

# Comox Valley Naturalists Society

December 2014

## President's Message:

### A Commitment to Change

*"All we need is the will to change, which we trust will be motivated by knowledge and an understanding of the science of climate change"* - Rajendra Pachauri (2014)

Do we have the needed will to change?

If we trust the IPCC 2014 climate change reports global climate change is already well underway and more is inevitable in the coming decades. In order to adapt it seems we need to change. After decades of overt and tacit denial, once we come to terms with accepting the reality of climate change, the problem really may be not in acknowledging the need to change, but in understanding what changes need to be made, where they need to be made, how they are going to be made and having the social instruments for change.

That is where understanding our place in our environmental history may become particularly important. The more we ignore our environmental history, the more it costs the average taxpayer to help us re-invent the wheel, the more effective or actual change continues to elude us, and the more we continue to help erode our natural capital. In 1968 when the first Club of Rome met, that was a basic message that was picked up by the 1972 report: *"the more we delay change the more costly and difficult the solution becomes."*

I was recently taken aback by a comment made by a well-intentioned volunteer at Kin Beach Park. I pointed out that bio-engineering techniques were not new and that I re-called environmental restoration work using bio-engineering principles done in my youth – only to be told that I must be very young, since a consultant had told them that these were radically new techniques developed in the last half decade! In 1999 I was asked to review Steven Whisenant's compendium, *Repairing Damaged Wildlands*, which outlined techniques used to repair ecosystems damaged by 1945, largely through the over-industrialization needed to meet the needs of the war-effort. The bio-engineering techniques discussed by Whisenant were by then already at least 55 years old. Without historical perspective, old ideas seem new and

untested – and as the saying goes: *"People who fail to learn from history are doomed to repeat it."*

In point of fact, while bio-engineering techniques became popular in the early 1970's, thanks to the efforts of Bill Mollison, the late Dr. Edgar Garbisch and many others, most of these techniques and principles really go back to the dawn of civilization. "Water-harvesting" and native crops used to control erosion were used by the defendants of Masada around 72 CE. Without wishing to detract from the merit of the Association of Professional Engineers and Geoscientists of BC's efforts to integrate water balance models and environmental bio-engineering techniques since 2000, these concepts are, in fact, relatively late responses to both deteriorating environmental conditions and to growing public environmental awareness. There have always been individuals, or groups of concerned people, who through their awareness of nature and natural values, have shown a singular awareness of the impacts of industrial society on nature and the need to change how we treat the planet.

In the Comox Valley, Mack Laing, if only through his ground-breaking 1929 article on the impact of oil pollution on West Coast bird populations, was one such individual. As a local naturalist he was either the first, or among the first, to point to the risks that the Enbridge project now poses. It is through such contributions that we can measure how embarrassingly little change has in fact been made, in spite of the efforts of well-publicized environmental organizations, who are effectively re-inventing the wheel – as though operating in a timeless vacuum. If we want "change" we have to have a historical measure. That is one reason why figures like Mack Laing should matter to us. They are not mainstream history. They are our environmental history, in a world in which the environment has all too often been treated "an economic residual." When we realize that oil pollution was a recognized problem in 1928, 85 years later we have grounds to question why legislation is still embarrassingly weak and deficient, why we persist in promoting unsustainable energy projects, and why the remedies continue to be largely cosmetic.

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**Comox Valley Naturalists Society Box 3222  
Courtenay BC V9N 5N4**

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**Single \$30**      **Family \$40**  
**Junior (12-18) \$10**      **Student age (18-22) \$15**

Cheques Attention: Sue Martell,  
**Receipts** at meeting or send SAS Envelope

#### Membership due January 1st.

If not paid by February 28th, names are struck off the CVNS and BC Nature lists. New members joining after September will have their membership extended to the following calendar year: January to December.

**Change of address, phone number or e-mail:**  
Please advise Sue Martell

[www.comoxvalleynaturalists.bc.ca](http://www.comoxvalleynaturalists.bc.ca)

**TRIP LIST: Suggestions for trips** welcomed:  
Joyce Bainbridge

**Garry Oak Restoration:** Loys Maingon  
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### NEWSLETTER:

Deadline March newsletter: **March 1, 2015**  
Newsletters are published: November, March and June.

The newsletter is e-mailed to members.  
Contributions are required for a Newsletter  
Available at monthly meetings.  
(\$5.00 per year if mailed).

**Articles are welcomed and necessary**

### MEETINGS:

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

**June meeting:** potluck at member's house  
**No meeting July, August and December**

**Bird meetings:** are held the first Thursday of the month 7:00 p.m. at the Filberg Soroptimist Lounge.  
For info: Dave Robinson

#### Botany Meetings:

Botany Meetings are scheduled on the second Monday of every month at a member's home at 12:00 p.m.

An email is sent prior to the meeting to confirm location and topic.

Botany walks (weather permitting) and are also scheduled at random times.

To be included on the botany list email Karin Franzen or Alison Maingon

**CV Naturalists Society Box 3222**  
**Courtenay BC V9N 5N4**

# How Baby Insects Grow UP

by Chris Pielou

Most people learn as children that many insects have a life cycle that goes: egg-larva-pupa-adult. But “many” doesn’t mean “all”. Equally many kinds of insects have a life cycle that goes: egg-nymph-adult. The two life styles, and the insects that live them, differ profoundly, and to be aware of the differences makes insects a whole lot more interesting. I’ll call the two types of insects “nymph-insects” and “larva-insects”: the scientific terms, for anyone who cares, are Exopterygota and Endopterygota, respectively.

A larva and a nymph are very different to look at. Typical examples of larvae are caterpillars (juvenile moths and butterflies), grubs (juvenile beetles and bees) and maggots (juvenile flies). Most are soft, pale, and repulsive-looking; only a few caterpillars are bright or bristly or both. And larvae are wholly unlike their adult selves. In particular, they lack any hint of incipient wings and instead of big, compound eyes, they have tiny light-sensitive ‘eyespot’s. Most are air-breathers. Even mosquito larvae, which live in stagnant water, come to the surface for air periodically. The larvae of caddis flies and midges are fully aquatic, however, and have gills to absorb oxygen from the water.

In contrast, nymphs resemble adults quite closely. Good examples are the nymphs of grasshoppers and crickets which are like miniature adults. The resemblance is less obvious in the nymphs of dragonflies, mayflies, and stoneflies (familiar to everybody who’s taken the *Streamkeepers*’ course) because they are aquatic. But, like adults they have compound eyes, and their outer skin, the cuticle, is hard. They also have visible wing stubs and legs like an adult’s legs. When judging an immature insect, ask yourself “if I stepped on it, would it squish or crunch?” If the former it’s a larva, if the latter a nymph. To add to the terminology, an aquatic nymph is often called a naiad.

The way these two kinds of immatures grow to maturity is wholly different. Nymphs simply grow bigger, moulting each time they outgrow their skin. At the last moult, a nymph first wriggles out of it’s penultimate skin (having climbed out of the water first if it’s aquatic), whereupon its wings, after being tightly crumpled inside small, hard wing-covers all through infancy, expand and function. It must be a glorious feeling.

Larvae, on the other hand, grow up like this: at first, they merely grow bigger, moulting when necessary. The surprising speed at which some of them grow is known to anyone familiar with tent caterpillars. The next step for a larva is to become a pupa. As a larva

transforms into a pupa its skin thickens and hardens; at the same time it becomes inactive and so inconspicuous that it’s seldom noticed unless, perhaps, it’s a chrysalis (the larva of a moth or butterfly) or a leather jacket (the larva of a crane fly, found when you dig the garden.). Most pupae are attached to twigs, buried in the soil, or concealed in the litter. They just lie there, motionless. An exception is the mosquito pupa; like the larva, it remains in stagnant water just below the surface, and twitches continually.

To think of a pupa as a resting or dormant stage is a mistake, however. A pupa looks inert, but extraordinary activities are going on inside it. As soon as the pupal skin has hardened, the tissues within break down. All the internal organs, heart, nerves, stomach, muscles and the rest, dissolve into a formless mush. Then, sometimes within minutes, the mush starts to organize itself spontaneously, from undifferentiated cells into the separate tissues and organs of the adult insect. Wings appear for the first time after there being no hint of them in the larval tissues. The change is magical, certainly as astonishing as the conversion of a frog into a prince. To see the process in action requires a well-equipped biology lab and much dexterity in dissecting and examining pupae at a closely-spaced sequence of ages. This is usually impossible for amateur naturalists but it’s a shame that so few people know of these remarkable events in the natural world. The contrast between nymphal development and larval development couldn’t be more extreme.

A few insects have life cycles that omit the egg stage: they bear living young. It happens in both larva-insects and nymph-insects. Here are two examples. The sheep botfly is a revolting larva-insect that deposits its living, crawling maggots in the nostrils of a sheep. They migrate through the sheep’s nose and collect in a wriggling mass at the back of its throat, making breathing difficult. The suffering that botflies inflict on sheep are hard to imagine. Our irritating encounters with miscellaneous insect pests pale by comparison.

Among nymph-insects, aphids skip the egg stage and bear tiny aphid nymphs. They do this parthenogenetically (that is, by virgin birth). Males are never (well, hardly ever) involved: for many generations at a time there are no males at all. With a dissecting microscope you can see the young aphids being born. On examining a batch, most of them will be found to have little aphids inside and after watching patiently, you’ll see some being born. Now and again you’ll see a granddaughter aphid inside a newborn one. Imagine being born pregnant.

**Birds At the Airpark:** currently the Marbled Godwit is at its usual spot and a Long-billed Dowitcher was spotted in the lagoon

## PASS THE HASKAP BERRY JAM PLEASE

This is a request that you may be hearing at the breakfast table in the near future. We did, in Calgary, while visiting folks in September.

"HASKAP" is the Japanese name for *Lonicera caerulea*, also known as blue honeysuckle or honeyberries. Although not native to British Columbia, the shrub is circumpolar in the cool temperate northern hemisphere, primarily in or near wetlands of boreal forests.

The University of Saskatchewan's breeding program has been hybridizing varieties from Canada, Russia and Japan to come up with the best productivity and flavor; and several farmers in Saskatchewan are commercially growing the shrubs.

The blue berries, about 1 cm. long, have small seeds like kiwi, soft skins, and mature in mid-May to early June. They are being used in jams, juice, wine, ice cream and yogurt; and have a delicious blueberry / raspberry flavor.

There is a lot of information on the internet, and likely we will be finding these shrubs in local nurseries before long.

**Photograph of Haskap berry:** See <http://haskap.ca/>

*Helen Robinson*

## Merlin Hawks Voracious Appetites

Summer this year was very stressful for our family as we had two nesting pairs of Merlin Hawks in our neighbourhood, one nest across the street and one in our backyard. For one thing they are very noisy, screeching repetitively as they fly. Secondly, they are vicious killers. As the spring and summer progressed our neighbourhood songbird population was decimated. The joyous bird songs that I so much enjoy were silenced. Once the young hawks hatched and the parents were killing other birds to feed their offspring's voracious appetites, the carnage was unbelievable. Every few days we would find at least three headless bird carcasses on our lawn. I found this very disturbing. Soon there was not a robin, junco, chickadee, sparrow, finch or even a flicker to be heard or seen. A pair of Pileated Woodpeckers visited our garden a couple of times and were left unmolested. Our crow population was frequently protesting. I expect they lost most of their babies. Does anyone out there know how to discourage Merlin Hawks from nesting in a certain area? I don't want to go through another summer like the past one.

*By Marilyn Machum*

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## The Whiskey Jack

In the Comox Valley we have a very special bird, the Whiskey Jack! It is well known for its behavior with humans. Even though it is a wild bird, it will come and eat right from your hand.



*Photo Sharon Niscak*

Let me tell you a warm story about this friendly bird. Blop, blop, blop, blop (water drops sound)! Spring has arrived in the valley and with it, a newborn Whiskey Jack. It shakes its wings and looks from the nest. The fields are full of pink flowers blossoming around the melting snow. What a paradise!

As a little Whiskey Jack, he is very dependent on his parents but his parents are not very good at nurturing him. His parents are always too busy with the tourists. His parents like to jump from one tourists head to another to gain their sympathy and their delicious food. When they are not with the tourists, they spend time cleaning their feathers to look pretty. They have forgotten how to find their own food, and even, how to nurture their own young.

The small Whiskey Jack is alone and is trying to find his own food in the forest but he is a little clumsy. Uff! uff! This is so difficult. Why should I have to learn all these hard ways to find food? I am going to try to get some food from the tourists too!

The little Whiskey Jack has begun to steal the tourist's food when they come to have a picnic close to the lake. Oh my! I have eaten too many potato chips, but I can't stop eating them. They are so addictive! Now I have stomach-ache. I will not rely on humans again! The little Whiskey Jack wants to store his food as his ancestors used to, like wild fruits and dragonflies, but times have changed.

Oh! Somebody has stolen all my food. I hid it in the bark of the red cedars, but some bird must have seen me. There are too many birds in the Valley that have arrived, attracted by the tourists. They steal the tourist's food and now they have stolen my own food too! I must leave but where will I go?

Finally, the little Whiskey Jack asks the oldest red cedar of the Valley. It is connected through his roots with all the trees in the Valley and it has told him about a place without tourists, without the over congestion of competition, quiet and peaceful; the old ski station.

Oh! Here the time seems to have stopped! The old chair lift is still standing, but there are no skiers to use it. The ski tracks are full of juicy berries and trees are growing again. Trees are full of fruits are losing their leaves. It is time to get ready for the winter. I think I can stay here!

And he lived happily ever after!

*Gabriel Bau*



## Why Hamilton Mack Laing Matters Today

There are many reasons why Hamilton Mack Laing, who settled in Comox in 1922 and built his house at Baybrook, near the outlet of Brooklyn Creek in 1923, should matter to Canadians in the twenty-first century. This note does not pretend to enumerate them all, merely to point out the importance of considering Laing's relation to the Geological Survey of Canada, and how it affects us today.

Mack Laing was from the release of his first book *Out With The Birds* in 1913 to the death of his wife,

Ethel, in 1945, an extremely productive and well-known Canadian nature and environmental writer, publishing over 700 articles, 22 of which are in peer-reviewed scientific publications of his day.<sup>1</sup> A closer scrutiny of these writings and of his contributions to science indicates that Mack Laing plays a pivotal role in the environmental history of Western Canada, for both his literary and scientific contributions.

B.C. historians such as Dr. Allan Pitchard, who grew up in Comox, knew Laing, and went on to teach at the University of Toronto, and Dr. Richard Mackie, who has written extensively on the history of the Comox Valley, have repeatedly pointed out the importance of Mack Laing for any person interested in the Comox Valley's history. However, Mack Laing's real accomplishments lie elsewhere. Specifically, they lie in the significance of the 10 now largely forgotten, but important, expeditions in which he served the National Museum of Canada as a naturalist, much as Darwin had served on The Beagle's expedition in the time-honoured tradition of biological surveys.

While this is not the place to detail the importance of these expeditions, they continue to be important today because they were an extension of the work that Sir William Logan began in 1842 when he founded The Geological Survey of Canada. The expeditions associated with the Geological Survey laid down the foundations of Canada's ecological and economic heritage, by recording and collecting specimens of regional species and their variants and mapping Canada's potential mineral wealth. This work lies at the heart of Canadian environmental science. Without the work of the Geological Survey of Canada we would have no first-hand long-term record of the environmental changes and impacts that the nation has undergone since Confederation. Without this key information we would have little means to chart the implications of the ongoing environmental changes for our global future. To deny the importance of Mack Laing and his fellow naturalists is to deny the importance of the scientific work of the Geological Survey of Canada.

Mack Laing did not write only about ornithology and hunting, as is frequently thought. Early on he tackled some new environmental issues such as oil pollution, which makes him particularly relevant today as British Columbians weigh the merits of LNG, Enbridge and Kinder Morgan. He was in 1928-1929 one of the first writers to discuss and document the impact of oil spills on the West Coast, and particularly in what he knew as Georgia Strait, the modern Salish Sea.<sup>2</sup> His concern is as fresh today as it was in 1929, and in it today's environmentalists can trace the origin of their concerns.

In many ways the literary and scientific facets of Mack Laing's personal life and writings make him a forerunner to the postwar generation of Canadian

environmental writers. Notably, his realistic descriptions of faunal behavior, concern for the fate of nature in the modern industrial world, and particularly his ground-breaking concern with marine coastal oil pollution impacts on the coastal birds, point to themes and concerns that the late Farley Mowat would meld into the Canadian psyche in the 1960's. In this respect, Mack Laing shared with Mowat important personal connections in the world of Canadian environmental biology. Mowat shared his name "Farley", with his uncle Frank Farley, an Albertan ornithologist who worked with Laing under Percy Taverner, as a well-known photo of the Taverner Party taken in 1920 at Vaseux Lake documents (Figure 1). It was Frank Farley who guided a young Mowat's early naturalist readings – and as a popular author easily accessible to Mowat in the 1930's, Laing was undoubtedly recommended reading.



Figure 1 Taverner Party at Vaseux Lake May 1922 (Top) Allan Brooks, Percy A. Taverner, Frank Farley(Bottom) H. Mack Laing, George Gartrell, D. Alan Sampson

Coincidentally, Mack Laing and Farley Mowat shared the same mentor in their first expeditions north, Dr. Francis Harper who worked for the Smithsonian in 1920. Just as Dr. Francis Harper took Mack Laing north to Lake Athabasca in 1920 with the Smithsonian Institute and the U.S. Biological Survey, in 1947

Harper took a University of Toronto biology student, called Farley Mowat, to Nueltin Lake in South Keewatin, to the barrens that would come to be the scene of many Mowat stories. That Mack Laing may have had a hand in Harper's choice of assistant is warranted by Laing's continued correspondence with Harper up to Harper's death at the University of North Carolina in 1972. 3

Mack Laing was much more than the "hunter-naturalist" that Richard Mackie's excellent seminal biography described 30 years ago. Mack Laing, like his contemporary Dewey Soper, was one of "The Collectors", for the National Museum. The Collectors were in the words of Soper's biographer, Anthony Dalton: "the quiet unpretentious men, who surveying for the Dominion of Canada, established the outline and substance of Canada".4 Laing was an unpretentious "collector-naturalist," and the National Museum considered Laing to be one of the best collectors in Canada. In Anderson's 1935 assessment, Laing was "The top field man in Canada."5

Three decades on, since Mackie's ground-breaking biography of Laing first came out, our understanding of the historical context within which Mack Laing's generation worked and wrote has evolved considerably, together with the historical and contemporary importance of the institution with which Mack Laing was closely associated, the Canadian Museum of Nature.

The Canadian Museum of Nature, first opened in 1915 as the Victoria Memorial Museum in Ottawa to house the natural history collections of the Geological Survey of Canada. It came to be better known as the Canadian National Museum. In 1990 it was split into two new institutions, The Museum of Civilization and the Museum of Nature. The latter recently underwent major renovations and re-opened 2011.

The splitting of the National Museum in 1968 into the Museum of Man and the National Museum of Natural Sciences, and its subsequent series of re-organizations in the 1980's and 1990's culminating in the complete renovation and re-opening in 2011 reflect the changing focus of science, as well as the renewed interest in the collections and in the men and women who brought them together. These individuals were skilled field naturalists, skilled in taxonomy, the discipline of identifying species-level differences.

In the postwar period, field biology, natural history and taxonomic studies suffered a progressive and steep decline, making way for experimentation, quantitative biology and micro-biology, which were of greater interest to industry and government than basic field research. The decline in support for field work was particularly accelerated between 1970 and 1990, when increasingly few students were trained in taxonomy.

It was only in the late 1980's that the twin questions of species biodiversity" and "ongoing anthropogenicly-

driven extinction” emerged as global concerns, well-articulated by Niles Eldredge’s 1991, *The Miner’s Canary*. When E.O. Wilson published his two great works: *Ants and The Diversity of Life in 1990*, he heralded the return of scientific and popular interest in taxonomic diversity, and in the importance of natural history museum collections, together with the articulation of a growing concern for the plummeting environmental health of the planet.

Throughout the 1980’s it had become increasingly clear that the rate of urban and industrial growth was outstripping the carrying capacity of the planet. One of the best indicators of the state of the planet’s “health” was, and continues to be, the decline in species diversity. However, to measure that one has to be able to identify floral and faunal species, and have access to reference collections. Thus “biodiversity” studies became linked to the developing awareness and measurement of environmental impacts. Taxonomy became increasingly more important, at a time when untold species, and both taxonomic skills and museum collections, were on the verge of being lost.

The collection of the National Museum of Nature of Canada is an international treasure. It houses over 7million specimens in geological, paleological, botanical and vertebrate and invertebrate collections. As one of the top North American collectors, Mack Laing collected over 10,000 vertebrate specimens in his lifetime, the majority of which he collected for the National Museum of Canada.

The value of museum collections around the world has recently been borne out by Dutch research on sources of bee declines.<sup>6</sup> In order to understand environmental changes that are driving wild bee population declines these researchers turned to museum collections of bee specimens from 1872 to 2011 in the Netherlands. They examined 40,000 wild bee specimens and analysed pollen from their legs. Not only did they find that wild bumblebee species diversity declined by 30%, and bee diversity declined 15%, but also that the pollen analysis revealed that preferred host plant diversity had also sharply declined with direct adverse consequences for bee populations, and bee species size. In other words, access to museum collections enabled these researchers to understand not only the historic diversity of bee species, but also what the preferred host plants of each extant and lost bee species were, what landscape-level changes had driven their decline, and the impact of changes in plant species composition.

All this information, from some minute pollen grains on the legs of stored museum bees! Museum collections are a vital source of yet untapped data to understand not just our natural history, but our present predicament, and the future we will chart. And if only for this, we owe our future to unassuming collectors like Laing.

In three expeditions funded by Canada and the United States between 1933 and 1935, Laing recorded and sampled marine bird populations. The species record and the specimens he collected then are a potential treasure house of information of the changes or “ecological health” of the Salish Sea, that could yet contribute to understanding present calamities, such as the recent death of an Orca and her calf off Courtenay.<sup>7</sup> Tissue analysis of these samples could provide clues as to the state of the environment in 1935, when Salish Sea Orca and marine bird populations were not in imminent danger, as they are today.

Some may complain that Mack Laing – as most of his contemporaries, including his best-known student, the late Dr. Ian McTaggart-Cowan - hunted and killed the specimens they collected, and that the museums are distasteful necropoleis. However unpalatable and unsavoury this may be to our innate squeamishness, no picture – no matter how good- will ever replace the information content of specimen collections. No picture will ever give us access to the histology and the genetic history of disease and climate changes that a specimen carries.

Mack Laing and his fellow collectors did not only leave a substantial written and photographic record of nature as they saw and recorded it between 1919 and 1945, they also left us an exceptional material record of scientific information that will undoubtedly prove increasingly important in understanding environmental changes in the coming Age of Climate Change. To deny the importance of Mack Laing and his fellow naturalists today, is to deny the importance of the scientific work of the Geological Survey of Canada in every facet of Canadian environmental work carried out today.

Environmentalists and would-be “protectors of nature” who would deny the importance of Mack Laing and his fellow collectors and their own debt to these important predecessors, effectively deny the scientific foundation of the environmental work they claim to be doing. This denial of the museum collectors’ scientific legacy is no different than supporting the current government’s cutbacks to basic government science. Both are denials of the value of basic science. What motivates it is best left unsaid.

All environmental science in Canada began with the establishment of The Geological Survey of Canada, whose first actual function was the determination of the Dominion’s natural history. As F.J. Alcock noted in 1947, in the first history of the Geological Survey: “In fact, the Survey for a long time, although primarily geological was in reality a natural history one.”<sup>8</sup> It is not just a case of the old adage, “they who deny history are doomed to repeat it.” If one does not understand the value of the past, and respect the value of the natural history legacy left to us by men and women

like Laing, then how can one claim to protect and hand or even understand, a legacy for future generations?

Special thanks for this article are owed to Dr. Richard Mackie (BC Studies at UBC) and Ms. Chantal Dussault, Museum of Nature, Ottawa) Loys Maingon (RPBio) (President) Comox Valley Nature

1. Richard Mackie (1985). Hamilton Mack Laing: Hunter-Naturalist. Victoria: Sono-Nis. (Remains the most comprehensive account of Mack Laing's life.)

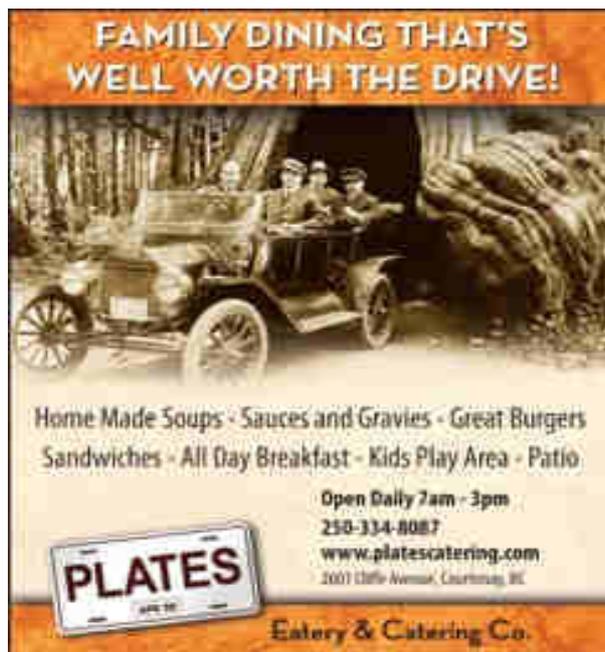
2. Hamilton Mack Laing. (February 1929). "Oil-Black Death of Waterbirds: The bird-world faces a new menace, oil-polluted waters, a tragedy on the West Coast." Forest and Outdoors.

3. Palmer, Ralph S. (1973). "Francis Harper." The Auk 90(3). 737-738. Norment, Christopher J. (2000) "Francis Harper (1886-1972)." Arctic 53 (1) 72-75.

4. Anthony Dalton (2010). Arctic Naturalist: The life of J. Dewey Soper. Toronto: Dundurn Press. 6. Schepper, Jeroen et al. (2014) "Museum specimens reveal loss of pollen host plants as key factor driving wild bee declines in The Netherlands". Proceedings of the Academy of Sciences.

7. <http://www.cbc.ca/news/canada/british-columbia/necropsy-on-killer-whale-j-32-reveals-orca-had-full-term-fetus-1.2863303>

8. F.J. Alcock (1947). A Century in the History of the Geological Survey of Canada. Ottawa: King's Printer, p.4.S



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- January 18, 2015
- AGM February 22, 2015

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## Time for Tea

In the Comox Valley we are surrounded by an abundance of trees. During the winter the Douglas fir and Balsam Fir often dominate the green palette in our landscape. In the spring the new grow of needles make a refreshing tea rich in vitamin C.

To make the tea clip the tips of new growth and pour boiling water over the needles and in only seconds the tea is ready to enjoy as an occasional beverage.



Douglas Fir photo Sharon Niscak

Douglas Fir, *Pseudotsuga menziesii* is not related to the true firs (*Abies*). It was first described by Dr. Archibald Menzies and named after the explorer-botanist David Douglas. The Latin name comes from pseudo (false) and tsuga (hemlock).

Douglas-fir leaves are needle like, 20-30 mm long with pointed tips, one groove on the top and two white bands of stomata (a minute pore in the epidermis of a leaf) on the bottom. The leaves are flexible, and feel soft when sliding a branch through your hand.



Grand Fir also called Balsam Fir photo Sharon Niscak

*Abies* is a genus of evergreen trees comprising some 40-50 species. The generic name occurs in classical Latin referring to some kind of fir tree, although not necessarily a species of *Abies*. *Abies grandis* (grand fir) makes a pleasant spring tea. The needles are flattened with rounded or notched tips.

## BC Nature Request Volunteers Needed to Plan Comox Valley Nature AGM 2016

Prince George is organizing the BC Nature 2016 FGM, and is BC Nature is requesting that Comox Valley Naturalist's organize the BC Nature 2016 AGM. Knowing that we need about a year for initial set up, we are requesting that members step forward to help to organize the 2016 AGM in the Comox Valley.

Prerequisite: Enthusiasm, some organizational skills as asset and access to a computer.

Remuneration: Joining a team of enthusiastic volunteers, contributing to BC Nature mandate and meeting new people from Comox Valley Nature and other BC Nature clubs throughout our Province.

## 2015 BC Nature Conference & AGM Salt Spring Island *Living by the Salish Sea*

Protecting our Eco-region will be featured throughout the presentations and field trips. On the Thursday preceding the Conference field trips will be to some of the other Southern Gulf Islands. On Friday afternoon and Saturday afternoon trips will cover most of the Island and the ocean surrounding it including the intertidal life.

Registration details are on BC Nature website and in the latest issue of BC Nature Magazine.

## Spotlight on Western Grebe

At the May meeting of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), held in Halifax, COSWEIC assessed the Western Grebe as a species of Special Concern due to population declines that have been taking place on its Pacific coast wintering grounds. Jon McCracken, who co-chairs COSEWIC's birds subcommittee, says that we don't yet know the extent to which some of the decline may just represent a geographic shift in the grebe's wintering distribution. Because the species congregates in large numbers, it is vulnerable to a variety of threats.

The recent Bird Studies Canada Fall 2014 Vol.7 -13 no <http://www.birdscanada.org/library/bccwsnews.pdf>

## Tsolum Spirit Park *Adopt a Park*

Several members from the Botany group visited Tsolum Spirit Park in Merville on Monday afternoon. The park trail follows the historical Comox Logging Railway bed that is continued on the far side of the Tsolum River as part of the One Spot Trail.

The upper path ends at a memorial bench, which is close to where the proposed trestle is to be built over the Tsolum River. Some of the remnants of the footings of the old trestle are visible to the keen observer.

The mosses that flourish in the Park are at their prime and lush and “plump” with moisture. Winter is a favorable time to observe the forest diversity because the deciduous vegetation allows a clear view of the winter foliage and the graphic and textural trunks and branches of the abundant alder, cottonwood and maple trees devoid of leaves. It is the season to enjoy the subtle colours of winter and the rays of light as they bounce through openings in the forest.

Our members are invited to **Adopt a Park** and observe it throughout the seasons. This is a rewarding experience and will be greatly appreciated. Krista Kaptein’s work in developing the *Online Nature Guide* has provided many details to assist you in **Adopting a Park** and exploring nature with a purpose.

Follow the link: [comoxvalleynaturalist.bc.ca](http://comoxvalleynaturalist.bc.ca)  
*Nature Viewing Guide* Tsolum River for Park details.



Winter trail in Tsolum Spirit Park *photo Sharon Niscak*

President’s report continued from page 1

We manage the environment largely on two false premises. First we pretend that nature is fixed and unchanging, and that we can repair it willy-nilly. Second, we pretend that each environmental problem is novel and individual and has a solution in a “sustainable” economy. In both instances we operate without historical perspective, and tacitly assume that there is no need for change because everything can be made “sustainable.” Thus, so far we have stubbornly avoided real change, or have expected other people to change things for us, without really having to make an effort ourselves.

This week, after over a 100 years of “sustainable” management, particularly since 1970 by the best science that National Oceanic and Atmospheric Administration could provide, New England fisheries have been closed, indefinitely. As with the Newfoundland cod fisheries in 1992, for over 100 years technology has enabled industrial fisheries to hunt fish stocks to a fraction of 1% of 19<sup>th</sup> century stocks, so efficiently that catch numbers seemed “sustainable.” In July 1914 the New York Times ran a headline: “*Extermination Threatens American Sea Fishes — Cost to Consumer Has Risen between 10 and 600 Per Cent Because of Decrease in Supply.*”<sup>1</sup> In spite of the technological mirage, what was not sustainable in 1914 still is not in 2015. The situation today – in spite of many warnings – merely confirms our refusal to change – at our own risk and peril.

Natural history societies have, almost by definition, been at the forefront of the call for environmental awareness and change. Natural history societies can make this claim because they have “historical continuity,” that other environmental groups do not have. Unlike other environmental groups, natural history societies are strictly communities of volunteers, specially acquainted with our local natural environment. As volunteers, this community is not dependent on the flow of funding – the work and the dedication continue regardless of economic vicissitudes. Natural history societies are akin to co-operatives. Change comes through volunteering, because volunteering transcends economic constraints.

The will to change is very simply the will to volunteer. On the down side, recent reports indicate that volunteering in North America is declining (only 25 percent of the population volunteers, and on average volunteers commit only 2 hrs. a month). If we are to be realistic about facing the environmental changes posed in this century, we need to step up our commitment to volunteer.

The well-recognized failure of the environmental movement to change how we relate to the planet, stems from its largely mercenary character. Leading organizations such as Greenpeace, have gone from crisis to crisis and in spite of brilliant campaigns and a

unique ability to capture significant issues, they have failed to convince the public largely because they have adopted a corporate ethos and have repeatedly alienated volunteers.

CVN was created nearly 50 years ago as the “Strathcona-Comox Natural History Society,” by some of the valley’s most interesting and forward-looking people who together with a burgeoning environmental movement that grew in the wake of *Silent Spring* understood that nature was threatened by an unsustainable industrial development. From its early beginnings this society understood the need to be actively engaged in monitoring the valley’s natural heritage in order to be able to take informed positions on a growing number of environmental issues that threatened the survival of that heritage. Work done by CVN to preserve, Seal Bay Park, various regional parks, the estuary, the Airpark, parts of Strathcona Park, control invasives, carry out various bird census, etc. was only made possible through volunteering.

CVN like BC Nature plays an important role in acquainting the public with the valley’s natural capital and history, in presenting environmental issues of local interest, and engaging the public in local environmental projects and ideas. Like BC Nature, CVN is not just a recreational institution for occasional outings. It is an educational non-profit committed to engaging the public in a reflection of its environmental responsibilities to future generations.

Over the past 3 years CVN has grown by about 60%, and our demographics have diversified, however our actual volunteer base has not really grown. 2015 is already heralded as a pivotal year. As the quote above notes, this is the year in which we must be willing to change and make change happen. It is the year in which climate change discussions will reach a make or break point this fall in Paris. It is also the year in which the economy is likely to suffer substantial reversals, which is already placing both the federal and provincial energy policies in question. With an economic downturn, environmental funding is likely to continue to decline.

It is, by all accounts, a year that will require that we make substantial changes in our outlooks expectations and commitments. The track record shows that CVN has been instrumental in making positive environmental changes to the valley for about 50 years. It can only continue to make such changes if we volunteer, and that starts by committing yourselves to volunteering a few hours to CVN and cooperating in changing attitudes to the environment. CVN cannot continue to be a force for change without more new dedicated volunteers...

*Loys Maingon. President*

1. Jeffrey Bolster, “Where have all the cod gone?”  
New York Times Jan.1, 2015

## CVNS Nature Walks & Activities Winter 2015

**Car pool at the Old Church Theatre 755 Harmston Avenue in Courtenay. Arrive at the parking area on Harmston Avenue to car pool 10 minutes prior to the start of the walk. Meet guides at trail heads.**

**[YNC Schedule \(Some Dates are tentative and pending confirmation with leaders\)](#)**

**Volunteers are required to Lead Walks – [Please Volunteer to be a Guide](#)**

**Saturday, January 10<sup>th</sup>:** (Club Walk). **Mud Bay.** (FBI for lunch). Meet at Harmston at **9:00** a.m. (Leader: Loys )

**Saturday, January 24<sup>th</sup>:** (Club Walk). **Seal Bay, marine side.** Meet at the parking area on Bates Road at **9:30** am. (Leader: Please Volunteer )

**Saturday, January 31<sup>st</sup>:** (Club Walk). **Kye Bay south.** Meet at Kye Bay parking lot at **9:30a.m.** (Leader: please volunteer)

**Please note: Guides:** All non-member field trip participants need to sign a waiver recognizing that there are risks inherent to all outdoor activities. On all field trips wear suitable clothing and footwear, and bring water & a snack. **No dogs please.** Share travelling expenses when car-pooling. Remember car pooling at Old Church Theatre, 755 Harmston Avenue in Courtenay, 10 minutes prior to the start of our walks. Meet guides at trail heads. Check foot-wear and **note no dogs, please.**