

**Stoney Creek Trail Report
No. 45 - December 2022**



On the Front Page: a male Coho salmon in its spawning phase. This fish was caught in Clayburn Creek by ARPSES* members in late November. On the next page, I have a feature on their **broodstock operation**, i.e. the collecting of donor male and female Cohos and the processing of their eggs at the Ravine Park hatchery. The fertilized eggs—over ten thousand of them—will hatch in March and the fry will be set free in Stoney Creek in the annual Mother’s Day release.

FEATURED ARTICLES:

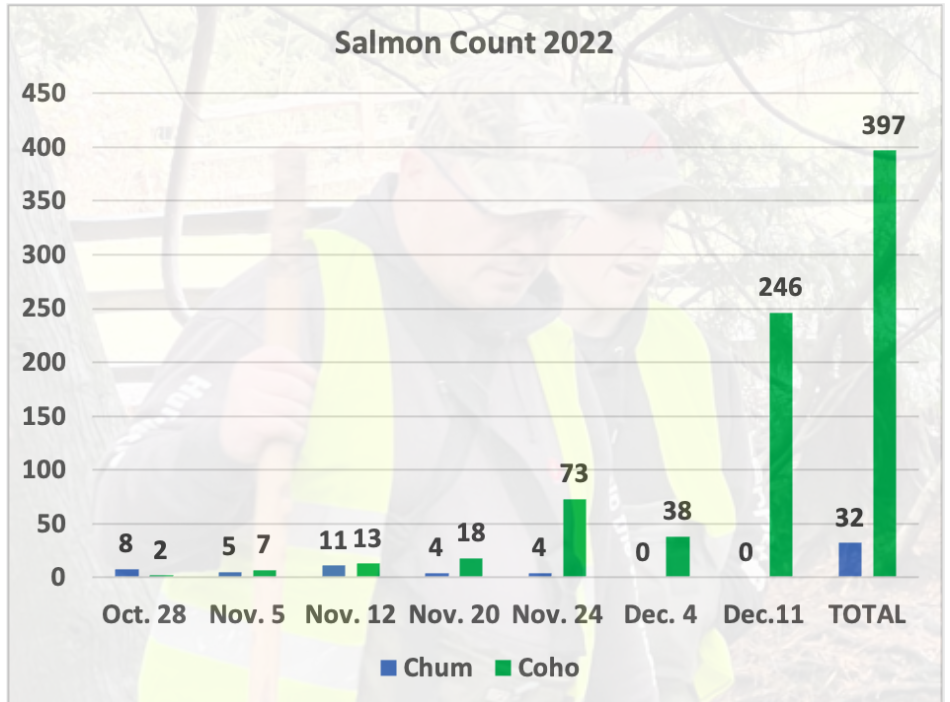
Page 3: ARPSES Salmon Broodstock Operation

Page 8: Trail photos from a decade ago

Page 12: Year End Statistics



Slush and ice below Bridge 1 on December 21 at 7:40 AM
Temperature: air, -13°, water, +0.2°



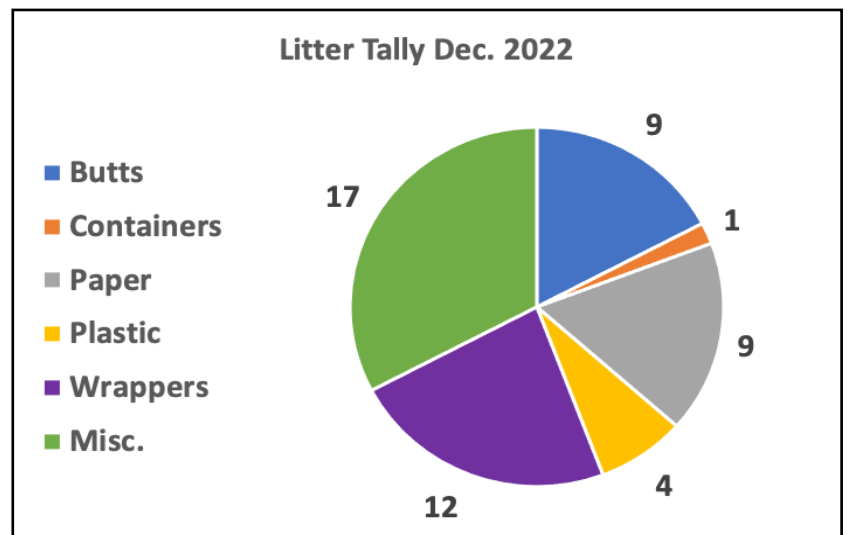
Final results of this year’s salmon count carried out by ARPSES volunteers, Rob Moynahan and Dain Eby (Last year’s total was 5 chum and 229 coho)

Broken Bridge News: none

The Litter Tally is very low due to interference by natural forces (snow!)

Back issues of these Trail Reports are available:

www.stoneycreektrail.ca



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

*Abbotsford Ravine Park Salmon Enhancement Society

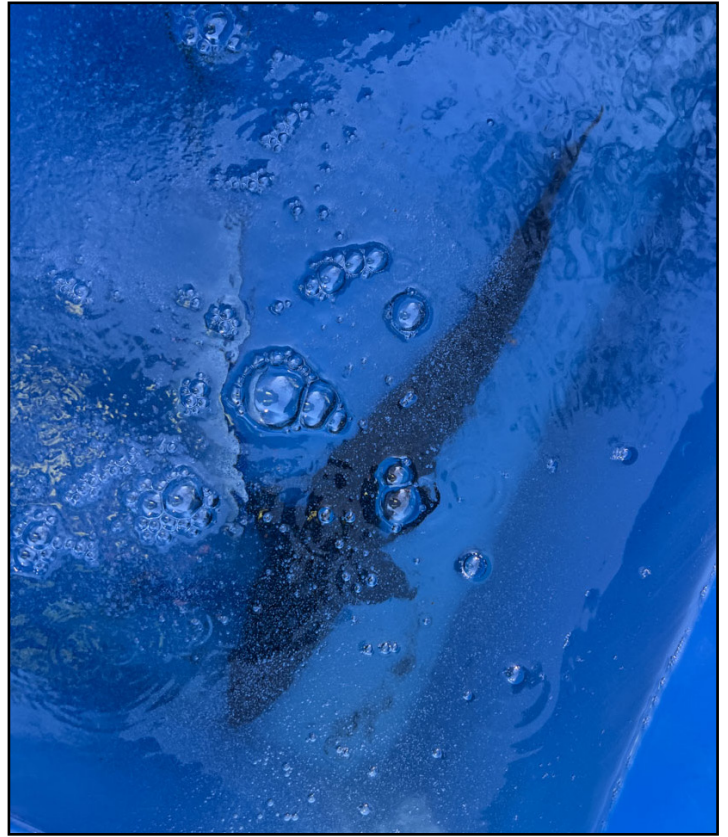
ARPSES Salmon Broodstock Operation (Part 1 of 5):



Dain and Rob are angling for Cohos in the Pool below Bridge 0. For the project, they will need 6 males and 6 females. This is the first time that the broodstock will be coming from our local creeks, Stoney and Clayburn. In the past, Abbotsford's Ravine Park hatchery has depended on salmon eggs brought from the Chilliwack River hatchery.



ARPSES Salmon Broodstock Operation (Part 2 of 5):



This blue tank on the back of the truck is fitted with an oxygen injection system to keep the fish in good health. In it, they will be transported up to the large green holding tank at the Hatchery. Fresh water is circulated continuously through the tank. Rob and Cheryl watch Tyler and Dain use nets to select fish from the tank (below).



ARPSES Salmon Broodstock Operation (Part 3 of 5):



To start with, the salmon are firmly bonked on the head and their gills are stripped to cause bleeding. Cheryl and Dain (below) are wiping the female donors clean while they bleed out. Blood would be an undesirable contaminant in the roe (eggs). When the female's body is squeezed, the eggs are forced out of her skein (ovarian membrane).



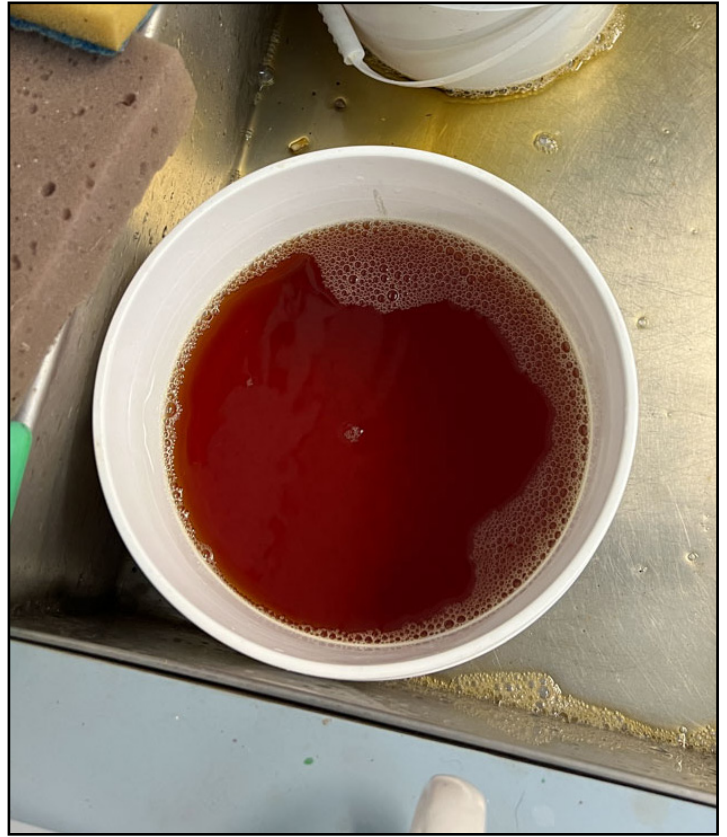
ARPSES Salmon Broodstock Operation (Part 4 of 5):



Likewise, the male's milt (sperm fluid) is easily ejected when his body is squeezed. Back in the hatchery, to assure fertilization, the milt from more than one male is poured into each of the pails of roe. Actually, fertilization will not take place until water is added (below), as it is necessary to imitate the natural process of spawning in the creek.



ARPSES Salmon Broodstock Operation (Part 5 of 5):



When fertilized, the eggs quickly take on a translucent appearance—except for a few pale, unsuccessful ones. Next, they are immersed in a disinfectant solution, rinsed and placed in trays in a cabinet that provides a continuous flow of fresh water. In about three months, they will hatch and be transferred into large Cap troughs to continue growing.



Changes to the Trail in a Decade (1 of 3)



The Pond: what's new in the bottom photo?



Changes to the Trail in a Decade (2 of 3)



The only recognizable thing is that fir tree on the far side of the parking lot.



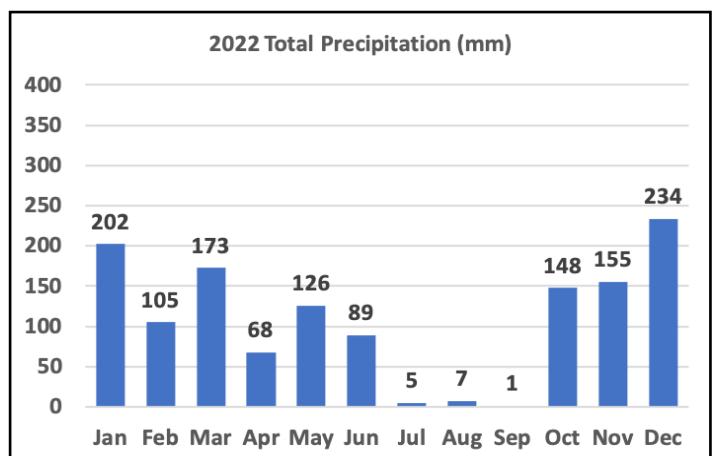
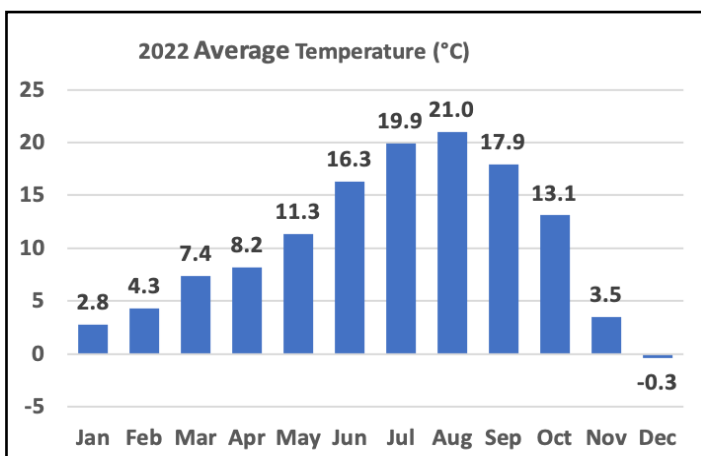
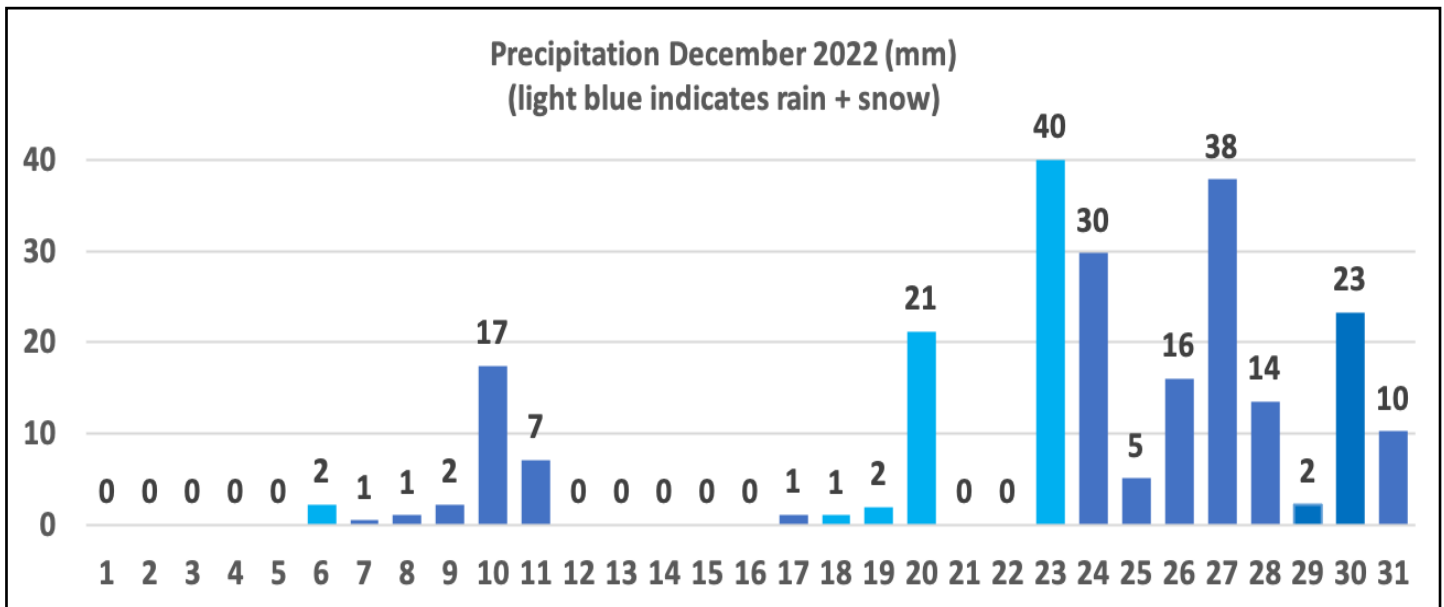
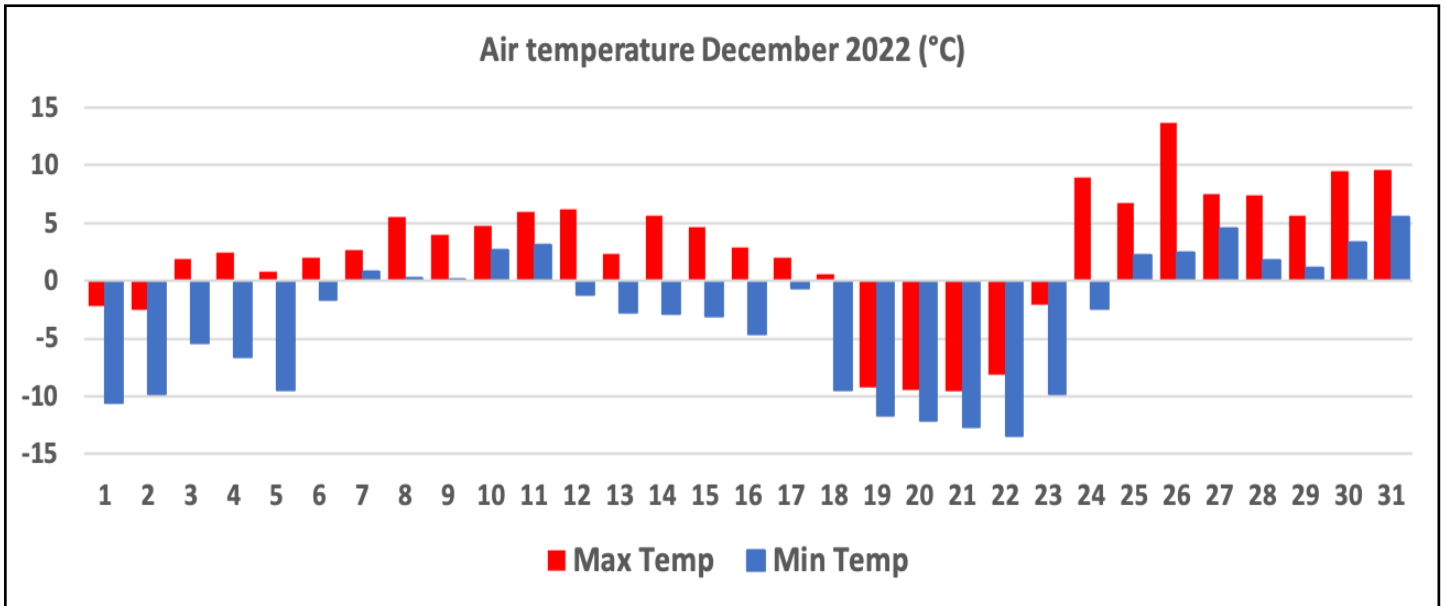
Changes to the Trail in a Decade (3 of 3)



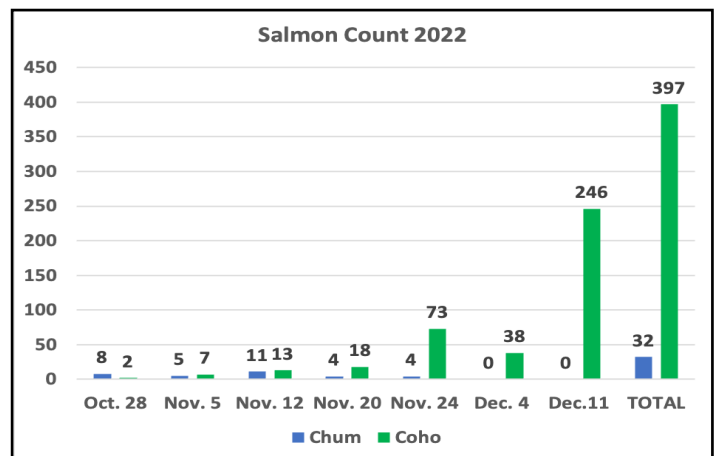
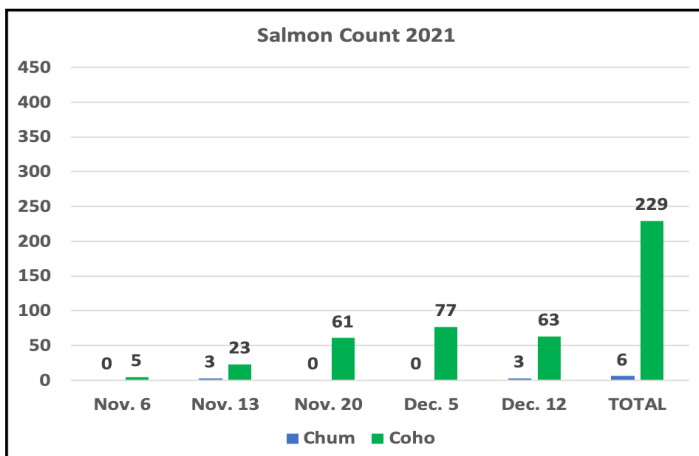
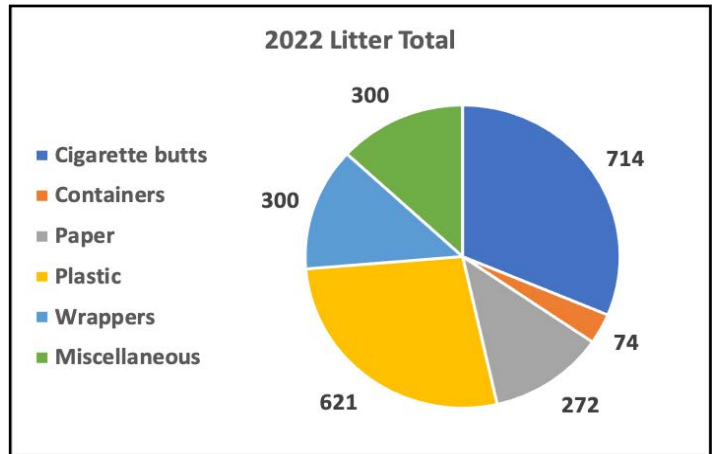
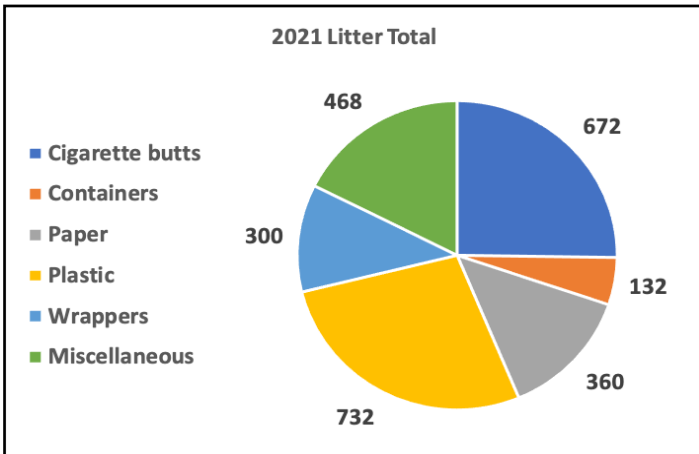
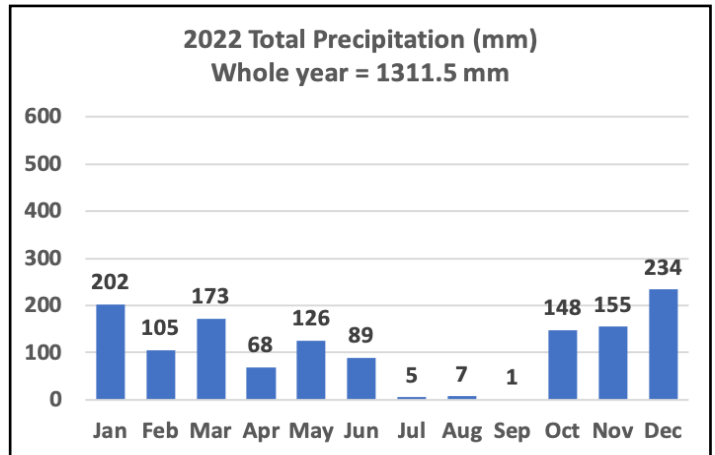
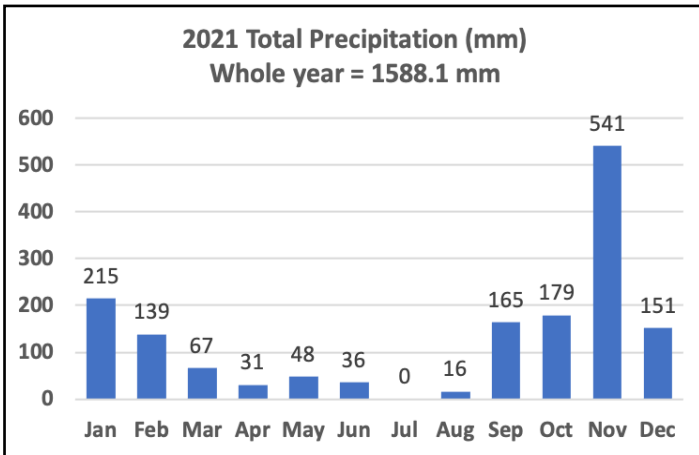
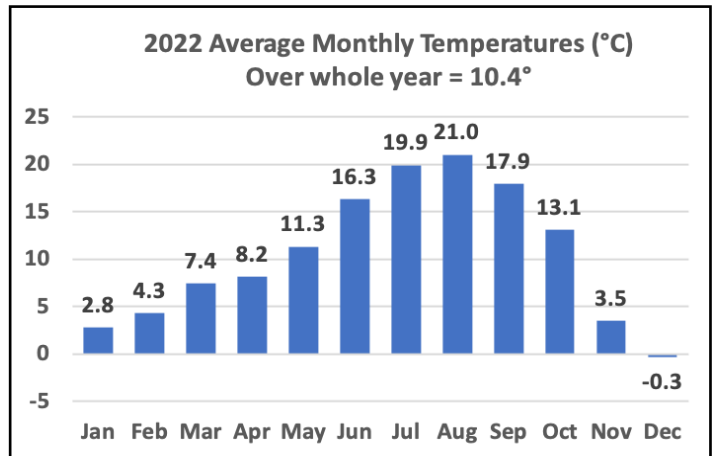
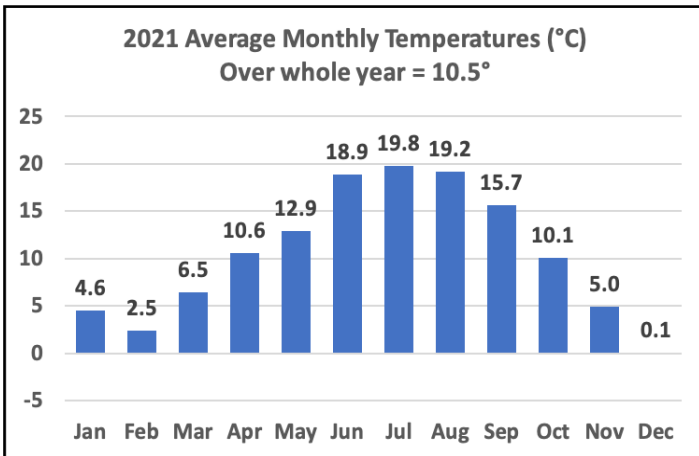
Before Bridge 0 was built, getting to the Trail from the parking lot was not easy.



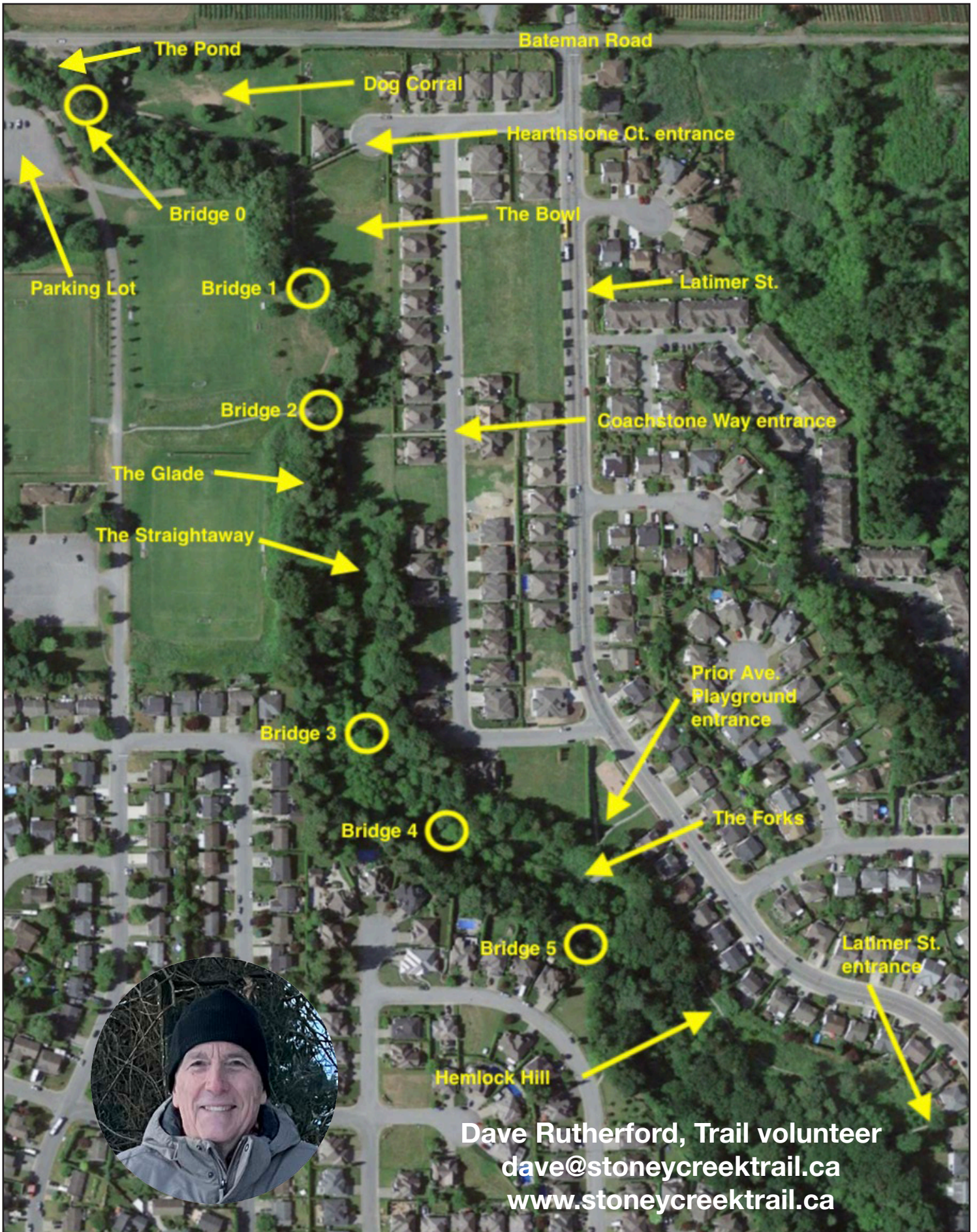
NOAA's (the La Niña folks) winter outlook: a 50-50 chance of average temperature change (either up or down), with a slight probability of above normal precipitation. The rain and snow that fell in the last ten days of this month will have helped restore our normal moisture conditions: the snow pack levels in the Lower Fraser region are approaching the long-term average. The winds exceeded the threshold of 31 kph on 16 days this month, the average being 50.5 kph (very similar to last year).



Here are statistics comparing our last two years:



For convenience, I use these custom place-names:



Dave Rutherford, Trail volunteer
dave@stoneycreektrail.ca
www.stoneycreektrail.ca