

Just Keep Swimming!

the salmon of Shinglemill creek

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Abstract

Are Vashon's creeks able to support a juvenile salmon population? To help answer this question, VHS students conducted surveys of Shinglemill Creek in 2014 and 2015. This long-term project will continue each year; eventually Judd Creek may be surveyed as well. We set and check several traps along the creek, then measure and photograph any salmon, trout, or sculpin we find. In 2015, we found both this year's young salmon and second year juveniles, which tells us that salmon are able to survive in the creek for the full year they need to develop and grow. We also found large sculpins, which may indicate a healthy habitat, and some stocked hatchery fish, which may be competing with the wild salmon.



A comparison of a young of the year coho salmon and a 1 year old coho salmon.

Introduction

The problem was the decline of salmon populations all over the Puget Sound. According to Puget Sound Partnership, "The remaining Chinook salmon are at only 10% of their historic numbers, with some down lower than 1% of their historic numbers" (Puget Sound Partnership). The second percentage is about the the population percentages of some species of salmon. We knew that the salmon population is small in the Puget Sound due to overfishing, dams, disease, global climate change, and decline in their food source. So we went to Shinglemill Creek to gather data to see how many salmon stayed in the creek for the whole year. We found several fish, two were sculpin and seven were salmon that stayed the whole year in the creek. We also found hatchery salmon, which we happen to know the creek had been stocked with two weeks prior to us collecting data. It brings up the question of does that create competition between the hatchery and wild juvenile salmon?

Methods

On April 23rd, our group went out to Shinglemill Creek; we set up 10 traps along middle and upper parts of the creek in places juvenile salmon might tend to congregate. We then left the traps for 24 hours in the creek. On April 24th we went out again and checked the traps. If we found fish in a trap we measured the fish in cm, determined the species, estimated how old they were and finally photographed our catch. We then set the fish free so that they could go back to their home.



This is an example of the method of setting up a non lethal trap with help from Bianca Perla.



These two are an interesting find; Sculpin and a dumped hatchery salmon.

Discussion

Some of the salmon we found had stayed in the creek for a full year, and we also found long-lived sculpin; the presence of these sculpins suggests that the creek is healthy and can sustain different species. If given the right conditions, salmon populations could increase over time. The importance of our research is to avoid the salmon population from depleting. We had an interesting plot twist when we found stocked hatchery salmon residing in the same spot as the newly hatched wild salmon. This brings up the question: will the stocked salmon control the food supply, causing the younger salmon to starve? We suggest that the spring stocking effort be stopped in an effort to preserve wild salmon populations.

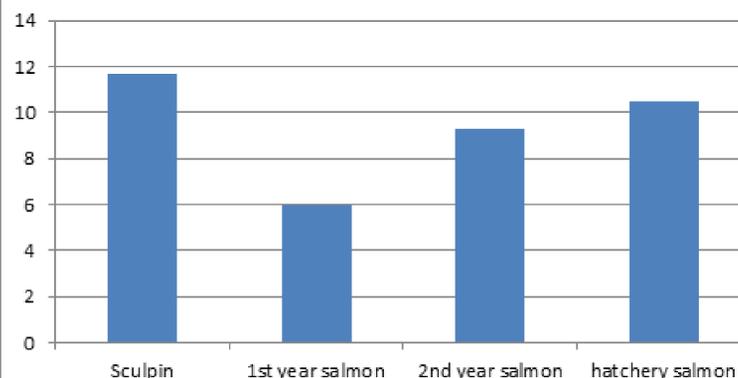
Acknowledgments

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Results

-- We found both age classes of coho salmon in our traps, which indicates that salmon are being born in the creeks and also surviving a full year before going out to sea.
--We found sculpins that were several years old in our traps, which may indicate that this creek is stable and healthy enough to sustain long-lived species.
--We found hatchery fish in the same traps as the newly hatched wild salmon indicating that they may be a source of competition to these juvenile salmon, if they eat the same things.
--We found hatchery salmon two and a half weeks after the known stocking date suggesting that these hatchery fish are lingering in the creek instead of going straight to the ocean as planned.

Length (cm)



A bar graph showing the average length of each type of fish we found.



This is the map of Shinglemill Creek. The black line indicates the path we took.

Literature Cited

<www.psp.wa.gov/SR_status.php>