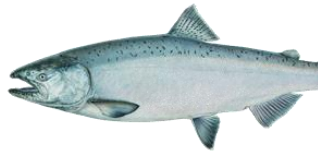
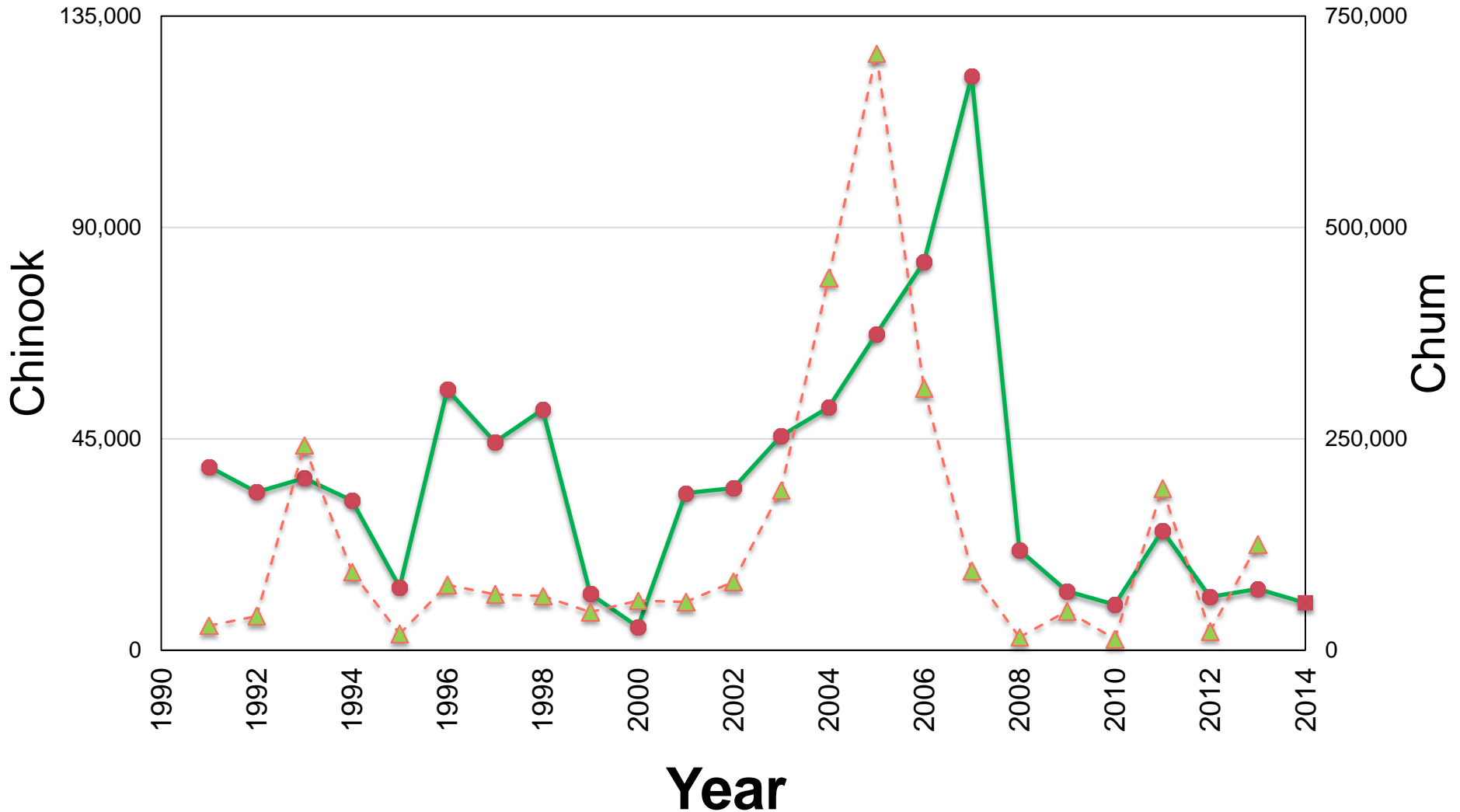


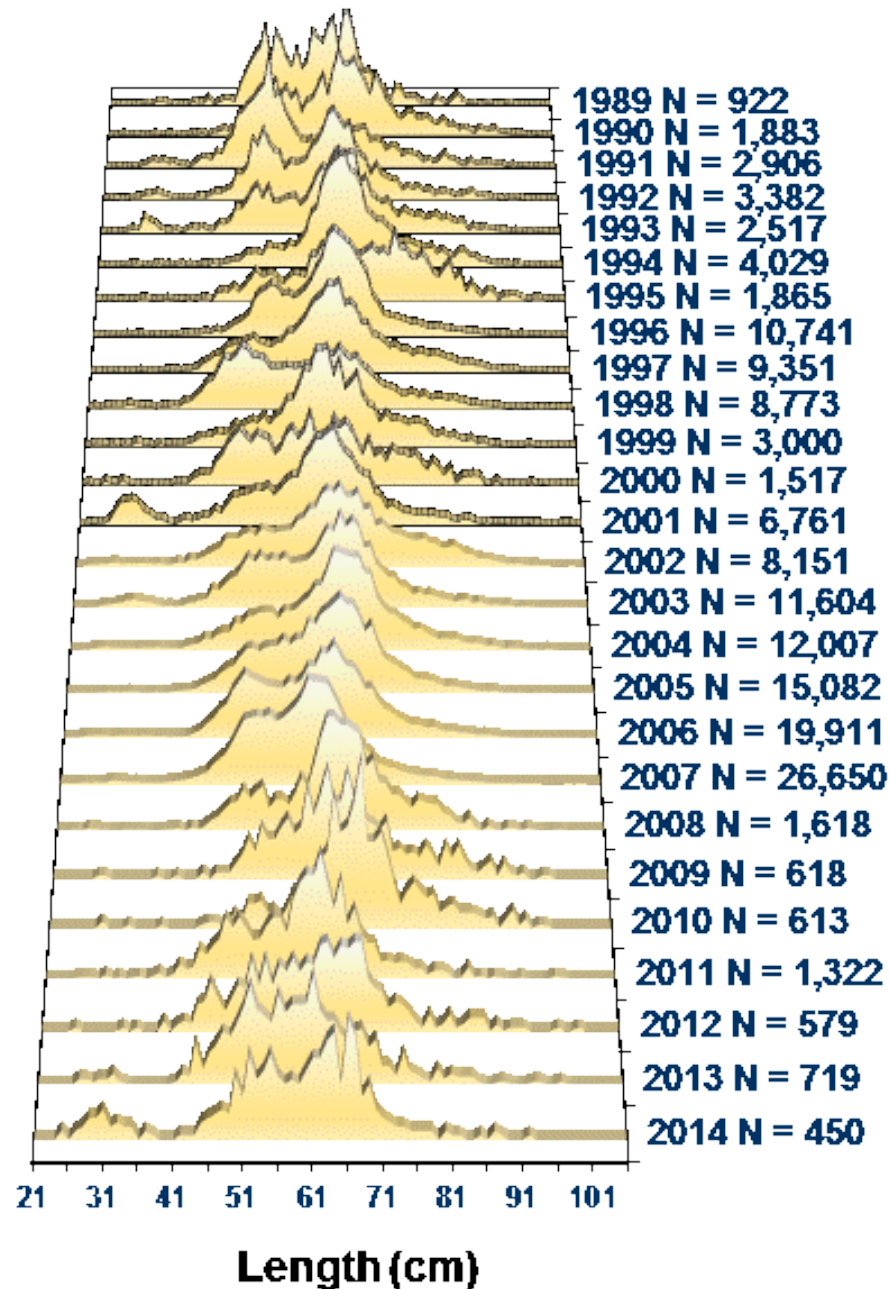
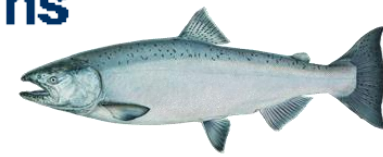
Chinook PSC in EBS pollock fishery



● Chinook bycatch (numbers) ▲ Chum

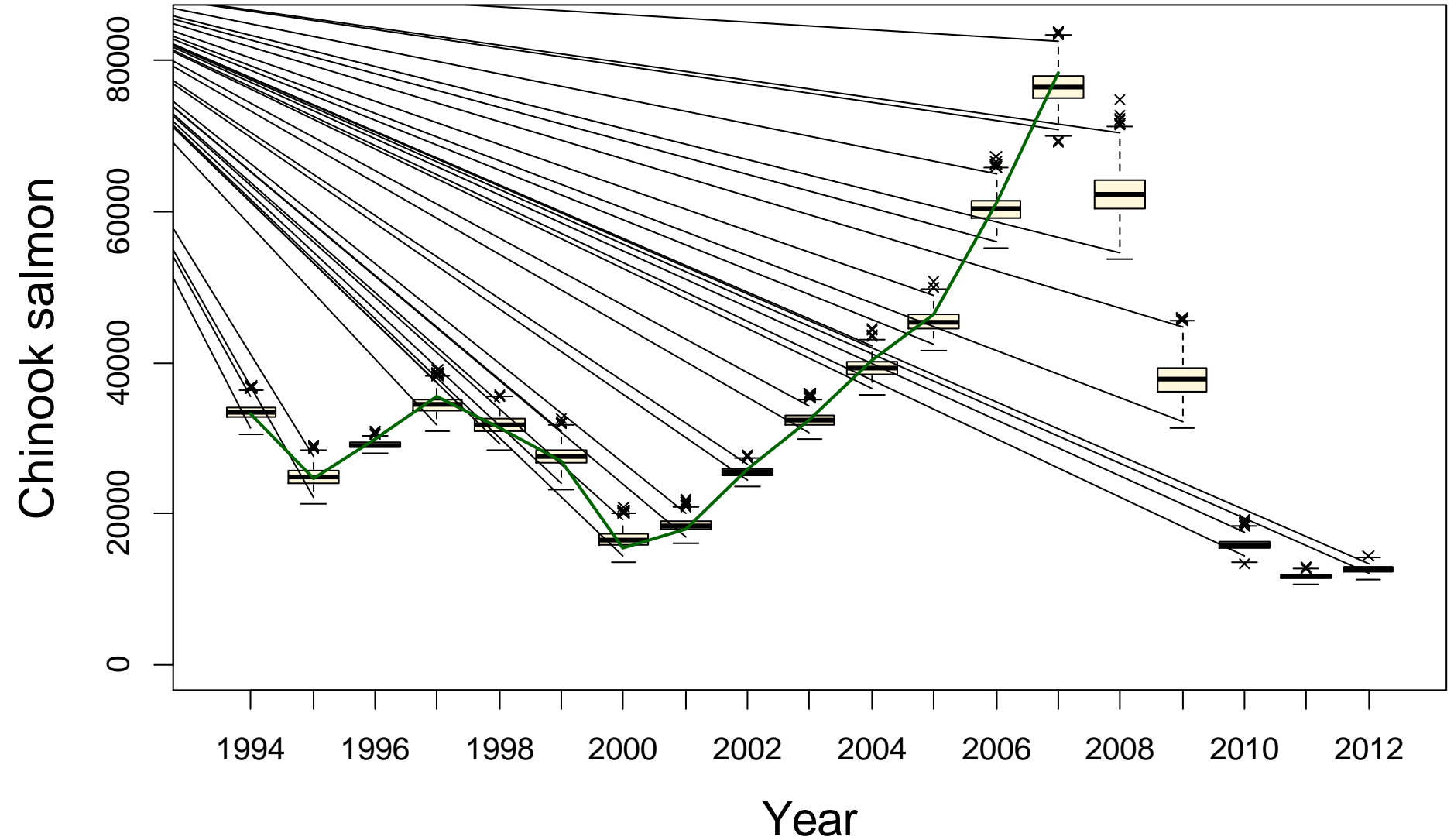
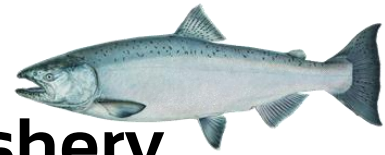


Chinook salmon length frequency proportions

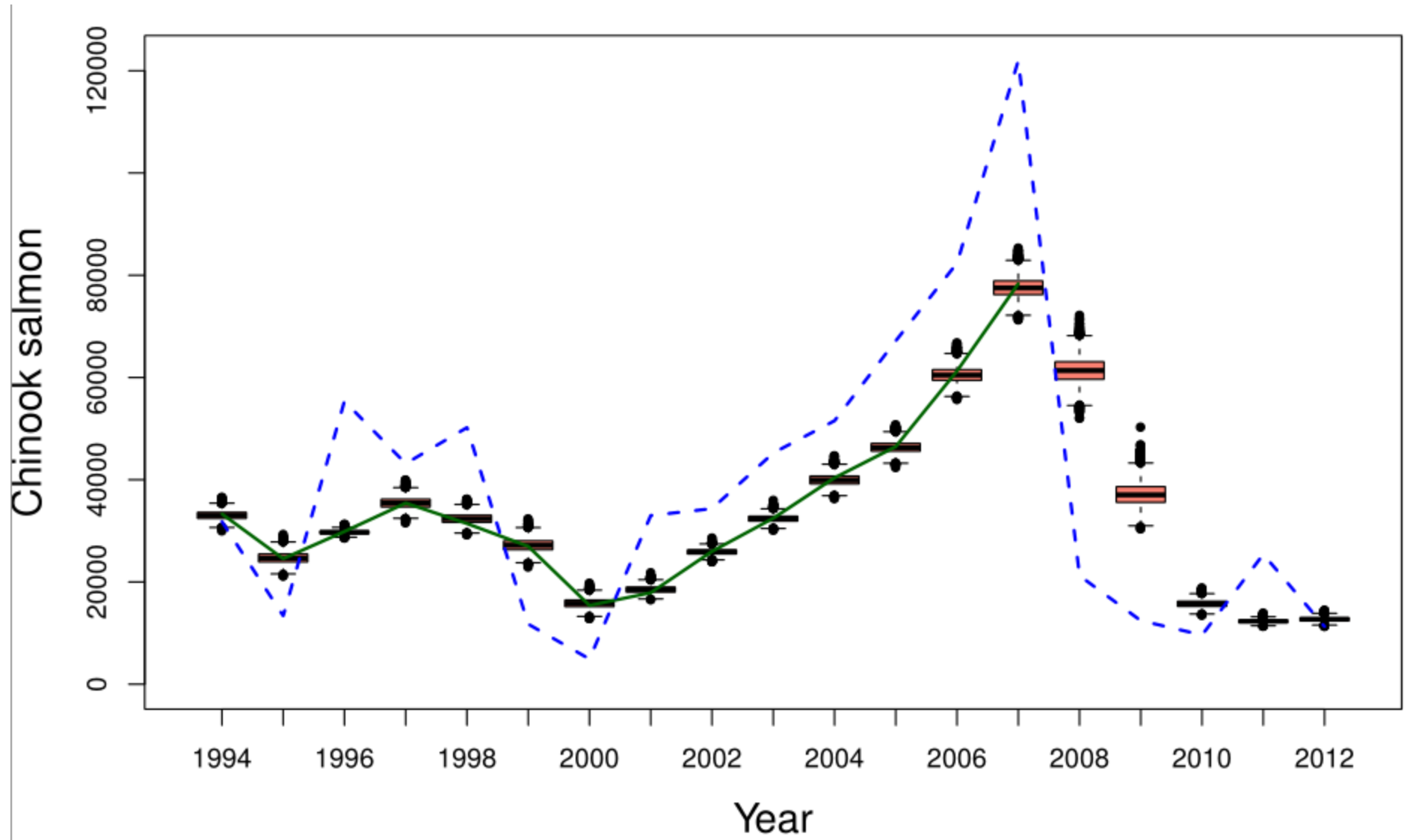
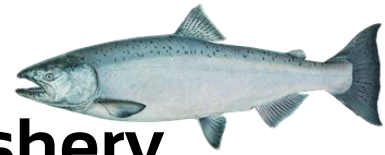


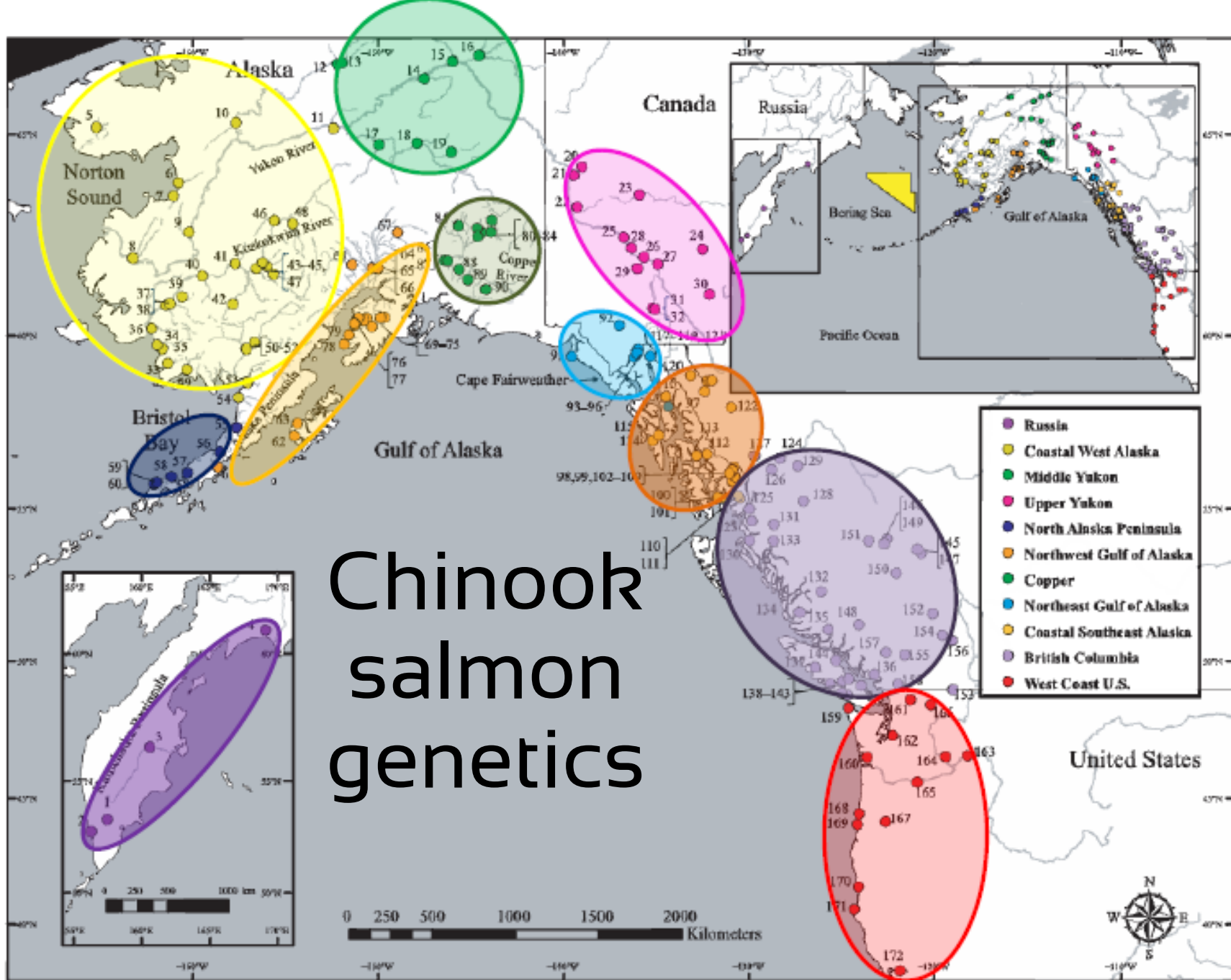
**NMFS
Observer
data**

Total Chinook salmon loss due to pollock fishery



Total Chinook salmon loss due to pollock fishery



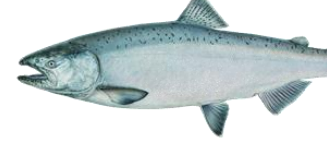


AEQ bycatch mortality (subset)

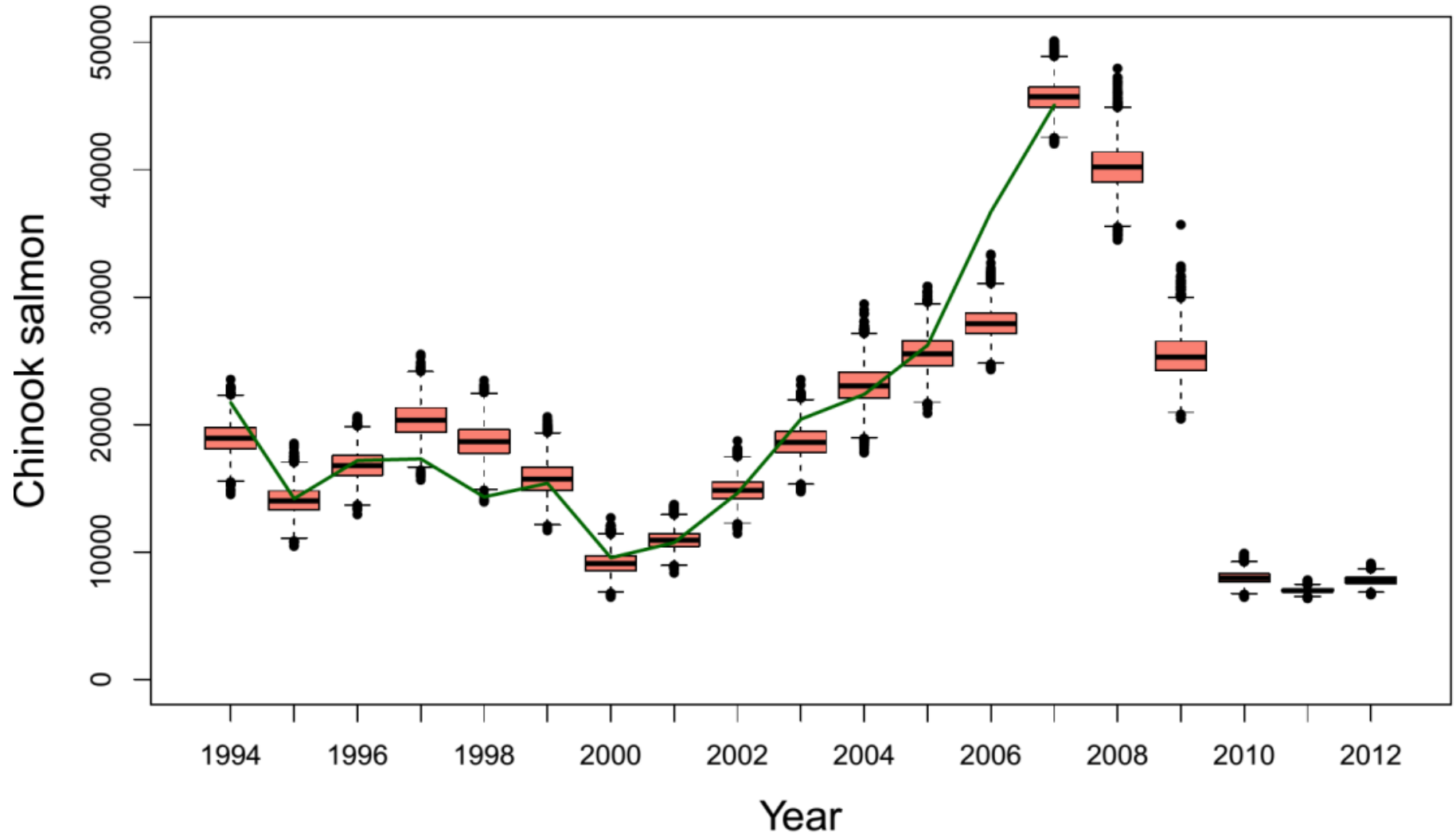
	Coast W AK	Middle Yukon	Upper Yukon	Total
2006	27,928	1,258	2,629	60,346
2007	43,227	1,740	3,373	76,430
2008	39,373	1,541	2,974	62,323
2009	25,427	1,123	2,281	37,857
2010	8,283	751	1,916	15,893
2011	6,555	417	1,026	11,635
2012	7,773	279	648	12,699

Estimated, shown in entirety in Table 3, page 15

Western Alaska



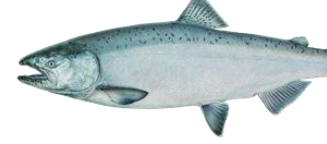
Chinook salmon loss due to bycatch



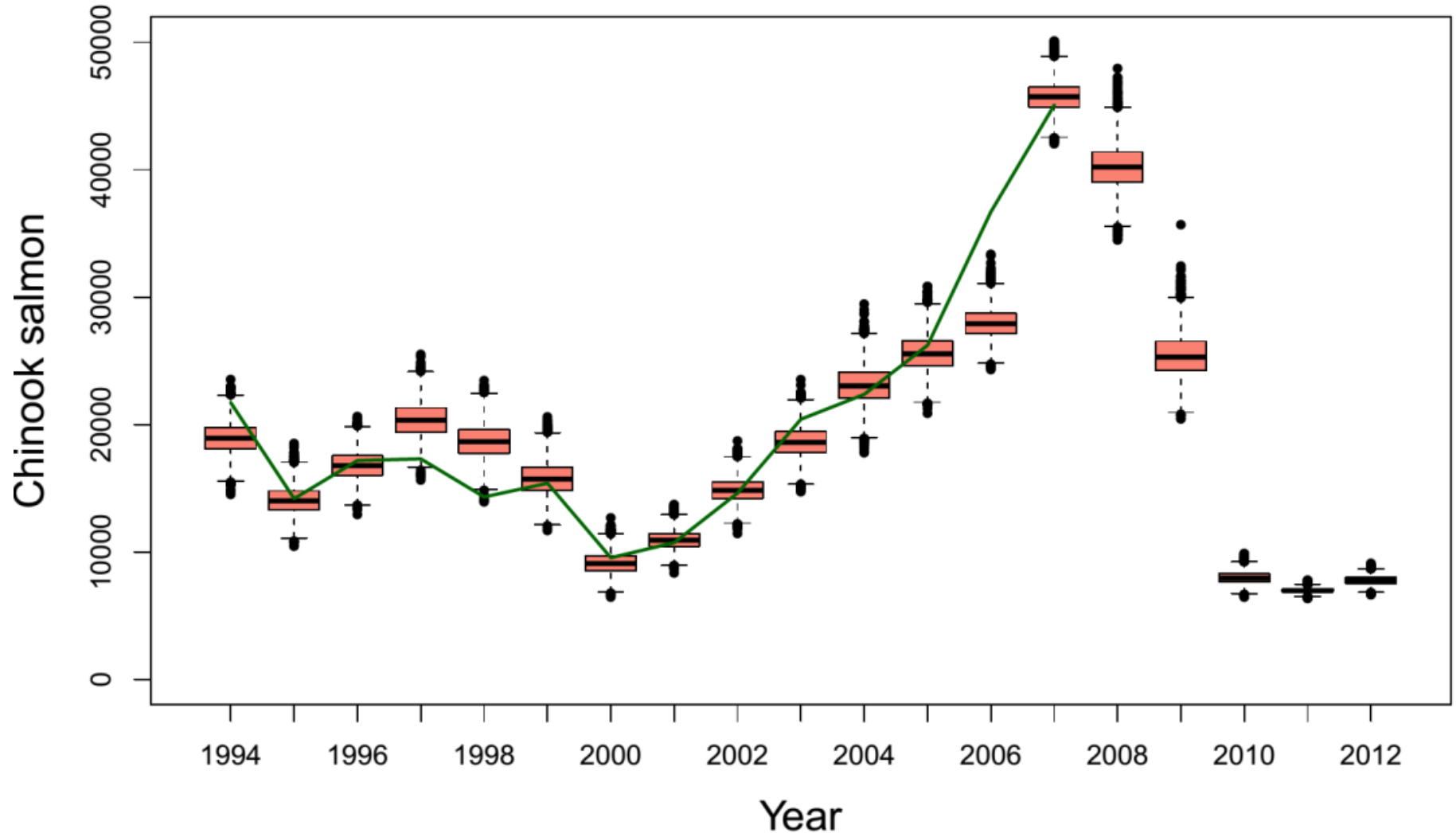
What about relative impact?

- Need in-river run size estimates

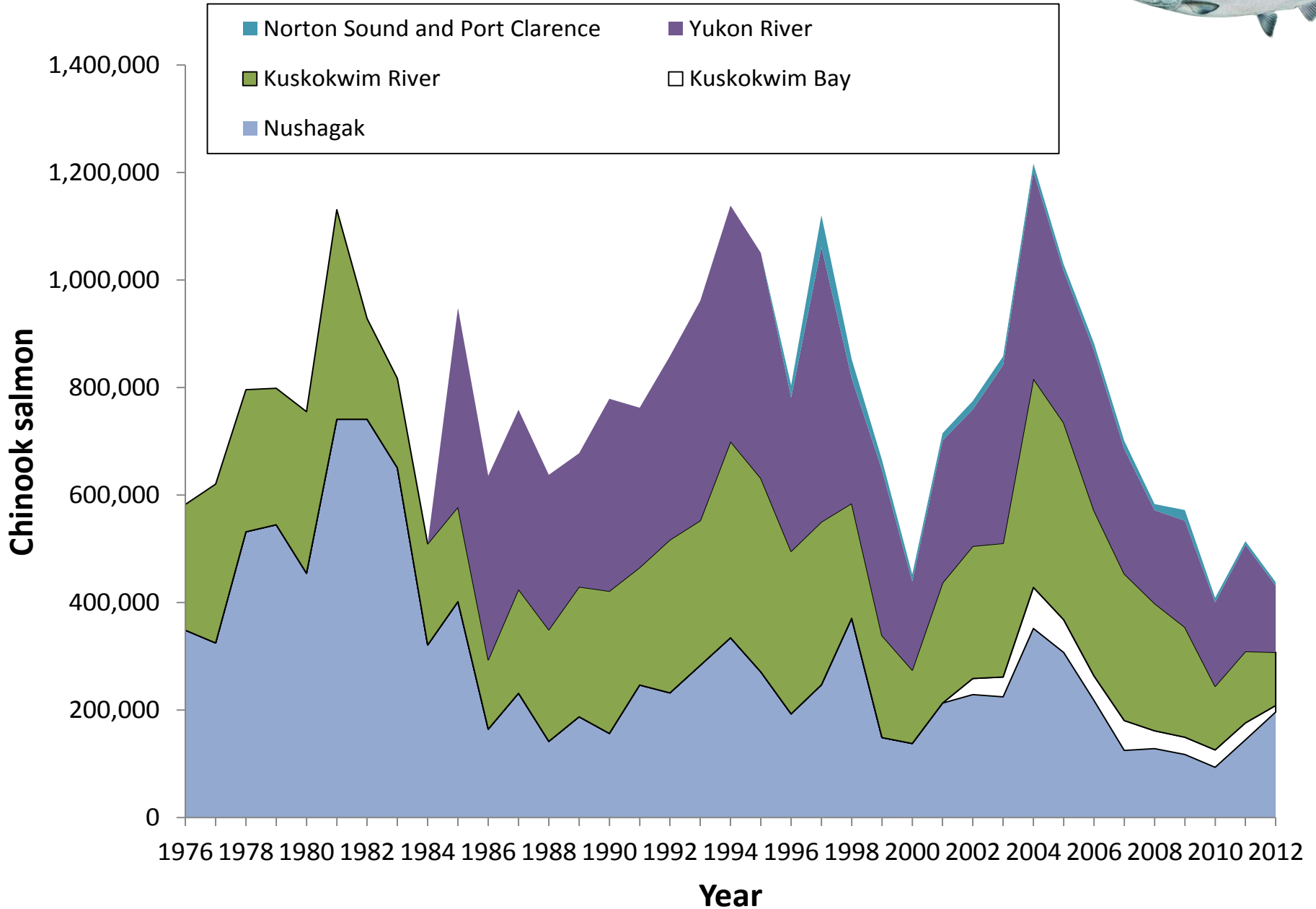
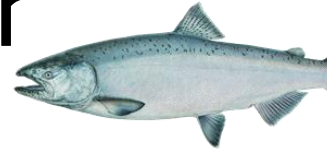
Western Alaska



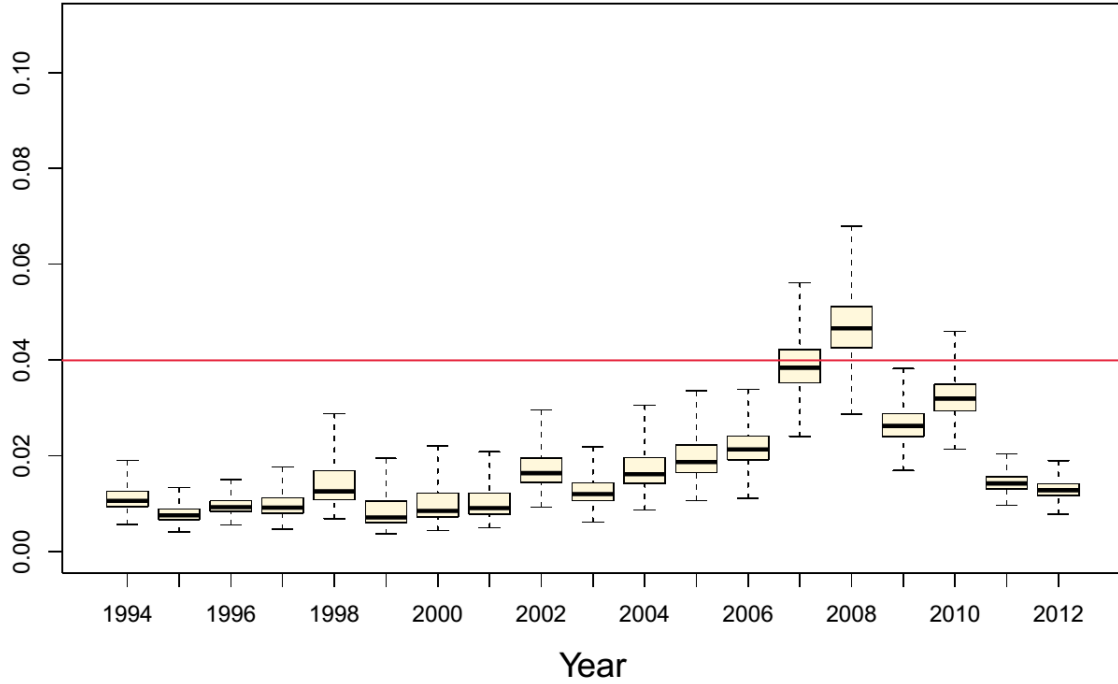
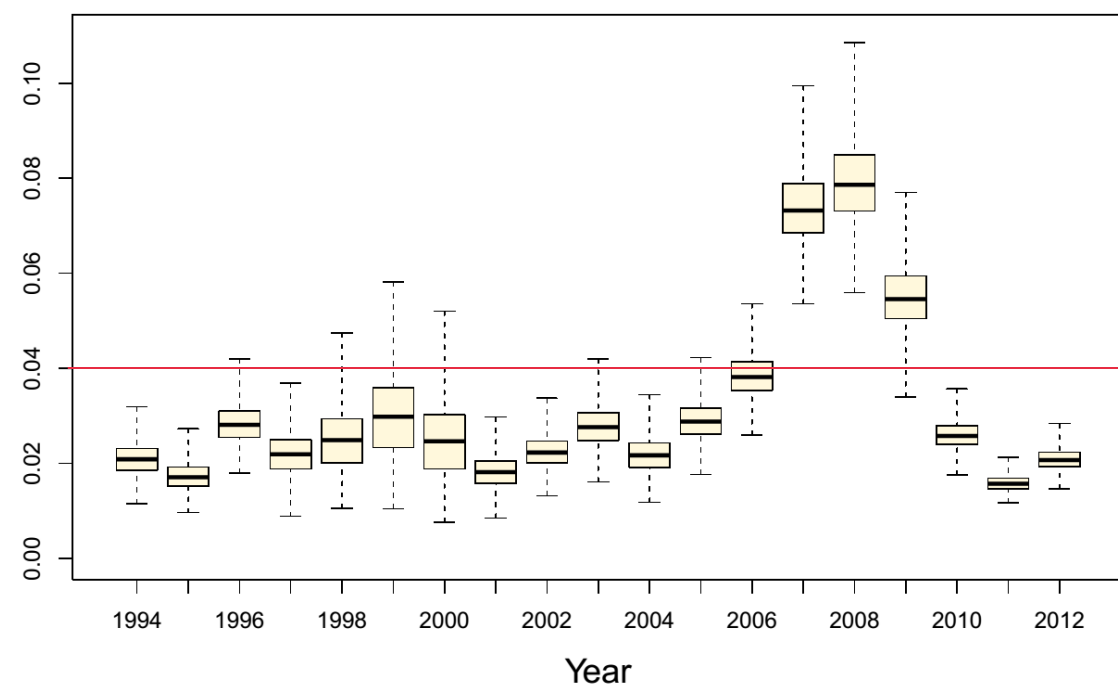
Chinook salmon loss due to bycatch



Chinook salmon returns by river

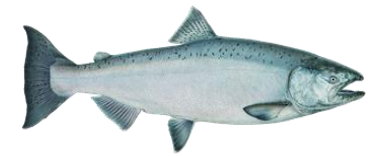


Impact rates



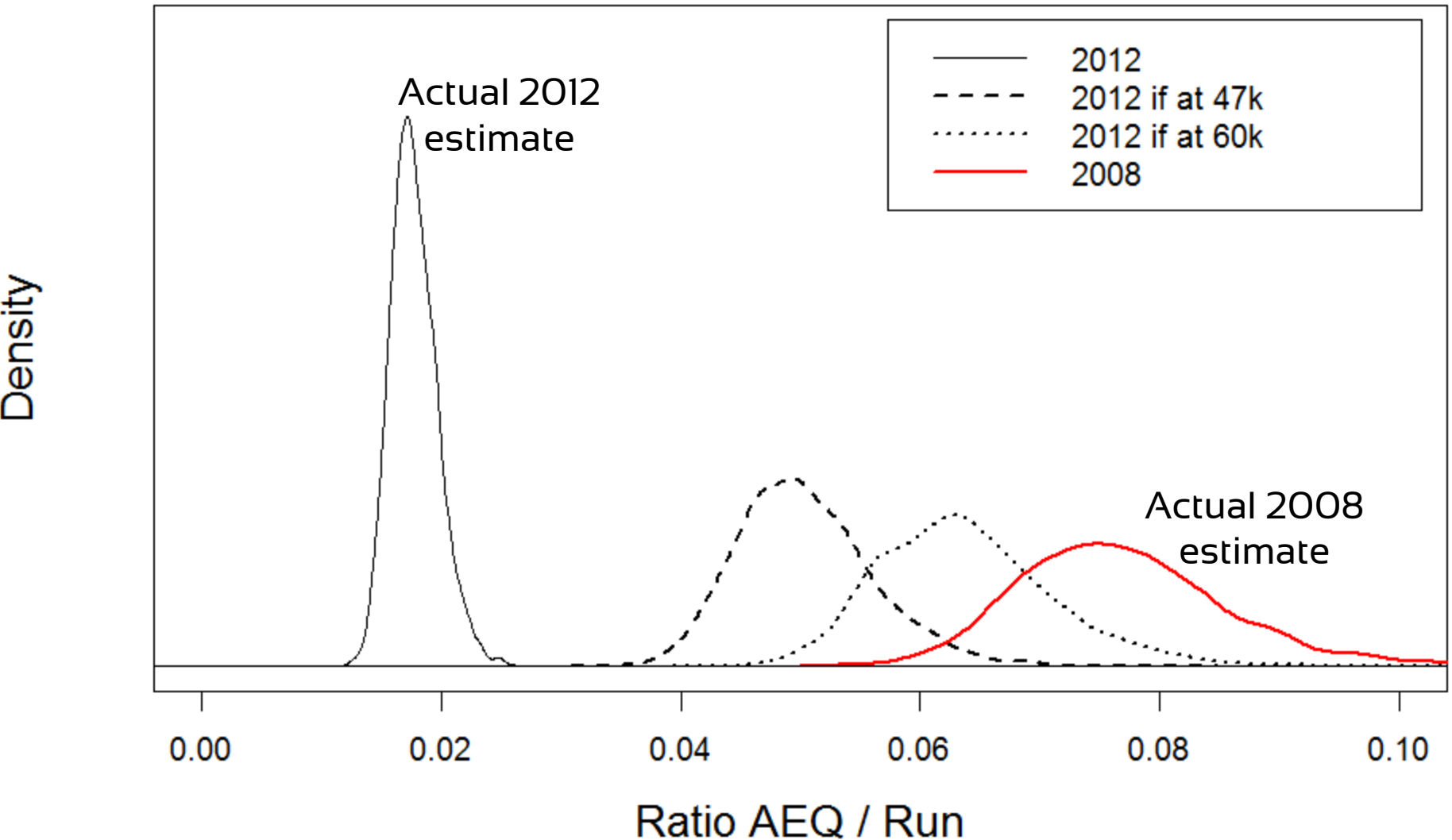
“What-if” since 2011 the limits were reached?

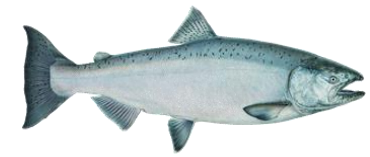
- Request to evaluate impact rates if cap levels since implementation were reached
- Caveat:
 - Unrealistic since limits are season and sector-specific
 - Would require perfect storm for all sectors to hit limit



What-if impact rates

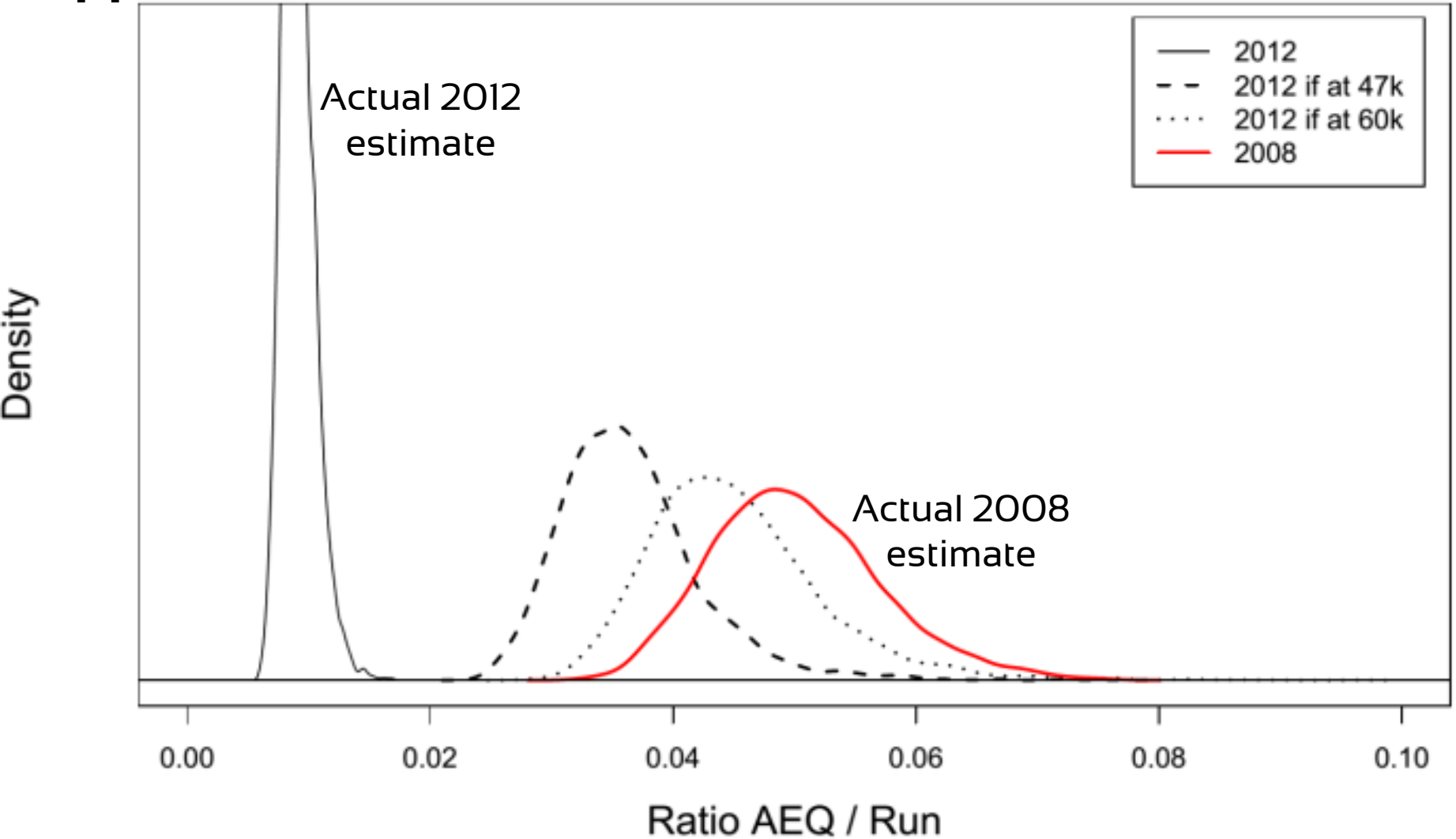
Coastal w. Alaska





Upper Yukon

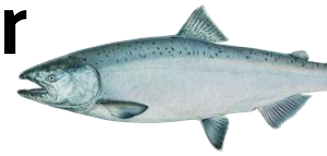
What-if impact rates



Fishing and Bycatch Performance

- Has bycatch performance has changed under amendment 91? How best to evaluate?
- Information requested:
 - Sector and vessel bycatch by season?
 - Have trends changed?
 - Is there effective accountability on vessel-by-vessel basis?
 - Are individuals “cleaning up their act?”

Chinook salmon per t of pollock by sector

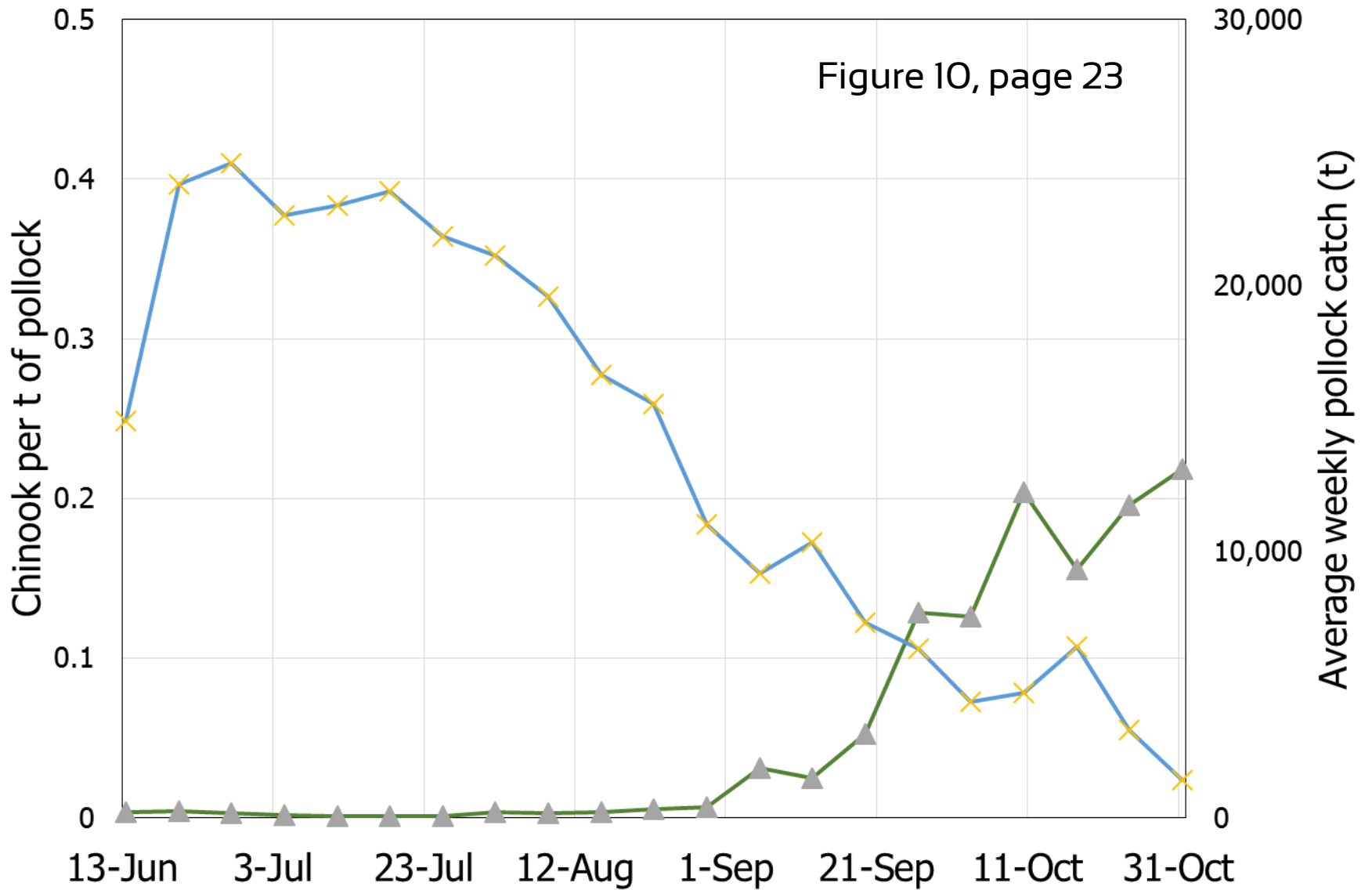


Chinook salmon per t of pollock by sector



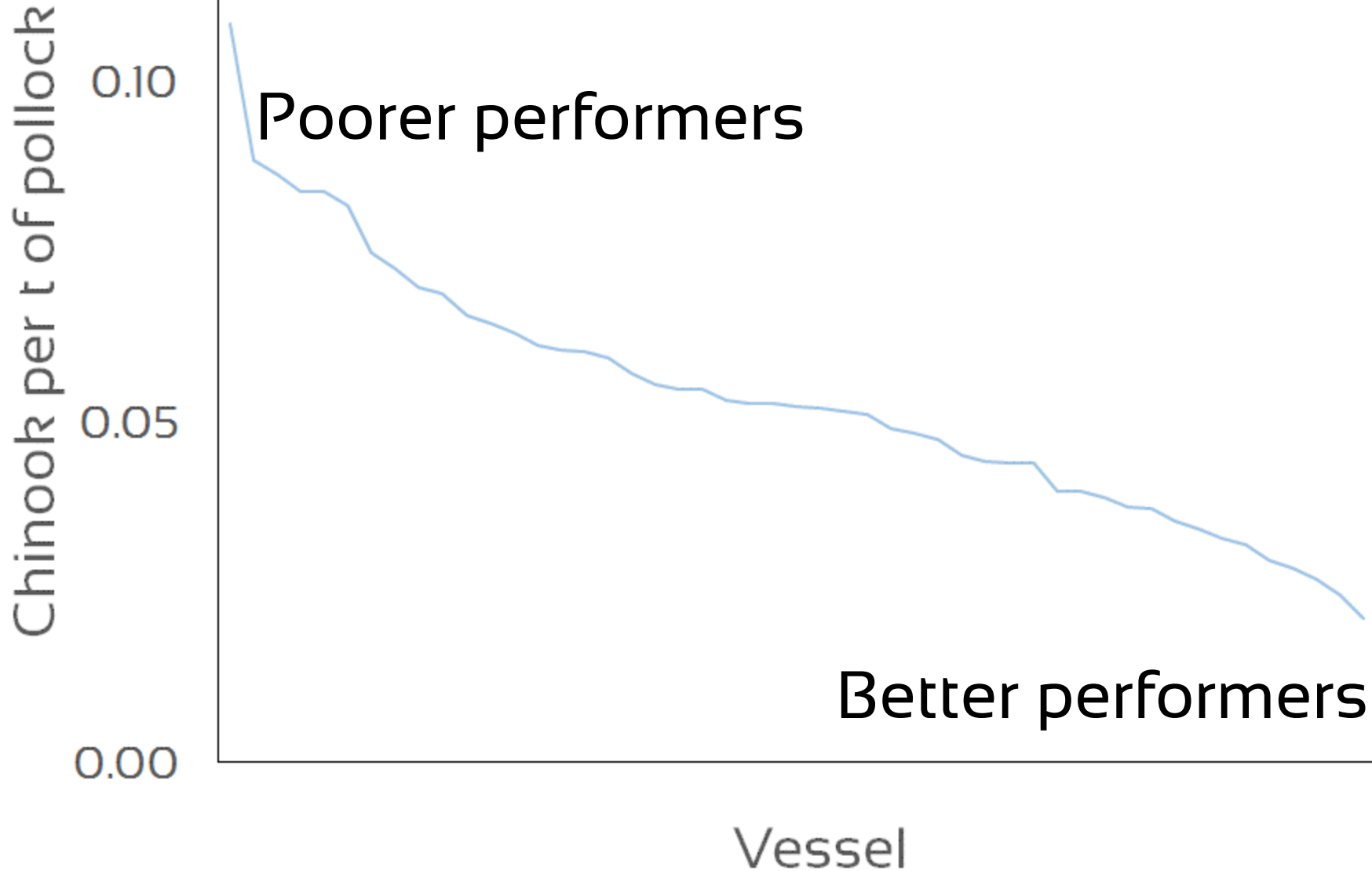
Fleet sectors: —●— CPs —●— MS —●— CVs

▲ Chinook (2010-2013) ✕ Pollock (2010-2013)

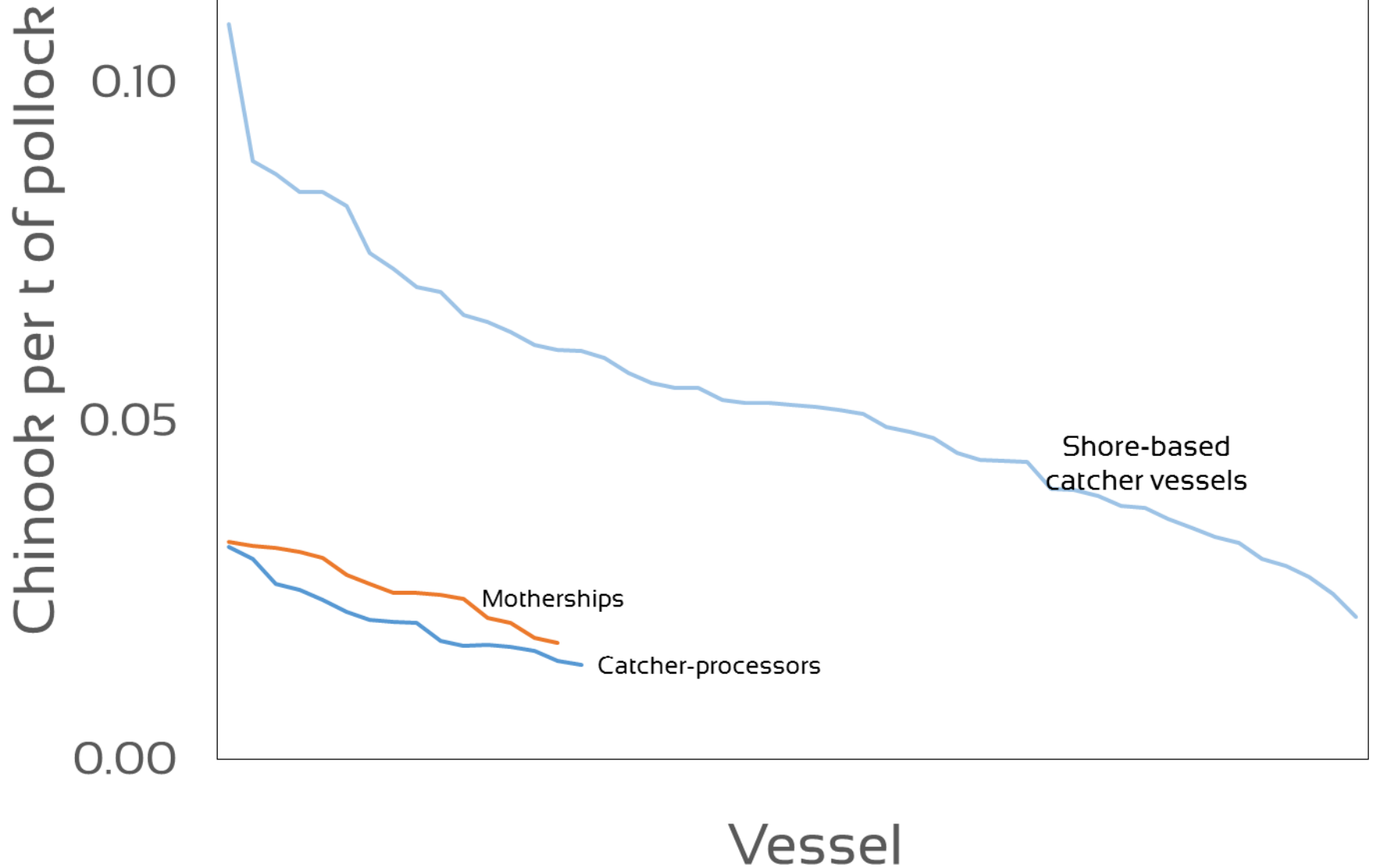


Individual vessel patterns

Ranked vessels—years combined



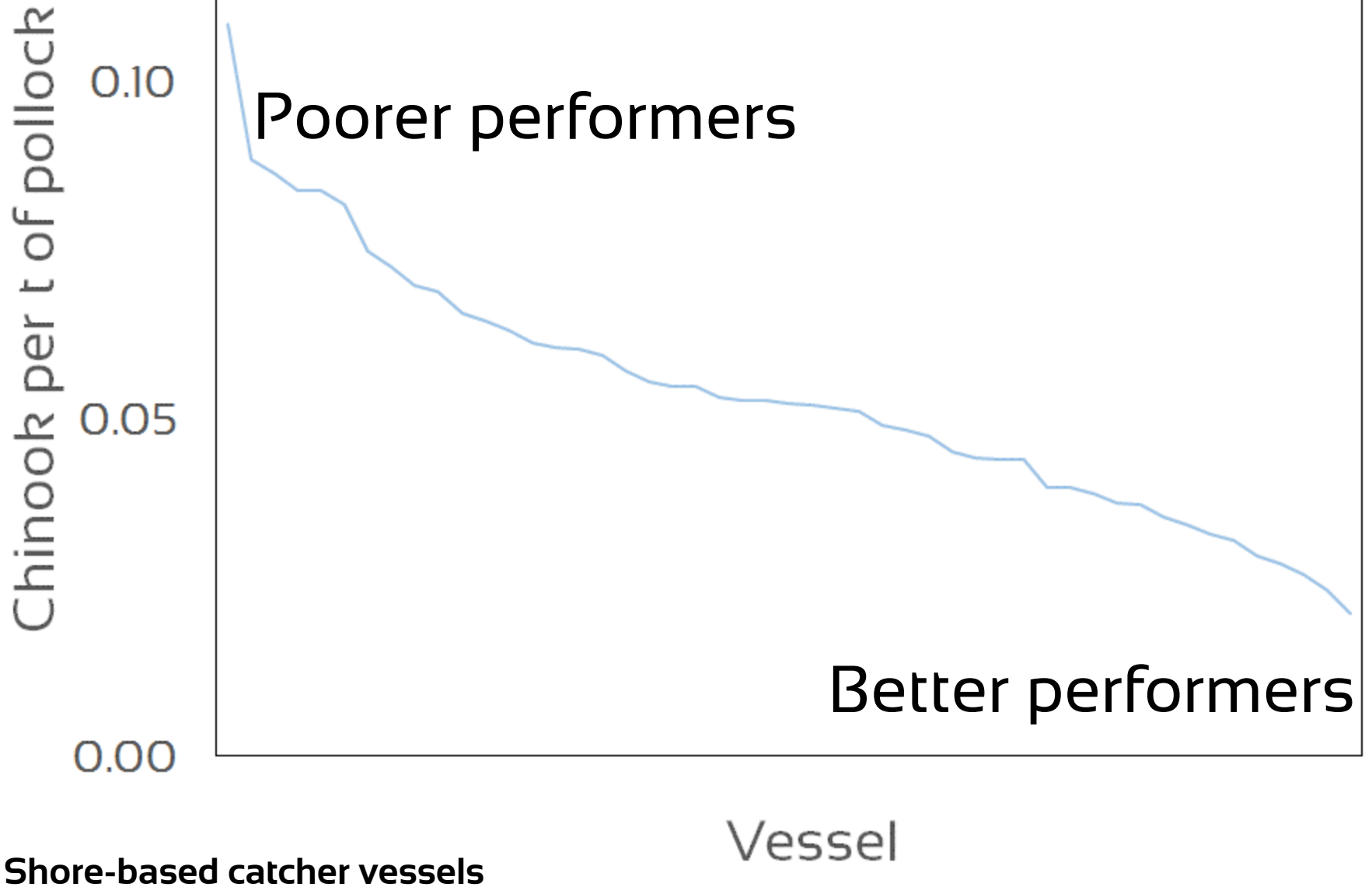
Ranked vessels—years combined



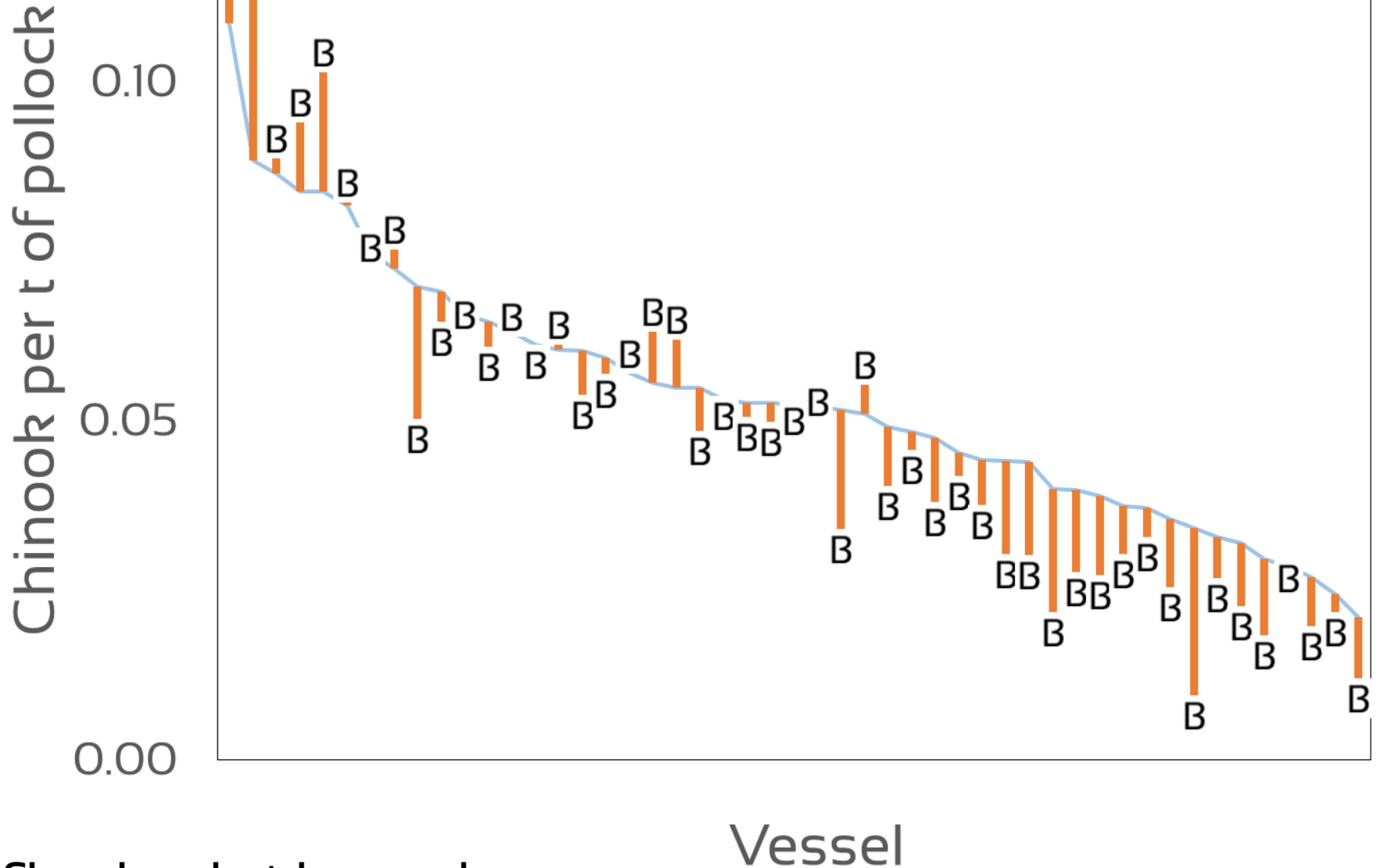
Seasonal bycatch patterns

- How do individual vessels annual rank compare by season?
 - All years combined

Ranked vessels—years combined

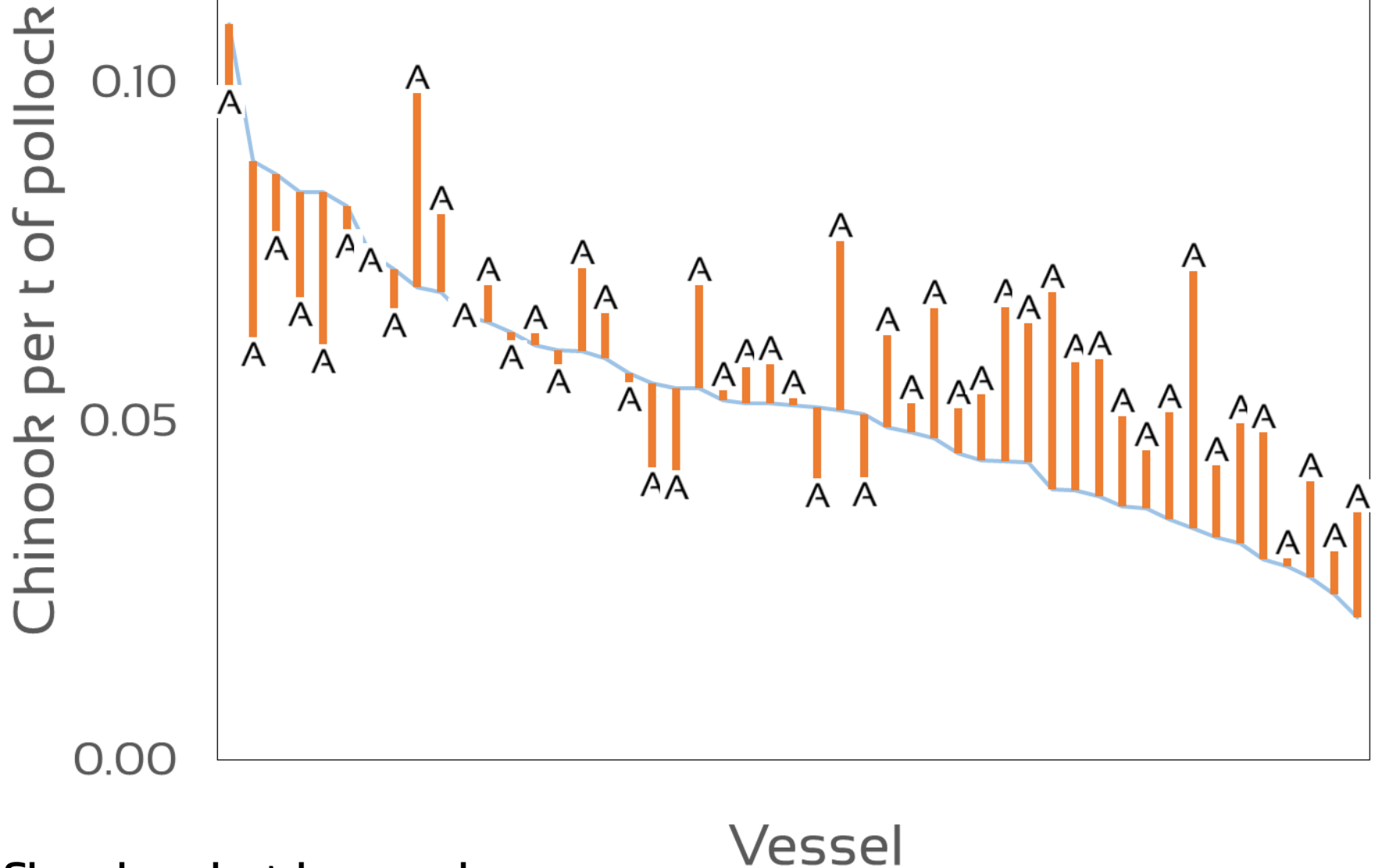


Ranked vessels—years combined



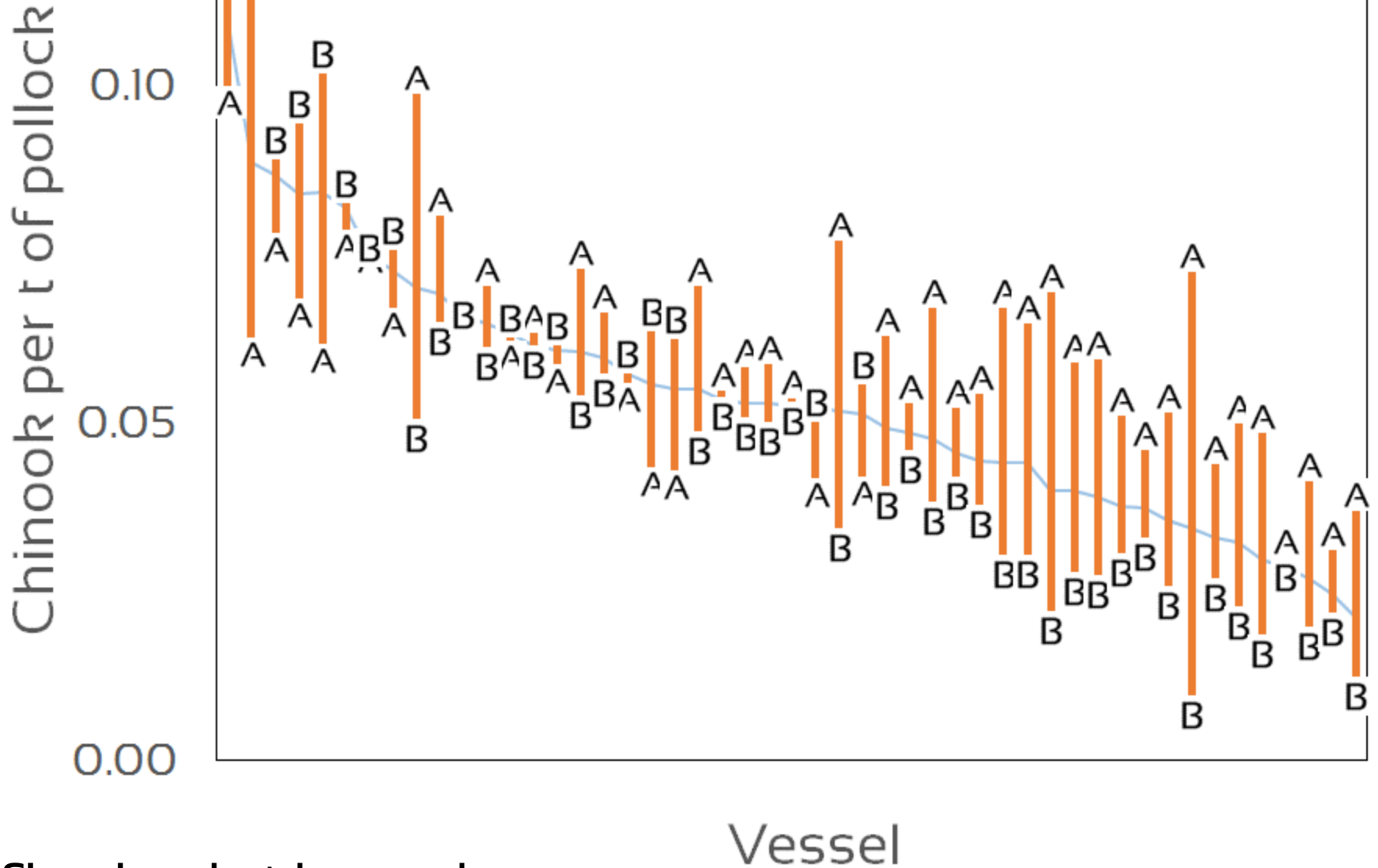
Shore-based catcher vessels

Ranked vessels—years combined



Shore-based catcher vessels

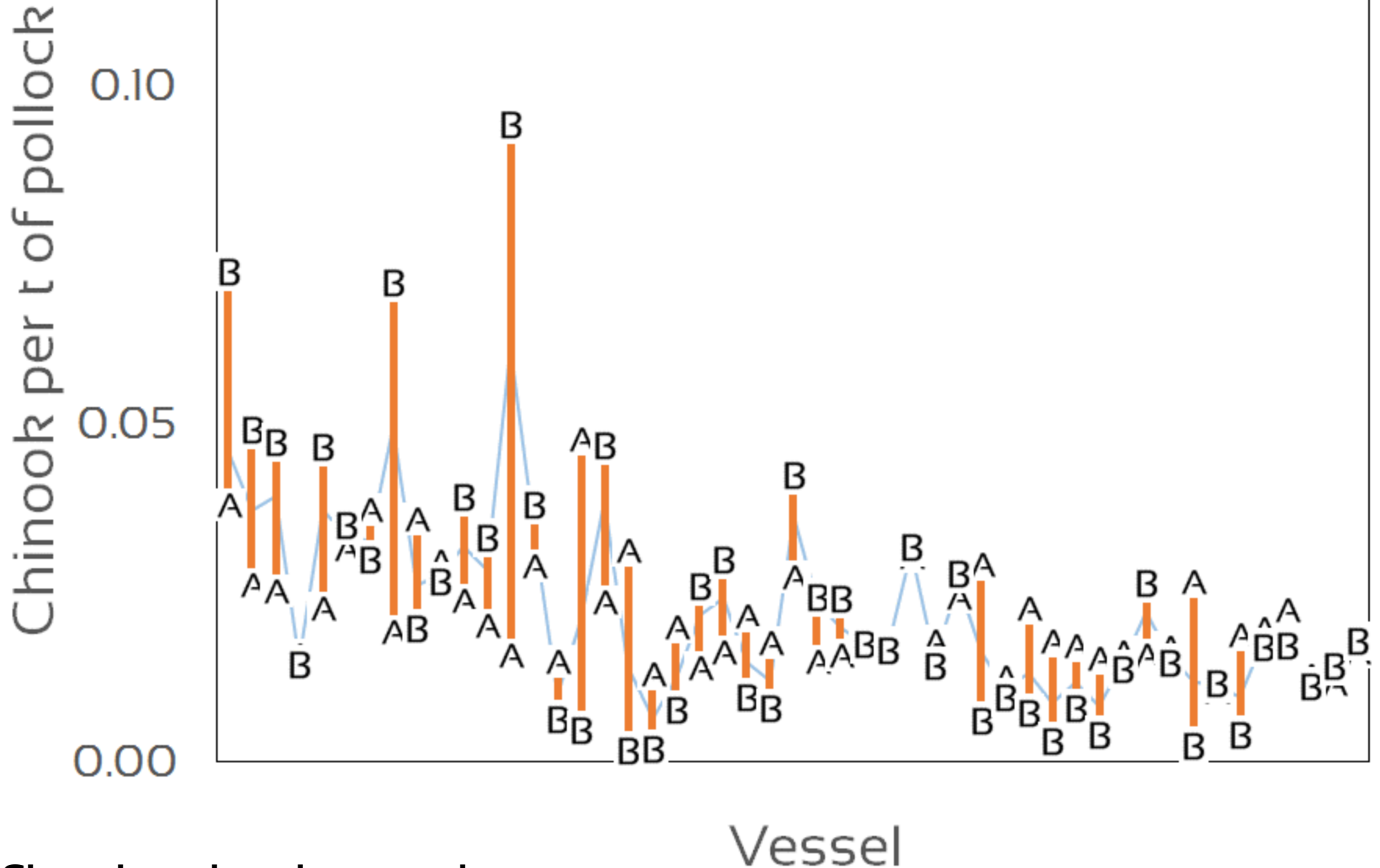
Bycatch rates all years



Shore-based catcher vessels

Seasonal patterns from 2010-2013

Bycatch rates 2010-2013



Shore-based catcher vessels

Patterns of fishing effort by individual vessels

Date to 25% and 75% of B-season pollock catch

