



Investigating Survival and Migration Patterns of Steelhead Kelts Along the Oregon Coast

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WHO WE ARE

A person in a dark jacket and cap is fishing in a river. The fishing rod is bent, and the line is visible in the air. The background is filled with tall, brown reeds or grasses. The water is dark and rippled.

Fishing Guides

Fish Biologists

Film Makers

Musicians

Wildlife Enthusiasts

We conduct citizen science to close knowledge gaps and support effective state and federal fisheries management.

A person wearing a grey long-sleeved shirt and dark pants is holding a large steelhead trout in a river. The person's left arm, which has a tattoo, is visible. The fish is silver with dark spots and is being held horizontally. The background shows a river with some trees and a white object on the right.

WILL THERE BE STEELHEAD
FOR OUR GRANDCHILDREN
TO ENJOY?



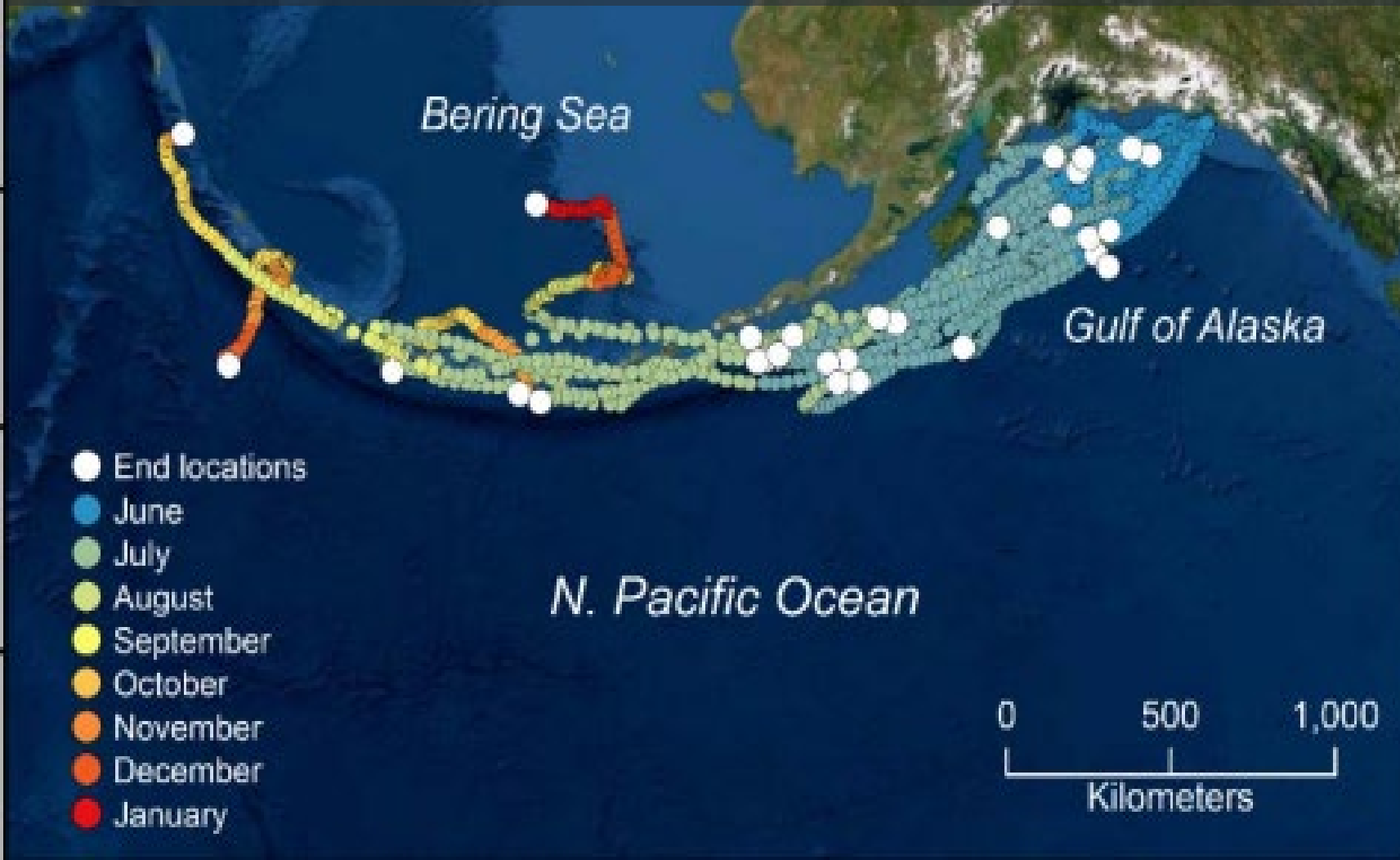
PILOT PROJECT

Problem: Off the Oregon Coast, kelt migration is a black hole of information

PSAT studies of Steelhead kelt migration have been conducted on the West Coast-but not successfully in Oregon:

- 47** kelts on inner Vancouver Island in British Columbia
 - 16** kelts on the Willapa River in Washington
 - 10** kelts on the Rogue River in Oregon- *no data yielded*
 - 5** kelts tagged Northern California
-

Steelhead Kelt Migration from the Situk River 2018-2020



*Michael Courtney's
work in S.E. Alaska
tagging steelhead
on the Situk River.*

FINANCIAL IMPACT

Table ES.1
Hatchery Production Cost Indicators by Species

	Total	Trout	Anadromous Species				Winter Steelhead	Summer Steelhead
			Subtotal	Fall Chinook	Spring/Sum Chinook	Coho		
Cost per release	1.31	1.59	1.17	0.82	0.86	0.70	2.35	3.25
Cost per facility pound	13.64	9.04	20.71	24.44	18.67	21.81	20.95	18.08
Cost per harvested adult	14.50	6.21	137	161	241	73	132	438

Notes: 1. Cost per harvested adult are for attributed catch in Oregon fisheries.



PROJECT DESIGN

Partners: NOAA, ODFW

Funding: Business, grassroots/individual donations, partnership with 1% for the Planet. Raising \$26,000 in 6 weeks of fundraising.

Permits: Sample the Nehalem, Nestucca, Wilson and Trask Rivers, historically robust runs, good health, no dams or other barriers preventing Steelhead migration.

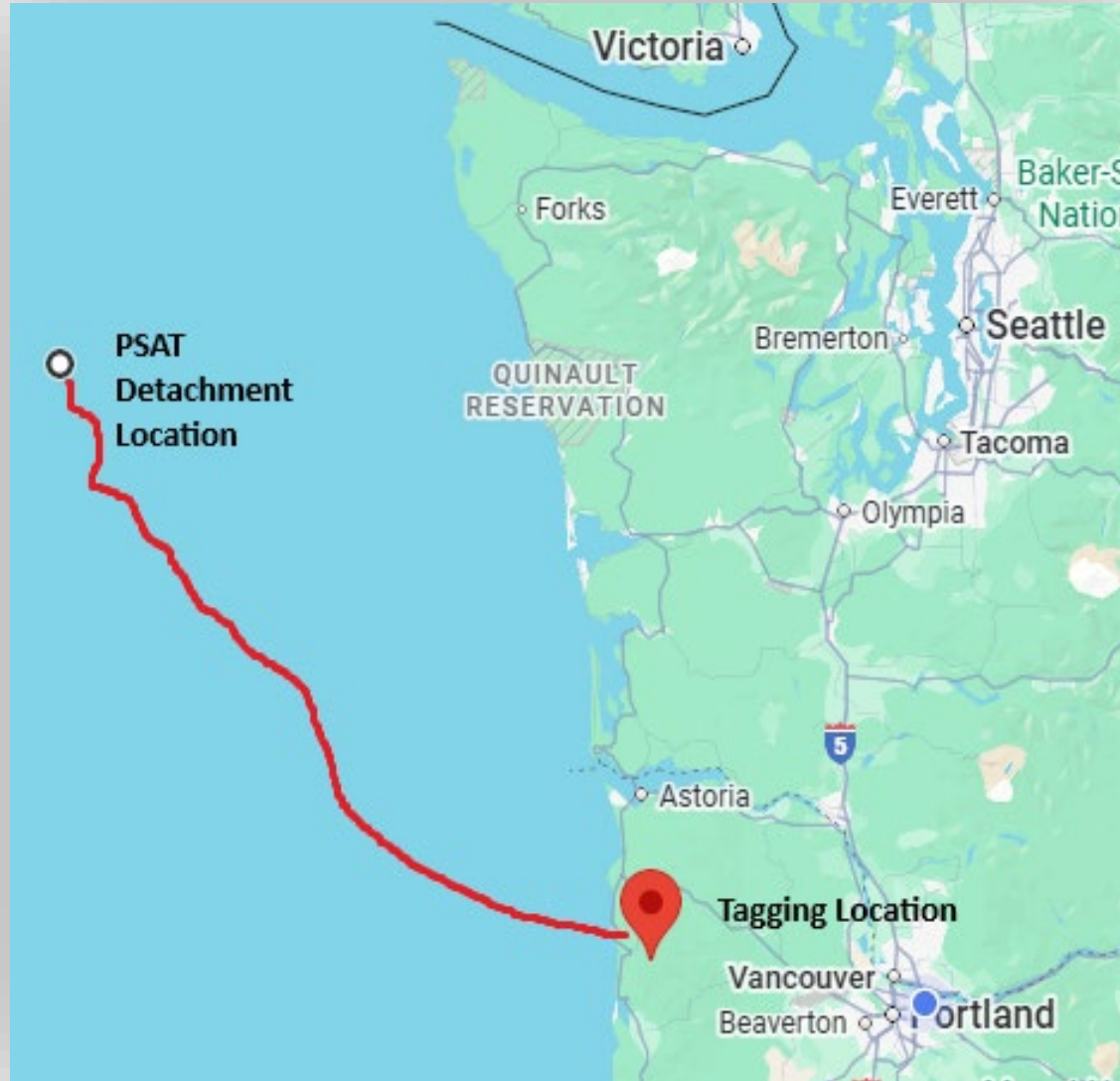
Support: Michael Courtney and Robert Bradley supplies and guidance necessary for our pilot year.

MEET GEORGETTE



FORT GEORGE
ASTORIA, OREGON

GEORGETTE'S JOURNEY

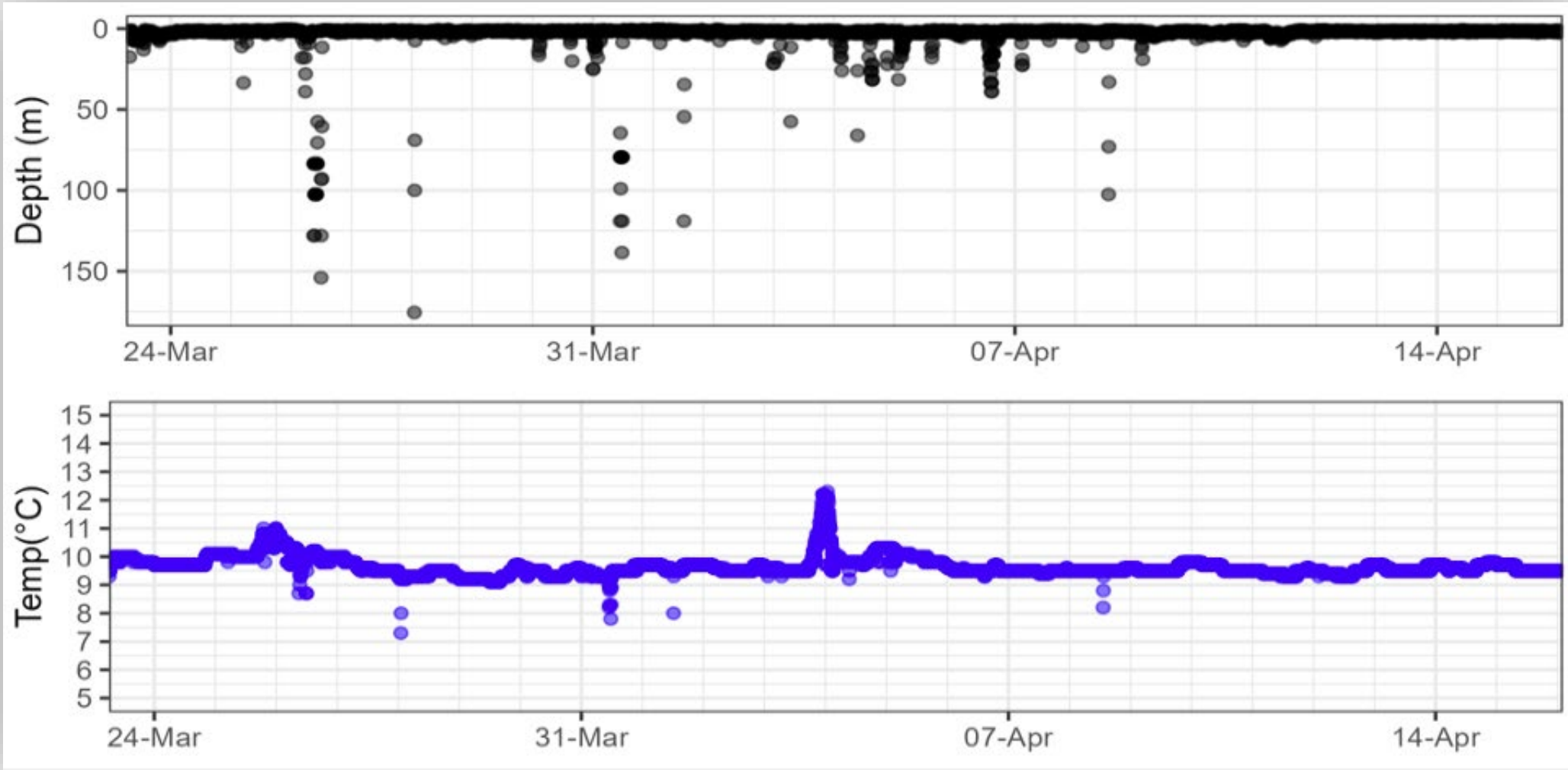


She spent 11 days in the Nehalem River after being caught. March 12-23rd 2025

She entered the ocean on 3/23 and migrated 364 km shedding her tag on 4/25 likely due to a predation event.

It's possible she wasn't allowed to cross into Canadian waters due to new tariffs

GEORGETTE'S JOURNEY



GEORGETTE'S JOURNEY

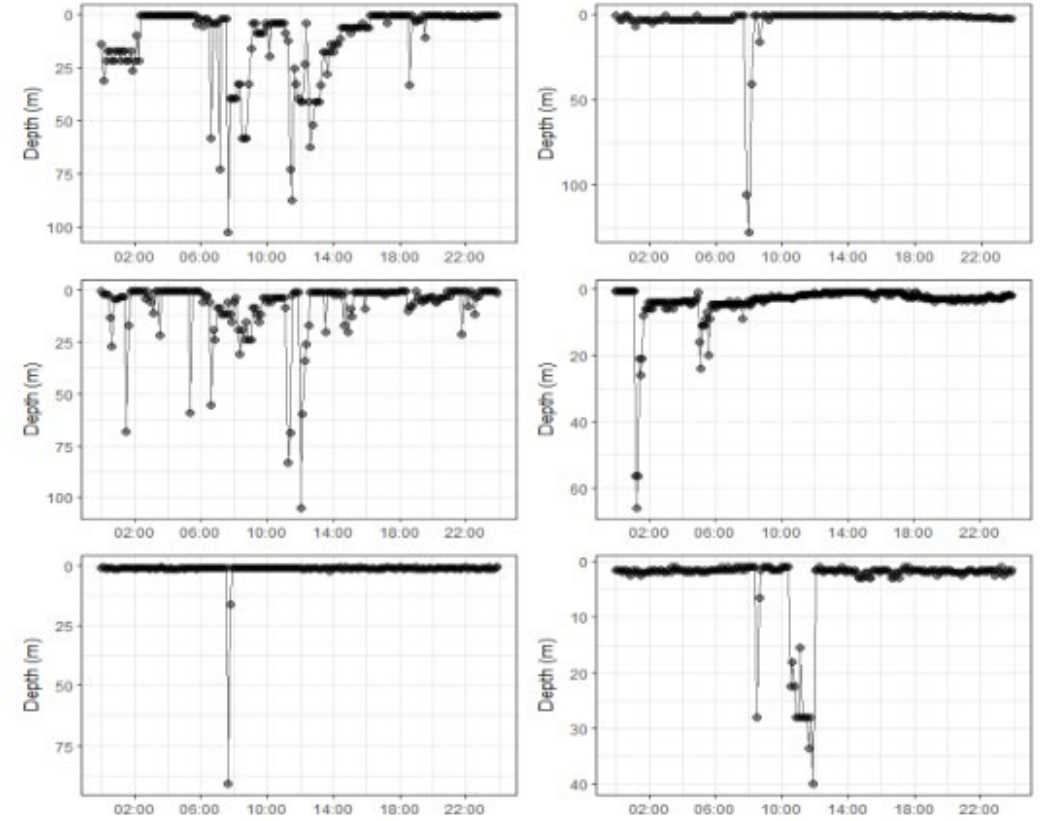
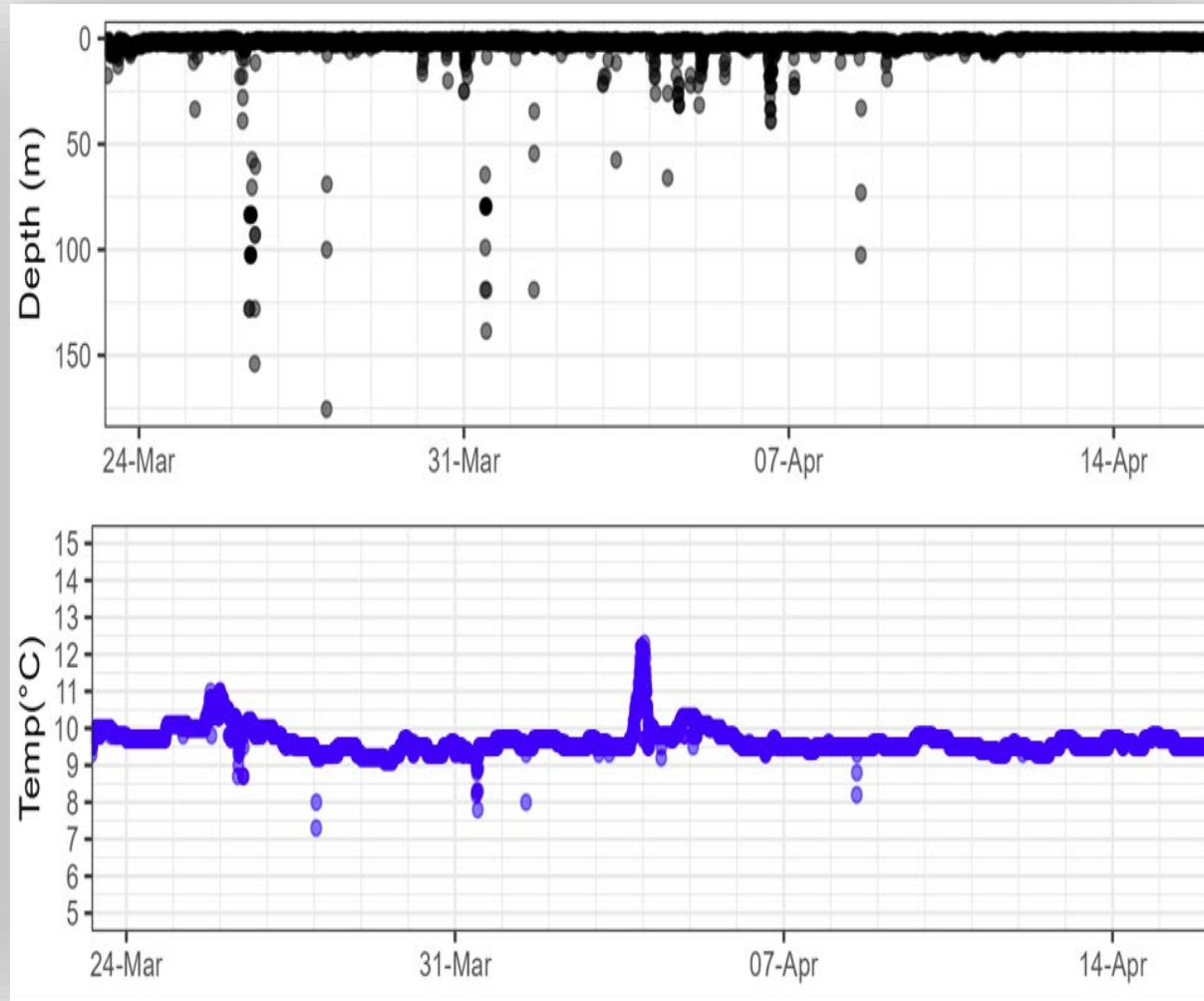


Figure 6. Examples of daily (GMT) deep diving activity by tagged steelhead from the Situk River.

YEAR 1 ACHIEVEMENTS

- 7 Tagged Post Spawn Steelhead
- 2 Tagged Fish Entered Salt Water
- 1 Significant Migration- *a first on an Oregon fish!*
- 2 Recovered tags in estuaries to be recycled



LESSONS LEARNED

- Don't tag air spawned Steelhead that have been in Hatcheries
- Extend our tagging season to start earlier
- Increase the number of fish collected by becoming a part of the spawning collection program
- Plan for tag collection for fish that don't exit the estuary
- Predation seems to be more of an issue off the Oregon Coast due to the large numbers of Pinnipeds
- Consider weather events



FUTURE PLANS

- ***Conduct a 5–10-year study hoping to show:***
 - Comparisons of the migration pattern behavior of wild vs hatchery kelts
 - Age data showing the incidence of multiple kelting events
 - Climate models/data vs kelt behavior
- Connect our work with educators to inspire students in the field of citizen science
- Partner with small fishing clubs in the Pacific Northwest to increase visibility and fundraising network



THANK YOU

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