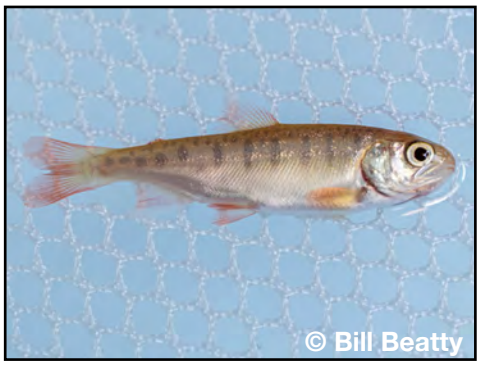
Stoney Creek Trail Report
No. 40 - July 2022

The Front Page photo is of the "Nursery Trees." They are so-called because red-cedar trees sprouted from and have been subsequently supported by a fallen "nurse" log. You can see there were originally three "children" but one was felled several years ago because it was deemed hazardous by the PRC. Its log can be seen in the fore-ground, lying beside the fence.

In addition to offering physical support, a **nurse log** is a source of nutrients: its tissues store energy and nitrogen. Other tree species do this as well. A nurse tree can also be alive and standing, offering shade and shelter from wind while the seedlings grow.

Broken Bridge news: Sorry, but I have none for you. The PRC has not responded to my request for an update. In the absence of facts, it's difficult to be optimistic, isn't it.

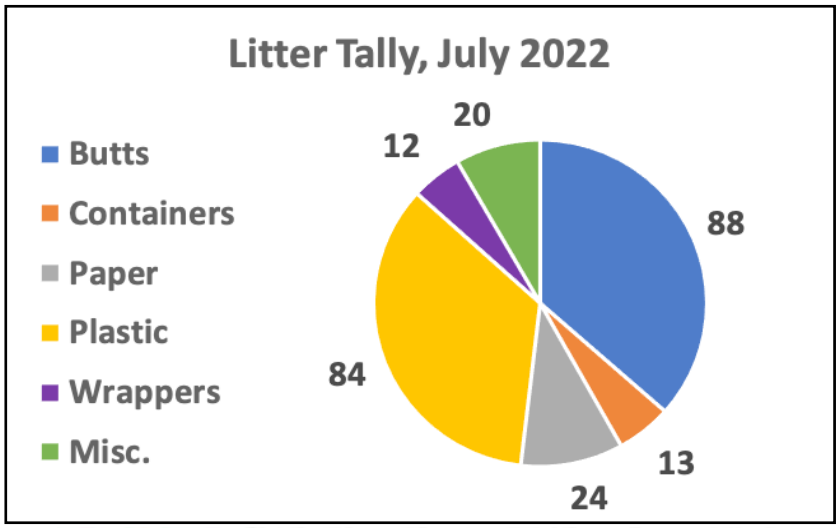
Further to last month's front page photo showing the Pacific ninebark's popularity with insects, the following two pages are about local bees.



Starting on page five, I have featured a couple of very common shrubs that have bloomed within the past month, the **Red elderberry** and the **Hardhack spirea**.

ARPSES news: I was pleased to observe a coho fry transfer operation at the hatchery earlier this month (see page nine). Happenings at the hatchery are pertinent because all their "product" ends up in Stoney Creek.

Interestingly, due to a genetic quirk, some of this year's batch of coho fry were noticeably paler than normal (see bottom photo). In other respects, such as growth and behaviour, they are identical to the others. The vertical parr marks can be seen clearly. At this stage the fry are some-times called coho parr.



Miscellaneous: clothing, glass, chewing gum, balls & fragments, etc.
Wrappers: candy wrappers, foil, cellophane
Plastic: doggy poo bags & scraps, plastic bags
Paper: tissues, napkins, receipts, newspaper, cardboard, etc.
Containers: bottles, coffee cups, cans, juice boxes, bottle tops

Except as noted, all photos in these reports were taken along the Stoney Creek Trail.

Back issues of the Trail Reports, as well as photos of all the Trail Dogs, are available on ***www.stoneycreektrail.ca***

Bees:

Fat, furry, black and yellow **Bumblebees** are familiar to everyone. The colour and pattern of stripes on their abdomen are used to distinguish one species from another. Most bumblebees are social, living in colonies that contain queens, drones (males), and sterile female workers. Most nest in holes in the ground, often in abandoned rodents' nests, but they will also nest on the surface. They construct a waxen comb in which to rear their young. Only queens survive the winter, and they produce the first generation of workers on their own early in the spring.

Top: the **Tricoloured bumblebee** (Bombus mixtus) is also known as the Orange-Belted bumblebee or Fuzzy-horned bumblebee. Only the Bombus mixtus has a black band separating yellow and orange on its abdomen. These large bees can deliver a painful sting, but they are not aggressive unless their nests are approached too closely.

Bottom: the **Brown-belted bumblebee** (Bombus griseocollis) is common and native to the southernmost part of BC. Its abdomen is yellow banded, with a black posterior. The legs are also black. This bumblebee feeds on many kinds of plants in meadows, wetlands, agricultural fields, and urban areas—even densely populated cities. This one is visiting a Himalayan balsam flower.

The nests of this bee are generally small colonies of fewer than 50 workers which they will defend aggressively. In the colony, the tasks required to rear the young are shared among reproductive and non-reproductive members.

Bees (continued):

The **Orange-legged furrow bee** (*Halictus rubicundus*) is a species of sweat bee found throughout North America. The name comes from their attraction to perspiration.

Their nests are burrows several centimeters deep on southward facing slopes (for warmth). They have a non-aggressive nature and only females can sting, usually only when swatted.

Interestingly, their social behavior depends on latitude and climate. Southern bees make colonies like bumblebees, with males and sterile workers living cooperatively, maintaining the nest and helping the queen to raise a second brood. In cooler climates, where the season is short, these bees are often solitary. A single female will build the nest and raise offspring that go off and try to establish nests of their own.

When it comes to visiting flowers, they are generalists, gathering pollen and nectar from both wild and domestic plants. This makes them valuable pollinators.

Bees are an extremely important member of the ecosystem. They pollinate the crops and fruits that produce 50% to 80% of the world's food supply.

Habitat loss, pesticide use, and climate change are impacting many bumblebee populations, but for now they appear to be stable.

Support for wild bees includes habitat creation and preservation, restriction of pesticide use, and increased use of pollinator-friendly plants such as legumes along the margins of agricultural fields.

Left: a **Western honey bee** (*Apis mellifera*)

Red elderberry (Sambucus racemosa):

This shrub grows in thickets on stream banks, moist clearings, or open forest up to middle elevations. It can grow as tall as a small tree. The warty stems are a dark reddish-brown and pithy inside. They produce 5 to 7 large, long, sharp-toothed leaflets which give off a strong unpleasant odour when crushed.

The small white or creamy flowers grow in parasol-shaped clusters. Like the leaves, they have a strong, unpleasant smell. However, they are attractive to butterflies and humming-birds, Later, the small, seedy, bright red berries are popular with birds.

Other parts of the shrub are toxic, but—as long as they are cooked—the berries are safe to eat. They make an excellent, tangy jelly, while some people make wine from them. They were important for food and medicinal purposes to coastal people such as the Bella Coola, Tlingit, and Haida. Caches of red elderberries have been found in archaeological sites dating back hundreds of years.

Hardhack (Spirea douglasii):

This small shrub grows to 2 m tall in dense thickets due to its stems having many branches. Common throughout coastal BC, it tolerates a variety of soil types, but prefers sunny places. It is found on moist soils such as stream banks and bogs as well as open lowland forests. As it is hardy and grows quickly, Spirea is recommended for restoration of riparian (stream bank) areas in the Pacific North-west. It can also be an ornamental in landscaping.

The long leaves grow alternately on short stalks and have many coarse teeth along their margins. They are dark green and smooth above, paler and often woolley underneath. The tiny, deep pink flowers, which grow in long, dense clusters (spires), appear hairy on the outside when fully open. They are popular with hummingbirds. The seeds form in small pods and remain on the shrub after the leaves have fallen. They are eaten by small birds and dispersed by animals and wind.

Hardhack is fairly fire-resistant, as its native range often dries up by midsummer and becomes susceptible to fire. If the above-ground portion of the plant is killed, it can sprout from the roots and the base of the stems. It was introduced to Europe two centuries ago where it is considered to be an invasive.

The Blooming Month of July

July is perhaps the most prolific month for wildflowers. While you still have a chance to spot them, here is a selection of the many flowers that can be seen along the Trail this month.

Field Chickweed

Yellow jewelweed

Hedge Mustard

Wall lettuce

Slender hawkweed

Hedge Bindweed

Himalayan Balsam

Cleavers

Trail Dogs:

Penny (her full name is Pennington) is a two-year-old Nova Scotia Duck Tolling Retriever. She came from Tollwest Tollers, a breeder in Calgary. She loves to explore the trails in the park, play ball, and retrieve things from the Creek.

Katie is a seven-year-old English-type Labrador retriever. She was born at Block-head Labradors in Montana but has lived most of her life near Chilliwack. Katie gave birth to a litter of nine three years ago and has since been spayed. She moved to her new home in Abbotsford last month where she is much loved and can now be with her new family all day, every day.

True to her breed, she is crazy about retrieving. She would fetch a Chuck-it ball all day if she could. She is learning not to pull on her leash and to “mark” where the ball will be thrown before racing ahead to get it.

Katie has not yet been introduced to the full Trail, so the pleasures of cooling off in the Creek and meeting many new friends are still ahead of her.

ARPSES News:

On July 6th, through the efforts of **Tyler**, **Dain** and **Dale**, this year's batch of Coho fry were transferred from the hatchery down to the rearing pond. A new method was tried this time—they were simply flushed down a large pipe. The operation was very successful, taking less than 15 minutes. It was far faster and less stressful for the fish than the old way of being scooped up in a net, placed in a tub and transported by truck. Born in March and clipped last month, these little guys will be in the Pond for almost a year before being trucked to Stoney Creek (an operation described in last May's Trail Report).

Tyler is beside one of two troughs holding 12,000 fry.

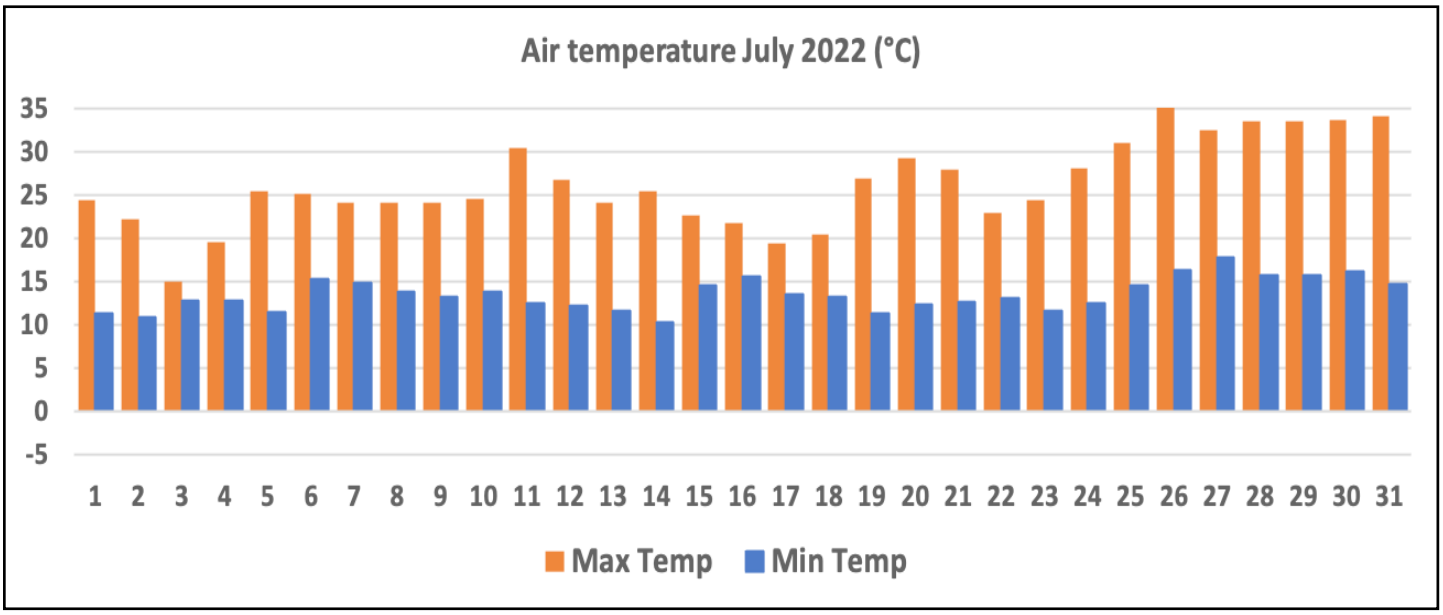
Lifting the white pipe will open the drain to the pond.

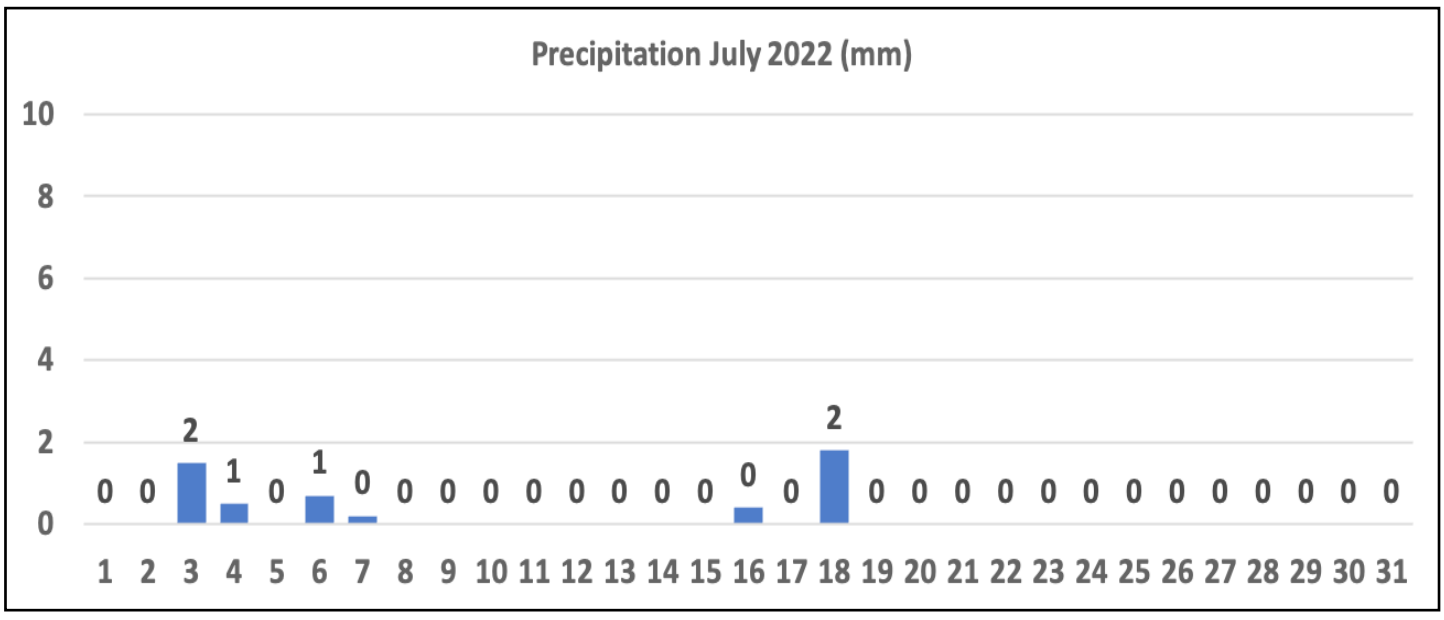
First, a trial run of five fish are flushed down the pipe.

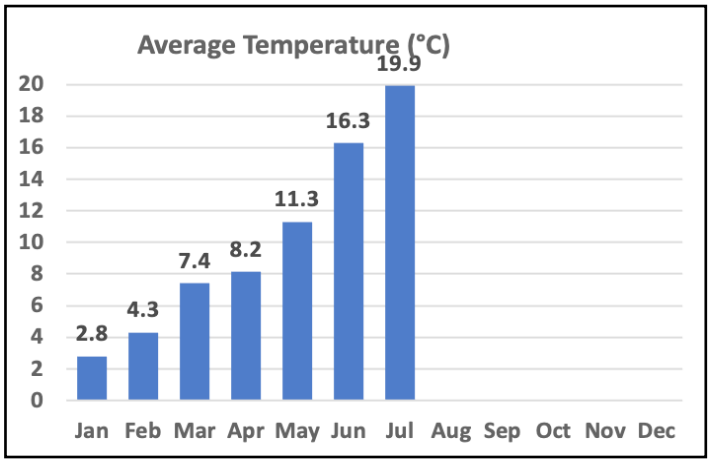
Dain and Tyler see that the system is working properly.

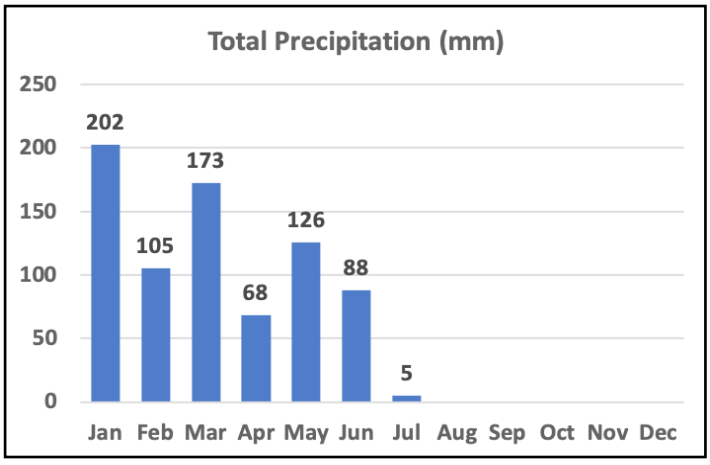
The water temperatures in the trough and the pond are matched, so the fry are disoriented for only a few minutes before swimming off to look for food.

The US Climate Prediction Center's prediction that the La Niña cooling effect would continue through the summer was definitely off the mark for July in this part of the continent. Their July 14th report: "La Niña is favored to continue through 2022 with the odds for La Niña decreasing into the Northern Hemisphere late summer (60% chance in July-September 2022) before increasing through the Northern Hemisphere fall and early winter...."









For convenience, I use these custom place-names: