

A photograph of two brown trout in a shallow, rocky stream. The fish are positioned vertically, with the larger one on the right and the smaller one on the left. The water is clear, revealing the colorful riverbed of brown, tan, and grey stones. The trout have a mottled pattern of dark spots on their sides and a lighter, almost white, belly. The text "Stoney Creek Trail Report No. 69 - December 2024" is overlaid in the bottom right corner of the image.

**Stoney Creek Trail Report
No. 69 - December 2024**

On the front cover: a pair of coho salmon at a spawning site in the shallow water just upstream of Bridge 4. It's a very good place for viewing. The smaller one is a "jack," a precocious male that has returned to spawn a year earlier than usual (at two years of age rather than three).

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The photo was taken on December 7th. There had been heavy rain overnight, and high water brought on a wave of spawners. Dozens could be seen on the move, from the Pond at Bateman Road all the way up to Bridge 5. Since then there have been several more surges of water and spawners. It's been an amazing year for watching salmon.

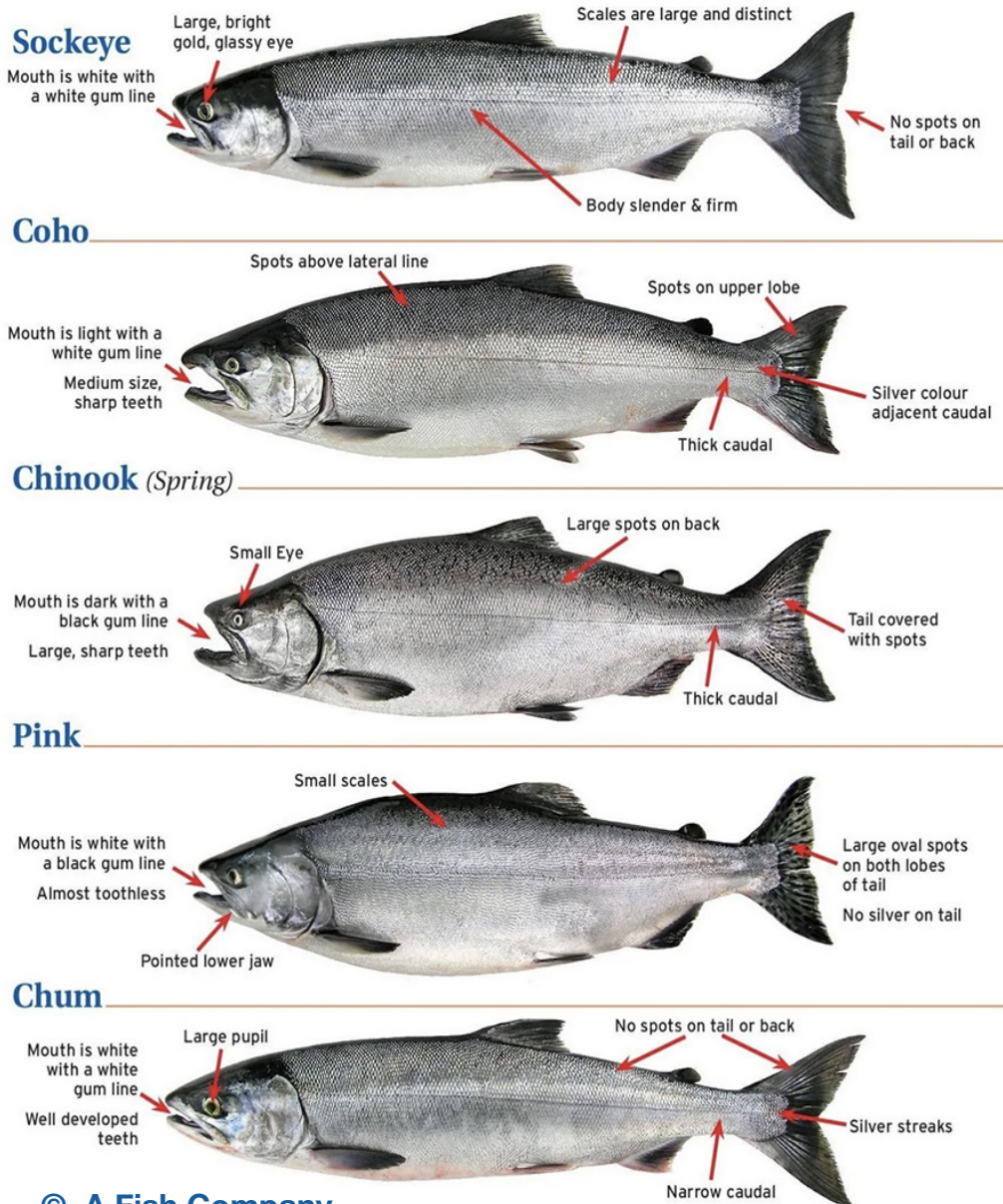
Last month, I featured the Chum; this month, the Coho, the other salmon species that begins and ends its life in Stoney Creek.



The photo above shows the beautiful colouration of a coho spawner. The chart shows all five Pacific salmon species found in British Columbia.

Information sources:

- [Pacific Salmon Foundation](#)
- [The BCFDF](#)
- [Government of Canada](#)
- [Wikipedia](#)
- [NPAFC](#)



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Coho Salmon: 1/4

Coho salmon (*Oncorhynchus kisutch*) are also known as “silver salmon.” Like the Chum, they are anadromous, meaning they leave the ocean and migrate up freshwater streams to spawn. Coho salmon are found in coastal streams and rivers all around the North Pacific. In British Columbia, they are prevalent in the Fraser River system, including the Thompson River in the Interior.



© Caltrout.org

Coho salmon are typically 50 to 70 cm long and weigh between 3 and 5 kg. In their ocean phase, coho have silver sides with lighter bellies and spotted, dark blue or green backs. Spawning coho undergo a striking transformation, developing darker bodies with a reddish-maroon colour along their sides. Mature males also develop a kype, a blunt, hooked snout and enlarged teeth which prevents them from fully closing their mouths.



In the blink of an eye, a coho clears the waterfall beside the Straightaway.

Coho salmon are celebrated for their environmental importance, cultural value, and popularity in both sport and commercial fishing. They are a prized catch for sport fishers because of their agile swimming and aggressive behavior. Known for their “smash and run” bites, coho often leap and dart, challenging fishers to be ready for anything.

In late fall, when they are three or four years old, coho return to their natal freshwater streams to spawn. Females select suitable locations to dig nests known as redds in the streambed gravel by flapping their tails. They lay 800 to 1,000 eggs in each of several redds which are immediately fertilized by the males. The females cover their redds with pebbles for protection and fiercely defend them until they die, within a few days.

After six to seven weeks, depending on water temperature, the eggs hatch. The new fry (called alevins) remain in the redd, depending on their yolk sacs for nourishment. During this stage, they are highly vulnerable to water contaminants. After another few weeks, when their yolk is fully absorbed, the fry are able to swim up to the water surface where they gulp air to inflate their swim bladder. When they are successful, they can swim around freely.



© Bill Beatty

Coho Salmon: 2/4

Young coho prefer structurally complex habitats with slow-moving water like those found in off-channel sloughs. For this reason, conservationists discourage the removal of trees and other debris that have fallen into the waterways.

In Stoney Creek, one such location is Sadie's Pool (on the right). It is usually a refuge for a large number of fry and a good location for visitors to observe them.



Coho fry spend a year or more in freshwater streams, feeding on plankton, crustaceans, tiny aquatic insect larvae (benthic macroinvertebrates) and terrestrial insects. They mature to become smolts identifiable by parr marks, those dark patches on their sides that disappear as they develop the shiny silver scales of adults. Smolts undergo physiological changes to adapt to saltwater, then migrate to the ocean from late March through July.

Adult cohos spend about 18 months in the marine environment, living initially on a diet of plankton and fish in nearshore waters where there is abundant food and relatively safe conditions. As they mature, they migrate farther into the open ocean, preferring the colder, nutrient-rich waters of the North Pacific, from Canada and Alaska around to Russia and Japan. The coho from Stoney Creek will have swum a thousand or more kilometres, perhaps as far as the Gulf of Alaska, before returning here to spawn.

As we know, coho die after spawning. In their bodies they have brought nutrients such as nitrogen and phosphorus from the marine to the terrestrial environment.

Coho Salmon: 3/4

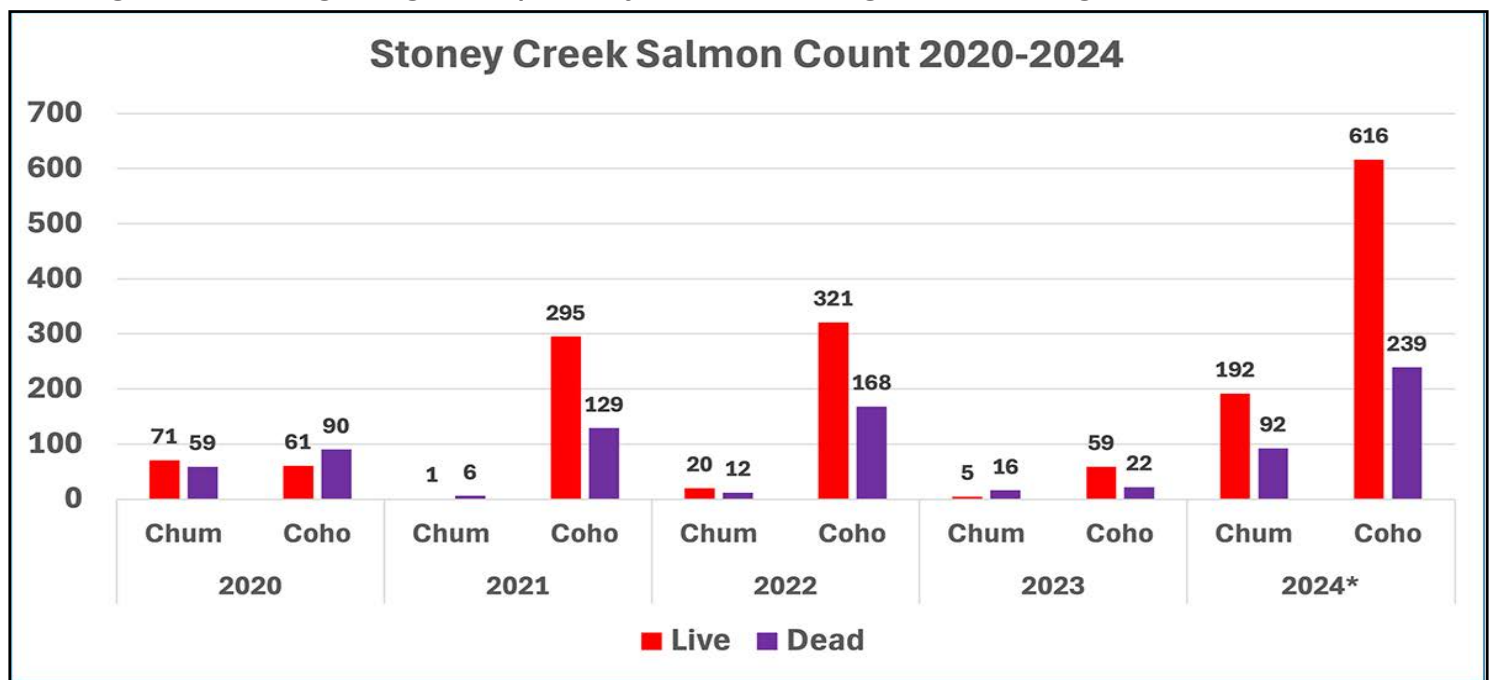
In the wild, bears, eagles and other scavengers will carry fish carcasses into the nearby forest to the benefit of the fauna (from insects to small mammals) and flora (trees and shrubs). *Healthy salmon runs mean healthy forests; conservation of salmon means conservation of the ecosystem.*

Coho are much less abundant than other Pacific salmon species, yet they are still important to our economy. In 2022, over 5.5 million coho (2.5% of the total salmon catch) were harvested across the North Pacific. From 1993 to 2022, the average annual commercial catch of coho was over 7 million fish (compared, for example, to the chum harvest of over 91 million).

Coho salmon face many threats, from overfishing to habitat loss and climate change. Juvenile coho from the BC interior must migrate through the much disturbed Fraser River estuary between New Westminster and Delta before arriving at coastal waters. The marine environment has also been affected, to a lesser extent, by urbanization and industrial activities such as fish farming.

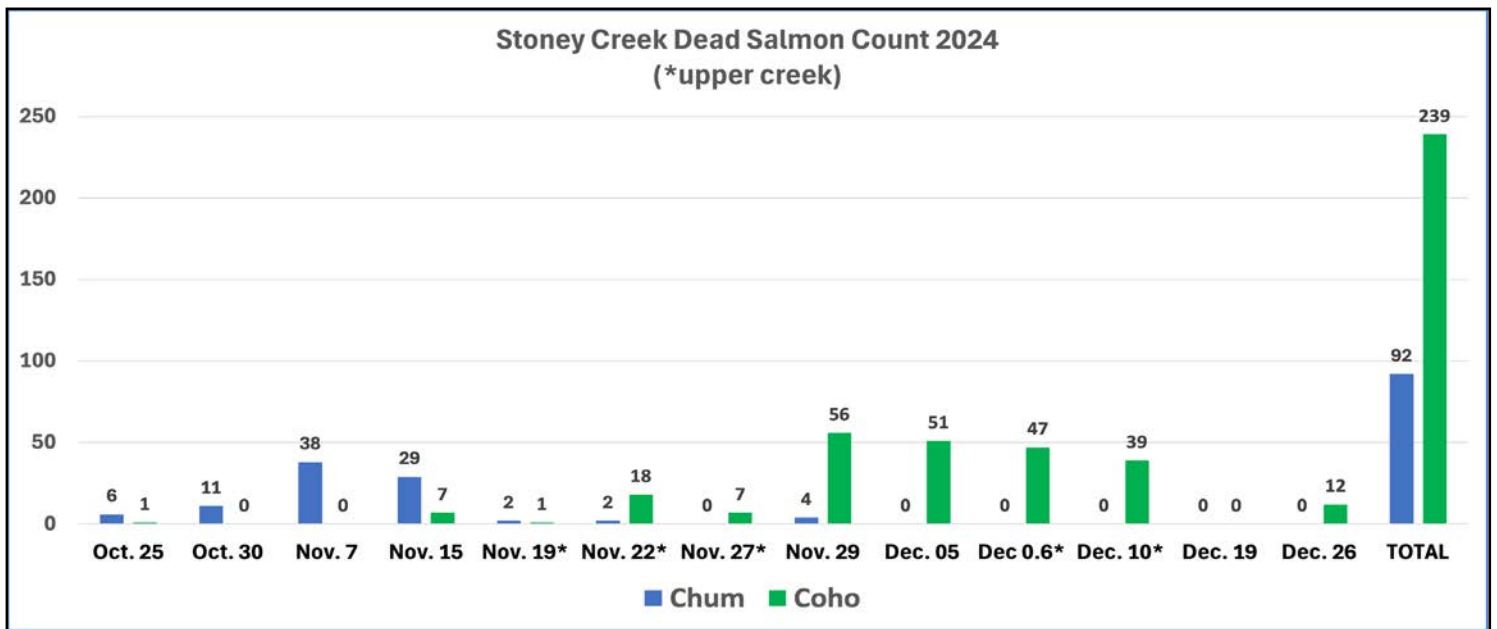
For Indigenous peoples along the Pacific coast, coho salmon have long been a dietary staple and an item of trade with inland tribes. But beyond their nutritional value, they are a symbol of life and sustenance and are featured prominently in cultural traditions.

Ocean-caught coho is considered excellent table fare due to its fairly high fat content, making it ideal for grilling or especially cold-smoking, which brings out its rich flavor.

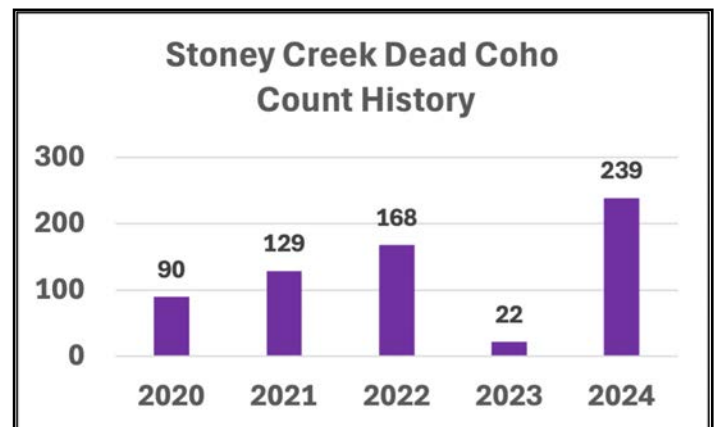
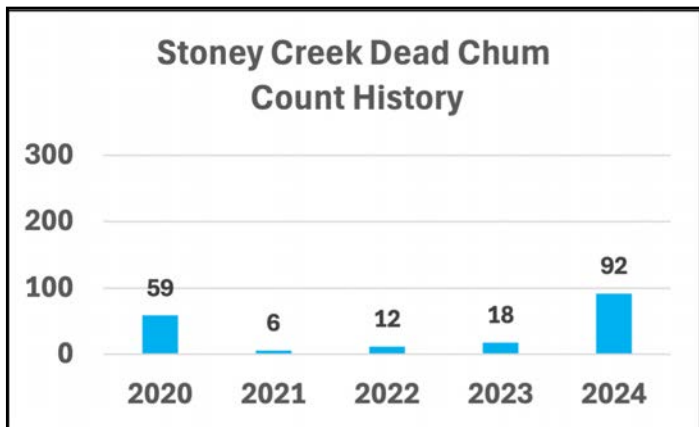


The last survey was done on December 25th, so the 2024 numbers for coho above do not give a true picture of this season's unusually large coho run. If another survey is done in January, the numbers will, of course, be added to the total.

Coho Salmon: 4/4



As explained before, the most dependable statistic is the number of dead salmon. This chart shows the results of this year's salmon surveys. Notice that the Chum were finished by mid-November, while the Coho began to arrive in large numbers after that.



When the fish numbers are separated by species, you can see that 2024 was by far the best spawning year for both Chum and Coho since I started keeping track in 2020.



There is a Canadian folk song about the Coho called "*Where the Coho Flash Silver*." The lyrics were written by Lloyd Arntzen about his father, Arnt Arntzen, fishing for Coho out of Port Hardy at the north end of Vancouver Island.

[This performance](#) was a collaboration between **The Wilds Band** and **Tiller's Folly** for a project called *Voices For The Salish Sea*. From The Wilds Band: **Holly Arntzen**, vocals, dulcimer; **Kevin Wright**, cajon, vocals. From Tiller's Folly: **Bruce Coughlan**, vocals, guitar; **Laurence Knight**, bass; **Nolan Murray**, mandolin.

ARPSES Hatchery Brood Stock Operation, November 20th



Top: Volunteers hold the upstream and downstream seine nets as barriers; pulling fish from a seine net.

Middle: selecting the fish that will be the Hatchery's Coho brood stock; a passing Thomas Swift class stopped to watch the operation.

Bottom: the DFO supervisor beside the brood stock; an on-site "egg take" operation; the ARPSES president with a superb male coho.



ARPSSES Egg Take Operation, December 17th



Clockwise from the Top: Tysan nets a female coho that's been brought from the Chilliwack hatchery in the mobile tank. Paul and Haley "bonk" the donor which is then hung with others to bleed out, avoiding possible contamination. Paul then slits open the fish's belly and removes the eggs from her egg sacs. Milt extracted from a male is then mixed with the eggs in a pail. Water must be added to bring about fertilization. The fertilized eggs are put into a heath tray in the incubator. In a few weeks the eggs will hatch as alevins. When the alevins have used up their yolk supply, they will be transferred into a Capilano trough as fry, develop to the smolt stage and then go down to the outdoor rearing pond.



[For greater detail visit the [ARPSSES website](#)]



© Adrian Renkers



Trail Dog

“**Bella** is an eight year old Australian Shepherd/Blue Heeler cross.

“I had lost a Border Collie to old age almost two years prior to getting her. I had been looking for another herding dog as I was familiar with those breeds and knew they would suit my lifestyle.

“I contacted a number of people selling breeds I was interested in but all of their pups were sold. One man said he would have pups next year and asked if I could tell him a little about myself and my lifestyle and he would put me on the waiting list if he felt his pups would be a good fit. So I did just that. I sent him two pages worth of information and included my vet’s name and number and explained that my vet was more than willing to confirm my candidacy with him if he would like.



“He emailed me back thanking me and indicating that most people were not that forthcoming. He also sent me a picture of the cutest puppy and said he was planning on keeping this one for himself, but she was such a perfect fit for me that she was mine if I would like her. She was born in October and a week before Christmas she was delivered to me from 100 Mile House. She has been a perfect companion since.

“Bella’s favorite things to do are hiking, playing fetch (and she will bring a stick two inches long if that is all she can find), watching TV (Madagascar, Dr. PoI and Funniest Video’s Animal Edition) and of course anything I am doing as long as she is with me.”

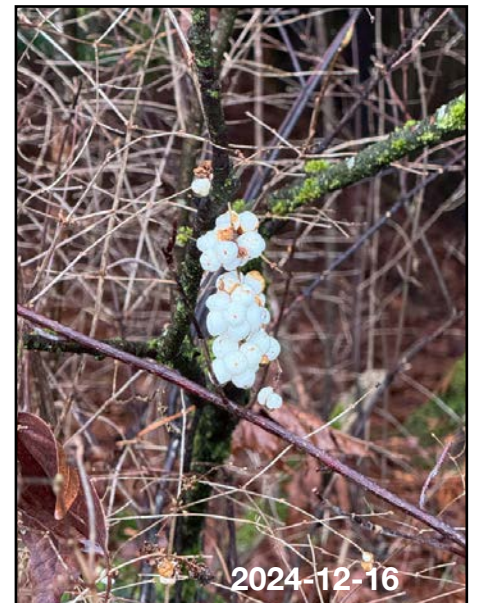
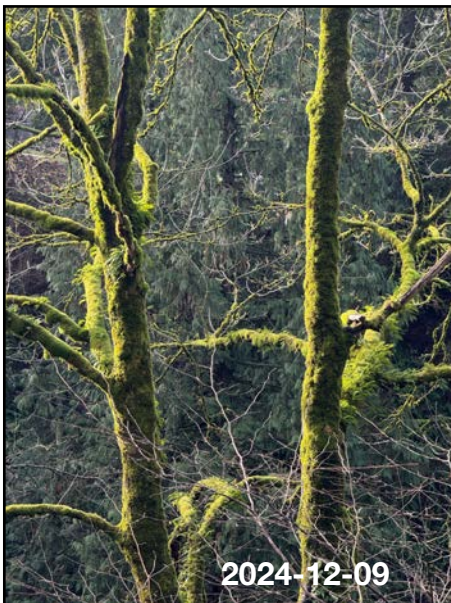
Odd and Ends 1/2



Left: it's cold and damp, and the autumn colours are long gone from the Latimer Street entrance to the Trail.

Above: overnight frost lingers on a Creeping buttercup leaf on Hemlock Hill.

Below: moss thrives on leafless Bigleaf maples in the ravine; the slightly warm afternoon sun lifts a bit of vapour around Sadie's bench; snowberries do just fine in frigid conditions.



Odd and Ends 2/2

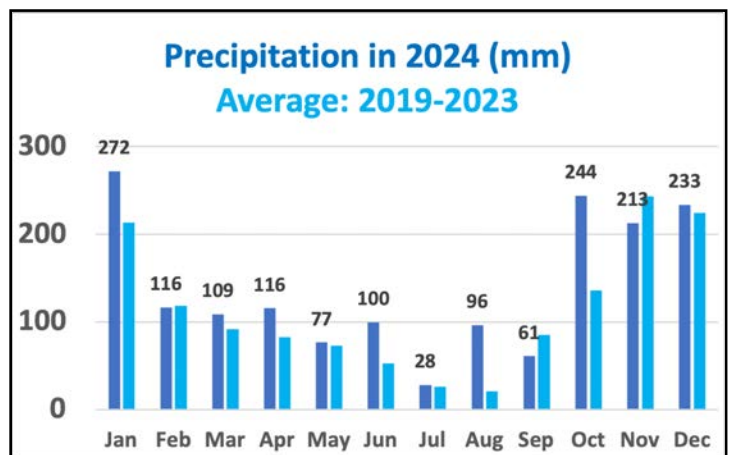
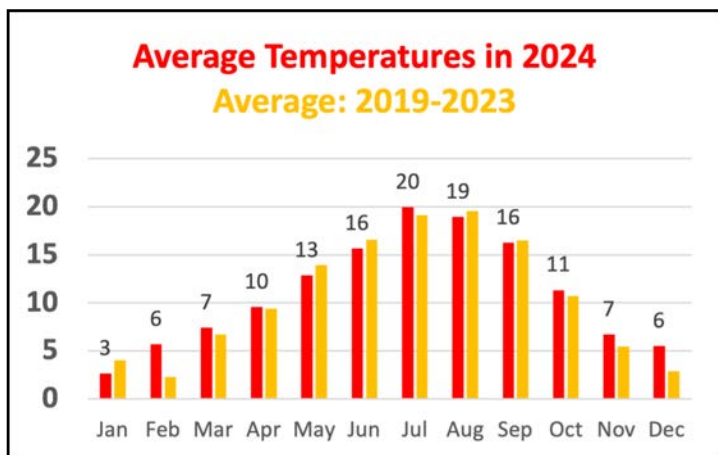
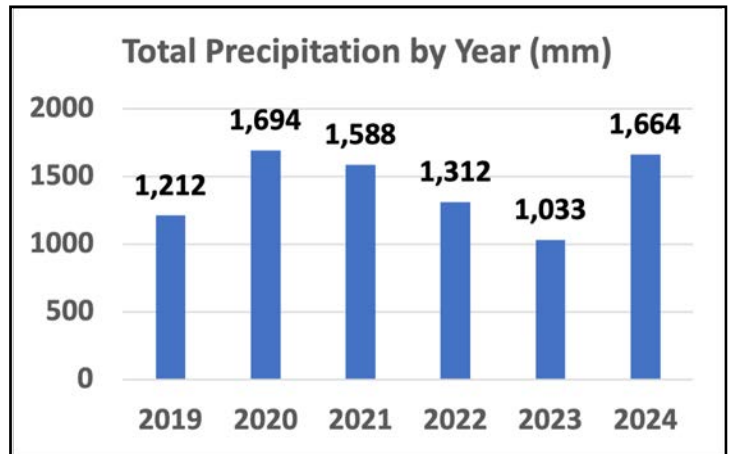
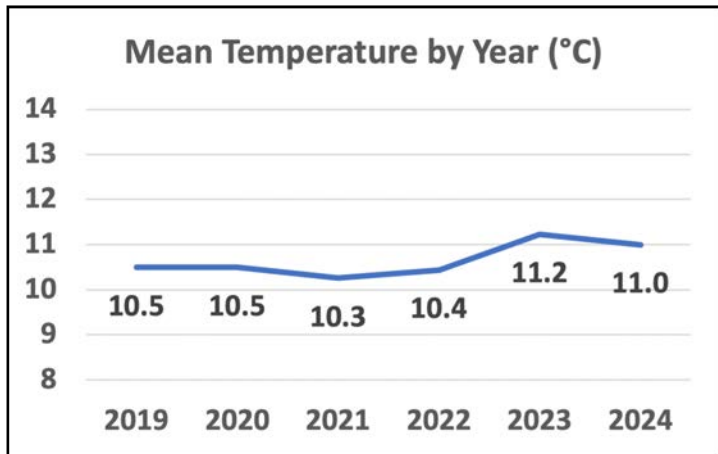
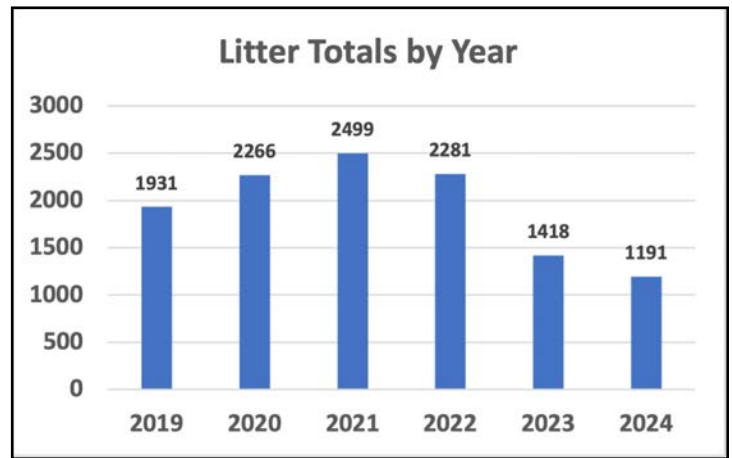
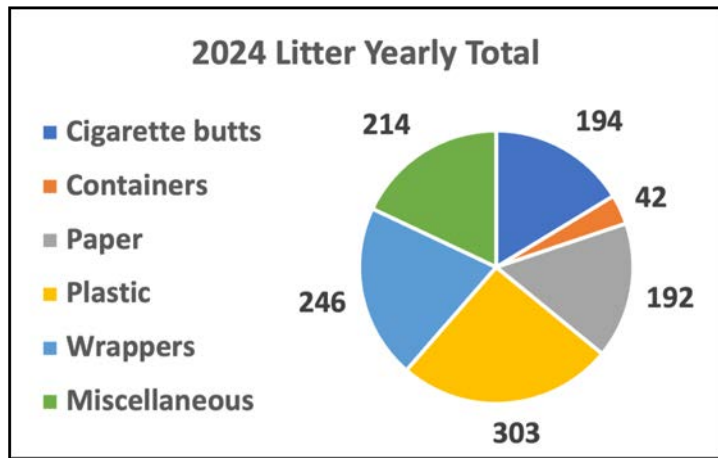
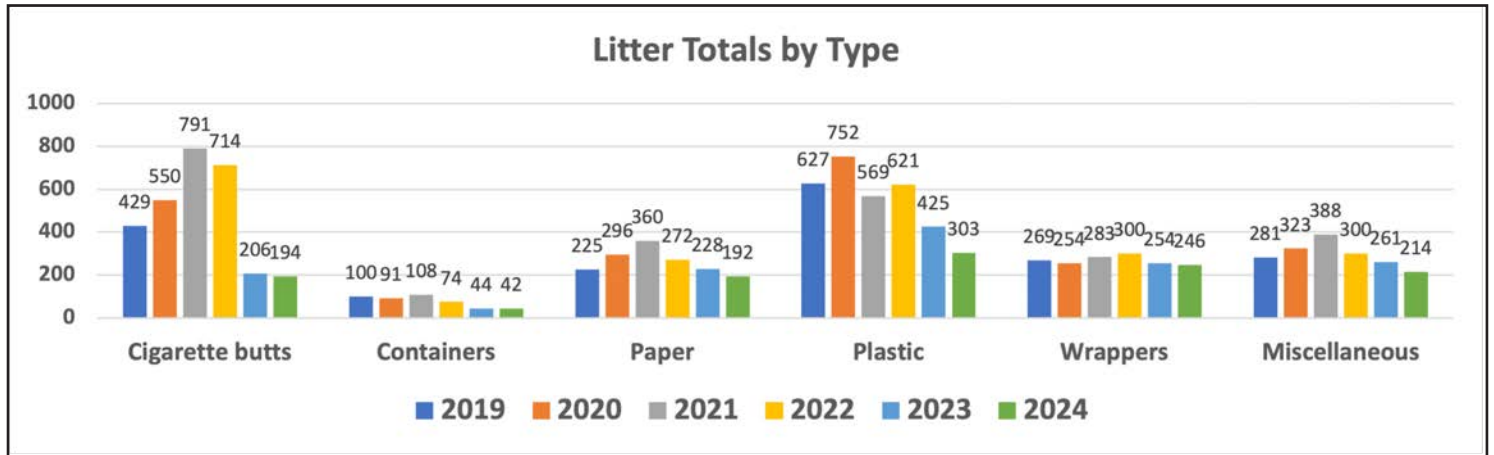
Right: two photos taken at a bend in the Creek show fire retardant foam may still be working its way downstream.

Below: a Grand fir seedling, one of several trees recently planted near Bridge 5 by Parks, Trees & Trails.

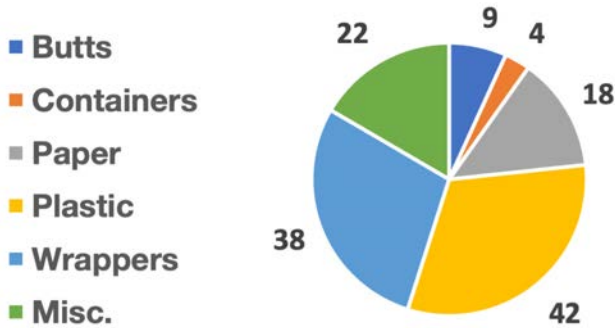
Bottom: more cryptogams: a Jelly and a Late Fall Oyster on the same alder tree on the Straightaway, and another Oyster near Bridge 5.



Year-end Statistics



Litter Tally December 2024



Total litter items = 133

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

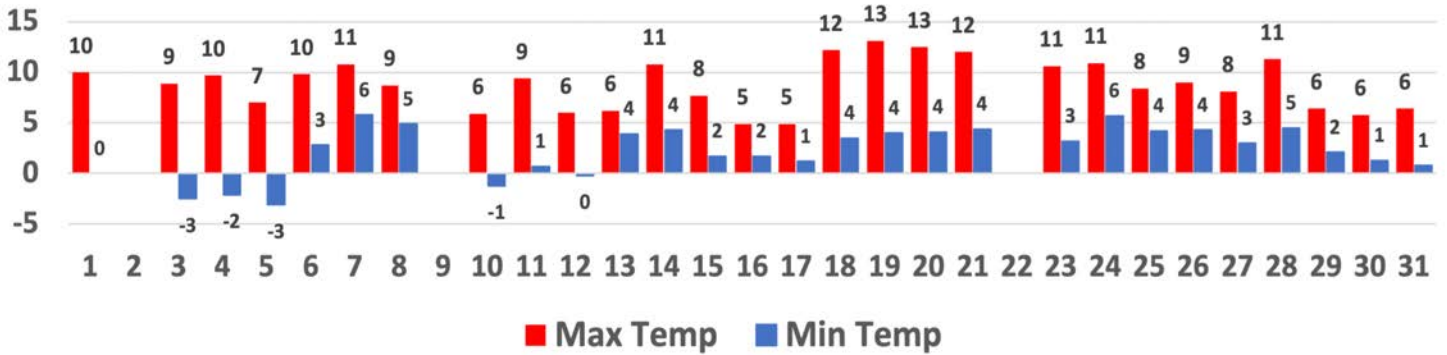
Paper: tissues, napkins, posters, newspaper, receipts, cardboard, etc.

Plastic: dog waste bags & shreds, other items made of plastic.

Wrappers: candy wrappers, foil, cellophane.

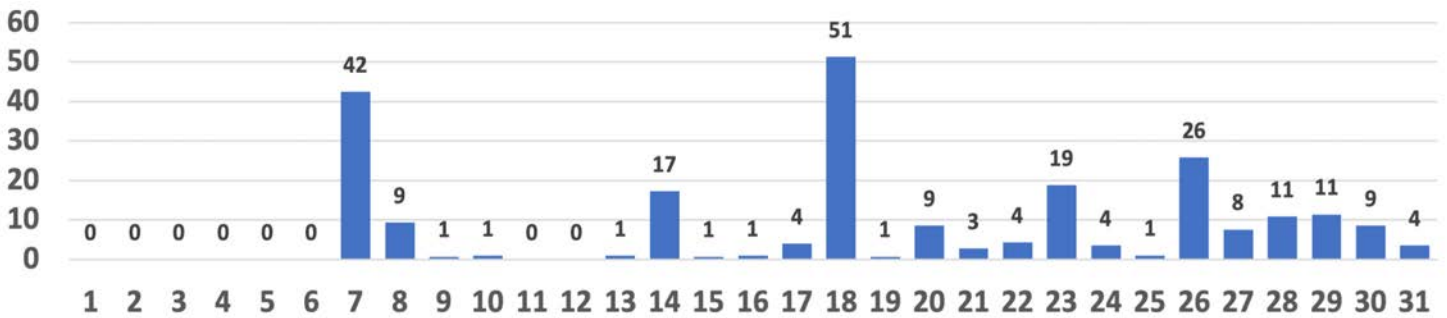
Miscellaneous: clothing, glass, chewing gum, dog balls & fragments, etc.

Air temperature at YXX December 2024 (°C)



Local Precipitation December 2024 (mm)

Total = 233.5 mm



2024 Total Monthly Precipitation (mm)



2024 Mean Temperatures (°C)



For convenience, I use these custom place-names

