



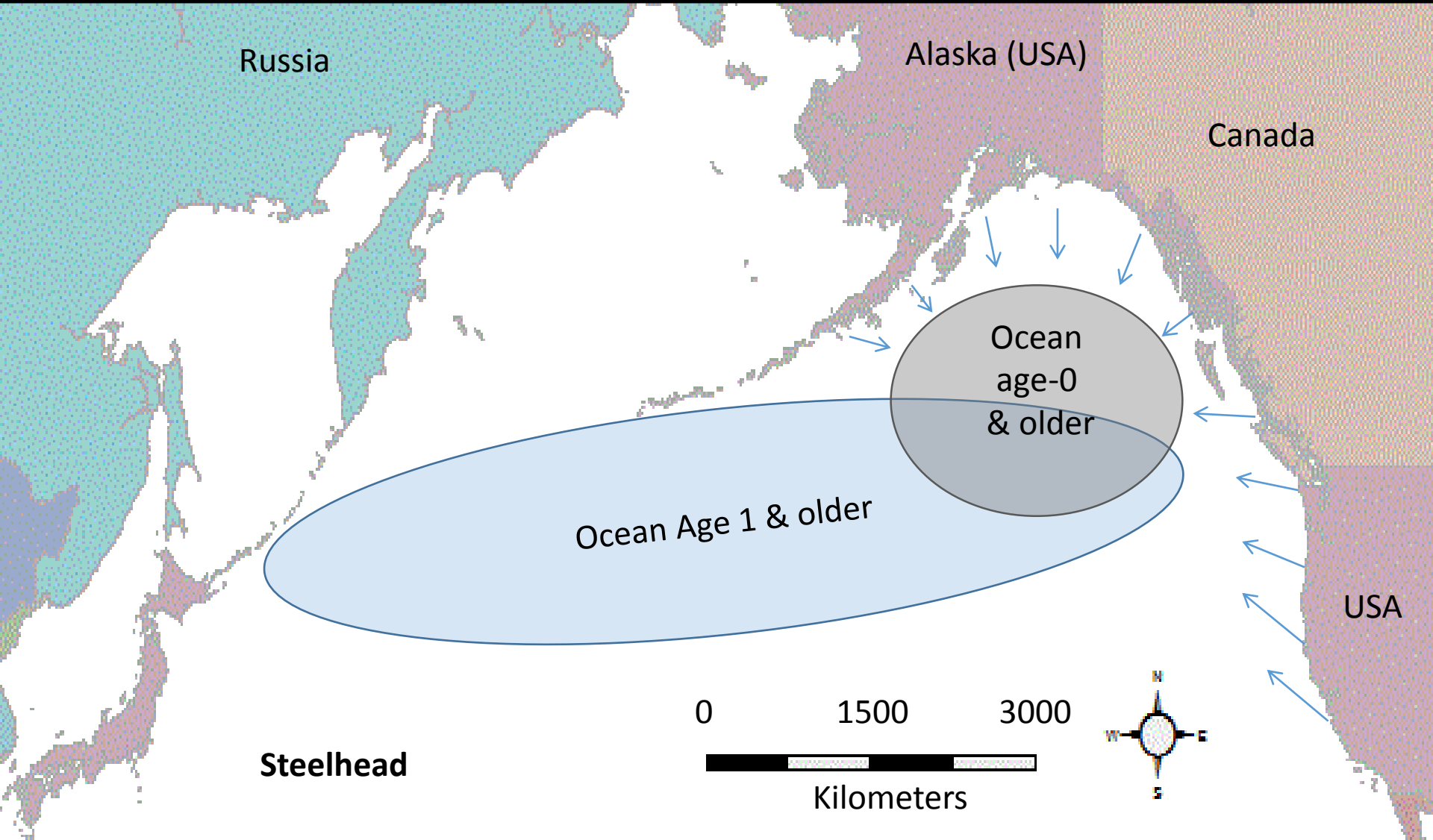
Ocean surveys find Steelhead in the central California current



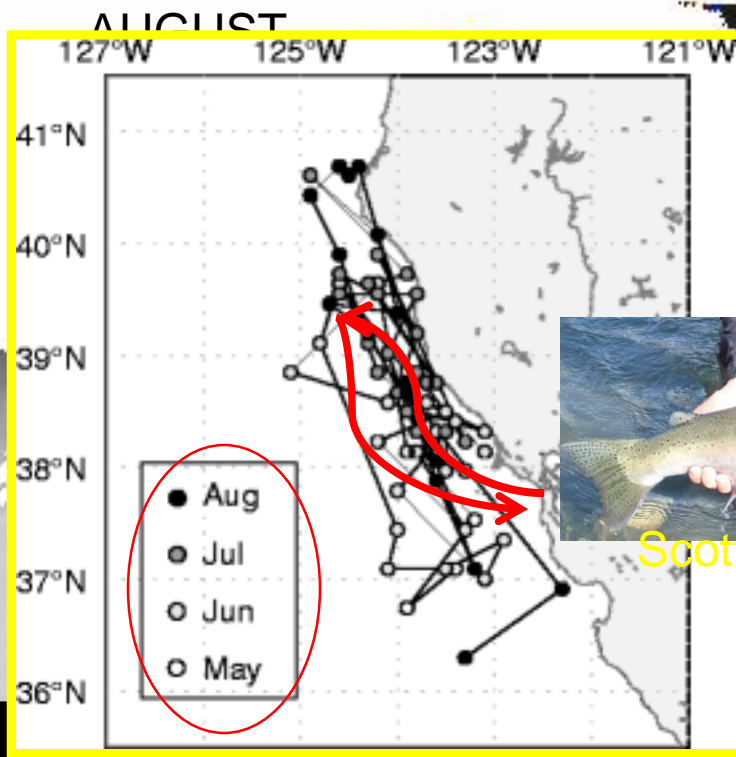
SWFSC Salmon Ocean Ecology Team

General Steelhead Ocean Distribution

(based on several works by Myers, Atcheson, and Burgner)



California Steelhead Marine Habitat Use



Scott Creek migration



Scott Creek/Coastal



Sacramento

Teo, S. L., et al. 2011. Archival and acoustic tags reveal the post-spawning migrations, diving behavior, and thermal habitat of hatchery-raised Sacramento River steelhead kelts (*Oncorhynchus mykiss*). EBF

(go big or go home?)

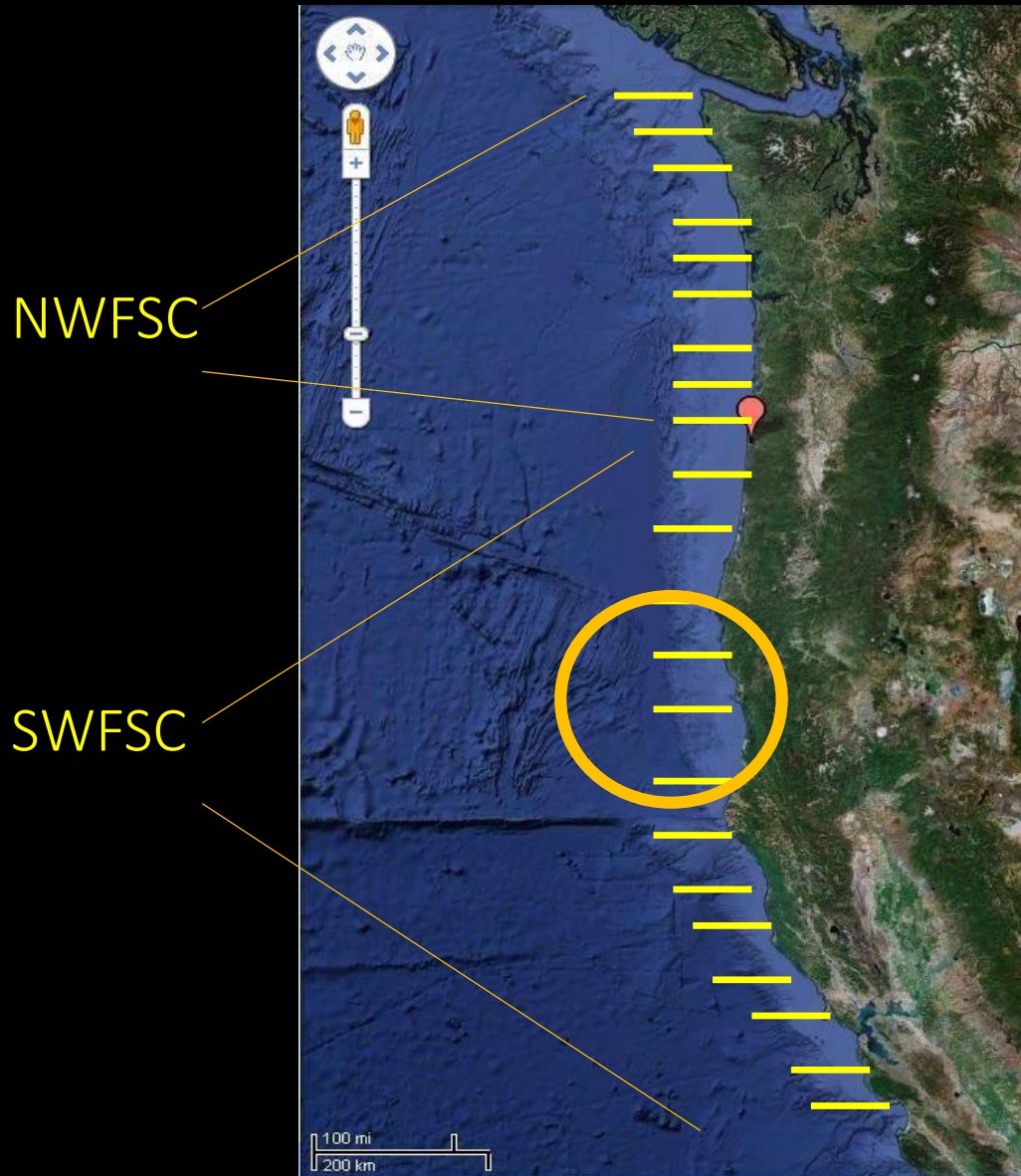
If they go to sea... then what?



Ocean Surveys



Ocean Surveys



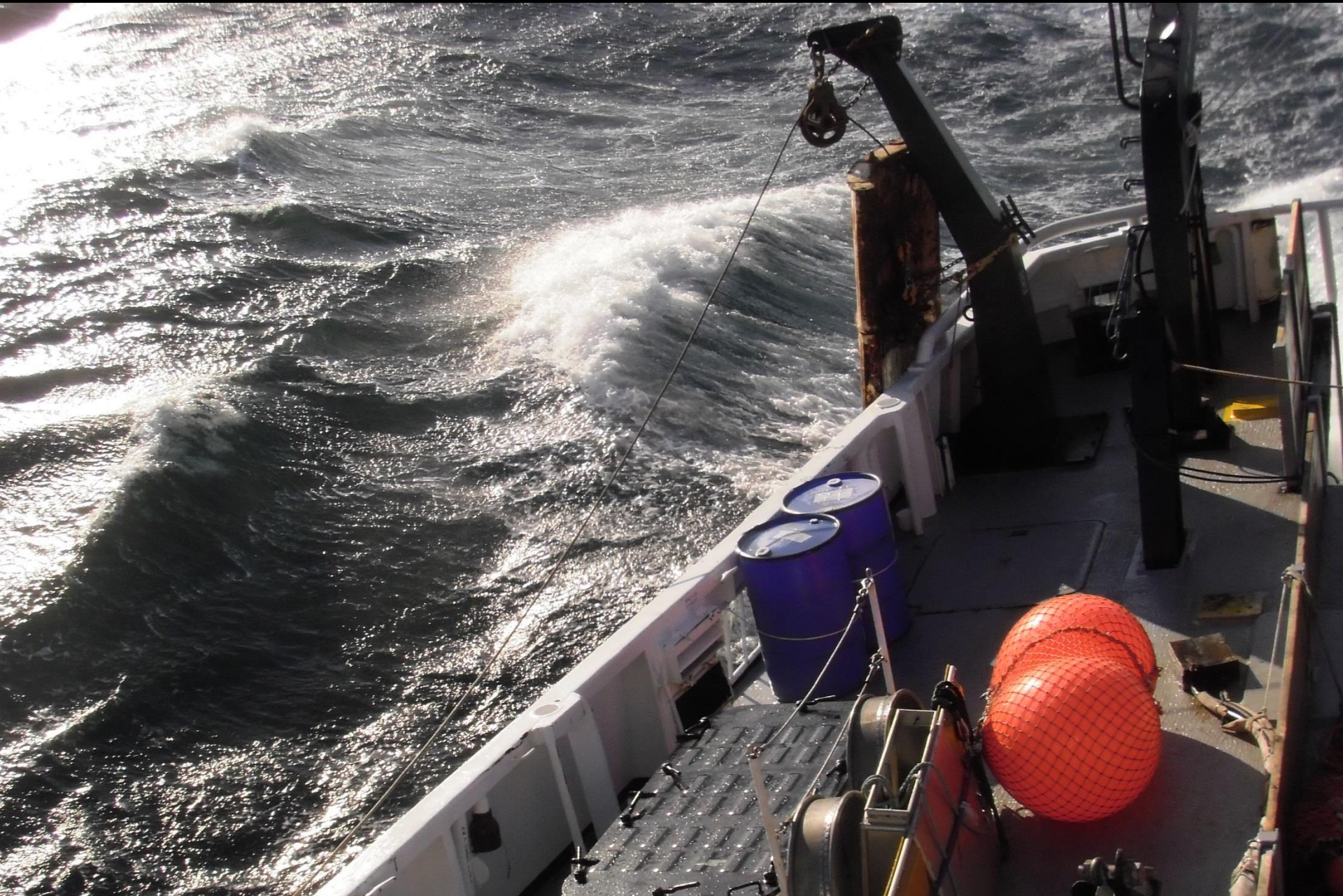


DEQ

Half pounder?

	Total caught (n)	Mean Fork Length (cm)	SD	% ad clipped	Date
2007	21	27.6	1.3	14%	August
2010	1	30.8		100%	June/July
2011	66	27.1	6.3	21%	June/July
2012	37	23.5	3.5	14%	June/July
2013	56	30.2	4.8	39%	July

Increased catch in 2011?



Diet difference between coastal and pelagic stocks?

Gulf of Alaska and Central Northern Pacific
(Atcheson et al 2012 Fish Oceanography)

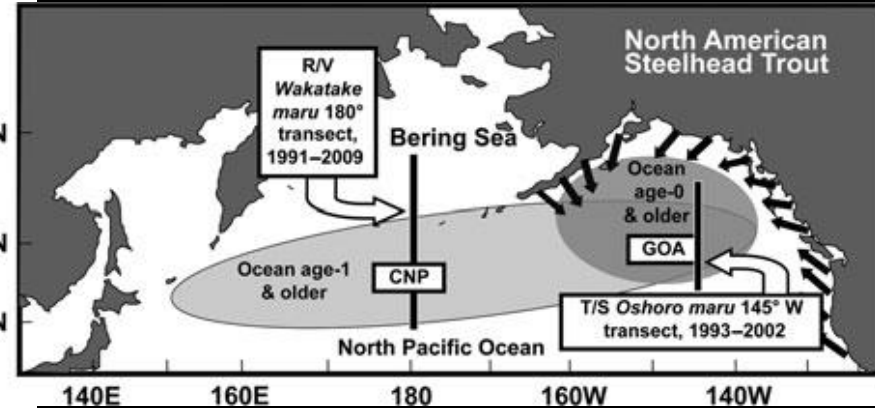
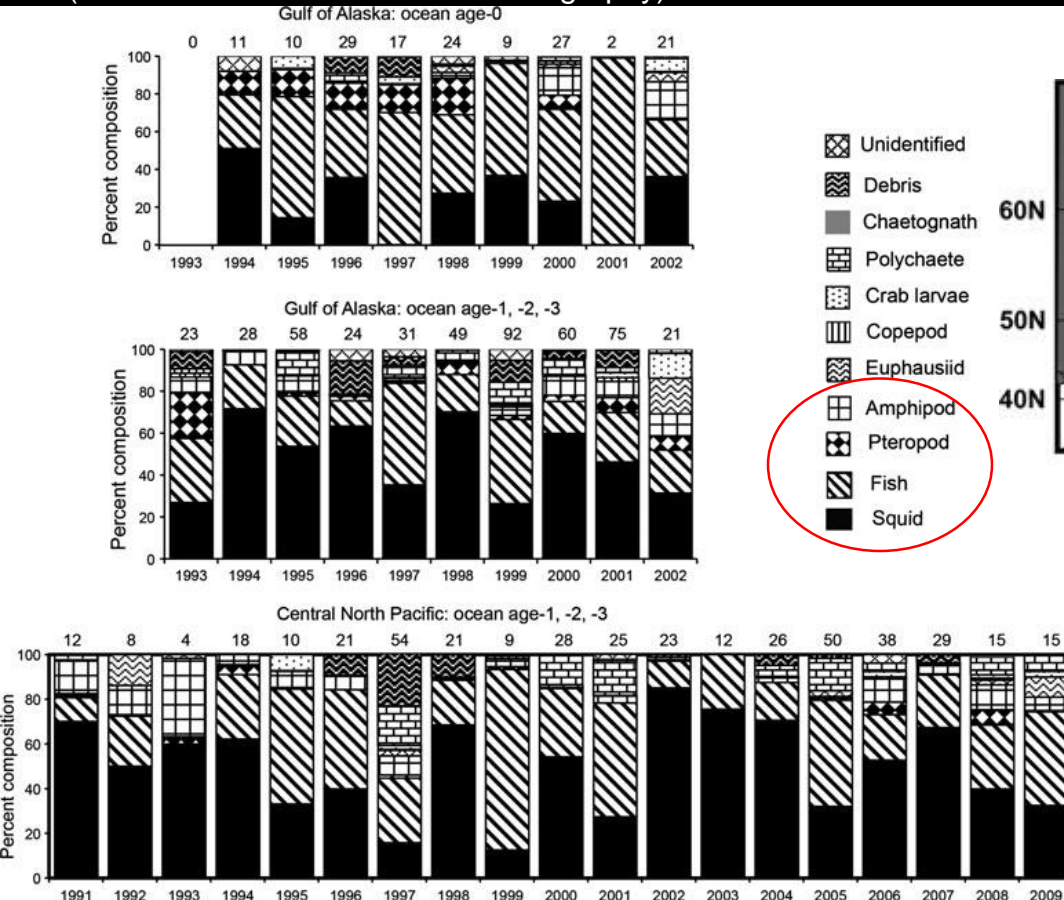


Fig 1 & 2 from Atcheson et al 2012

NWFSC OR/WA Coast (Daly et al 2014)

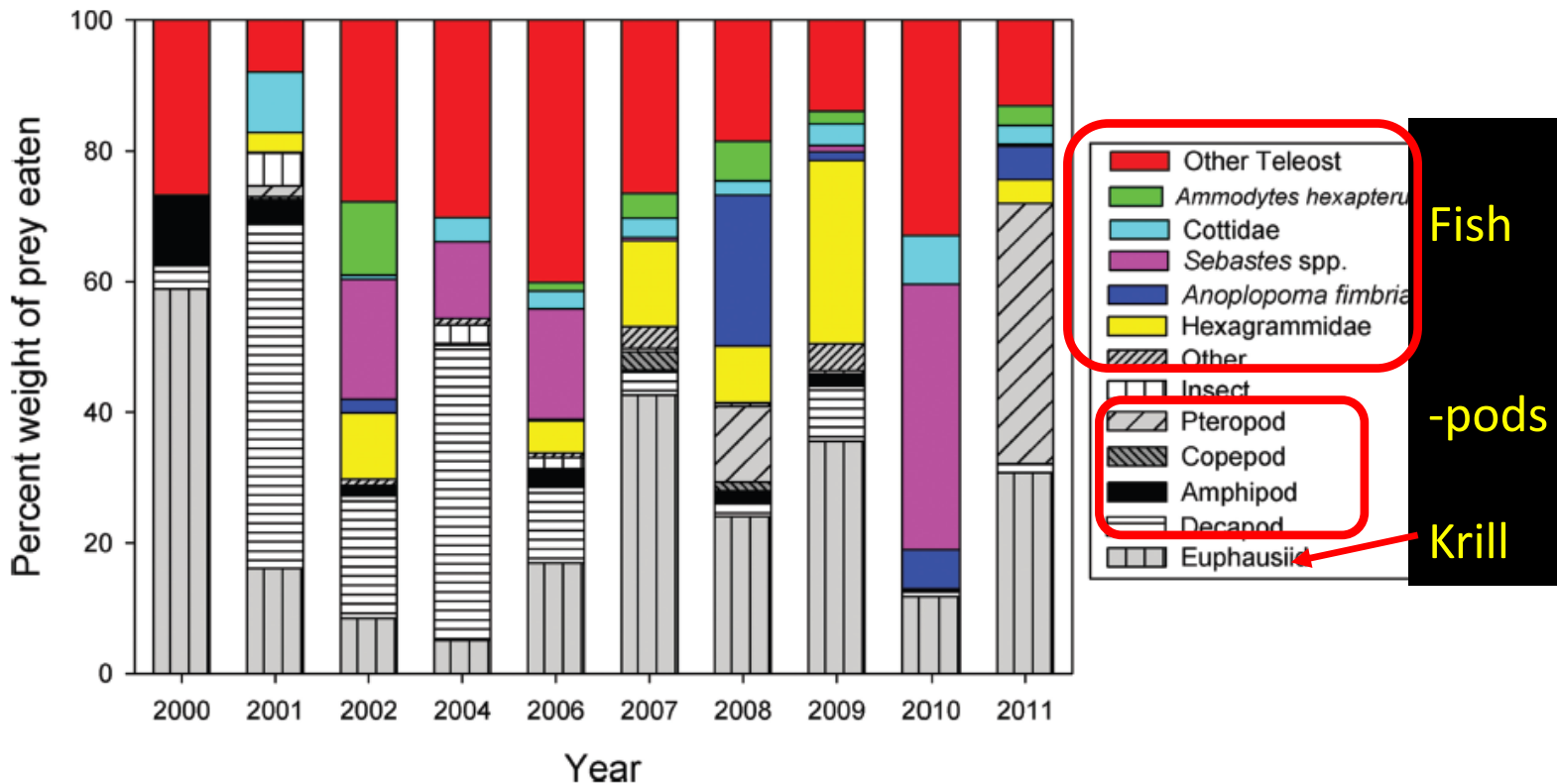
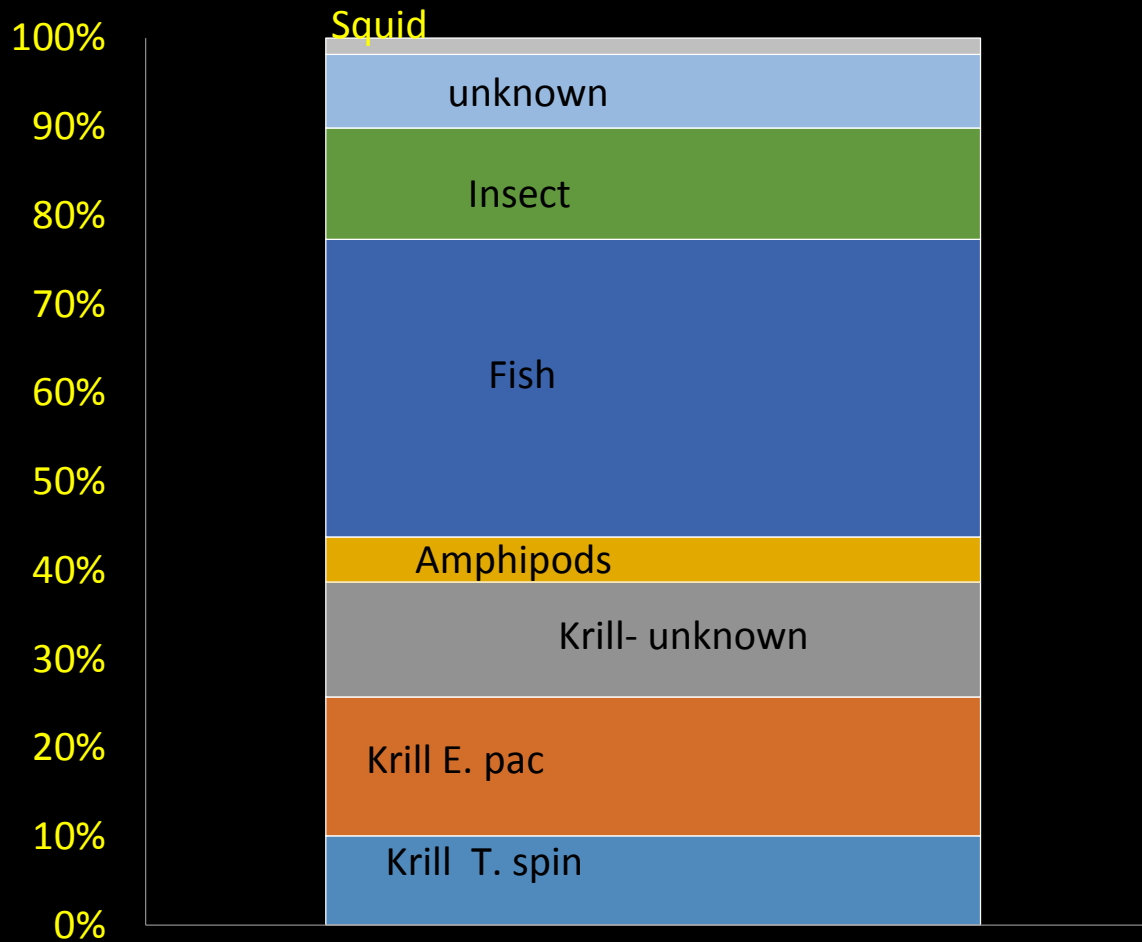


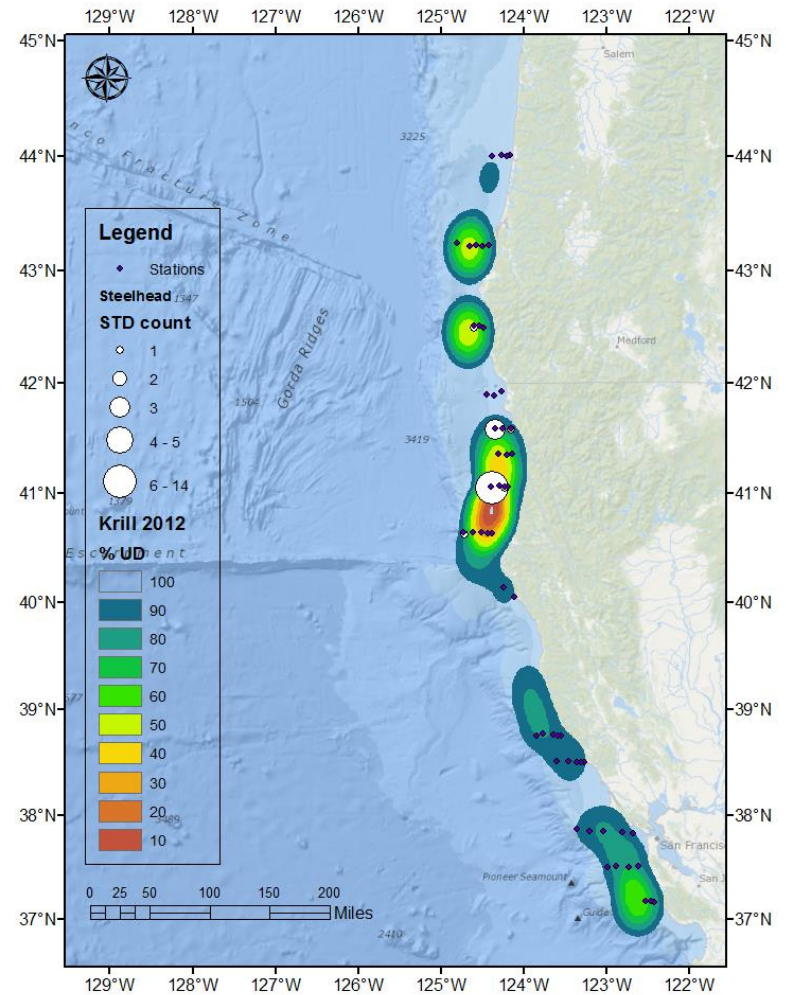
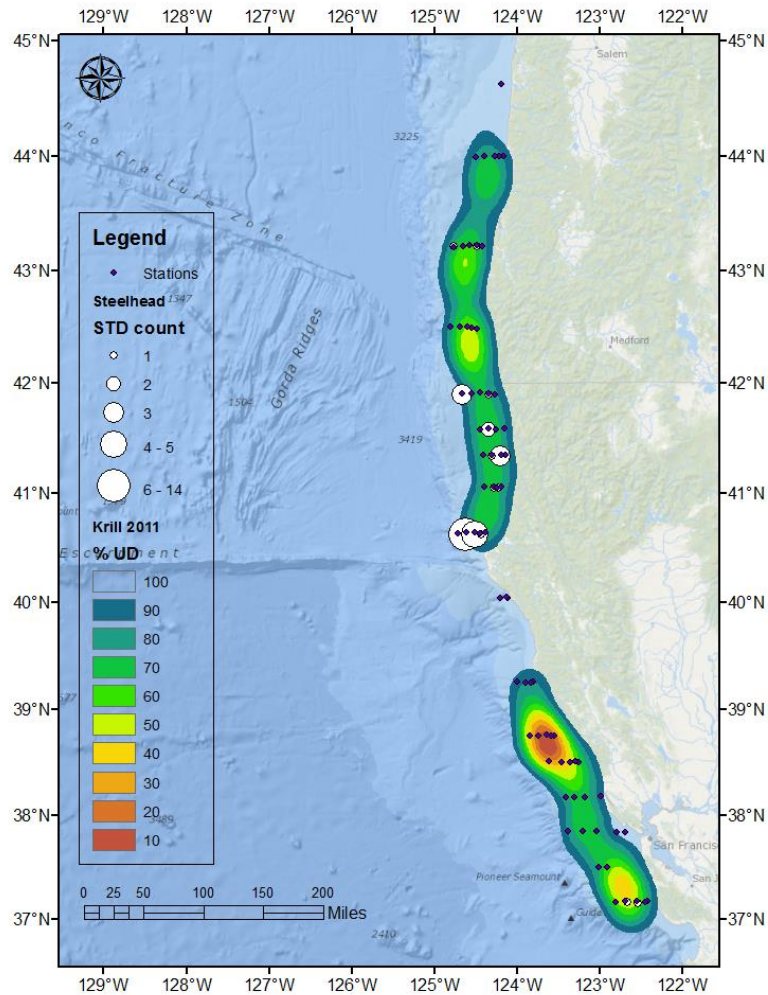
FIGURE 4. Composition of the diet consumed by juvenile steelhead off the coasts of Oregon and Washington, 2000–2011. Fish prey taxa are shown in color, whereas other taxa are shown in grayscale. The “other” category includes arachnids, cirripedes (barnacle larvae), mysids, polychaetes, isopods, and gelatinous material. The “other teleosts” category includes clupeids, gadids, salmonids, osmerids, and other unidentified fish (including fish tissue and parts). Unidentified crustacean parts and material, fish scales, unidentified material, plant material, and plastic were excluded from the analysis. See Appendix Table A.1 for common names of taxa.

SWFSC Northern CA Fish

**Steelhead Diet Composition
by mass (g)
n=52**

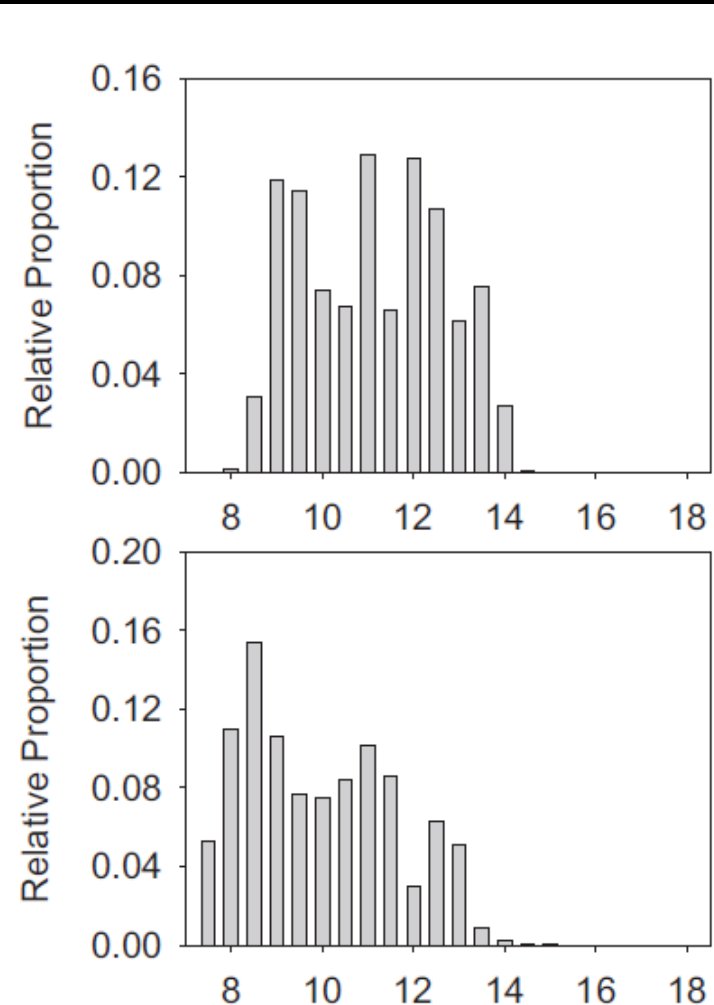
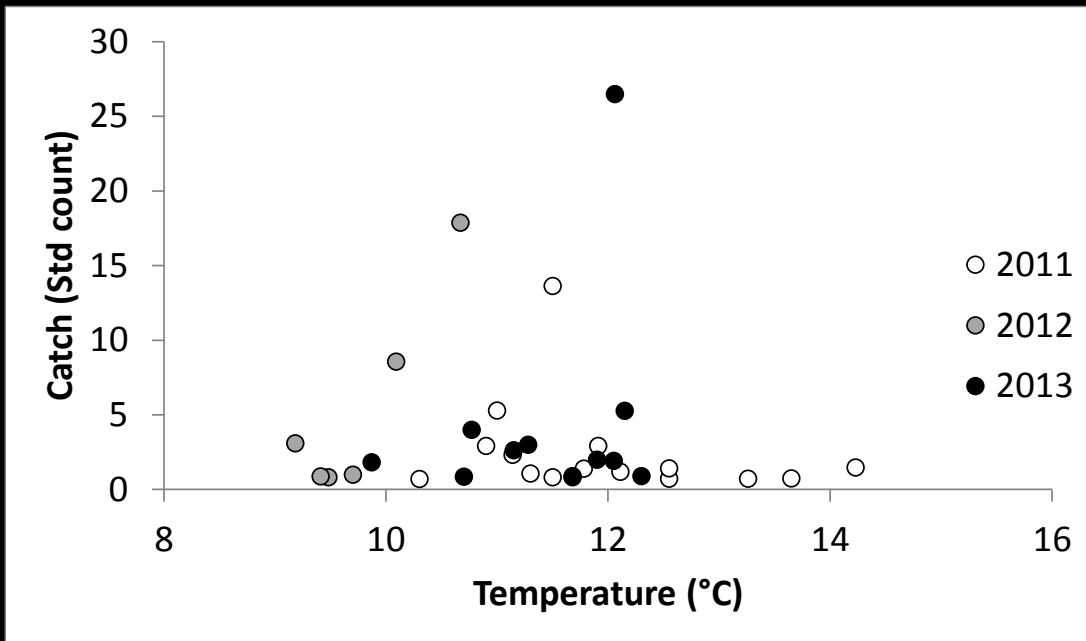


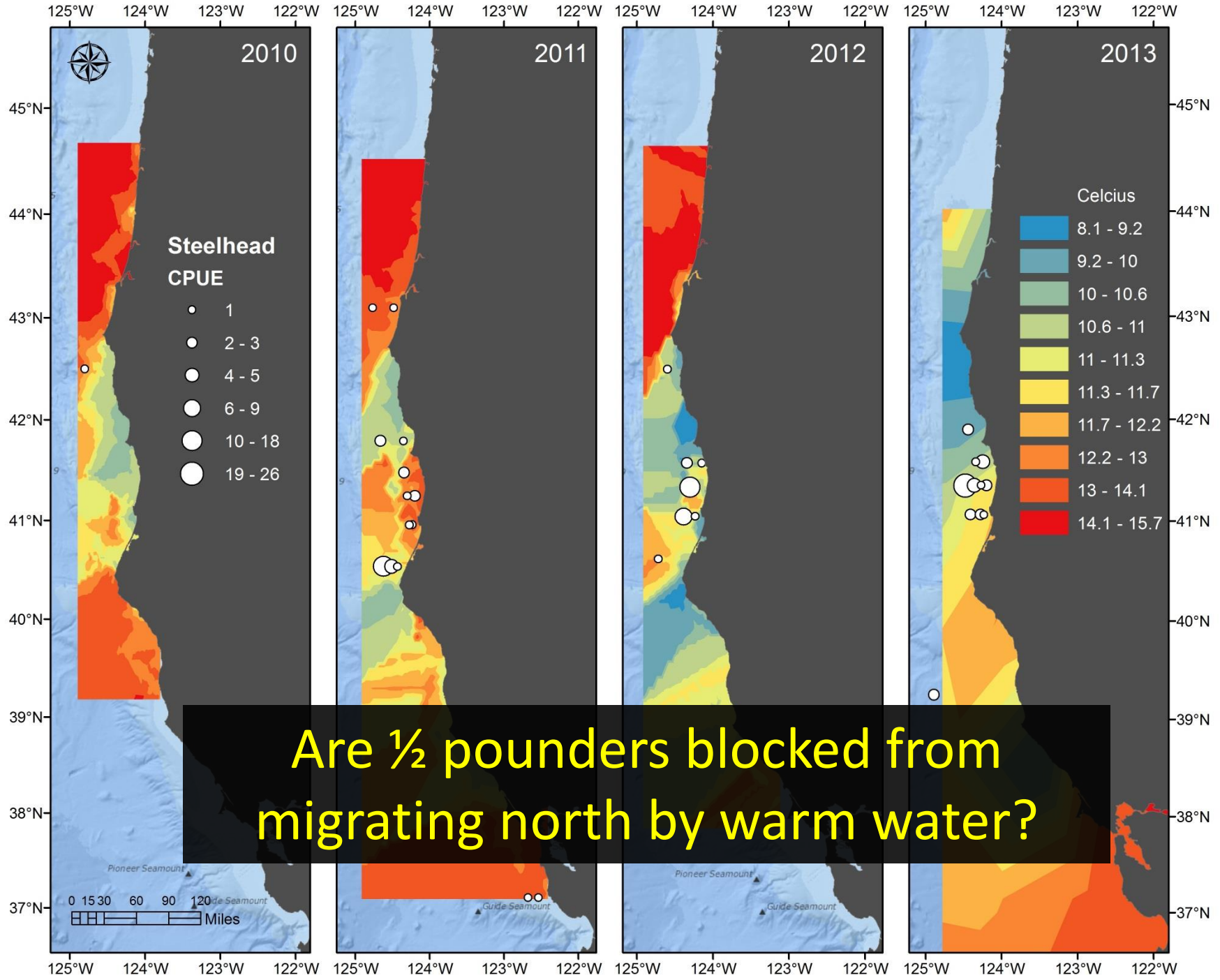
Steelhead vs 'Krill' distribution



Scott Creek Archival tag records

SST for California ocean caught fish





A person wearing an orange jacket and brown gloves is holding a large, silvery fish, likely a salmon, horizontally. The fish has a dark dorsal fin and a lighter belly. The person's jacket has a circular logo on the chest that reads "NMF'S MUSTANG SURVIVAL SALMON". The background is dark and appears to be the interior of a boat or a processing facility.

But what is this?

Ultimately, need genetic stock ID.....

Where do they go in September?

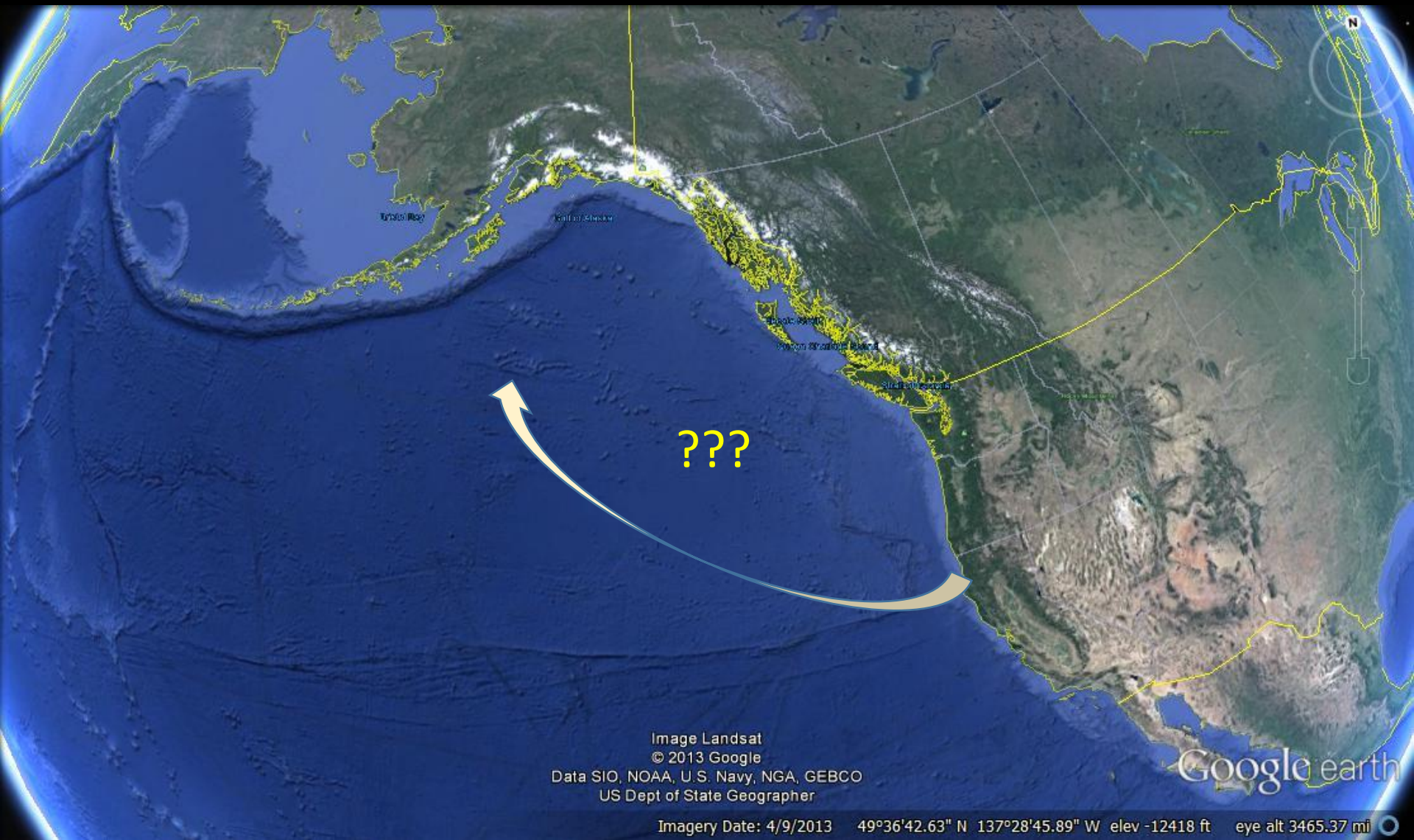


Image Landsat
© 2013 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
US Dept of State Geographer

Imagery Date: 4/9/2013 49°36'42.63" N 137°28'45.89" W elev -12418 ft eye alt 3465.37 mi

Image Landsat
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Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google earth



Acknowledgements:

Crews of the Ocean Starr and Frosti

NOAA SWFSC for shiptime

NOAA NWFSC FE Division for technical advice (and moral support)



