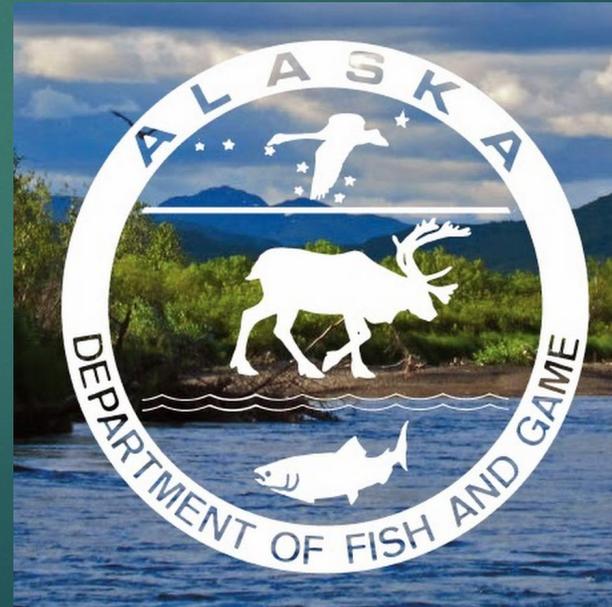


Pike in Cook Inlet?

Preliminary results from salinity trials, and salinity monitoring

BY BRENNAN WATSON



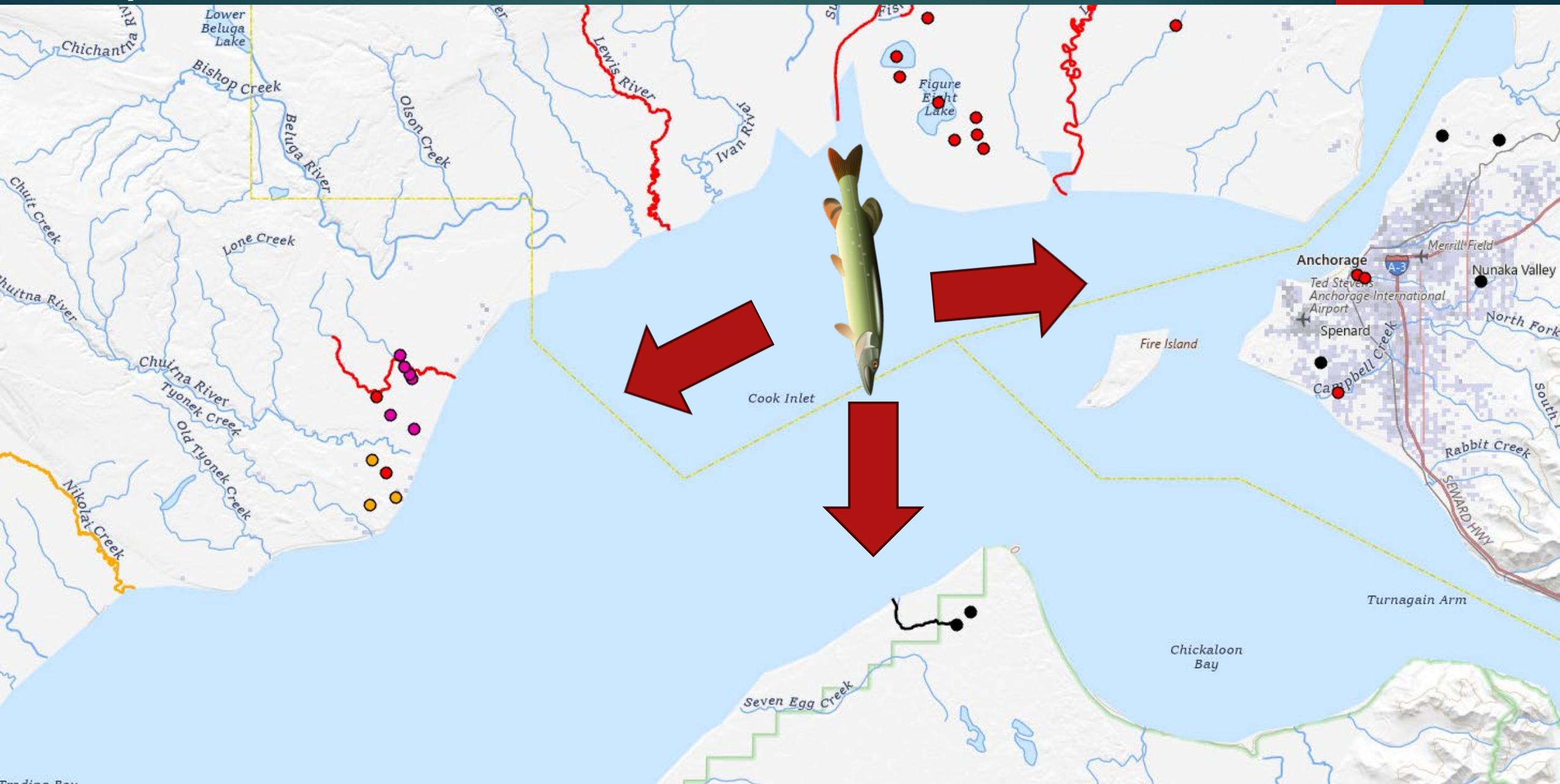


Background

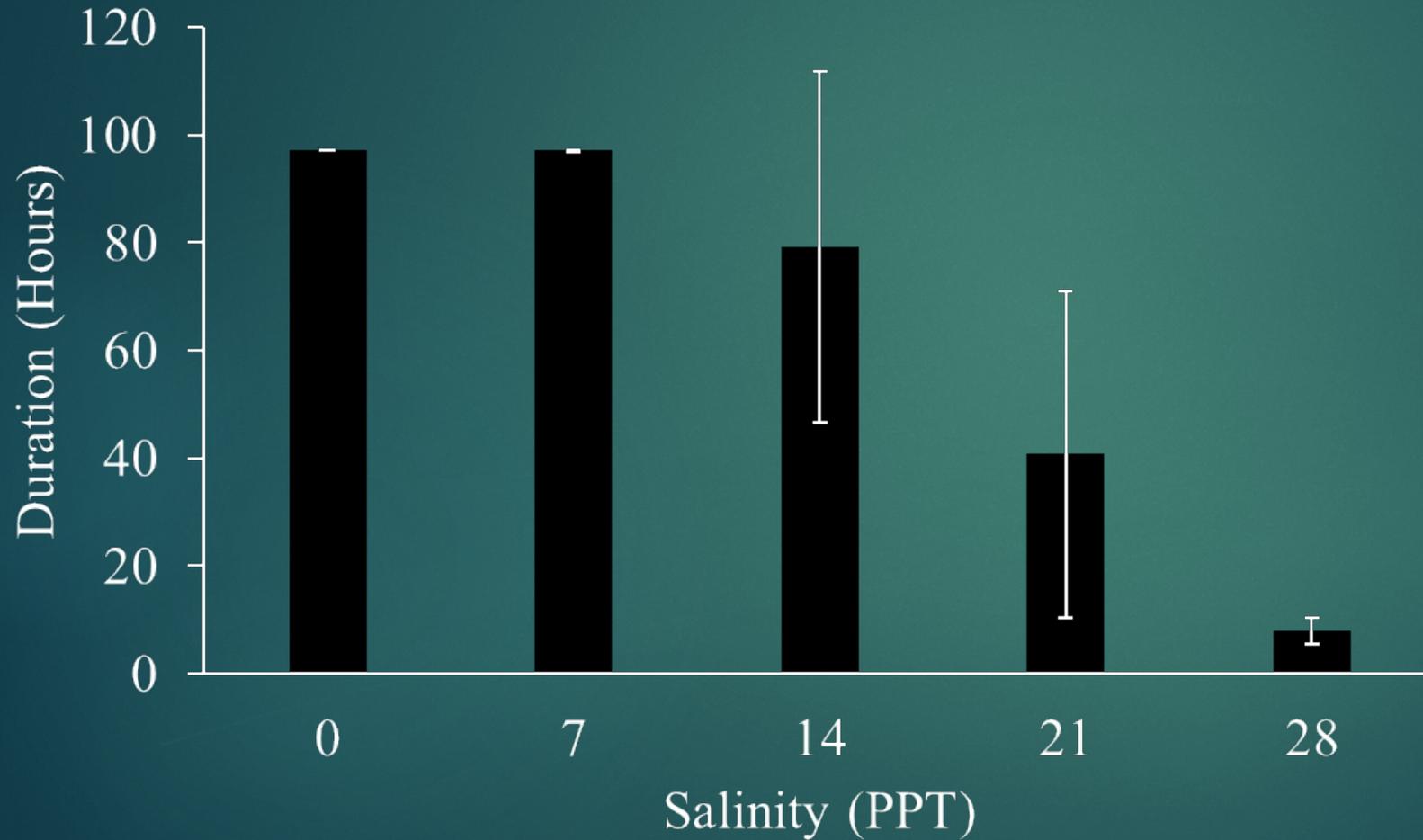
- ▶ Northern pike are known to be using Cook Inlet as a movement corridor between freshwater systems.
- ▶ The timing of movements is unknown and the distance they can travel through Cook Inlet is also unknown.
- ▶ The salinity of Cook Inlet has been modeled but limited actual measurements have been taken.

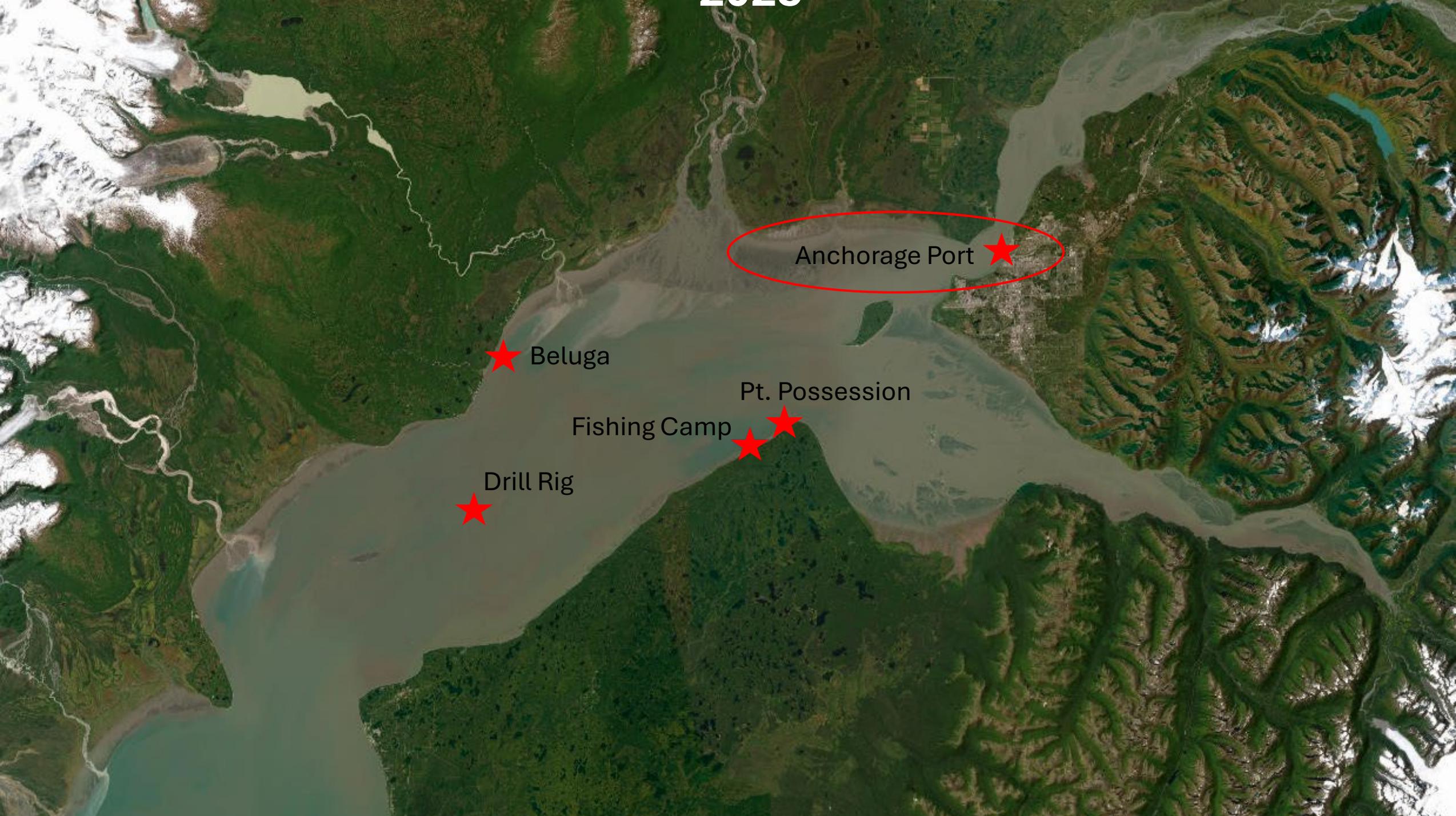


Why does this matter?



Mean (± 1 SD) Northern Pike Survival Time at Salinity





2020

Anchorage Port ★

★ Beluga

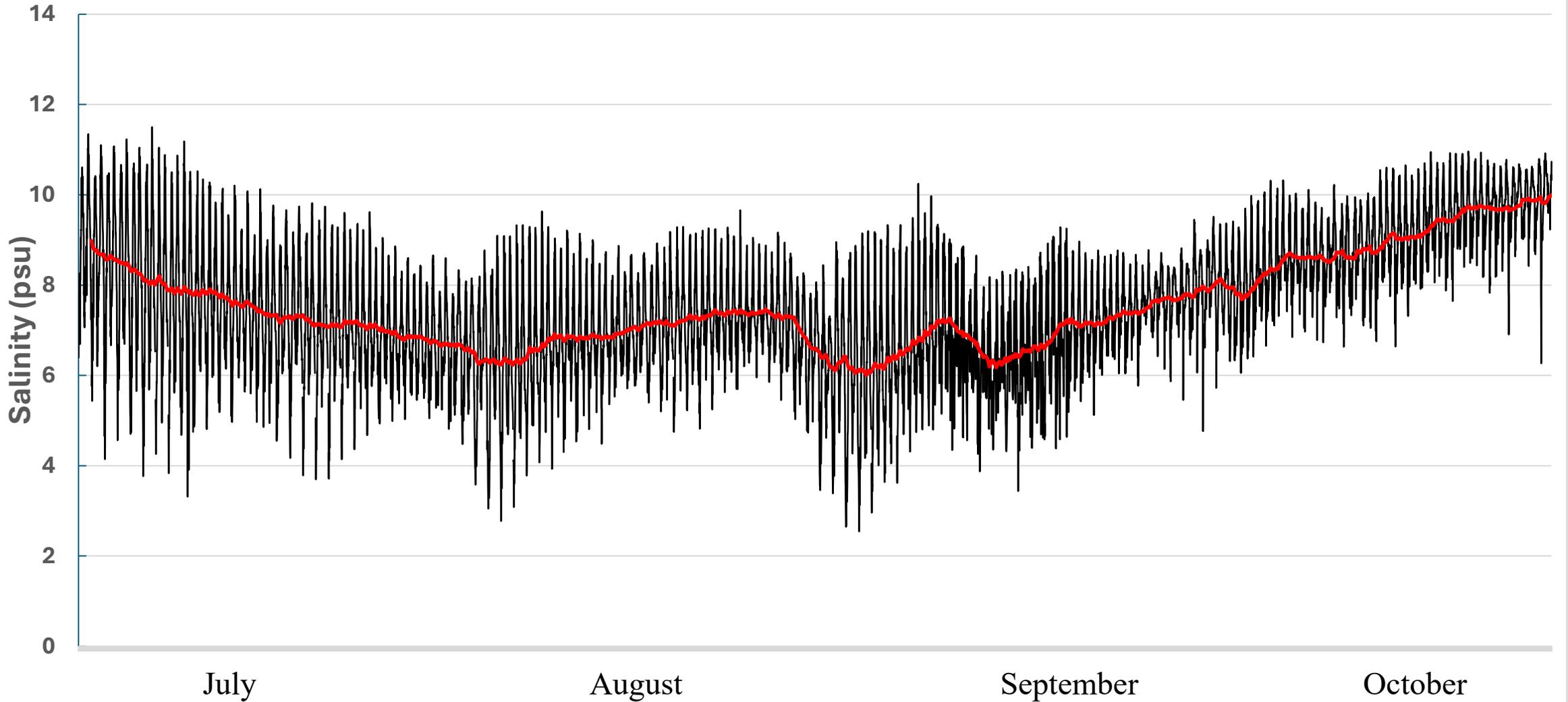
Pt. Possession

Fishing Camp

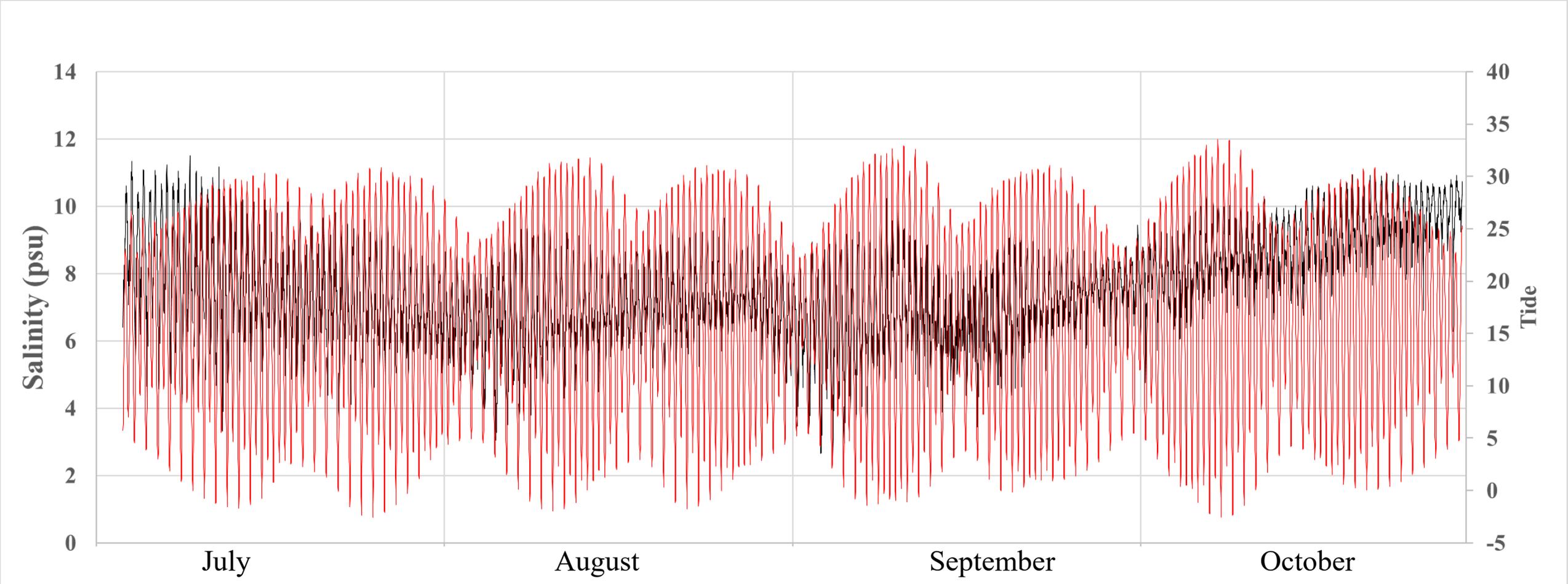
★ Drill Rig



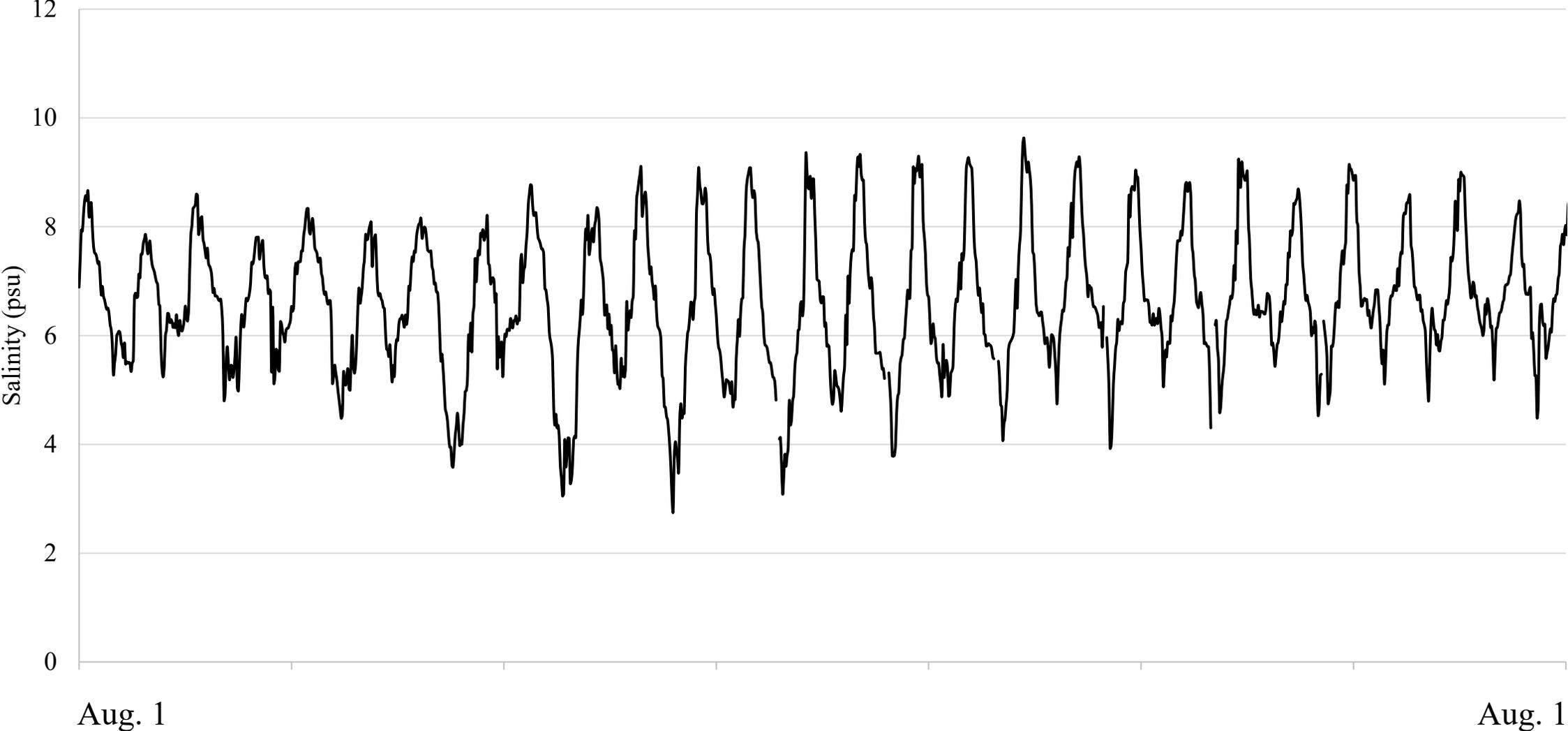
Anchorage Port



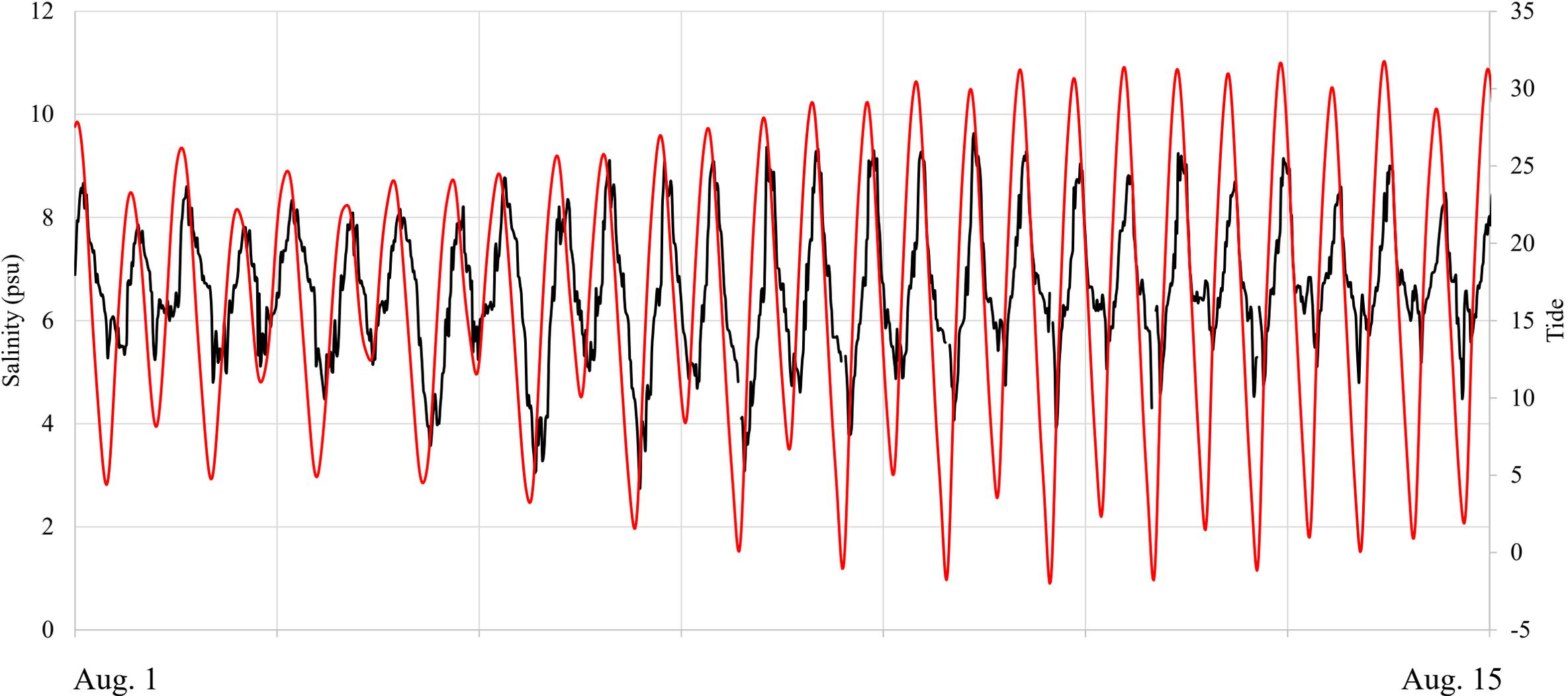
Anchorage Port Salinity + Tide

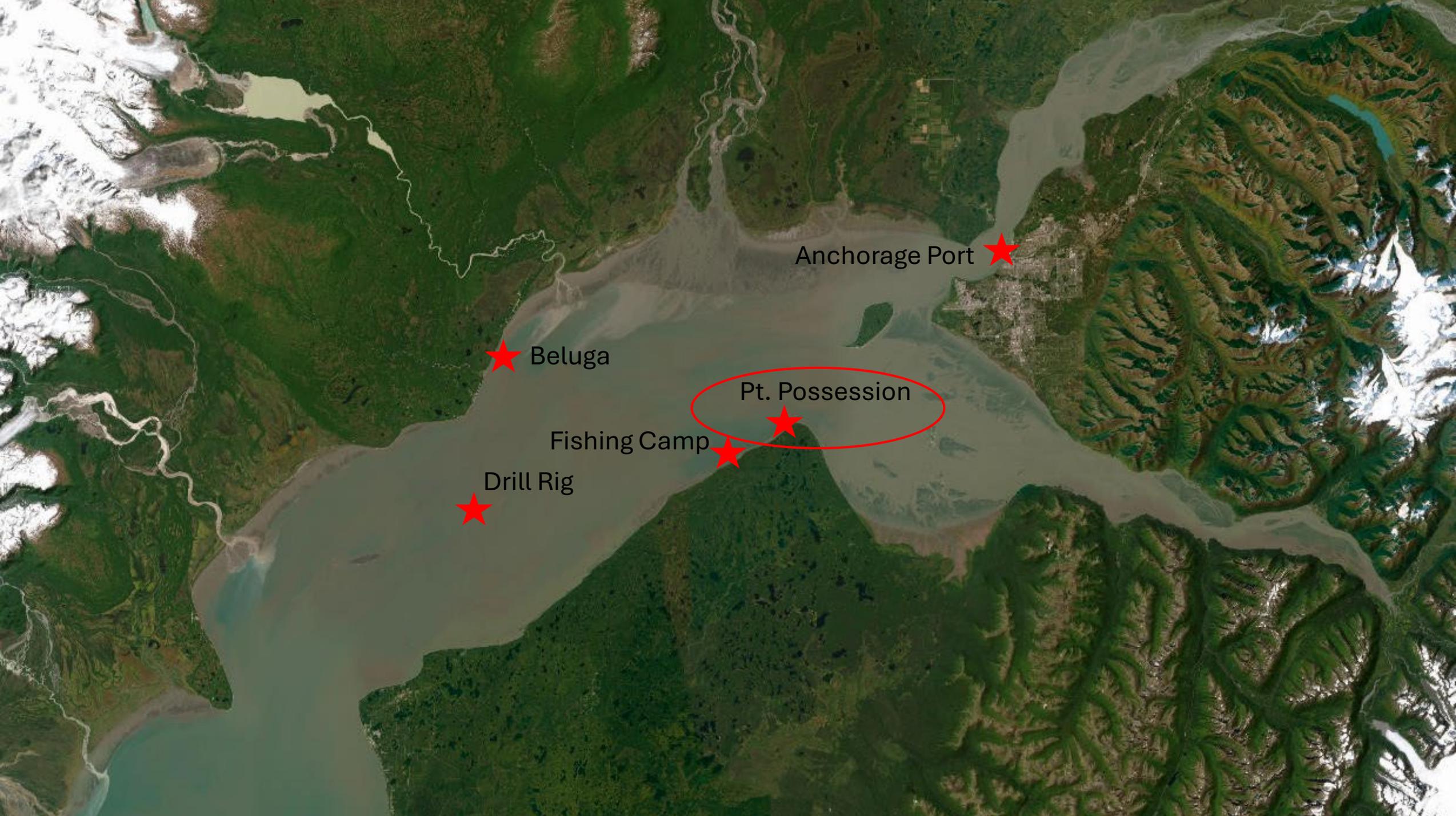


Anchorage Port - Early August



Anchorage Port - Early August





Anchorage Port ★

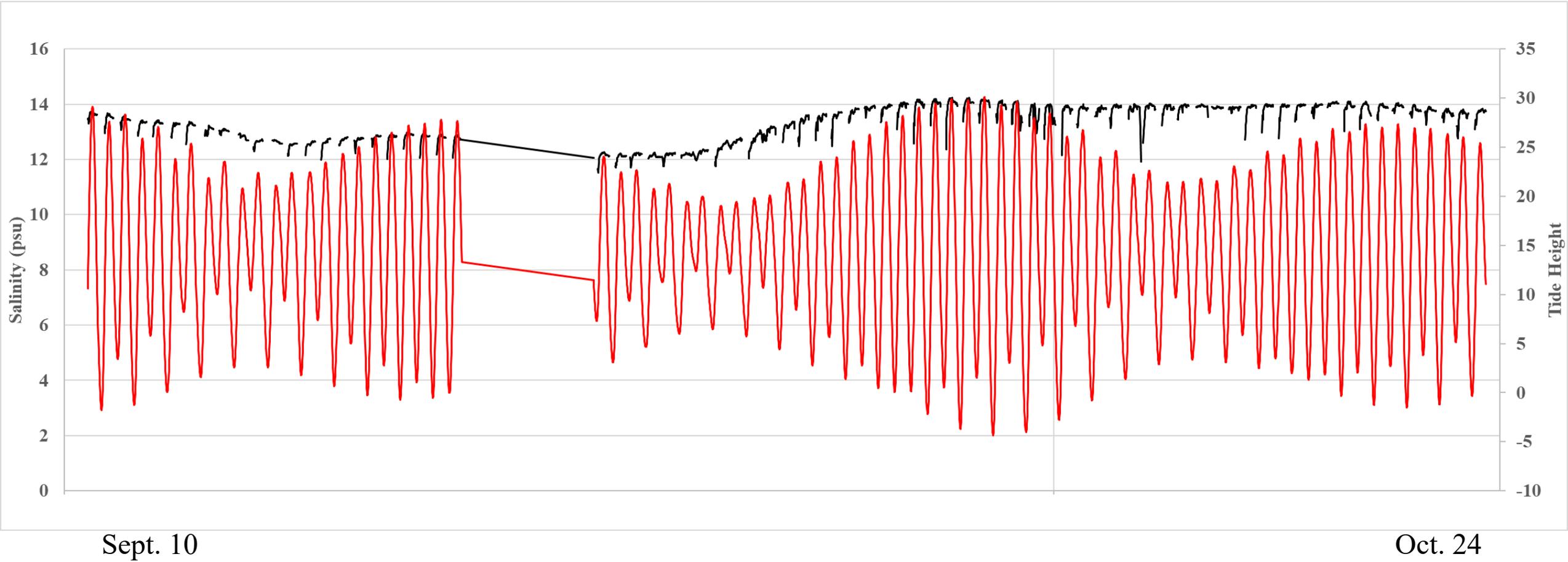
★ Beluga

Pt. Possession

Fishing Camp ★

★ Drill Rig

Pt. Possession Salinity and Tide



2020



Anchorage Port

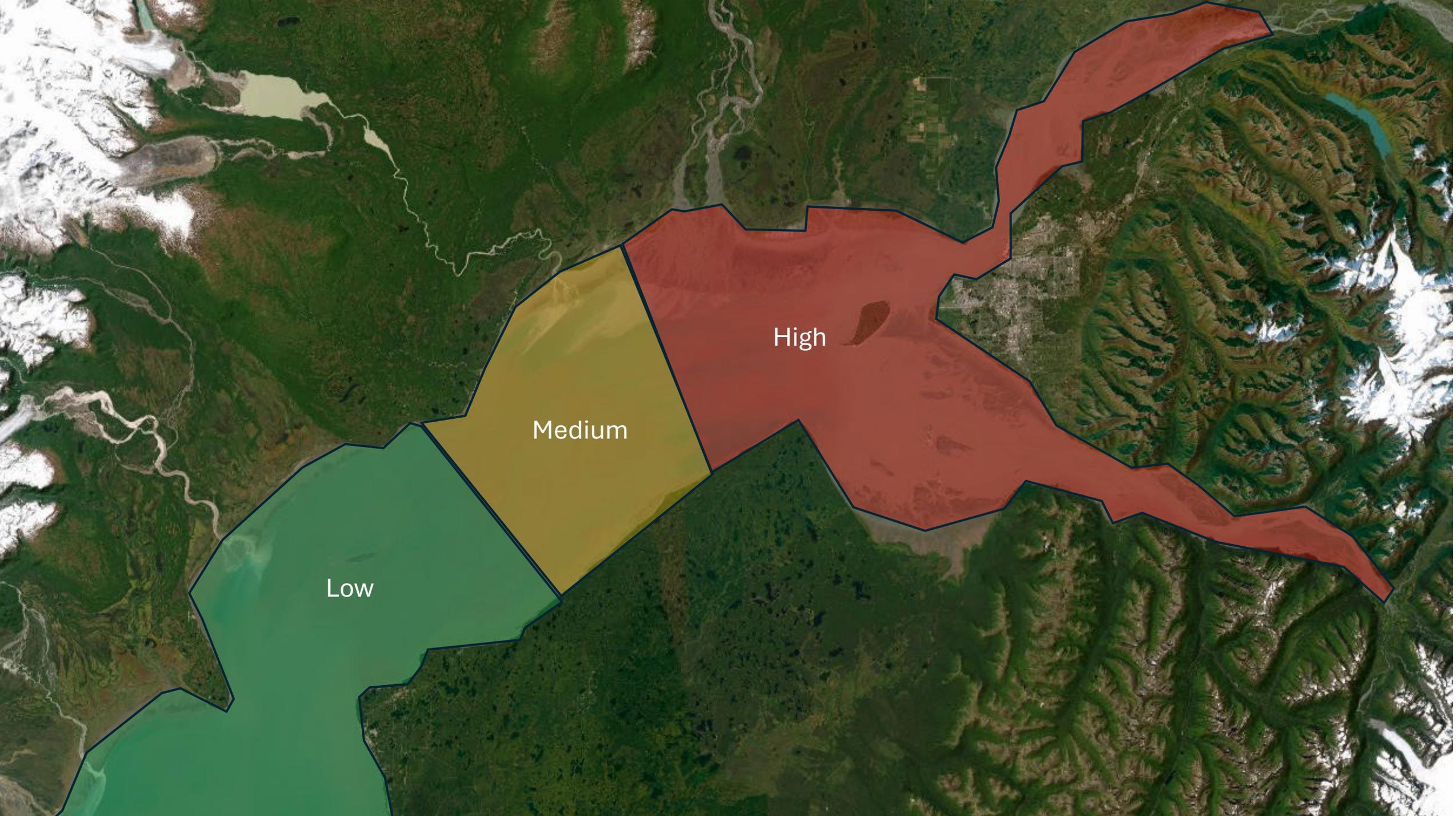
Beluga

Pt. Possession

Fishing Camp

Drill Rig

Swanson R.

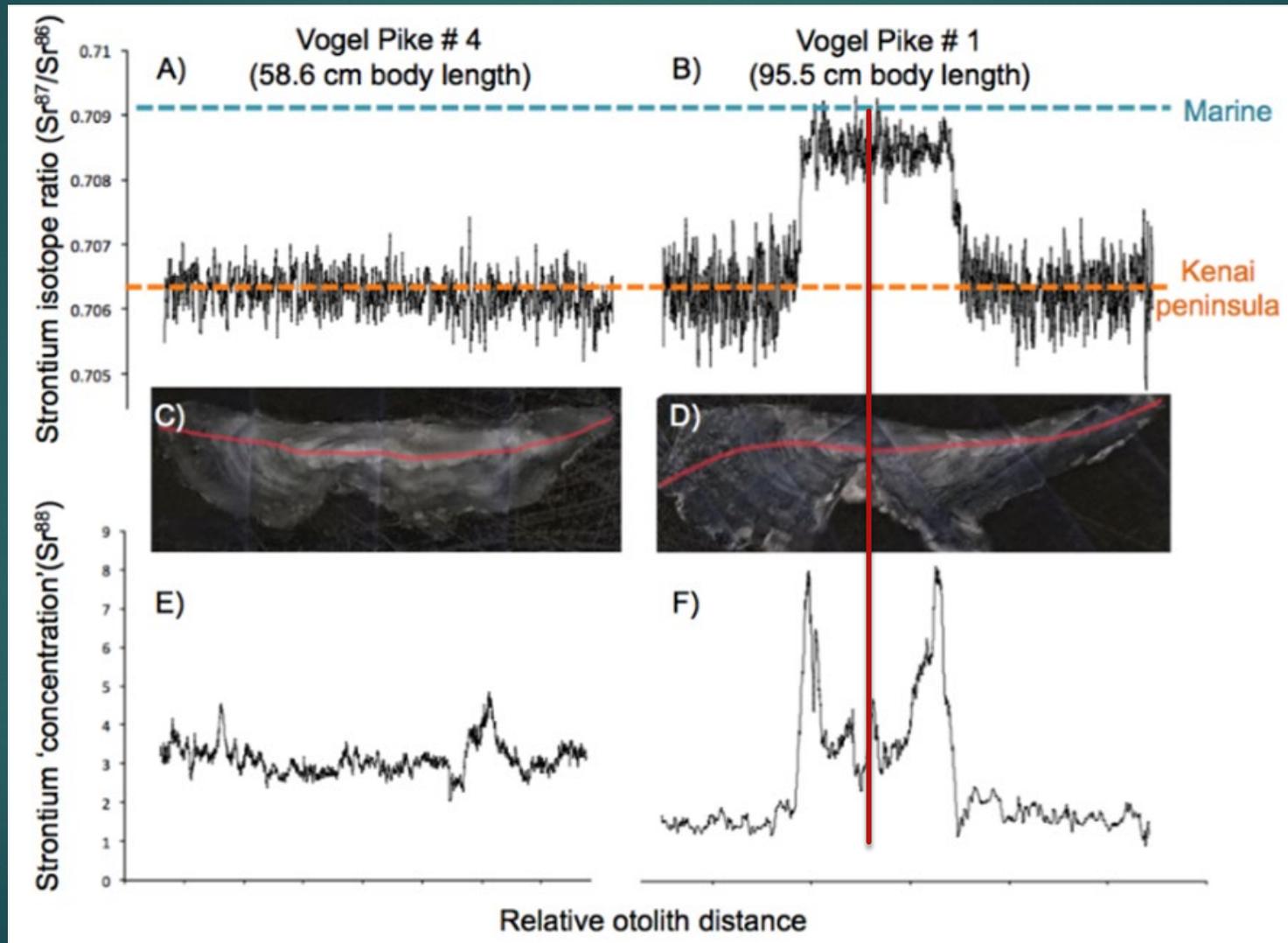


Low

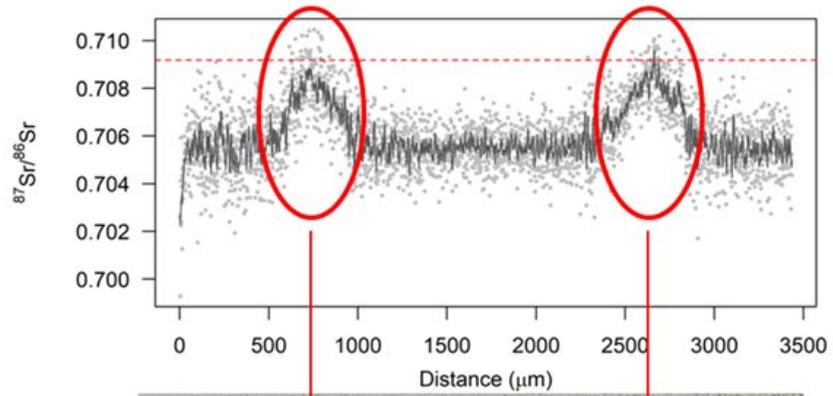
Medium

High

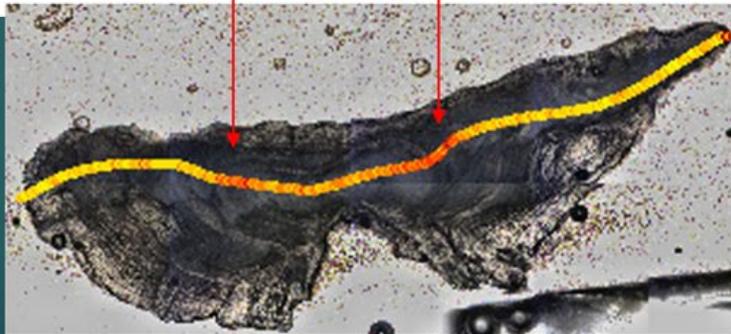
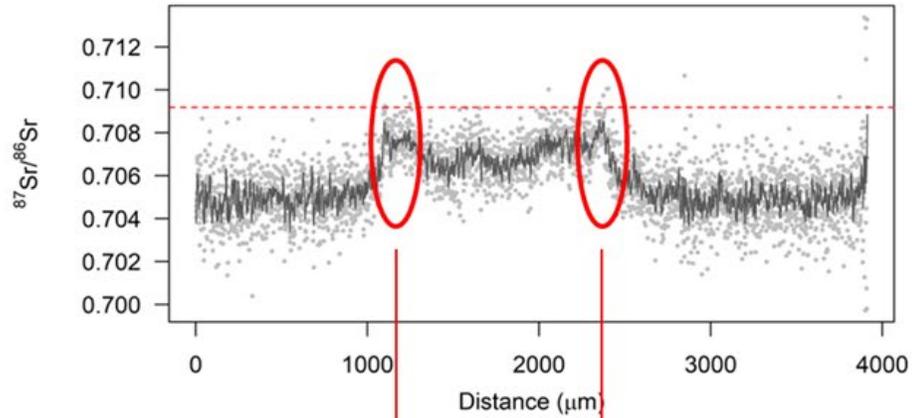
Marine Exposure Creation

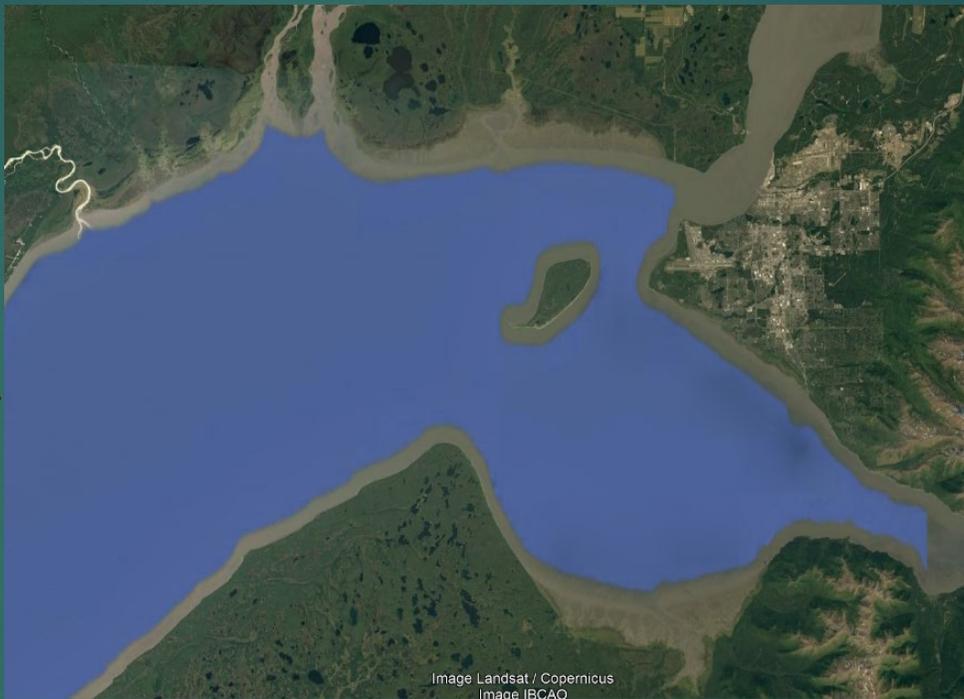
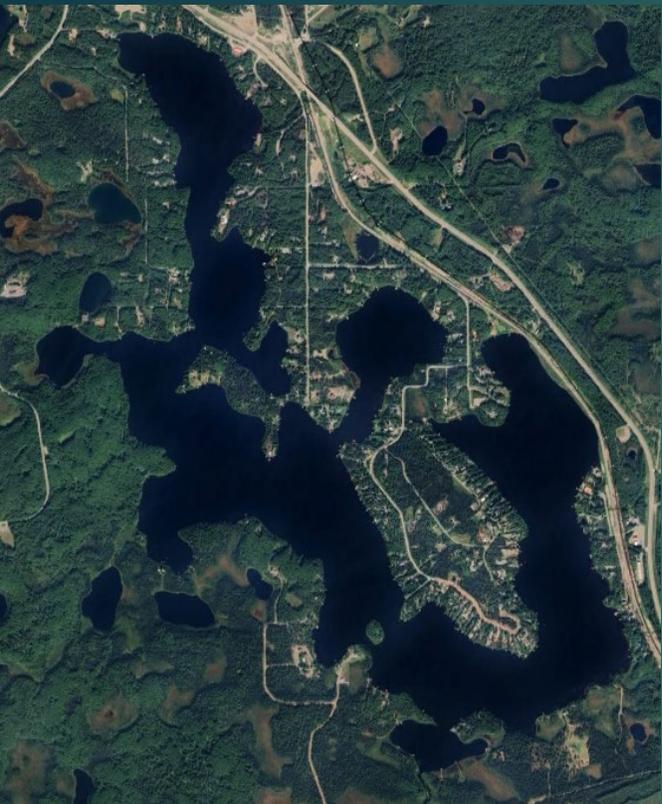


West Chester Lake Pike



Campbell Lake Pike





How to simulate that? Phase 1



Lake Water
8 Pike

5 Day
PS
8

10 Day



5
PS
8

Phase 2: 10 Day Exposure



Low
Salinity

PSU-7
1 Pike

PSU-7
1 Pike

PSU-7
1 Pike

PSU-7
1 Pike

Medium
Salinity



Phase 3: 5 Day Exposure



PSU-8
1 Pike

PSU-8
1 Pike

PSU-8
1 Pike

PSU-5
1 Pike

PSU-5
1 Pike

PSU-5
1 Pike

PSU-5
1 Pike

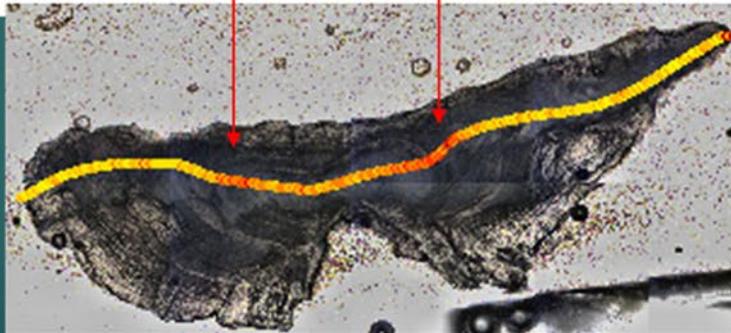
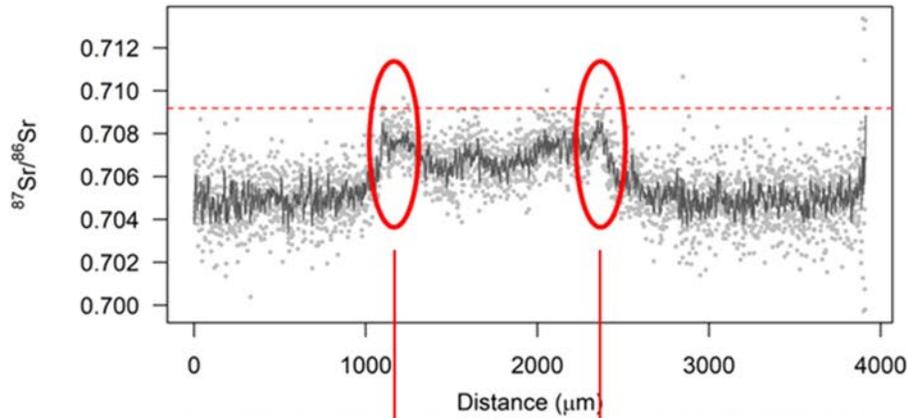
How to simulate that?

- ▶ After the marine exposure surviving pike were returned to Nancy lake.
- ▶ These pike were held for 30 days before removal.

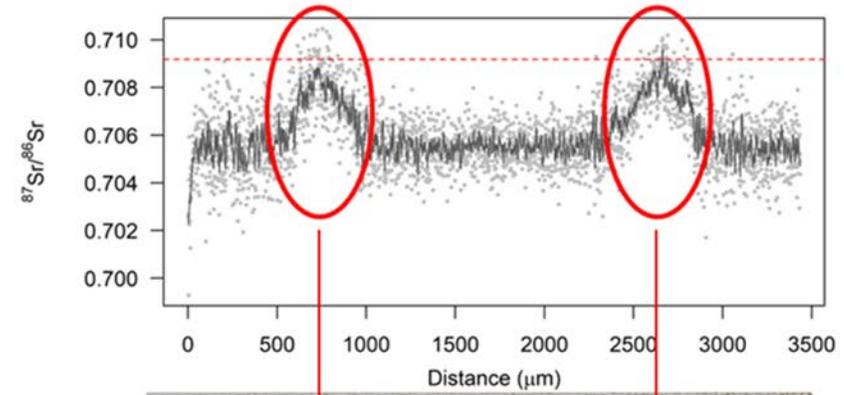


What to do with this?

Campbell Lake Pike



West Chester Lake Pike



Moving Forward

- ▶ Otoliths will be sent for analysis to UC Davis this winter
- ▶ Deploy the new HOBO loggers next season and get more salinity data.
- ▶ Conduct another round of the salinity exposures and gain more otoliths for analyses.

Thank you!

The Beluga and Kenai commercial fisherman that helped us with logger placement.

