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The **Front photo** shows two Western hemlock trees towering over red-cedars in the Dog Corral. Notice their drooped tips, a characteristic of Western hemlocks (see more about our hemlocks on Page 3).

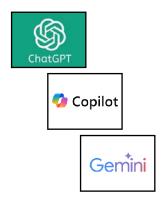
Incidentally, this is the same species as those in Stanley Park, Vancouver that have been decimated by the Looper moth. Let's hope our hemlocks avoid the same infestation.

June has been a relatively wet month. By the 5th we'd already surpassed the total May rainfall and ended up with double the long term average. It looks like we may not have to worry about a drought this summer. According to the





BC Government Snow Survey and Water Bulletin, as of June 1st the provincial snowpack was low, averaging 57% of normal across B.C. (The Lower Fraser zone was 54%), so the snowmelt-related flood hazard remains low. But: "The greatest flood risk for the rest of the season is from widespread heavy rain events." And, according to the US Climate Prediction Center, ENSO-neutral conditions have returned and La Niña is favoured to develop during July-September and persist through winter. In the Pacific Northwest, La Niña increases the risk of greater precipitation and cooler temperatures.



**Artificial Intelligence** is being discussed and used everywhere now. You may recall that I first tried AI last year (look for the Bridge obituary in the March 2023 issue). Although it is an increasingly useful tool, I still depend mainly on the old fashioned method: searching on key words and phrases, compiling information from trusted sources, and re-writing it in my own words.

**CORRECTION:** In regard to the fish kill last month, I learned this month the dead fish were unclipped and too small to be Hatchery smolts. On the day I reported the incident (May 10th), our local DFO Community Advisor came and found the water temperature and oxygen level were okay. He thought it most likely some kind of poisonous chemical had been introduced to the Creek. He searched but was unable to find a source. Later that day, a DFO Habitat Coordinator carried out an inspection. He found the dead fry were concentrated in the Pond and were emaciated. This led the DFO to surmise the coho fry were related to recent releases from school classrooms and had not been able to adapt to conditions in the Creek. Ultimately, the lack of evidence of a deleterious substance meant there was no further investigation by PEP or Environment Canada.

## **Hemlock Trees**

2024-06-09

Mountain hemlock (Tsuga mertensiana) and Western hemlock (Tsuga heterophylla) are different species within the same genus (these terms are explained on the next page).

The Mountain hemlock (yellow arrow) is usually found at subalpine elevations in the coastal mountains where it is cool and moist. Smaller and slower-growing than the Western Hemlock, it is well-adapted to deep snow and long winters.

Both are coniferous evergreen trees, but there

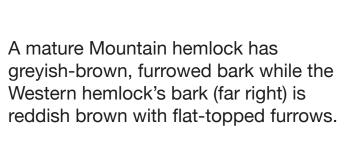
are several key differences between them.

The much taller, faster-growing Western hemlock (red arrow) is common in humid coastal forests and temperate rainforests where it can reach heights of 30 to 50 metres or more. It is an important timber species used for both pulp and lumber.

The needles of the Mountain hemlock are uneven, shorter and arranged radially all around the twigs. Western Hemlock needles (far right) are flattened and stick out from only two sides of the twig. They are shinier and darker, with distinct white lines on the underside.











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## **Cottonwood Cotton**

The Black cottonwood (*Populus trichocarpa*) is a medium- to large-sized deciduous tree native to the Pacific region of North America.

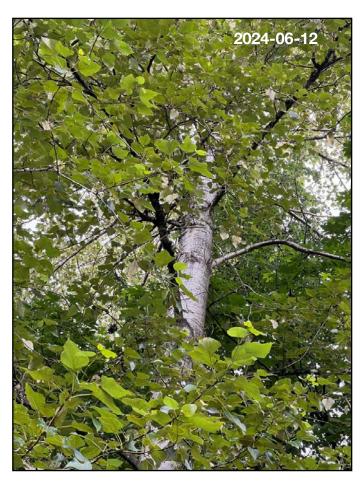
It is closely related to the more widespread Trembling aspen (*Populus tremuloides*). They are in the same Family (Salicaceae) and the same Genus (*Populus*), but are two different Species (trichocarpa vs. tremuloides).

In botanical terms, **Family** is analogous to a surname (e.g. Smith) and **Genus** to a given name (e.g. John). **Species** is a unique identifier, like person's middle name (e.g. Smith, John Alan).

The cottonwood tends to grow in the form of a column with a few thick branches near the top, and bark that has dark gray, irregularly shaped furrows. The wood is light and soft and is used for lumber, veneer, and pulp.







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## Cottonwood Cotton



The Black cottonwood is *dioecious*, meaning that an individual tree is either female (seedproducing) or male (pollen-producing), but not both.

On the left is a catkin from a female tree. The seeds (below, left) are tiny and surrounded by cottony hairs, making them buoyant and able to drift long distances in air or float on water.

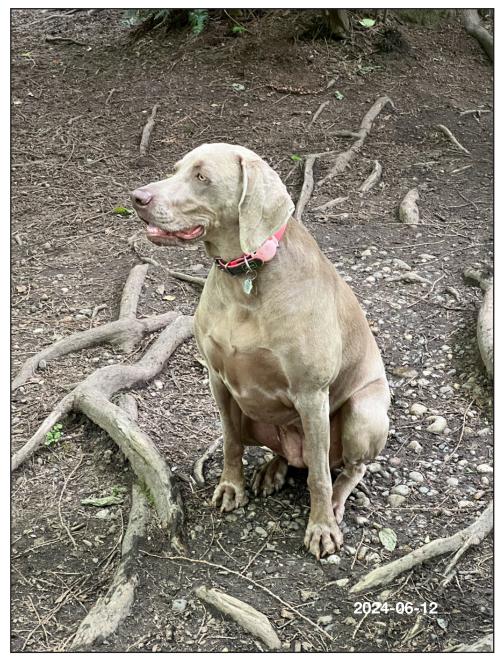


Above is a male catkin. Its pollen will trigger allergic responses in some people.

A large Black cottonwood can produce thousands of catkins (flower clusters), and each catkin can contain hundreds of seeds. So it is estimated that a single tree can produce an enormous number of seeds, several million, in a single season. Such prolific seed production, called *masting*, is meant to ensure that at least some of the seeds successfully germinate.



# A Trail Dog!



"Olivia, a Weimaraner, was born on March 26, 2019 in Penticton, BC. She is from a well-known breeder, Trax Weimaraners, who produce award-winning hunting, tracking, agility and show dogs.

"When we ordered Olivia, we were screened and provided with literature and mini courses on how to take care of a Weimaraner, and what to expect. It took six months to receive a puppy through that qualification process. As a buyer, you do not get to choose the puppy nor do you get to choose the sex of the puppy. You get what you get.

"Olivia complies with the breed standard. Meaning, her dew claws are removed and her tail is cropped.

"Olivia has been coming to the Park since she was four months old, after receiving her vaccinations. She considers Nancy Wrenshal's Aussie Shepherd, Blue, Pam Kopala's Sheltie, **Solomon** and Carol Pope's Rottweiler, **Bear** as her best friends (Solomon and Bear have appeared in Trail Reports and can be seen on the <u>Website</u>).

"Olivia likes long runs at the Matsqui dike trail and runs 12 kilometres every Saturday and Sunday morning there. I use a bike to walk her at the dike and park. Her need for a lot of exercise is consistent with the breed. She loves neighbourhood kids and getting to know the neighbours in general. She loves car rides and ice cream. She gets four walks of the Park or river every day. That is partly the reason she is so content."

Note: Olivia's owner is **Kelly Perrin**, the page administrator for the **Bateman Dog Park group** on Facebook.

## Aliens on the Trail

On the subject of aliens (no, not extra-terrestrials!), I keep finding new non-native shrubs and plants to photograph. They are especially noticeable in our peak blooming season, May and June. For example, there are many Red-osier dogwoods (*Cornus sericea*) along the Trail, but the dogwood on the right is certainly different. Its bright yellow stems indicate that it's a cultivar called **Yellow-twig** (a.k.a. Goldentwig) **dogwood** (*Cornus sericea 'flaviramea'*).

My latest find (below, on the left), is definitely an elderberry, but not a native like the **Red elderberry** (*Sambucus racemosa*) that is common along the Trail. The blossoms of both elderberries are a cluster (*panicle*) of tiny flowers, but the alien's are broader and flatter. As well, it blooms about



a month later. I've tentatively identified it as a **European elderberry** (Sambucas nigra). It will be interesting to see what colour its berries are.

The large size of these and other non-native species (such as the Amur maple) indicates that they were planted years ago as part of a creekside landscaping project. I have never been able to find out who planted them. If you know who it was, please tell me!





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# Odds and Ends 1/2

Right: careless maintenance: the Yellow-twig dogwood and a Red-osier dogwood have paid a price for a botched trimming job.

Below: a tiny Wall speedwell, a Nootka rose, and a Twinberry honeysuckle.

Bottom: up on Hemlock Hill, a Blowfly and a Mining bee on Pacific ninebark blossoms, and a Whitetail skimmer on the Trail.











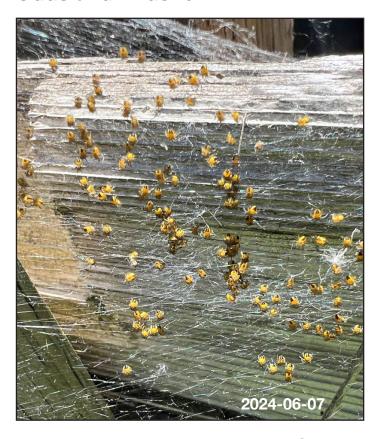






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# Odds and Ends 2/2





**Above:** a mass of newly hatched **Orb-weaver spiderlings** on the Dog Corral fence railing. The following day, they were nowhere to be seen.

**Below:** one distinct difference between two similar-looking grasses: the "branches" of **Kentucky bluegrass** (left) are paired, while those of the **Orchard grass** are alternate.





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# The Striped Woodlouse

One day last March, I noticed a small cluster of unusual growths on a decaying alder log near Bridge 4. It was the same log where I had previously discovered a fungus that I

had never seen before, the Golden Ear, (Naematelia aurantia). Out of curiosity, I cut open one of the growths and was surprised to find a tiny creature tucked inside it.

The woodlouse (*Philoscia muscorum*) is a small crustacean (related to a shrimp) that has adapted to terrestrial life. It is so-named because it is often found in old wood.



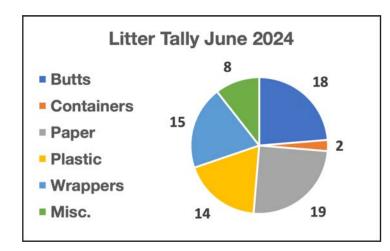


Its body can rapidly lose water through excretion, so it needs to live in dark, moist places such as in moss and under decaying logs. It is not an insect: it has a segmented body and seven pairs of legs. Females carry their fertilized eggs in a marsupium (like a kangaroo)!



Woodlice are popular terrarium pets because of their varied forms, their ability to roll up in a ball, and their ease of care. In captivity, they can be bred for specific colours and patterns. There are dozens of Philoscia species worldwide, with common names such as armadillo bug, chucky pig, and potato bug. You are probably familiar with the one called the sow bug. Sow bugs are an indicator of dampness problems in a house, but they will not damage sound wood.

Finding this woodlouse is an example of serendipity—the discovery of something new and surprising that comes from the exercise of curiosity. Exploration of Nature, particularly on the Trail, continually affords me greater enjoyment than finding a new TV series or a new pair of shoes at the mall. •



#### Total litter items = 76

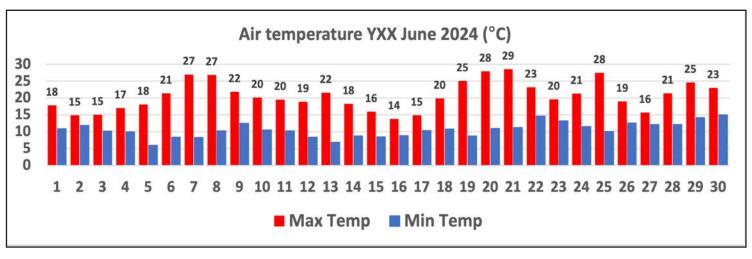
**Containers:** bottles, bottle tops, cans, coffee cups, lids, juice boxes.

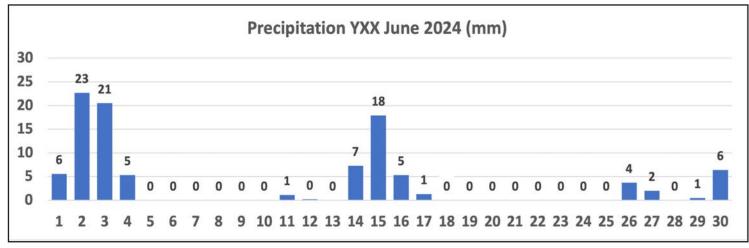
**Paper:** tissues, napkins, posters, newspaper, receipts, cardboard, etc.

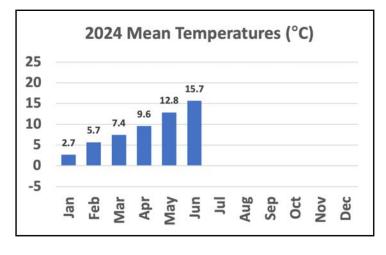
Plastic: dog waste bags & shreds, other items

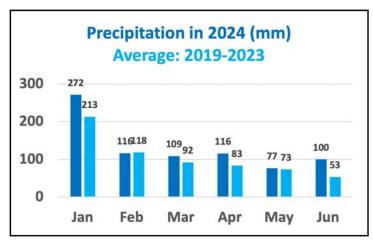
made of plastic.

**Wrappers:** candy wrappers, foil, cellophane. **Miscellaneous:** clothing, glass, chewing gum, dog balls & fragments, etc.









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# For convenience, I use these custom place-names

