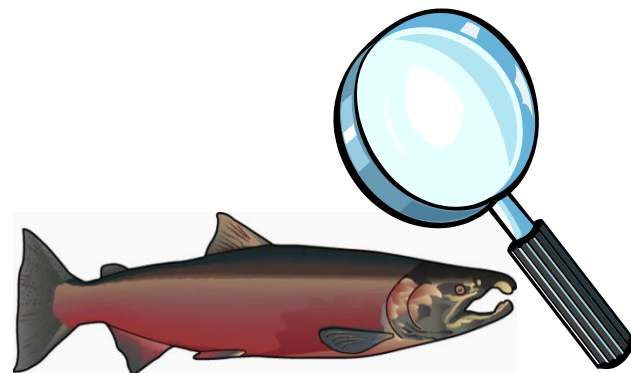


Findings from the **Miller-Walker Community Salmon Investigation (CSI) for Highline – 2016 Fall Season**



Why Count Salmon?

Citizen CSI volunteers survey Miller and Walker Creeks, located west of Sea-Tac Airport in Normandy Park, every fall to search for live and dead salmon. They are looking for scientific facts to answer two questions about the health of our local streams:

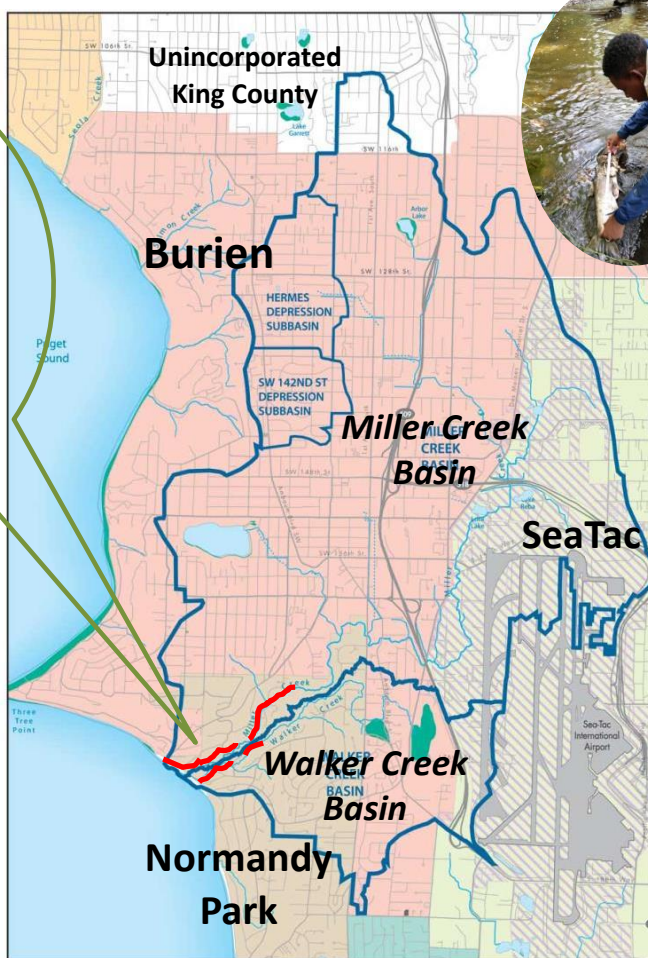
1. How many and what types of salmon return to spawn every year in Miller and Walker Creeks?
2. What portion of the coho salmon which return to spawn are killed by polluted runoff – known as pre-spawn mortality – and is pollution prevention working?

How Were Salmon Counted?



Dry days are better for surveys - 59 out of 74 days had surveys – when rains caused the creeks to rise and turn brown, it was **unsafe** and **hard to see fish!**

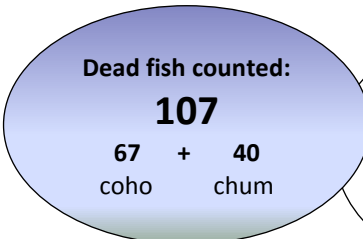
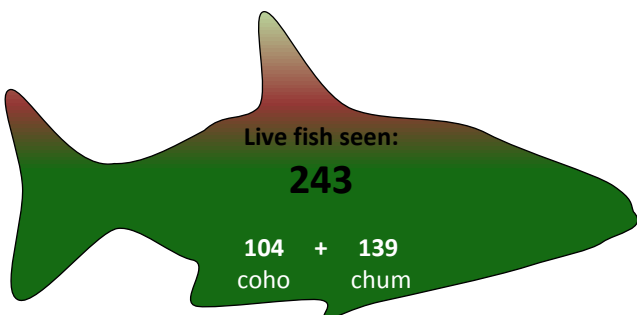
Volunteer teams of 2-4 people walked the creeks (shown in red) each day from **Oct 8-Dec 19** and counted live and dead fish



Miller and Walker Basins

Salmon Survey Area
Stream

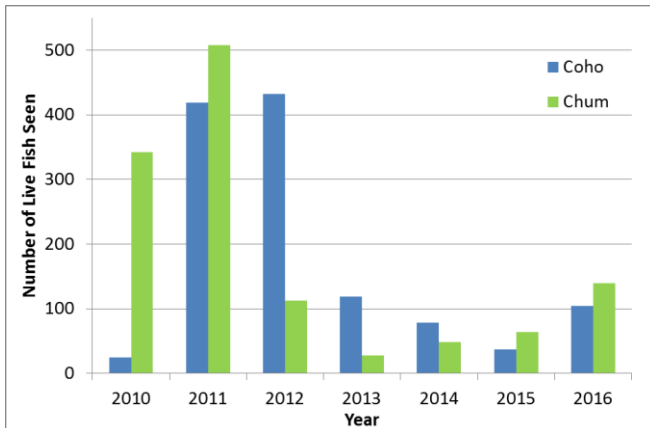
How Many Fish Were Seen?



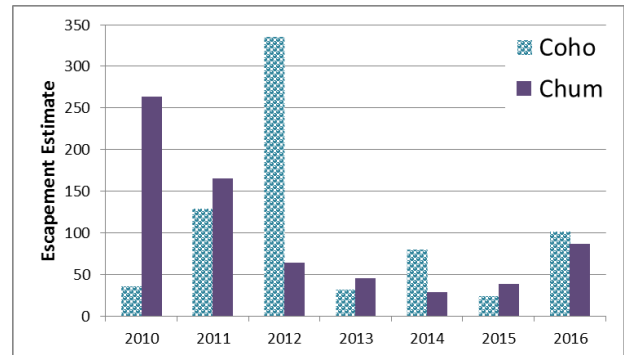
Dead fish had their tails cut off so they were **only counted once**

Other CSI Findings

Fish sightings by citizen scientists from 2010 to 2016 in Miller and Walker creeks:



Estimated “escapement” or spawning population* based on fish numbers and the timing of sightings, from 2010 to 2016 in Miller and Walker creeks:



*These numbers are for comparing between years, and do not represent the actual number of fish that spawned.

- 37% of coho carcasses and 52% of chum carcasses showed evidence of **predation** – being bitten, eaten, or attacked by wildlife.
- October was the rainiest month of the season, with over 10 inches of rain – over twice the normal amount!
- Adult coho were seen in Miller and Walker creeks from October 9 until November 25. Then, an adult coho swam into the parking lot near Walker Creek on January 19, 2017 – that was the latest recorded coho sighting here!

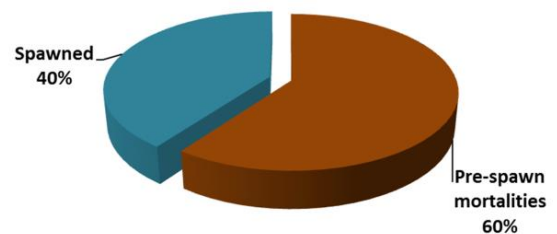
How Many Coho Died Before Spawning, and What Can We Do About It?

60% of coho died before spawning in Miller Creek in 2016, slightly fewer than previous years.

- Pre-spawn mortality is caused by polluted runoff, such as runoff from roads, parking lots, and lawns. Coho pre-spawn mortality is less than 1% in non-urban watersheds.
- Filtering runoff through soil mixed with compost, such as through a rain garden, makes it non-toxic to salmon.

To learn about volunteering, building your own rain garden, and to find out what your local jurisdiction is doing to clean up runoff and protect salmon, contact your Miller-Walker Basin Steward at (206) 477-4792 or check the web site at <http://tinyurl.com/n84d5xj>

Miller and Walker Creeks – 9/15 females =
60% Pre-spawn Mortality



The Miller-Walker Basin Community Salmon Investigation (CSI) program is funded by:



Miller-Walker Basin Local partners working together for clean water and healthy streams