storms, and large office buildings can become productive vegetable gardens, and give workers some lunch time challenges to get outside!



Vancouver Conference Centre green roof *Web photo*

Ron Schwenger has designed and installed several green roofs in Vancouver city, especially in new office and public buildings. Such designs need to be included from the start, and must consider heavier loading and the inclusion of an impermeable member to prevent any long term water damage to the roof itself. Such roofing moderates temperature changes, saves building energy and reduces maintenance, heating & cooling costs. Roof designs with smaller slopes can be candidates with existing materials specially designed for water retention and slow release - automatic watering systems are generally included to ensure healthy plants, vegetables and even small trees.

Some municipalities (Toronto is one) provide reductions in tax assessments for green roofing. In Germany, some industrial areas and some towns have as much as 30% of roofing areas which are green. We need to catch up!

Subsequent to the Council Meeting, I found out that Green Roofing Policies are under active consideration in both the Township and City of Langley.

Green Roof concepts are not new, and as an example, NATS Nursery in Langley has a resident "Liveroof Specialist".

Rhys Griffiths

**JACKSON PIT WETLANDS PARK
FIELD TRIP
THURSDAY APRIL 7TH 2016**

After some confusion over the starting time, transposed phone number and location of the parking lot, we finally gathered by 9.0 am. I gave a short review of the history of the site and the participants set off on a leisurely stroll. The park is not huge, but there were a fair selection of birds present. In addition to bird watching we made an initial list of plants observed.

Jackman Pit Wetlands Park Plant Inventory	
Common Name	Latin Name
Pearly everlasting	<i>Anaphalis margaritacea</i>
American wintercress	<i>Barbarea orthoceras</i>
Western bittercress	<i>Cardamine occidentalis</i>
Hoary cress	<i>Cardaria draba</i>
Canada thistle	<i>Cirsium arvense</i>
Scottish thistle	<i>Cirsium vulgare</i>
Scotch broom	<i>Cytisus scoparius</i>
Foxglove	<i>Digitalis purpurea</i>
St. Johnswort (Western)	<i>Hypericum formosum</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Plantain (Ribwort)	<i>Plantago lanceolata</i>
Marsh yellowcress	<i>Rorippa palustris</i>
Himalayan blackberry	<i>Rubus discolor</i>
Salmonberry	<i>Rubus spectabilis</i>
Trailing blackberry	<i>Rubus ursinus</i>
Sheep sorrel	<i>Rumex acetosella</i>
Dock (Western)	<i>Rumex occidentalis</i>
Common groundsel	<i>Senecio sylvaticus</i>
Canada goldenrod	<i>Solidago canadensis</i>
Tansy (common)	<i>Tanacetum bipinnatum</i>
Dandelion	<i>Taraxacum officinale</i>
White clover	<i>Trifolium repens</i>
Stinging nettle	<i>Urtica dioica</i>
Great mullein	<i>Verbascum thapsus</i>

The participants were very enthused about this park, but not as thrilled by the Golden Retriever Club leasing the site and being allowed to run their dogs off leash and enter the ponds. I am pleased to report that the wetlands section in the north west corner is no longer listed for sale by the Township of Langley, but the north east corner is still being used by a backhoe training school.

Bob Puls

The bird list as posted on eBird 29 species in total	
21	Canada Goose
9	Mallard
2	Ring-necked Duck
9	Bufflehead
6	Pied-billed Grebe
1	Cooper's Hawk
3	Bald Eagle
2	Red-tailed Hawk
6	American Coot
2	Greater Yellowlegs
3	Wilson's Snipe
5	Glaucous-winged Gull
3	Rufous Hummingbird
1	Downy Woodpecker
3	Northern Flicker
1	Northern Shrike
31	Northwestern Crow
4	Tree Swallow
4	Black-capped Chickadee
2	Bushtit
2	Marsh Wren
1	Ruby-crowned Kinglet
10	American Robin
1	Common Yellowthroat
2	White-crowned Sparrow
7	Savannah Sparrow
5	Song Sparrow
3	Spotted Towhee
5	Red-winged Blackbird

Saturday August 13th
10am to 4pm rain or shine

SUMMER SOCIAL AND NATURE WALKS
At the GRASS SHACK
17375 27A Avenue, Surrey

ALL MEMBERS WELCOME

Bird watching in the backyard, and/or a
guided walk at 10:30 am & 1:30 pm

Bring a chair, binoculars & camera and
savory or sweet to share

Please RSVP to Jude at
judegrass@shaw.ca
or 604 538 8774

BIRDS AND BRYOPHYTES WALK, HOUSTON LOOP, DERBY REACH REGIONAL PARK SATURDAY MARCH 5TH

On March 5 a group of nature enthusiasts gathered at the parking area of the Houston Loop of Metro Vancouver's splendid Derby Reach Regional Park for a morning of Birds and Bryophytes. While everyone claimed to know what a bird is and most donned binoculars that reinforced this notion, participants seemed a little less certain about bryophytes. To help remedy that, they were given a very brief introduction to bryophytes before heading across the lawn of grass and assorted bryophytes (*Rhytidiadelphus squarrosus*, *Brachythecium* species, *Pseudoscleropodium purum*) to the bird- and bryophyte-rich forest of the Houston Loop. En route they were told that bryophytes were known primarily by their scientific names (such as the two-barrelled names above) because the common names are so variable and have not been assigned to all species. Only one common name was promoted for a forest moss, *Rhytidiadelphus triquetrus*, the Electrified Cat's Tail Moss.



Electrified Cat's Tail Moss

Photo: Phil Henderson

While birds have feathers and fly around, bryophytes lack feathers but are capable of producing spores that can fly around given an opportune wind. If the spores happen to land on a suitable surface, they will produce more bryophytes. But what is bryophyte? Bryophytes consist of three groups of plants: the mosses, the liverworts and the hornworts. ([illustration: moss, thallose liverwort, hornwort](#))

Hornworts are represented by only a few species locally. They are rare and hard to find, partly because they are not visible year round since their leafy portion (thallus) dies back, leaving only small fragments or spores from which new plants will later form. They generally grow on moist, shaded soil. Their sporangia or spore-bearing capsules are elongate structures that look like "horns".

The mosses are leafy plants with leaves often arranged in three or more rows around the stem. They can be upright or crawling across all kinds of surfaces including soil, logs, rock and the bark of trees and shrubs. Although all bryophytes require water, mosses demonstrate a great ability to survive in all sorts of conditions, from open, dry conditions of arctic, alpine and B.C.'s dry interior to the rain-drenched forests and open wetlands (bogs) of the coast. They have a spore-containing capsule that persists for some time atop a red or brown stalk that also persists. ([illustration: moss sporophyte](#))

Liverworts are more restricted to moist environments and come in two varieties: a leafy plant with stem and leaves (usually in two rows) and a thallose plant consisting of strap-like or roundish, flattened tissue like a big fleshy leaf or a poorly formed green crepe. ([illustration: leafy and thallose liverworts](#)) The thallose plant can resemble lichens of similar form such as *Peltigera* species. The leafy varieties are often moss-like but their sporophytes (often black) are supported by delicate, uncoloured (white) stalks that wilt quickly after the sporophyte release their spores. The leaves are usually arranged in two rows along the stem and they lack midribs that are present in many mosses.

Most of what we saw on our walk were mosses but I did point out a few liverworts. The Bigleaf Maples along the trail are wonderful repositories of mosses and liverworts, covered from their base up their trunks to the huge branches high above. The mosses grow all along the trail and surrounding forest floor and accompanied liverworts on rotten logs. While we saw no large rocks in the forest, mosses grew on a cylindrical cement structure and on the cement barricades of the parking lot. One moss which I frequently pointed out was *Isoetecium stoloniferum* which is common on the trunks of trees but also grows on rocks. It takes many different shapes; from long stringy, hair-like branches hanging down the trunks of conifers to tight, worm like branches at tree bases.

Below are a few of the bryophytes we saw.

Mosses

<i>Antitrichia curtipendula</i>	on branches, high and low, especially Bigleaf Maple
<i>Atrichum undulatum</i>	edge of trails, forest floor
<i>Brachythecium</i> sp.	lawn
<i>Claopodium crispifolium</i>	base of deciduous (and coniferous) trees
<i>Dicranum scoparium</i>	forest floor, rotten logs in forest, base of tree trunks
<i>Homalothecium fulgescens</i>	trunks of Bigleaf Maples
<i>Hylocomium splendens</i>	rotten logs and forest floor
<i>Isothecium stolonifera</i>	coniferous and deciduous tree trunks
<i>Kindbergia oregonum</i>	along the paths and forest floor: drier areas
<i>Kindbergia praelongum</i>	along the paths and forest floor: moist and wet areas
<i>Leucolepis acanthoneuron</i>	logs and forest floor
<i>Metaneckera menziesii</i>	trunks of Bigleaf Maples
<i>Neckera douglasii</i>	trunks of Bigleaf Maples
<i>Orthotrichum lyellii</i>	Vine Maple, shrubs, Red Alder
<i>Plagiomnium insigne</i>	along the paths and forest floor: moist, shaded areas
<i>Plagiomnium venustum</i>	base of Bigleaf Maples
<i>Pseudoscleropodium purum</i>	lawn
<i>Rhizomnium glabrescens</i>	forest floor
<i>Rhytidiadelphus loreus</i>	logs and forest floor
<i>Rhytidiadelphus triquetrus*</i>	logs and forest floor
<i>Rhytidiadelphus squarrosus</i>	lawn and along the trails

* Electrified Cat's Tail Moss

Liverworts

<i>Porella navicularis</i>	trunks of Bigleaf Maples
<i>Cephaloziella</i> sp.	rotten deciduous logs



Hylocomium splendens

Photo: Phil Henderson

During the walk, a few questions arose, for which I had answers, partial answers or no answers at all. A sampling:

How many different types of species of bryophytes would be present in the park?

I didn't have a good answer. Maybe about 75 to 100.

How many different types of mosses are there in British Columbia?

The BC Conservation Data Centre, which keeps track of and assigns conservation status ranks to B.C.'s plants and animals, gives the following:

Mosses ~ 800

Liverworts ~ 250

Hornworts ~ 4

The moss and liverwort numbers are based on species and their subspecies and varieties. Taxonomists (those who name organisms) are constantly revising classifications and puzzling and arguing amongst themselves about what constitutes a good species, subspecies or variety. As more areas of the province are explored, species not previously known in B.C. are found. B.C. has the greatest diversity of bryophytes of any province or territory in Canada but all areas of Canada offer up their own bryological splendour and surprises.

What are mosses good for?

Well, since we were observing both birds and bryophytes, we'll start with the birds. Mosses form a major component of many songbird nests. While the bryophytes are more or less shunned as food by most birds, the Spruce Grouse loves the large capsules of *Polytrichum* (hair-cap) mosses. A closer look in the bryophyte jungle will reveal a whole world of invertebrates that are fair game for the industrious bird or small mammal. Scratching away the carpet of moss may reveal other invertebrates fit for consumption.

Mosses are often the first plants that establish on disturbed soil. They help to stabilize the soil and hold moisture, creating conditions suitable for the establishment of vascular plants after organic matter accumulates. Mosses on rocks may help degrade the surface, facilitate the accumulation of organic matter and create conditions suitable for the establishment of vascular plants on a previously unsuitable surface.

Bryophytes, especially thick carpets in the forests and branches of the trees, affect the microclimate by storing water, releasing it slowly and having an overall moisturizing and cooling effect while exposed areas surrounding dry out and heat up much faster. They therefore influence the ability of other organisms to survive and make a fine place - soft and cool - for a naturalist's well deserved nap in the hot afternoon. And of course the beauty of moss must never take a back seat to the cold, soul-less wonder of science.

Why are there differences in the type and abundance of bryophytes on different trees?

There is a much greater variety of bryophytes on the trunks of different species of deciduous trees such as Bigleaf Maple (more) and Red Alder (less) and between deciduous species and conifers. As with most issues of ecology there is no simple answer. Some factors that influence the type and abundance of bryophytes on trees include the following:

Levels of moisture and light are generally less in conifers that hold their leaves year-round, thus providing year-round shade and water-shedding. Chemical characteristics of the bark surface vary between species. This includes pH (acidic or basic).

The physical characteristics of the bark surface vary between tree species: rough, channeled, ridged, smooth.

The location of the tree (is it in the forest interior, edge, north slope, south slope, etc.) will influence moisture, light, temperature, etc.

There are of course many more questions and answers, some known, others not. That's what keeps bryology, ecology and the study of nature so engaging and frustrating. Unfortunately, through careless and relentless destruction of natural systems, we are losing our ability to understand them and with it our ability to conserve them.

A discussion of moss in British Columbia would not be complete without the mention of the late Dr. Wilf Schofield of UBC, an eminent bryologist and delightful and enthusiastic educator who guided so many in the study and appreciation of bryophytes and along with that a greater appreciation for and knowledge of ecology and conservation. For those interested in learning more about bryophytes, Dr. Schofield's two books – *Some Common Mosses of British Columbia* (1992) and *Field Guide to the Liverwort Genera of Pacific North America* (2002) are excellent acquisitions.

Birds? We seem to have gotten sidetracked with the bryophytes. That isn't all bad of course. Fortunately, Bob Puls jotted down the birds we saw on our walk. The nice thing about the Houston Loop is that it offers an abundance of upland and wetland features.

While a little early in the season for migrants, we saw an interesting variety of birds; and no one complained. Anne Gosse also introduced the group to the builders (among them Metro Vancouver's Roger Bean and DRBIPA's Bill Wilde) who were volunteering their time to construct an observation platform over a swamp and the bog in the distance. This will provide hours of viewing pleasure to all who visit and much valuable information on the area's wildlife.

Bob's Bird List:

Canada Goose 7	Ring-necked Duck 5
Bufflehead 5	Bald Eagle 2
Red-tailed Hawk 1	Pileated Woodpecker 1
Northern Flicker 2	Common Raven 1
Brown Creeper 2	Pacific Wren 7
Marsh Wren 6	American Robin 7
Dark-eyed Junco 1	Song Sparrow 7
Red-winged Blackbird 1	Golden-crowned Kinglet 4

Thanks to all who joined the LFN for a morning of bryophytes and birds.

Phil Henderson

ON BIRDS & BRYOPHYTES

We owe a lot to the men and women who've worked over the years to create nature preserves for the plants, animals, birds, fish, bugs, and us humans. And thank you also to governments that understand the wisdom of setting aside large swaths of land from wetlands to highlands and drylands. What a barren world it would be without these places still rich in wildlife and fresh air and breath-taking beauty.

Today we had the privilege of spending a morning with biologist Phil Henderson who tried to teach us the eight syllable names of over 150 mosses and all their relatives. Step moss, electrified cat-tail moss, liverworts, broom moss are the only common names I heard, the rest sound very long and Latin, and impossible for most of us. Here on the Lower Mainland, on March 5th, the Indian Plum and the Salmonberry are blooming. Miner's Lettuce and Skunk Cabbage are in full greenery, and mosses are at their most abundant after a month of lots of rain.

Thanks to the efforts of the Langley Field Naturalists and lots of volunteer help, a viewing platform is being built at the water's edge on Houston Trail. Derby Reach is a truly wonderful gift, a place really "to know nature and to keep it worth knowing."

Gerda Peachey

GEORGE C. REIFEL
MIGRATORY BIRD SANCTUARY
WEDNESDAY MARCH 16TH



Sandhill Crane

Photo: Al Grass

It was a wonderful spring day for LFNers and guests at Reifel. The highlights included a good waterfowl list of divers and dabblers, like Gadwall, Green-winged Teal, Northern Pintail, American Wigeon, Ring-necked Duck, Bufflehead, Lesser Scaup and Common Goldeneye, along with Common and Hooded Mergansers. It was interesting to see various waterfowl courtship behaviour, and listen to their calls – not all ducks quack! Canada Geese were on their territory and Snow Geese were also seen (heading for Siberia?). Sandhill Cranes and Black-crowned Night-heron were noted early in the trip.

We travelled to the east dyke where we were treated to a Northern Saw-whet Owl sighting. In the cat-tails beside the trail we could hear Marsh Wrens chattering. Passerines along the trail included the ever friendly Chickadees, Bewick's Wren, Spotted Towhee and Fox Sparrow.

From the outer dyke there were 22 (at least) Greater Yellowlegs, a Rough-legged Hawk, Virginia Rail, and the "bird of the day" a Sora Rail!

Thanks to all for a grand day.

Al Grass

The following is a bird list for the walk: a total of 53. The best was seeing the Sora Rail casually walk across in front of us - as though we did not see him! Two Saw-whet Owls. A peek of a Virginia Rail darting across!

Wood Duck, Bufflehead, Ring-necked Duck, Hooded Merganser, Common Goldeneye, Tree Swallow, Hummingbird, American Robin, Marsh Wren, Ruby-crowned Kinglet, Northern Saw-whet Owl, Killdeer, Bewick's Wren, Peregrine Falcon, Red-breasted

Merganser, Green-winged Teal, Sora Rail, Virginia Rail, Greater Yellowlegs, Red-tailed Hawk, Rough-legged Hawk, Northern Harrier, Pied-billed Grebe, Mew Gull, Glaucous-winged Gull, Canada Goose, Double-crested Cormorant, Starling, American Wigeon, Mallard, Spotted Towhee, Dark-eyed Junco, Black-capped Chickadee, Red-winged Blackbird, House Sparrow, Rock Pigeon, Trumpeter Swan, Eurasian Collared-Dove, Bald Eagle, Ring-necked Pheasant, American Coot, Sandhill Cranes, Western Grebe, Golden-crowned Sparrow, Fox Sparrow, Northern Shoveler, Black-crowned Night-Heron, Lesser Scaup, Northern Flicker, Great Blue Heron, Northern Pintail, Gadwall.

Anne Gosse

SEMAIHMUO FISH AND GAME CLUB
NATURE WALK
SATURDAY MARCH 26TH



Roy at the fish fence

Photo: Al Grass

A new spot for some of us, situated on the Little Campbell River, with a fish hatchery, pond, and lovely trails on this property owned by the Semiahmoo Fish and Game Club. The trails have interpretive signs with beautiful photographs featuring plants and fascinating ecological information. These signs are the work of Marg Cuthbert of the Friend of Semiahmoo Bay Society (FOSBS).

We were guided by SFGC leader Roy Thomson. We first were shown where fish like steelhead are counted. Coho and Chum are also found in the stream here.

The trails and view along the river were lovely as we noted the birds. These included Rufous Hummingbird, Belted Kingfisher, Varied Thrush, Brown Creeper, Savannah Sparrow, Red-tailed Hawk, and the bird of the day, Barred Owl. Mammals were black-tailed deer and a mink along with the grey/black squirrels. There were lots of beaver signs too.

We agreed that we need to visit this place again, perhaps in the fall. Thanks to Roy for sharing his knowledge and love of nature with us, and to all who shared this lovely morning.

Al Grass

DERBY REACH FRIDAY APRIL 15TH



Dicentra formosa - Bleeding heart
Photo: Bob Puls

The Derby Reach Brae Island Parks Association's spring Flower Walk took place on April 15th with leader Al Grass, a well-known local naturalist. Some of the participants included three young children, one baby, two dogs and several adults who enjoyed a morning of discovery finding many wild flowers. Star Flower and Hooker's Fairy Bells gave us very good showings, as well as patches of Bleeding Heart and Yellow Violets - plus many more varieties. Al also told us a few interesting facts about the lovely beauties and we ended up with a count of 32 different species of wild flowers and bushes. Our thanks to Al for leading us on this lovely spring walk of discovery.

Anne Gosse

GREAT BLUE HERON RESERVE, CHILLIWACK SATURDAY APRIL 16TH

It just happened to be spring cleaning at the Heron Reserve, so when we arrived at the parking lot we were thinking how busy it seemed. However, there were a lot of people for the clean-up. When we returned, a 2nd bin was being used, and we did not see any garbage during our walk.

We gathered on the parking lot and found each other. During our stay we saw House and White-crowned Sparrows. A little after nine, about 12 of us started our walk - soon there were Wood Ducks everywhere, but some were surprisingly hard to see on the top of tree stumps despite the wildly coloured males. On the meadow side of the dike trail we heard a lot of Savannah Sparrows singing, but just out of sight.

Pretty quickly, we came to a good spot to view the Heronry and took some time to look at the activity. Through the scope we could see some of the birds

working on the nest. Mostly building it or moving irritating sticks. A lot of the birds were already sitting on eggs. The estimate was close to 150 nests.

Along the dike earlier on, someone spotted a Yellow legs and others said it was a rock. Now when we were closer to the puddle in the meadow we realized both were right. The rock was still there and the Greater Yellowlegs was running around. It was amazing how well a bird like that, in breeding plumage, was camouflaged by the background.

Swallows started showing up and in between the Tree Swallows we found a Northern Rough-winged Swallow.



Photo credit: Great Blue Heron Reserve, Chilliwack

While looking at the Bald Eagle on the nest, we saw the typical flight of a Pileated Woodpecker, but it flew from a dead tree into a leaved tree. It was hanging in some thin branches, but well hidden, almost as if to make sure the strange beings on the dike were not a threat. Soon it went to the tree with a big hole and his mate welcomed him for a short while. The lady just showed her head, so possibly she was already on eggs. For almost all of us this was the first sighting ever of a Pileated Woodpecker's nest.

When we turned around we saw an Osprey, the first of the season. After turning towards the river we found another wildlife tree and while discussing the different size of nesting holes, one of us remarked on a bird which was sticking its head out of the hole. It was a Hairy Woodpecker and it was still busy excavating the hole. Most of us got a good look at it spitting out little pieces of woody debris.

Along the Vedder River we saw lots of Common Mergansers; we could not find the Spotted Sandpipers but they were very vocal and we found more Yellowlegs as well as a Bewick's Wren. Turning left back into the Reserve area, we soon found more species and finally decided one of the ducks was a Lesser Scaup. As it was after 12 and some had already left for different reasons, we hurried a bit more. Suddenly a Northern Rough-winged Swallow sat down on a wire, so everyone got a good look of it and within a few feet

of wire we got the surprise of getting 4 species of Swallows, including Barn and Violet-green. Vic from Chilliwack showed us the bridge where an expert found the Rough-winged Swallow nesting earlier. After the trip we spend some time at the feeders where we got a few more species such as Anna's Hummingbird, Purple Finch and Eurasian Collared Dove.

All in all a wonderful trip with 45 species of birds and lots of new experiences!!

Wim Vesseur

BROWNIE TROOP NATURE WALK MONDAY APRIL 18TH

On a warm evening in Campbell Valley park, two Langley Field Naturalist members (Anne Gosse & Joan Taylor) greeted 13 young girls from a local Langley Guide/Brownie troop for a nature walk. Dressed in their orange and navy Brownie uniforms, the girls seemed very eager to be off along the trails. Around the boardwalks we showed them wild flowers - Lily-of-the-Valley, Bleeding Heart, Salmonberry, and Skunk Cabbage. We also stopped to observe some birds and to listen to their calls. They were very interested in the Common Yellowthroat's "witchy witchy" spring call and the Pacific Wren's very long beautiful melody. However, these 8 and 9 year olds were the most intrigued with caterpillars found along ground on the path, reminding me of the saying "Just when the caterpillar thought the world was over, he became a beautiful butterfly", making me reflect that soon, these ones will bloom into more beautiful butterflies. At the end of the walk, they gathered around we two leaders to sing a chirpy Brownie "Sparks" thank you tune.

Anne Gosse

SURREY BEND PARK SATURDAY APRIL 23RD



Fraser River at Surrey Bend Park Photo: Bob Puls

Nineteen people turned out for our walk in the brand new Surrey Bend Park. They had all waited until the noisy Grand Opening was over to come and see Surrey's newest and largest park. We had a cloudy

day with just a couple of sprinkles. We started off on the trail through the huge Cottonwood forest that was alive with bird life high in the canopy in some areas. The lovely big cottonwood trail was carpeted with Lily-of-the-Valley, Piggyback Plant plus several other wild flowers. Lots of green mosses and ferns bordered the trail as well.

We stopped on a tiny beach to look at the Fraser River and spoke to two fishermen who told us about catching Sturgeon at times - and of course releasing them. We heard lots of warblers high in the canopy, plus Robins, Song Sparrows, and Towhees. On the long trail back we heard many Common Yellowthroats and Marsh Wrens and spotted Hummingbirds and Hawks. We all had an enjoyable day of discovery with a new park to explore, and we recorded 21 species of birds. Afterwards, several of us lunched on the picnic tables, laughing and enjoying tall stories.

Anne Gosse

IRENE PEARCE TRAIL WEDNESDAY APRIL 27TH



Beaverpond baskettail

Photo: Anthea Farr

Eleven LFN members enjoyed a lovely spring morning stroll through the forests and open sections of this level trail. Bird songs in the first forest were dominated by the long trills of Pacific Wrens, interspersed with the high notes of Pacific-slope Flycatchers. Ravens gave their throaty calls overhead. Many flowers were blooming alongside the path: Siberian miner's Lettuce, bleeding heart, false lily-of-the-valley, herb Robert, large-leaved avens, youth-on-age, and even a few magenta-coloured trilliums.

The best birding spots were the two bridges over the Little Campbell River (species list below). By the river, we also saw California damer dragonflies, flashing blue as they hunted over the water, and a western firefly posing for us on the bridge railing. The open straight stretch of trail was flanked by an abundance of white blossoms on the Saskatoon

berry bushes. There too, we saw another dragonfly, the beaverpond baskettail, freshly emerged and drying its shiny wings in the sunshine.

In the second forest, there were Douglas squirrels, more bird serenades (dominated by Pacific Wrens), a few small mushrooms, cyanide millipedes and a margined white butterfly. Pink salmonberry, white thimbleberry and yellow big-leaf maple flowers greeted us in the more open sections. As it was a weekday, we only met two horseback riders on this dual-use trail; both horses were well behaved. Many trail improvements have been made over the past few years, including more benches to sit on and a picnic area and outhouse by the parking lot.



Little Campbell River, Irene Pearce Trail Photo: Anthea Farr

Here's a list of the birds we saw or heard:

Pacific Wren, Bewick's Wren, Black-capped Chickadee, Chestnut-backed Chickadee, Pacific-slope Flycatcher, Northwestern Crow, Common Raven, Bald Eagle, Sharp-shinned Hawk (?), American Robin, Purple Finch, Common Yellowthroat, Orange-crowned Warbler, Rufous Hummingbird, Bushtit, Brown Creeper, Northern Flicker, Spotted Towhee, Dark-eyed Junco, Song Sparrow, Savannah Sparrow, White-crowned Sparrow.

Anthea Farr

WOLFE LAKE, PRINCETON SATURDAY MAY 7TH

Ten Vermilion Forks Field Naturalists were delighted to host 20 birding members of the Langley Field Naturalist Club on an outing to Wolfe Lake, Saturday, May 7th. Led by Tip Anderson, our group was so large we did a head count every half hour! We began our trek after signing a giant thank-you card to Pat Parsons, who graciously hosted us, in absentia, once again. Then we crossed Wolfe Creek, heading east, and hiked along narrow trails through dense deciduous growth and marshy grasses, all the while listening and watching for birds.

We were not disappointed, with a count of 30+

species, including Belted Kingfishers, Buffleheads, a Golden Eagle, a Spotted Sandpiper and a Mew Gull. We made our way past a beaver lodge, and spotted several turtles basking on a log in the lake. Beyond the bush, we traveled through older coniferous growth and made our way to more open territory as we circled the lake.



Wolfe Lake, Princeton

Photo: Janis Wright

The visiting naturalists were charmed by the beauty of the area and entertained by the tall tales told by Tip. It was a hot day, and most of us sought shade when we returned to the picnic area after our 7 km. trek. Despite the 32 degree weather, we roasted a few wieners over a campfire! It was lovely to relax and mingle with our very amiable guests. These visiting birders were in Princeton for the weekend, and were shown other "hot" birding spots by Cathy and Ed Lahaie, our own local experts. We hope to meet with our new friends again soon!

Vermilion Forks Field Naturalists

BC NATURE MEETING 2016, COMOX VALLEY Directors' Meeting

The BC Nature's Directors meeting began at 4:00, Thursday, May 12th, 2016 with the usual important agenda items. As always, it was good to meet with fellow Directors from other BC clubs. Kees, chairing his last Directors' meeting as President, discussed the use of the surplus funds of 2015 on education, Important Bird Areas and legal fees. He announced the FGM in Prince George on September 22-25 of this year. Next year's AGM will be in Lillooet on May 4-7, 2017 and the 2017 FGM will be in Vernon.

The Treasurer, Reda Akladios, was not present, but we studied his report in the Annual Report, voted and accepted it.

John Neville reported that the best part of our new 5 Year Strategic Plan is that we are progressing very well in the goal to increase membership by 20% in 5

years. Already our membership has increased 10% in the first year. He thanked member clubs for doing such good work in bringing in more members.

The Nomination Committee, led by John Neville, brought forth a motion to appoint Alan Burger as President effective May 14th, 2016 for a two year term and another to appoint Reda Akladios as Treasurer, also effective May 14, 2016 for a two year term. Both motions were discussed, and then approved. The Secretary, Claudia Copley, reaches the end of her term in September and that position will become vacant at our FGM. At this time BC Nature is looking for a new Vice-President; as well, the position of Coordinator of Parks and Protected Areas needs to be filled. All other Officers are within their two year terms or have agreed to continue in their present roles.

Bev Ramey reported on the BC Naturalists Foundation and brought a motion to nominate Robert Handfield, Tom Bearss and Pat Westheuser for a second year term as Director, and Stephen partington for a first as Director. This was discussed and passed.

Kees referred us to the written reports in the Annual Report for the Education, Conservation, Field Camps reports and the office updates. Betty Davison announced that BC Nature has a new insurance broker. The dues are exactly the same but club information was not transferred from the old broker. Individual clubs will be contacted to provide this information.

The meeting ended with a lively discussion initiated by Walter Thorne from Kitimat Valley Naturalists concerning whether KVN should supply bird data to an LNG Company for payment. They are opposed to LNG development and are struggling with the morality of supplying the data for payment. Rosemary Fox concluded the discussion, saying their club has to go with its conscience, saying similar situations from time to time challenge clubs' values.

Kathy Masse

BC Nature Annual General Meeting Saturday May 14th 2016

BC Nature's Annual General Meeting opened with the news that this AGM has the largest attendance ever. However, the next statement was that this high attendance is not a contest, since smaller clubs host very successful AGM's but do not have the facilities to host such large numbers.

Kees gave the last President's Report of his term, saying that he was pleased that BC Nature's new Five Year Plan is now in place. The five year membership goal of 20% increase has already

reached 10% thanks to the efforts of Clubs. Last year's work also included further effort to stop the Northern Gateway pipeline and Site C dam.

The Treasurer Reda Akladios presented his financial report and budgets and as at the Club Directors' meeting it was voted on and passed.

Vice-President Alan Burger spoke about the International Ornithological Congress that will be held in Vancouver in 2018. This event is held every four years and this is the first time it will be held on the Pacific Coast of North America. BC Nature will be taking part.

For most committee reports, Kees referred us to the AGM Report which has all the written reports. A motion was proposed to accept all these reports and was passed.

Kees presented a BC Nature Recognition Reward to Vera Vukelich who is the manager responsible for Off-Road Vehicles in the Ministry of Forests, Lands and Natural Resources Operations. In her role, Vera coordinated such diverse groups as motorized off-road vehicle clubs, BC Nature, Municipal governments and ICBC. The regulations are now in place, effective November 1, 2015, and include registration of all off-road vehicles, safety, environmental protection, compliance and enforcement. BC Nature does not usually give this award to a non-BC Nature member. But because this legislation is one that BC Nature has pursued, the high quality work that Vera Vukelich contributed resulted in her Recognition Award.

Announcements were made about the upcoming FGM's and AGM's, referenced earlier in the Club Director's meeting report. The election of executive members at the Club Directors meeting was also announced and the details also can be found in the Directors report. Rosemary Fox, the Conservation Chair, told us she is stepping down after nine years and is looking for a replacement in the Conservation Committee.

The last item on the agenda was the handing over of the Presidency of BC Nature from Kees Vissers to Alan Burger. Alan made his first speech as President saying his guide will be BC Nature's mission statement "to know nature and keep it worth knowing". His inspiration is the excellent work done by Bev Ramey and John Neville.

The keynote speaker after the meeting was Steven Price, president of Bird Studies Canada, who spoke to us about the challenges of protecting our migratory birds with the degradation of habitats in Canada, along the migratory routes and in wintering grounds. He discussed work that is being done to

mitigate these challenges and protect birds. Goals of his work include increasing Citizen Scientists from 40,000 to 60,000 in Canada, growing urban bird appreciation and reaching new communities. He discussed and showed us MOTUS which is a new wildlife tracking system. The tracking devices that are attached to birds are tiny, as light as 3 grams. The system can be integrated into Citizen Science for clubs, or in stewardship of Important Bird Areas. It is visual, modern and an easy technology to aid in bird conservation.

Kathy Masse

BC Nature AGM - Botany Walks

I attended two botany walks that were offered at the



Kin Beach

Photo: Bob Puls

Comox meeting, both led by Helen Robinson. The first was to Kin Beach and despite the date, Friday the 13th, the day was dry and the temperature mild. This walk was at sea level including the beach, open foreshore and some wooded sections. Terry Taylor, a member of the group, appropriately wearing knee-pads, was soon to be found with his nose to the ground, magnifying glass in hand, listing off species of plants that Helen had not yet placed on her extensive list of those found at this site.

The second walk was on Sunday morning, prior to returning to the mainland. This one was to the Comox Lake Bluffs Ecological Reserve high above the lake, where we were challenged to act like mountain goats. The first stretch of the hike was through mature second growth forest with little undergrowth in which we were delighted to find all sorts of uncommon saprophytes and orchids including *Allotropa virgata* - Candystick, *Monotropa uniflora* - Indian Pipe, *Hypopitys monotropa* - Pinesap, *Corallorhiza maculata ssp. maculata* - Spotted Coralroot, and strangest of all *Boschniakia hookeri* - Vancouver Groundcone. Just emerging was what I think was identified as *Pterospora andromedea* - Pinedrops whilst another saprophyte, *Orobanche uniflora* - Naked broomrape, was



Candystick

Photo: Bob Puls

discovered on the bluffs. Also in the wooded section were *Chimaphilla umbellata* - Large Prince's-pine and *Chimaphilla menziesii* - Small Prince's-pine or Menzies' Pipsissewa along with *Gaultheria shallon* - Salal, *Pyrola asarifolia* - Pink Wintergreen, *Pyrola picta* - White-veined Wintergreen, *Linnaea borealis* - Twinflower and *Trientalis latifolia* - Western Starflower.

Helen explained to us how taxonomists, with the advent of DNA testing, are busy changing the names of so many plants including *Toxicoscordion venenosum* - Death camas (no longer *Zygadenus venenosus*) and many others we saw. *Juniperus maritima* - Seaside Juniper, found on the bluffs, is a new species having been separated from the Common Juniper (*Juniperus communis*) found at higher elevations on the mainland.

We saw *Arctostaphylos columbiana* - Hairy Manzanita, *Arctostaphylos uva-ursi* - Kinnikinnick and a hybrid of these two, *Arctostaphylos x media* also called Manzanita. *Rosa nutkana* and *R. gymnocarpa* - Nootka and Bald-hip roses were present out on the open bluffs, along with *Eriophyllum lanatum* - Woolly Sunflower, *Heuchera glabra* - Smooth Alumroot, *Viola langsdorfii* - Alaska violet, *Sedum divergens* - Spreading Stonecrop, *Luina hypopeuca* - Silverback luina, *Plectritis congesta* - Sea Blush, *Potentilla drummondii* - Drummond's cinquefoil, *Penstemon serrulatus* - Coast Penstemon, *Sagina maxima* - Coastal Pearlwort and of course *Arbutus menziesii* - Arbutus.

Three rare ferns occurred on the bluffs *Aspidotis densa* - Indian Dream Fern, *Cryptogramma crispera* - Parsley Fern and *Polystichum imbricans* - Narrow-leaved Sword Fern.

I cannot end without mentioning the wonderful display of various lichens that covered the rocks or were attached to the trees. A great walk to end the weekend.

Bob

BC Nature AGM - Mitlenatch Island Provincial Park

This year at the BC Nature AGM, I was fortunate enough to join one of the zodiac trips to Mitlenatch Island. The weather had looked iffy, but the island is situated in rain shadow and receives only 30 inches of precipitation per year giving us warm sunshine.

Scrambling up the beach and pulling off our heavy zodiac suits, we walked the low windswept bush "krumholtz" narrowed trails. The island radiated magic, peace,

calmness beneath the cry of seabirds and warm sun. Captivated by the clean smell of the ocean and beautiful ocean scenery, we found many wild flowers and calling birds - including a Virginia Rail. Our two guides led us to the bird-blind view point to tell us about the nesting seabirds on this amazing island. The island's nesters are - Glaucous-winged Gulls, Pelagic and Double-crested Cormorants, Pigeon Guillemot and Oyster Catchers. Many Harlequin Ducks and Common Murre were also seen on the rocky shores.



Transport to Mitlenatch Photo: Anne Gosse

Two volunteer live-in caretakers look after this remote island for a week at a time. Perched ten feet away from the caretaker's cottage's rustic sun-deck, were Common Murre, Oyster Catchers and Harlequin Ducks. The entrance to the cottage's tiny cove was guarded by a colony of noisy Steller's and California Sea Lions. I would have loved to have been a volunteer caretaker in the past. What a rare and amazing place to visit.

Anne Gosse



Mitlenatch Island Photo: Anne Gosse

BC Nature AGM

Speaker: Jack Minard

Jack Minard, who worked with the Tsolum River Society for 15 years, presented first a history of the degradation of the Tsolum River which flows into the Courtenay River, then its recovery. To accomplish the recovery, a partnership was formed, including the Tsolum River Restoration Society, the Ministry of Environment, Environment Canada and the Pacific

Salmon foundation.

The Tsolum was traditionally a prolific salmon river, especially for Pink Salmon. However, the ecology of the Tsolum River had been degraded through the 20th century by logging, urbanization, land clearing and ditching. There was also overfishing since there were no regulations until 1965. The final blow was an abandoned copper mine on Mount Washington which operated from 1964 to 1969.

Over years, this abandoned mine leached acids into the river, which ultimately killed the fish. The discovery of the complete absence of fish in 1985 ultimately led to the formation of the Tsolum Restoration Society in 1998 and its goal of restoring the habitat to bring back the salmon. Normal riparian restoration projects did not result in much improvement and it was decided that the old mine site had to be permanently capped to prevent the continual leaching of the acid into the river.

Funding was finally arranged and the work began on a waterproof cap of polyester impregnated with bitumen to be applied at the old mine site in 2009. In the following years, as the pollutants gradually decreased, more fish began to return. In 2015, with good water quality restored, 129,000 Pink Salmon returned which matched the high return of 1935.

Due to community buy-in for the importance of restoring the Tsolum, partnerships were formed to press for funds to complete this project. Work continues by the Tsolum River Restoration Society to improve the riparian areas along the river.

Kathy Masse

BC Nature AGM

Speaker: Dan Buffett

Dan Buffett of Ducks Unlimited spoke to us about the importance of wetlands to provide food for migratory waterfowl on the Pacific Flyway. Most of the west coast is rugged and steep-sided but there are pockets of estuaries that need to be protected and enhanced for the birds. Restoration work has been done on these areas for over 30 years but they still do not seem to be functioning as well as they should.

Traditional restoration does not consider nature as a whole. What these wetlands need is more resiliency to absorb disturbance and change. Resiliency thinking means acting like nature which can adapt to extreme weather and changes.

Examples of enhancement that Ducks Unlimited has done in partnership with local groups are many. In Courtenay, the tidal lagoon at the seaplane airport has been improved. In the estuary, some logs have

been removed from the shore but some woody debris has been left for cover. Also at the Nanaimo/Duke Point Estuary, dike removal has increased the tidal flow. And in the Black Creek Watershed that has low flow water, they have installed water control to hold water that can be released in the summer.

Another factor in wetland conservation is the need for a social/ecological system. The conservation of a wetland has to be accepted by a community that will monitor it and knows how to adapt to changing conditions. Restoration also needs incentives and political will to maintain and improve these wetlands.

Kathy Masse

BC Nature AGM K'moks Estuary Archeology and Restoration

This field trip was led by Dan Bowen, technical director at Project Watershed. We toured the entire estuary to discuss the estuary's history, highlighting habitat restoration and estuary biodiversity.

The K'moks estuary was established after the last Ice Age 20,000 years ago with sand from an ancient glacier. Sand cliffs fed more sand through many streams. It has become one of the top estuaries along the British Columbia coast for providing critical habitat, as well as a trap for nutrients, reducing effects of storm surges and mitigating flooding. K'moks Estuary along with others is being threatened by habitat loss, pollution, sea level rise, debris and invasive species.

Our next stop was at the K'moks First Nations' Centre where we accessed the beach to view ancient fish traps that were used by First Nations dating back 1300 years. These traps were precisely engineered to trap fish in both heart and chevron shapes and each was managed by one family for hundreds of years. The traps were buried in the sand until they were revealed after an earthquake 46 years ago. With only 372 traps left, efforts are underway to preserve them.

At the Rotary Overlook, we viewed Common Mergansers and also saw damage to the marsh by Canada Geese. Efforts will be made to restrict the geese from accessing the area.

Next we viewed The Airpark Lagoon Restoration Project that Project Watershed completed along with Ducks Unlimited, DFO and the Province of BC. The water in the lagoon was relatively stagnant, with high water temperatures and low oxygen levels, but with restoration it was made into a more productive salmonid habitat.



The installed culvert Photo: Kathy Masse

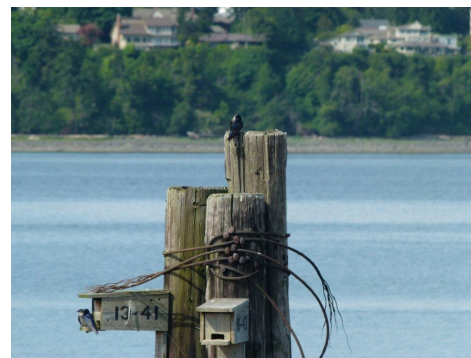
A culvert was established at the upper end of the lagoon to connect the lagoon to the river. Twice a day tidal water comes in and out of the lagoon bringing fish and fresh water, flushing through the lagoon. We saw the three level salt marsh plantings done by Project Watershed volunteers as well as many birds that now frequent the lagoon including Northern Shovelers, Green-winged Teal, Long-billed Dowitchers with Red-Winged Blackbirds singing along the edges. We viewed the Garry Oak trees and camas established by the Comox Valley Naturalists at the site.

Continuing to walk the Airpark trail, we saw Hollyhock Flats which is a prolific habitat for salmonids and birds. The habitat has been enhanced by 3 perch poses.

Onward we went to Royston Trail. Here we saw a large Purple Martin colony living in boxes. At the same location, we viewed restored salt marsh islands with eelgrass and salt water asparagus.

On this walk we learned not only the history and importance of the K'moks estuary but also why it should be restored and protected. Signs posted along the way by Project Watershed and Ducks Unlimited showed the significance of a healthy estuary to provide habitat and protect the shoreline. They help mitigate flooding due to rising sea levels and sequester carbon due to climate change.

Kathy Masse

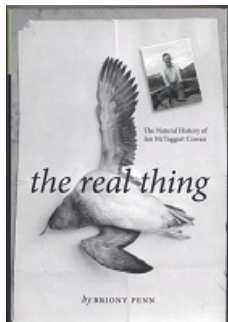


Purple Martin boxes, Royston Beach trail

Photo: Kathy Masse

BC Nature AGM

Speaker: **Dr. Briony Penn**



The Friday night dinner was a 50th birthday celebration for the Comox Valley Naturalists Club. The keynote speaker was Dr. Briony Penn, talking about her newly released book, “The Real Thing”, an official biography of Ian McTaggart-Cowan, (1910–2010), the “father of Canadian ecology.”

Briony’s enthusiastic, delightful presentation gave an overview of McTaggart-Cowan’s life, which was dedicated to teaching and preserving Canada’s natural heritage. She had spent several years reading his detailed files, had interviewed him and many of his contemporaries, and had interesting and humorous anecdotes to share as she showed some pictures of his life from childhood and into his adult life.

The book, over 500 pages, covers only the first 50 years of McTaggart-Cowan’s hundred year life - Briony explained that he then became a radio personality; his programmes and interviews are all available on line. She suggested that, having spent years researching and writing about his first fifty years, it was time for someone else to complete the biography!

Sheila Puls

BC Nature AGM

Bear Creek Park field trip

Bear Creek Park is a testimony of local commitment to nurture nature. In the enthusiasm of return to normalcy after WWII, peace time industries burgeoned. Forests on the upper reaches of the Oyster River were thoroughly harvested and soon all salmon species in the river had declined dramatically – pink, chum, coho, cutthroat ‘trout’. Long story short – locals undertook to restore rivers and fish and were highly successful.

There is now a fully functional hatchery run by the Oyster River Enhancement Society (ORES) and numbers of all salmon species have returned to levels of the 1930s and ‘40s. Persistence by ORES eventually led to the Bear Creek Nature Park that contains the hatchery and channels filling and

emptying it.

A walk on the park trails is attractive without a guide. One thing that immediately struck us was the rich load of bryophytes on the trees and the fact that the alder stems were the wrong colour. The latter is the product of a pale crustose lichen that appears painted on the stems. It was a far more informative walk with Charley and Mandy Vaughan as guides. There is only fry in the stream at this time of year, but Charley points out the different gravel types that would be sought by pink, coho or chum salmon.

Charley and Mandy also offer an intriguing tale of the effort and guile required to restore the area as they show us the working parts of the hatchery and other physical installations.

It is a mixed forest and the bird life is rich, so we were often slowed in our exploration – Barred Owl, sapsuckers, and others. The Wood Duck boxes were looking healthy, but it was the time of year when these shy ducks vanish for a period.

Fred Bunnell

BC Nature AGM

Tree Island field trip



Tree Island

Photo: Nora Truman

Our trip to Tree Island Sand Dunes on Sunday included a boat trip from Union Bay. Our guide explained that Union Bay had been a coal terminal for Cumberland coal until the early 70’s and you could see the remains of a mound of coal and rail tracks on the edge of the bay. There is a deep layer of coal dust on the bottom of the sea inlet. Tree Island (Sandy Islands Provincial Park) is a protected habitat that has native species and we walked only on marked paths.

The island is home to groupings of trees such as Arbutus, Douglas Fir, Alder and Pacific Maple. There were many wildflowers and plants such as sand verbenas, Oregon grape, hooker’s onion, Menzie’s larkspur, sheep sorrel, mugwort and

consumption weed which actually anchor the sand and keep the island from being washed away in the storms. We were shown that the most recent spring storm had washed away about 3 feet of sand from the shoreline.

There was a family of bald eagles nesting on the island and also Glaucous Winged Gulls, White-crowned and Song Sparrow, Killdeer, Spotted Towhee, Tree Swallows, Surf Scoters and 6 Pacific Loon diving right by the island. On the return trip our boat captain and dog (a friendly standard poodle) took us past Steller and California Sea Lions resting on log booms.

(Protecting this Provincial Park from picnicking visitors, who ignore signs saying no fires permitted, is challenging, said our guide, since only 2 park rangers are assigned to north Vancouver Island)

Nora Truman

BC Nature AGM Speaker: Neil Dawe

On the second day of the BC Nature conference, I attended a presentation entitled "Growing, Growing, Gone? Not with a steady state economy" by Neil Dawe, a long-time Registered Professional Biologist with a specialty in wildlife.

An alarming title - what to make of it? With a very detailed Powerpoint presentation, Neil identified major, and some unprecedented, changes to our climate with many resulting environmental and cultural challenges for all of our amazing world, no matter where we human beings and the other "natural world" live today.

In late 2013, Neil had already announced that he would not be surprised if the generation after him witnesses the extinction of humanity. So why does he say that? I wanted to find out.

I repeat, his presentation was nothing short of alarming, particularly identifying that in the last year, 2014/2015, changes to world temperature and levels of CO2 have increased at an unprecedented rate, and nobody really knows why.

Neil was direct in his request that all of us have an individual responsibility to contact our elected and other political leaders to demand real action to reduce our impact on this world which MUST take place soon or face disaster.

Was he an alarmist or a truth-sayer?

Rhys Griffiths

BC Nature AGM Innisfree Farm Field Trip

I went to the Innisfree Farm and I was not expecting very much, but it turned out to be a fascinating place created only 7 years ago on 7 acres of an ordinary farm field by a very interesting Master Gardener and Medical Herbalist, Chanchal Cabrera, M.Sc. and her partner, soil biologist Thierry Vrain Ph.D.

Chanchal has been a medical herbalist for some time, treating patients for insomnia, arthritis, lung disease, liver disease etc. with appropriate herbs. At Innisfree she has been able to grow 100 medicinal herbs, collect seeds and make herbal teas.

She has patients who come to her to be treated, and she has also built a maze out of oyster shells for them to walk and meditate with no fear of getting lost in a high hedge maze which is more common. Some of us wanted to try it, but she said that the walk takes too long for the time we had.

She has "interns" who come to learn how the herbs are grown and their uses whilst they live at the site and work in the gardens. All the plants were growing in abundance and were only really under control in the herb garden, which had a huge variety of herbs. Some of them were poisonous and one was anabolic used by athletes to improve their performances, especially the Russians apparently!



Oyster shell maze

Photo: Annabel Griffiths

Chanchal gives classes for children and adults, and seminars for people who show interest. She visits UBC on a regular basis to instruct medical students on the use of herbs for healing the human body. Before we left she served us tea, herbal of course, in delightful old style tea cups.

www.innisfreefarm.ca

Annabel Griffiths

FIELD TRIP TO PRINCETON

MAY 6TH TO 8TH

(See also page 13)

Seventeen members plus three other BC Nature members assembled at the Princeton Inn and Suites to join Gareth Pugh for a three day visit to this lovely Interior town. We were joined by five members of the Vermilion Forks Field Naturalists who took us on a hike to Swan Lake along the Kettle Valley Trail on a hot sunny day. Some members opted to drive to the lake and wait for us there. The three kilometer hike took us through a varied landscape of scattered Ponderosa Pine with good views of the valley below until we reached the turnoff for the lake. Swan Lake is a protected area managed by the VFFN and we admired the information kiosk that they have installed there before walking out into the open rolling grassland and down to the lake where two blinds have been installed. The main habitats are grassland, Ponderosa Pine and, of course, the wetland so we saw a variety of birds, insects and flowers that we do not get in the Lower Mainland. We spent some time there watching the birds and relaxing in the sun before splitting into two groups, one returning the way we had come and the others by a different route. We all met for a very convivial supper at a local restaurant before being taken by Cathy and Ed Lahaie to see Separation Lake in the rolling grasslands above Princeton where nearly thirty bird species were sighted in a short time due in large part to the fact that the spring migration was in full swing.

On Saturday morning we joined members of the VFFN for what we were told would be a two to three kilometer walk around Wolfe Lake. It was a privilege to visit this lake which is on Similkameen First Nation land. We parked our vehicles at the lakeside and met our host Tip, a well known local personality who was to lead the 'walk', then set off along the lakeside stopping to admire a well-kept log cabin that belonged to Tip's brother. We were asked to sign the 'guest book', a large sheet of cardboard sitting on a picnic table. Leaving that idyllic setting we crossed the creek into the woods where the trail started to climb and became rougher so several of our members decided to return to the lakeside to relax and enjoy the scenery. We made our way through the woods climbing over fallen trees in places until at last we emerged onto a logging road leading downhill past the lake. By now we realised that the two or three kilometers was likely quite an understatement and from there on we still had a walk of about five kilometers in thirty degree heat before arriving back at the parking spot. We ate lunch in beautiful surroundings and our hosts cooked hot dogs for us over a fire. After lunch Ed and Cathy took us to see August Lake where we were able to view the birds from the shade of the pine trees and found a pair of

Solitary Sandpipers, a very rare sighting for our members. At this point a number of our party decided to return to the hotel for a siesta but several of us went on to see ??? We all met for supper again at the same restaurant with Ed and Cathy and their son Jason (a great young birder) as our guests before returning to Separation Lake and a short walk along the Kettle Valley Trail.

After checking out on Sunday morning we drove to Ed and Cathy's house and spent some time in their back yard admiring the variety of birds attracted to their feeders. They have, incredibly, recorded over 90 species of birds in their back yard in the time they have lived there showing how beneficial bird feeding can be. Eight of us joined Ed for a walk along the Kettle Valley Trail westwards towards Tulameen, a level trail at this point that follows the river for much of the way, where Ed pointed out places of interest and showed us where various bird species have nested including a pair of Golden eagles that nested on a cliff above the river last year. A number of warblers had already returned and could be heard singing in the bushes and Ed pointed out a Red-tail hawk nest in a leaning pine tree.

Eventually we had to turn around and say thank you to Ed and Cathy before leaving for the three hour drive home.

Thank you to all those who supported this trip, I hope you all enjoyed it as much as I did, and my apologies to those who were not able to fully enjoy the Saturday walk which was much more energetic than we had been led to believe. We recorded over 90 bird species and saw a number of mammals including Yellow-bellied Marmot, Coyote, Musk Rat, Red Squirrel and several deer. The Balsam Root was spectacular in large yellow patches on the still green mountains around the town while Lupine, Paintbrush, Choke Cherry and others gave colour to the landscape. We also saw a number of different butterfly species including Comma, Swallowtail, Orange-tip and others that I failed to identify.

Gareth Pugh



Mountain Bluebird

Photo: Bob Puls

FIELD TRIPS

We usually meet at Douglas Park Rec Center for car-pooling; however, please call leaders to let them know you are coming and for where to meet - if at the Rec Center or at another designated meeting place. Please wear suitable walking shoes, jackets, bring water, binoculars, bug spray, also snacks and lunch for all day trips.

Please Note: anyone wishing to carpool should phone in to make arrangements beforehand, otherwise please meet at the designated meeting place. Please call to let the leader know to expect you. The evening walks are generally about two to three hours long and are open to all Naturalist Clubs & members of the public (adults & children, but no pets please). Please dress for the weather and bring water, binoculars and a snack plus bug spray. These walks are weather dependent so if the weather is bad and no calls are received then the leader will not show up.

FRIDAY, JUNE 10TH

SKAGIT VALLEY PROVINCIAL PARK

LEADERS: AL & JUDE GRASS

Time: 8:45 at the junction of the Hope Flood Road and Silver Skagit Road (take exit #168 from Highway 1 East).

Come join Al and Jude as they take us to the Skagit Valley. Birds and wildflowers should be at their best, including the beautiful pink Rhododendron which should be in bloom. This is a full day trip, so please bring lunch, snacks, water, (sunscreen and bug repellent) and a variety of clothing and footwear for the weather. *Note: please make sure you have enough gas as it is 130 km round trip to Ross Lake and back to the highway.* Phone: 604-538-8774 for info or to let us know to expect you.

WEDNESDAY JUNE 15TH

CAMPBELL VALLEY REGIONAL PARK

LEADER: VIVEKA OHMAN

Time: 9:00 am at 8th Avenue parking lot across from the Nature House.

This is our "welcome back" for our annual "yellow-themed" Warbler and other summer birds with expert birder Viveka. We will be looking for Yellow Warblers, Common Yellowthroat, Wilson's Warbler, Western Tanagers, Black-headed Grosbeaks and many more.

We will walk the Ravine Trail first, then return through the meadow past the farm house across from the Nature House and head north on the central main trail. Following 1 Km we will turn left on the Vine Maple Trail and end up at the 16th avenue parking lot. From here we walk east on the Little River Loop trail towards the Listening Bridge where we will have a water break and listen for more birds. Then we head south and return to the 8th avenue parking lot via the main central trail. Walking distance is approx. 5 km so please wear appropriate footwear. We plan to eat lunch in the park in the gazebo by the pond afterwards. Phone: 604-534-3401 for more info or to let us know to expect you.

TUESDAY JUNE 28TH

COQUITLAM DYKES

LEADER: LARRY COWAN

Time: 8:30 am in the parking area at Victoria and Cedar Drives in Port Coquitlam

Our half day bird walk will be at DeBoville Slough/Minnekhada RP. In June you can expect Green Heron, Sandhill Crane, warblers, vireos and a multitude of waterfowl species. We will position an appropriate number of vehicles in the Minnekhada parking lot off Quarry Rd. for our return trip. Phone: 604-307-0931 or e-mail lawrencecowan @shaw.ca for more info or to let us know to expect you.

TUESDAY 5TH JULY

E.C. MANNING PROVINCIAL PARK

LEADER: WIM VESSEUR

Time: Meet Langley at 7:30 am or Manning Park Lodge at 9:30 am.

Join Wim to wander along some of the Manning Park trails to check the spring blossoms in this wonderful park in the coastal mountains. Choice of trail will depend on the snowpack. Bring botany books. Weather permitting only. Phone 604-534-3447 or 604-764-2157 for info and to arrange car pooling.

WEDNESDAY 6TH JULY (EVENING WALK)

FORSLUND WATSON PROPERTY

Time: 6:30 - 8:30pm

Leader: Ryan Usenik 604-999-5047.

Meet at 2705 – 232nd Street.

WEDNESDAY 13TH JULY (EVENING WALK)

CAMPBELL VALLEY REGIONAL PARK

Time: 6:30 - 8:30 pm

Leaders: Jude and Al Grass - 604-538-8774.

Meet at 16th Avenue Parking lot.

WEDNESDAY 20TH JULY (EVENING WALK)

BAT WALK

Time: 8.15 pm

Leader: Kirk Miles – 604-512-4631.

Following last year's very successful event Kirk Miles will again lead a bat walk.

Meet at 184th Street and 53rd Avenue.

WEDNESDAY 27TH JULY (EVENING WALK)

NICOMEKL FLOOD PLAIN

Time: 6:30 to 8:30pm

Leaders: Jude and Al Grass - 604-538-8774

(Lisa Parker co-leader).

Meet at Portage Park at the end of 204th Street off 53rd Avenue.

WEDNESDAY 3RD AUGUST (EVENING WALK)

WEST CREEK WETLANDS

Time: 6:30 - 8:30 pm

Leader: Lisa Parker - 604-532-0081.

Meet on the south side of 72nd Avenue approximately 400 metres west of 264th Street. Parking is available on the north side of 72nd Avenue.

WEDNESDAY 10TH AUGUST (EVENING WALK)

BRAE ISLAND - DERBY REACH

Time: 6:30 - 8:30 pm

Leaders: Anne Gosse - 604-888-1787 & Joan Taylor - 604-868-6417.

Meet in the parking lot at 9451 Glover Road, Fort Langley

WEDNESDAY 17TH AUGUST (EVENING WALK)

ALDERGROVE REGIONAL PARK

Time: 6:30 - 8:30 pm

Leader: Bob Puls - 604-856-7534.

Meet in the parking Lot at 645 Lefevre Road (one block South of 8th Avenue).

SATURDAY 27TH AUGUST

CYPRESS PARK AND YEW LAKE

Time: 9:15 am in the Cypress Bowl Parking lot at the info kiosk. Parking fee in effect.

Leader: Al Grass

The easy walking trail passes alongside Cypress Creek and subalpine meadows to Yew Lake and remnant old-growth forest. If trail conditions permit, we might also hike up the new section of the Howe Sound Crest Trail to the viewpoint. Bring lunch, water, protective clothing for changing mountain weather, and wear sturdy shoes/boots. This will be a leisurely outing with time for photography and birding. Phone 604-538-8774 for info.

THURSDAY 1ST SEPTEMBER

CHEAM LAKE WETLANDS REGIONAL PARK,

CHILLIWACK

Time: 9:00 am at Cheam Lake Wetlands parking.

Leader: Josh Inman.

This 107 hectare sensitive wildlife habitat is comprised of a lake, a marsh and forests. It is a popular bird-watching area where 184 different bird species have been recorded, plus it is home to many insects and mammals. Phone Josh 604-532-0455 for info.

SATURDAY 10TH SEPTEMBER

POINT ROBERTS

Time: 9:00 am at Lighthouse Park

Leader: Gareth Pugh

Join us as we visit Point Roberts to walk along the beach and scan the ocean for whales and the various seabirds that can be found there. We will also visit Lily Point Park and Marine Reserve, Whatcom County Park. Bring lunch, snacks and refreshments and, of course, your passports. Phone Gareth 604-576-6831 for info.

WEDNESDAY 14TH SEPTEMBER

BOUNDARY BAY REGIONAL PARK,

TSAWWASSEN

Time: 9:00 am at the Cammidge House parking lot in Boundary Bay Regional Park.

Leader: Gareth Pugh

Join Delta Naturalists and the Friends of Semiahmoo Bay Society on their quarterly walk around the Park. The trail follows the shore, then winds back through sand dunes and freshwater marsh.

FRIDAY 30TH SEPTEMBER

GOLDEN EARS PROVINCIAL PARK

FALL FUNGI, MUSHROOMS AND MORE

Time: 9:30 am in the Park Entrance Parking lot (just past the goat).

Leader: Al Grass

Bring lunch as we will finish at the Alouette Lake Day use area. We will walk the Spirea Nature Trail and the Lower Falls trails in search of fungi and more. Phone Al at 604-538-8774 for info.

Don't Forget

LFN AGM

Thursday June 16th, 7.15 pm

“Grass Shack” Social

Saturday August 13th, 10.30 am -

Next Regular Meeting:

Thursday September 15th, 7.15 pm