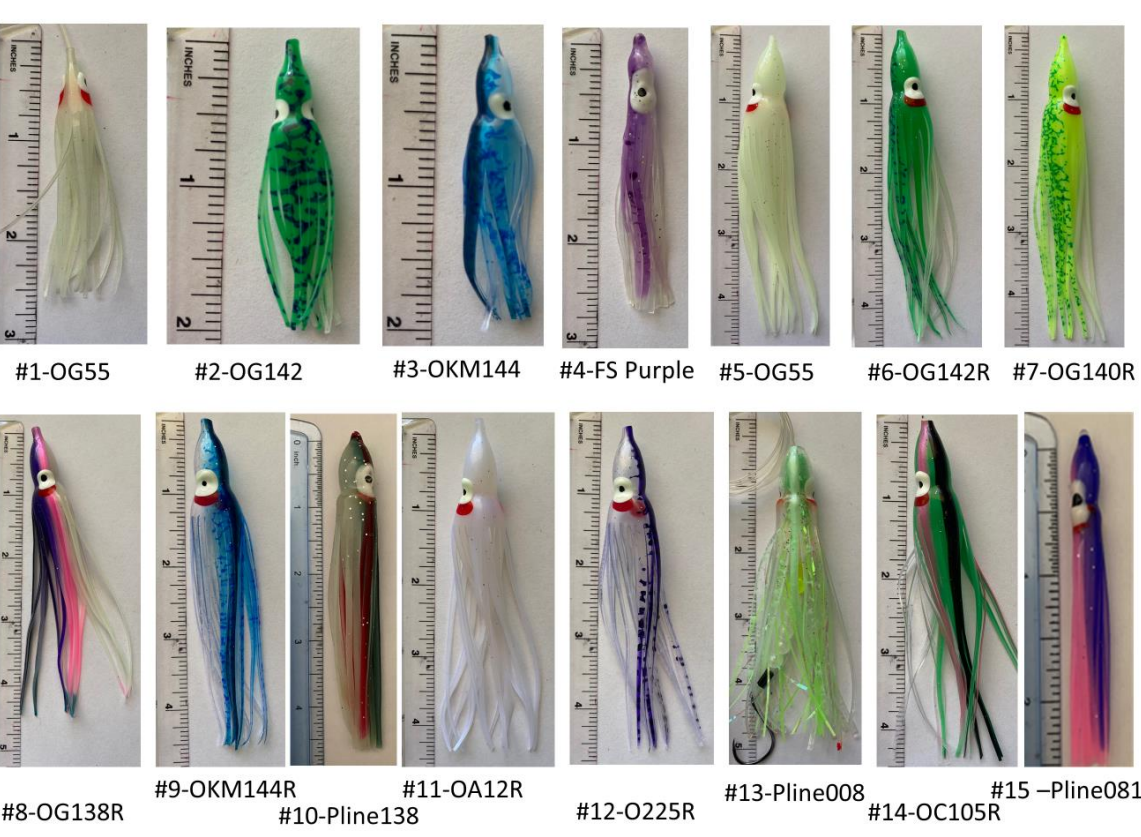


Hoochie color matters!!!

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INTRODUCTION

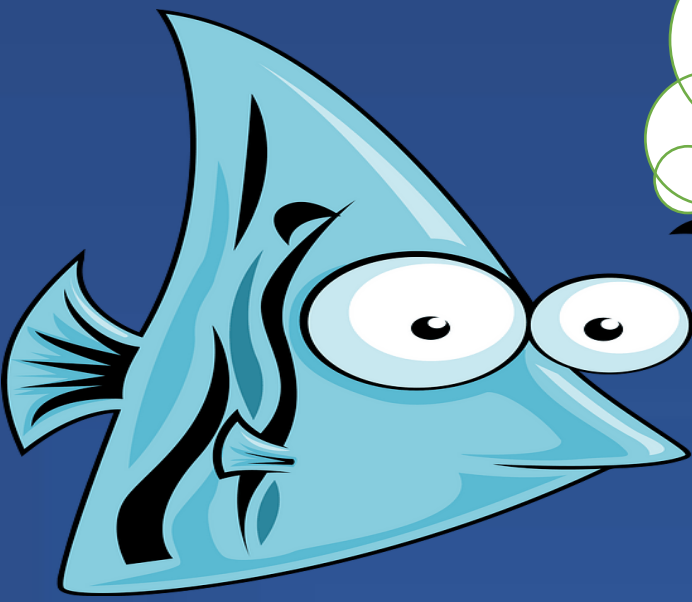
Many people come here to Neah Bay to fish. Some fishers fish for salmon by trolling. Past studies have found that salmon can see color. When buying lures fishers have many colors to choose from. This leads to the question, “Does lure color affect the catch rate of salmon and specifically of coho and Chinook salmon?”.



These hoochies are the ones we tested with, so these numbers under the hoochie are the product number.

HYPOTHESIS

Our hypothesis is that lure color greatly affects the amount and species of salmon caught. To test this we used different hoochie colors to see which color does best for different salmon species and which does worst.



METHODS

Gear configuration: Each hoochie was rigged with either a 1/0 or 6/0 hook and a 42 inch leader. The hoochie set up was fished behind an 11 inch flasher. The fishing gear was deployed using downriggers and recreational fishing poles and reels. All fishing was conducted on the vessels *Optimistic* and *Dačʔot*.

For each deployment of a hook we recorded the time we set, the depth we fished, hook size used, hoochie color, and time we reeled up. If we hooked a fish, we recorded if the fish was landed, species of fish, and fish length after reeling in our line.

We analyzed our data to determine the catch per unit effort (catch per hour) for each hoochie. We separated results for fishing effort at Swiftsure Bank because catch rates were much higher there. We tested for differences in catch rates using ANOVAs.

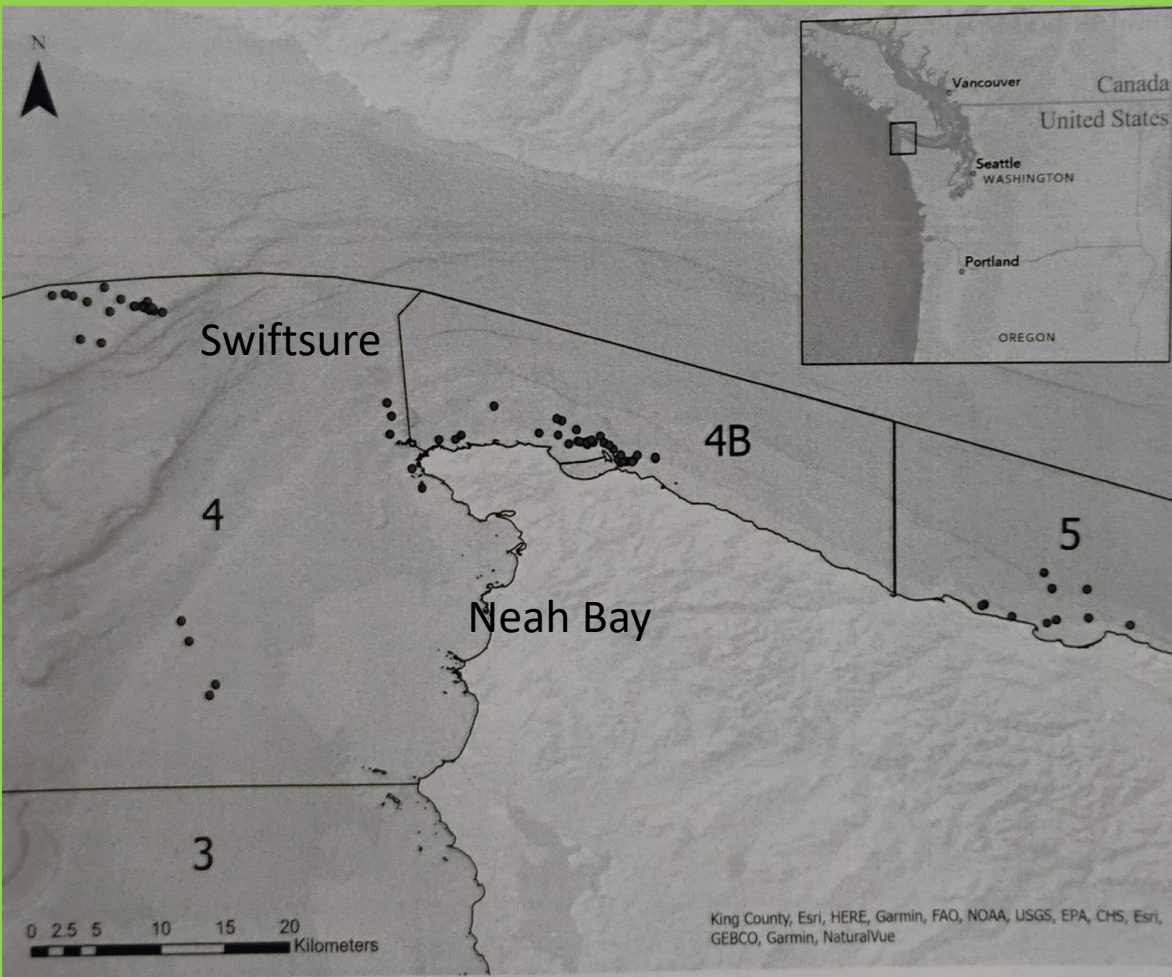


FIGURE 1: Areas Fished

RESULT SUMMARY

- 256 salmon were caught 2023-2024.
- 219 hours fishing effort 2023-2024.
- Very different catch rate at Swiftsure.

RESULTS

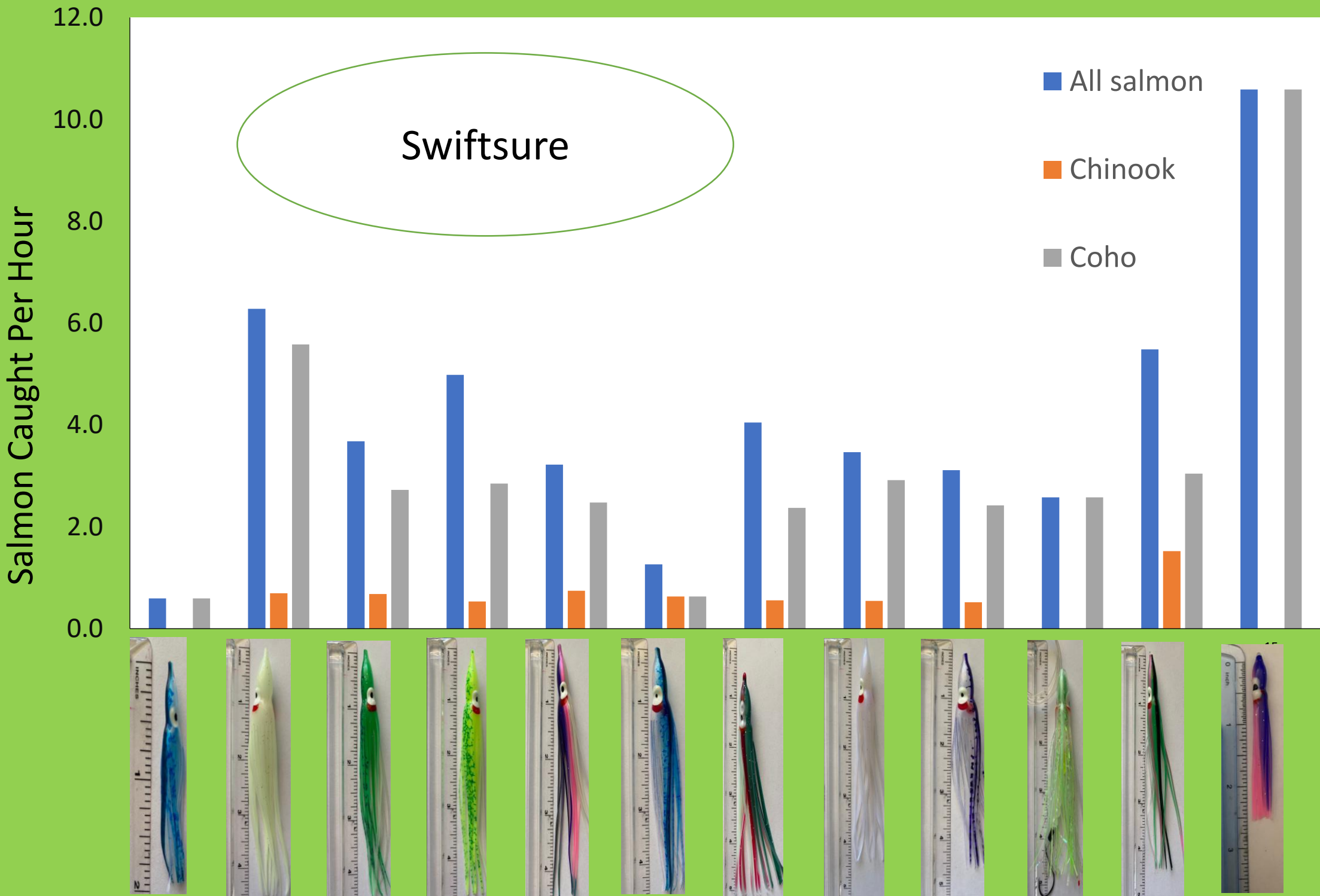


Figure 1: Catch rate at Swiftsure and performance of hoochie color.

We found strong evidence for differences in fishing performance by hoochie color at Swiftsure (ANOVA, $df=413$, $p<0.01$). The hoochies I think is best for catching any salmon is #5 with a glow pattern and the best for Chinook is #14 with a red/green pattern.

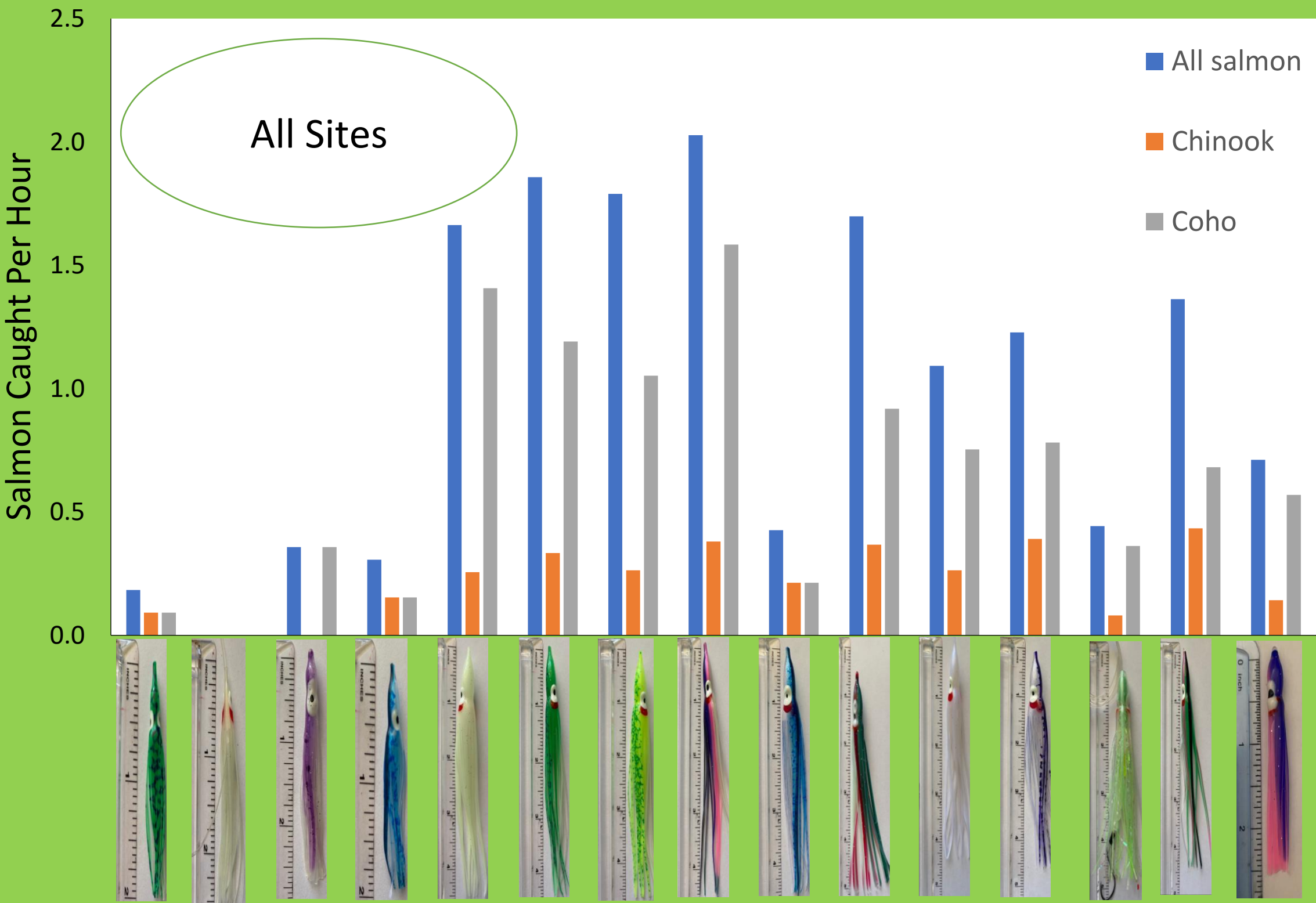


Figure 2: Catch rate at all sites and performance of hoochie color.

We found suggestive evidence for differences in catch of salmon per hour by hoochie color for catch in all areas pooled together. (ANOVA, $df=798$, $p=0.12$). All of the small hoochies did very poorly and the best hoochie #s were #5 (white glow), #6 (green splatter), #7 (chartreuse splatter), #8 (purple/pink).

CONCLUSION

We found that hoochie color matters for catching salmon. At Swiftsure, the best hoochie color to use for coho was #15-purple/pink, and Chinook was #14-black stripe, green and red. And the worst to use at Swiftsure was color #3-blue which did poorly. We did not find very strong evidence for differences in catch rate at all sites pooled together for color hoochies, but we did find suggestive evidence for an effect of hoochie size. Some colors are better seen by fish than others and some species of salmon eat based on the size of what they are eating (Wallbridge). Past research found that largemouth bass are sight feeders and that lure color does not affect catch but that angler skill does. This project is cool because you can learn what hoochie is best to fish with for the species of salmon you fish for.

CITED SOURCES

Moraga, Andrew D., Alexander DM Wilson, and Steven J. Cooke. "Does lure colour influence catch per unit effort, fish capture size and hooking injury in angled largemouth bass?." Fisheries Research 172 (2015): 1-6.

Wallbridge, Dave. "Fish Vision - and the Salmonids." Sexyloops, www.sexyloops.com/articles/whatsalmonidssee.shtml. Accessed 31 July 2024.