

Science, Service, Stewardship



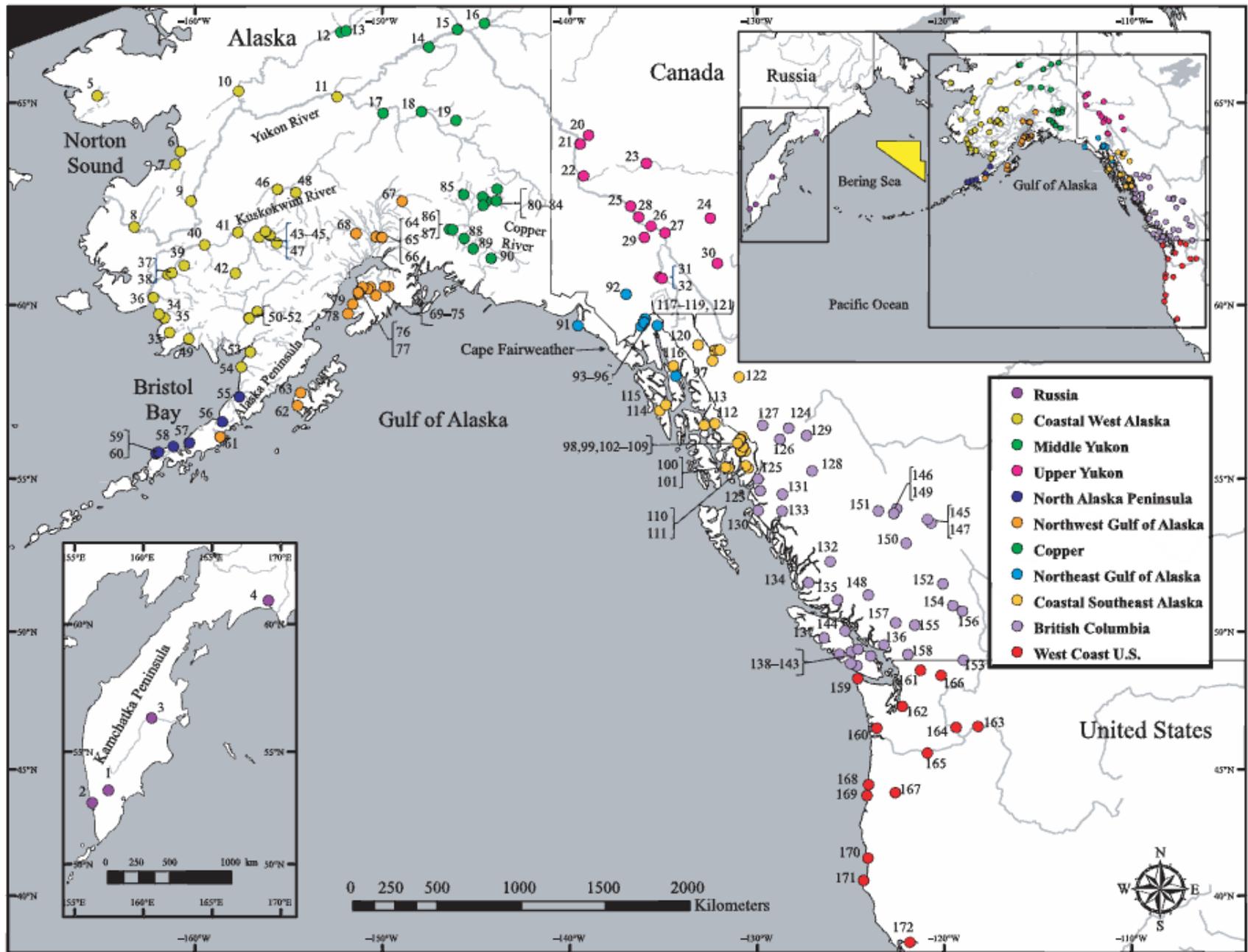
Genetic Stock Composition Analysis of the Chinook Salmon Bycatch from the 2020 Bering Sea Pollock Trawl Fisheries

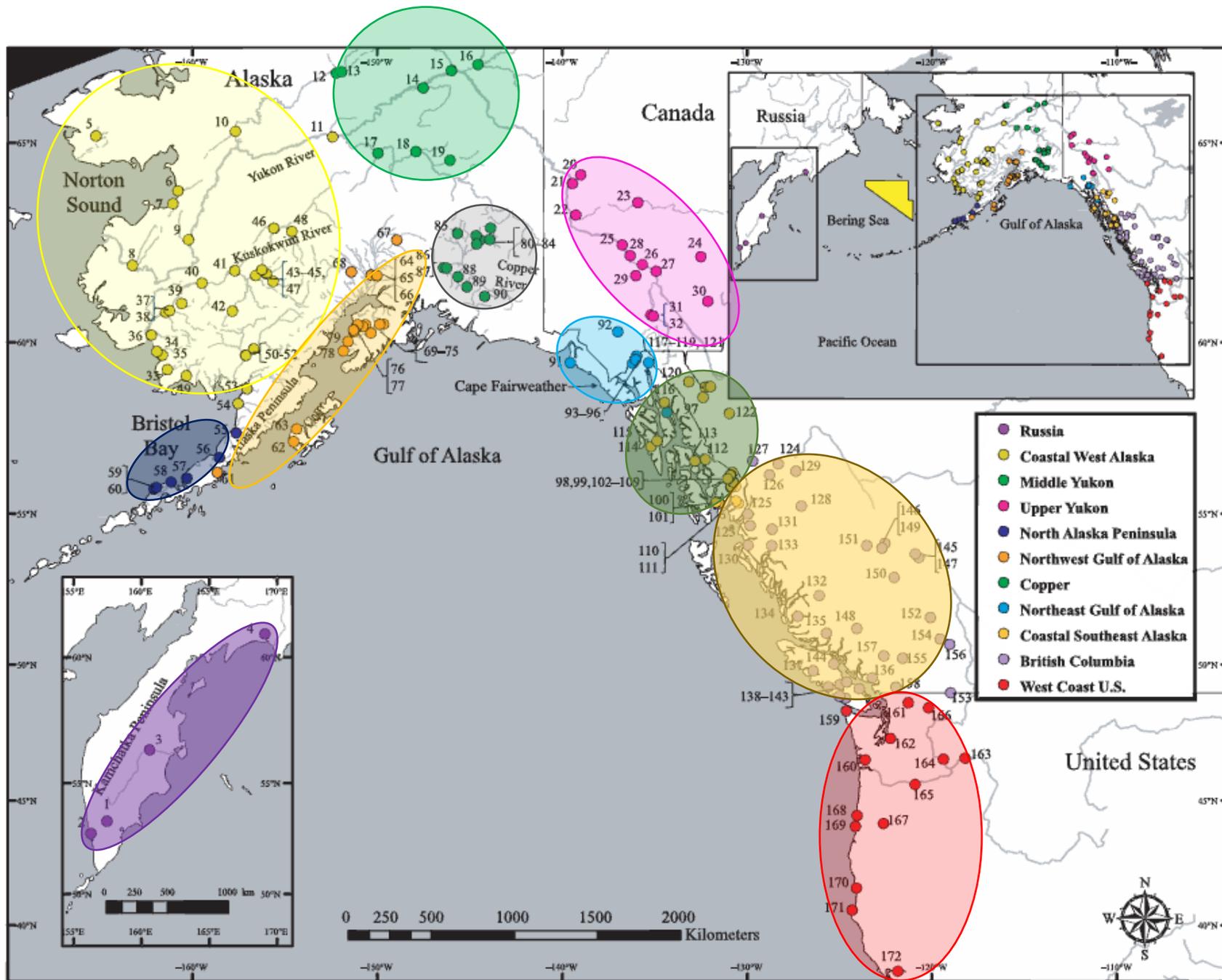
**C. M. Guthrie III, Hv. T. Nguyen, K. D'Amelio, K. Karpan,
P. D. Barry, and W. A. Larson**

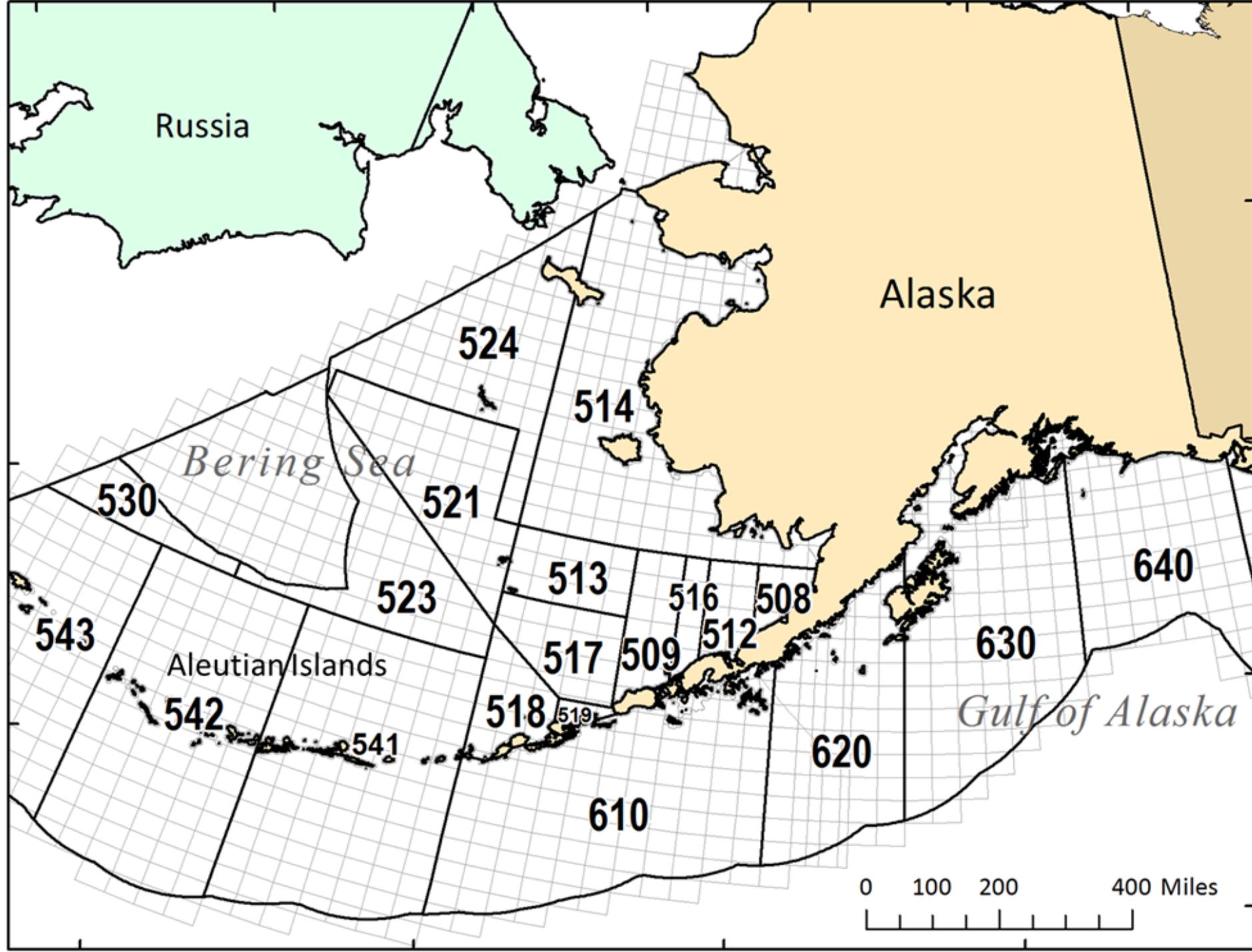
Genetics Program
Auke Bay Laboratories
Juneau, AK

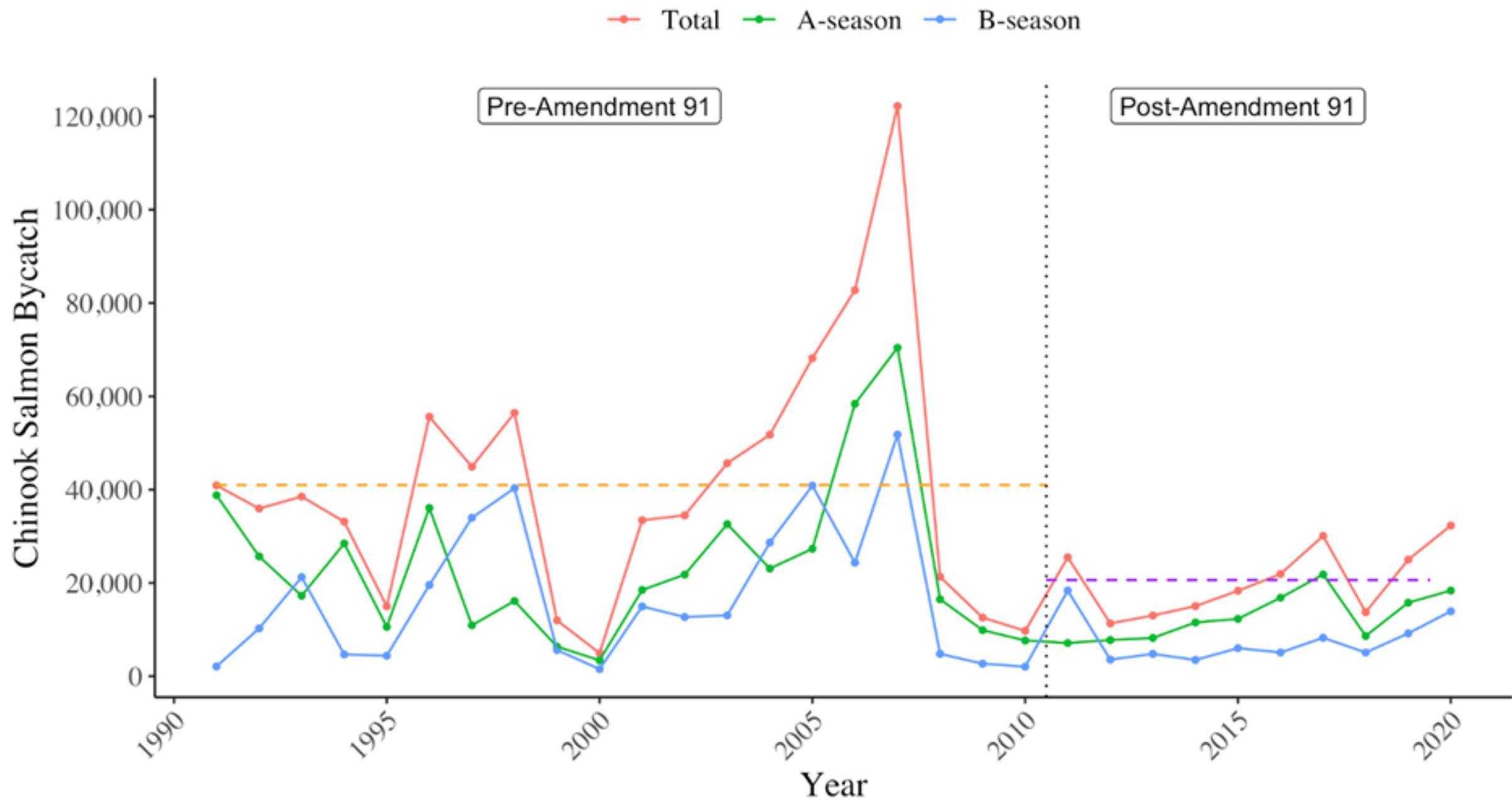
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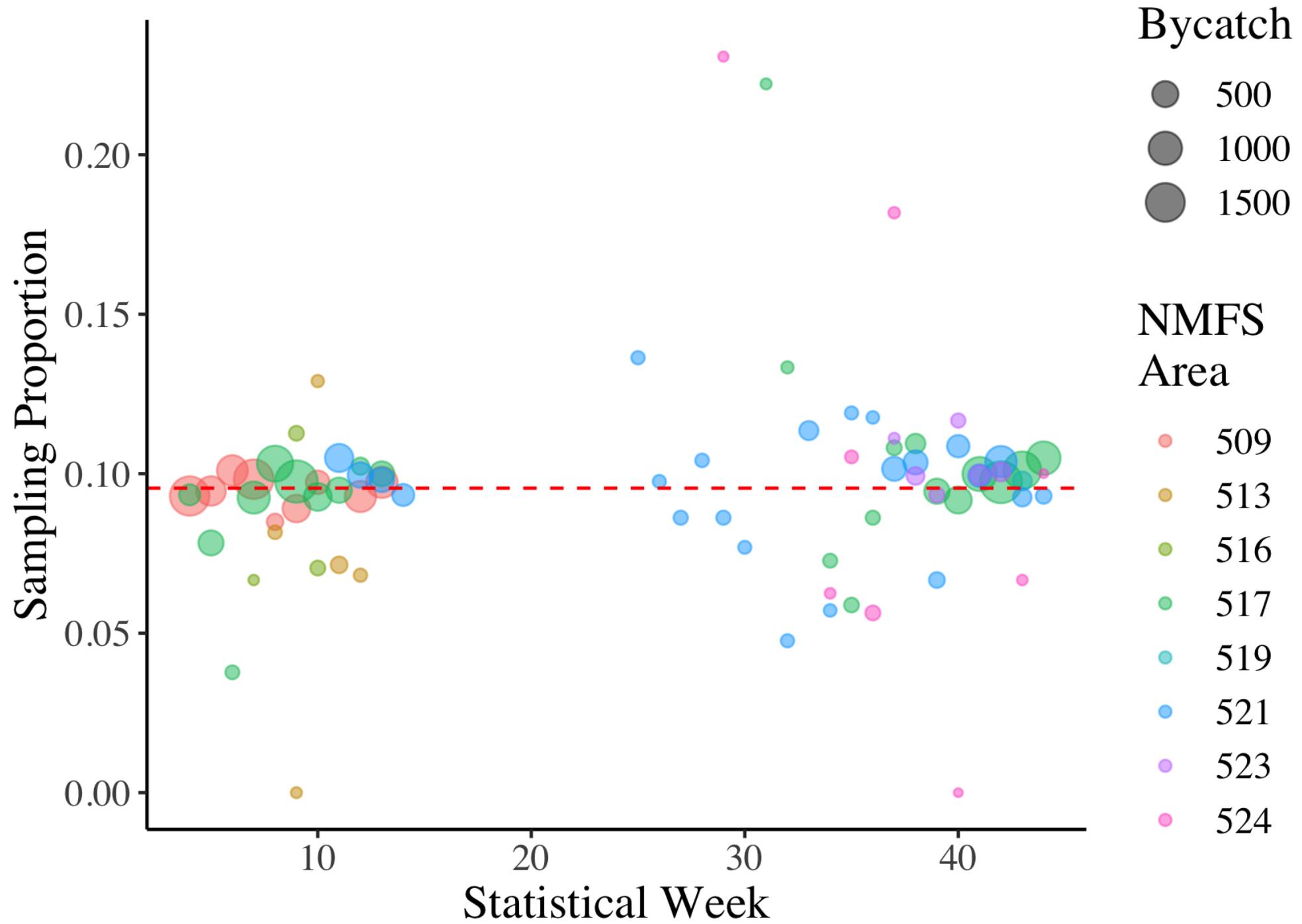
April 2022

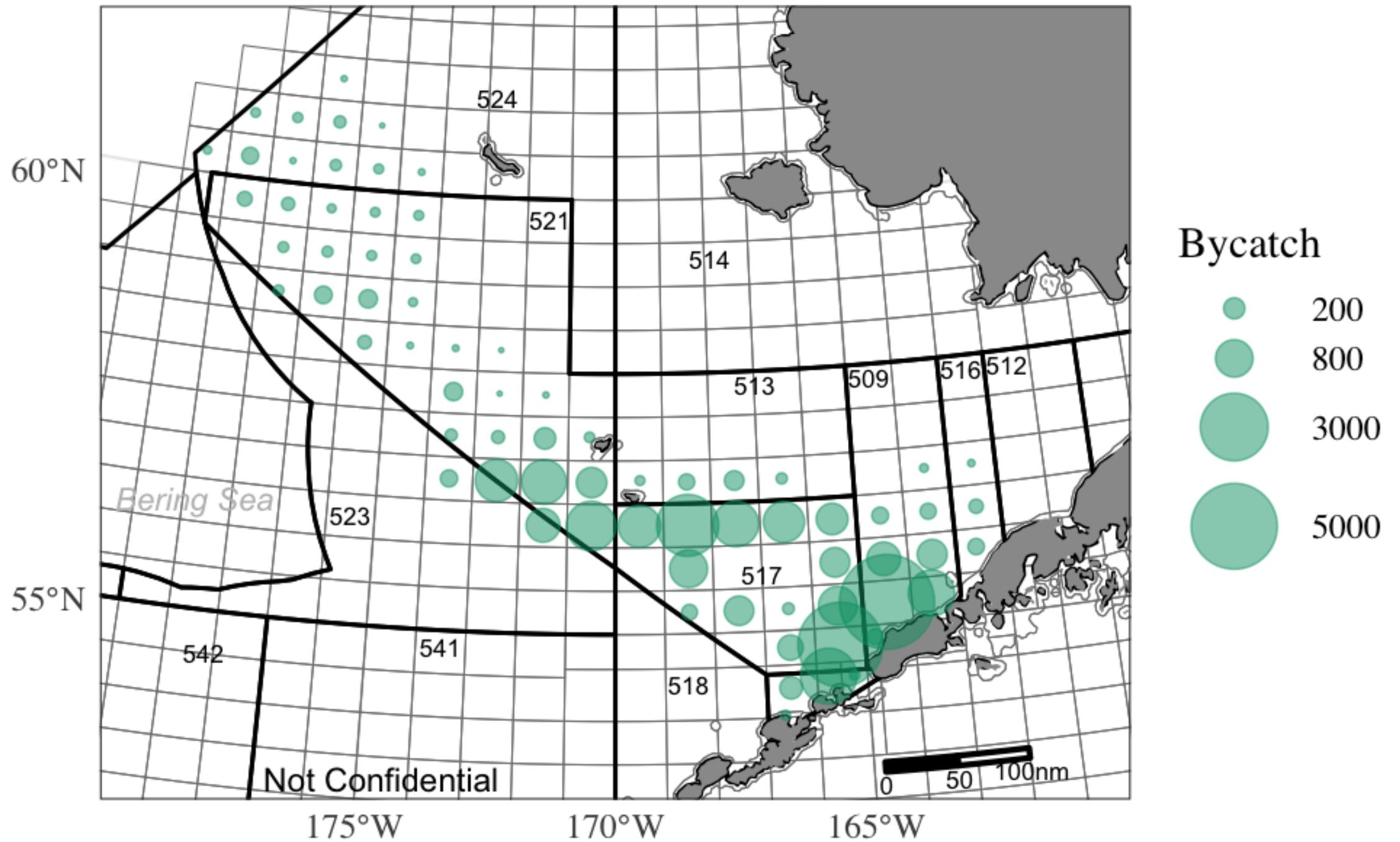












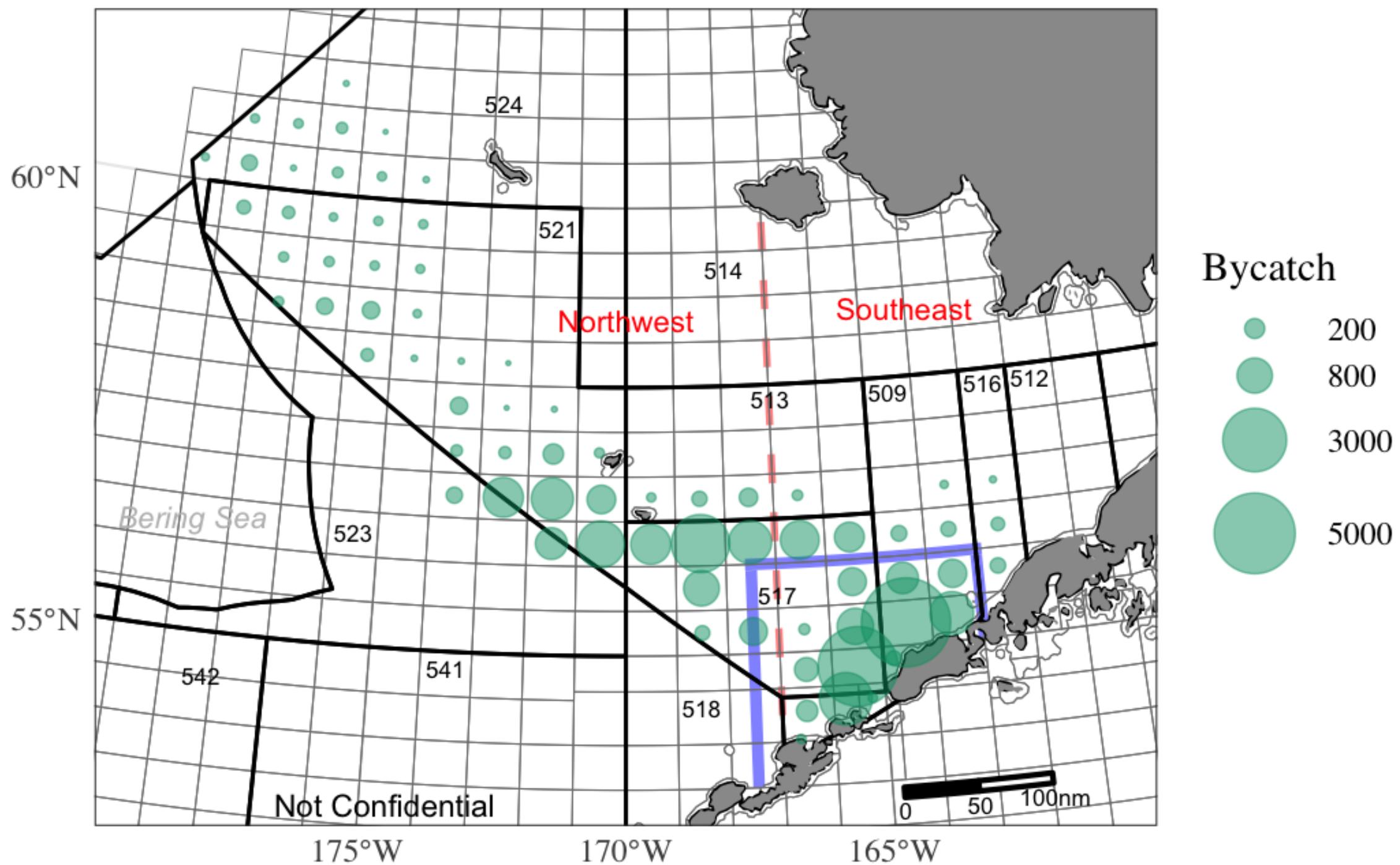
2020

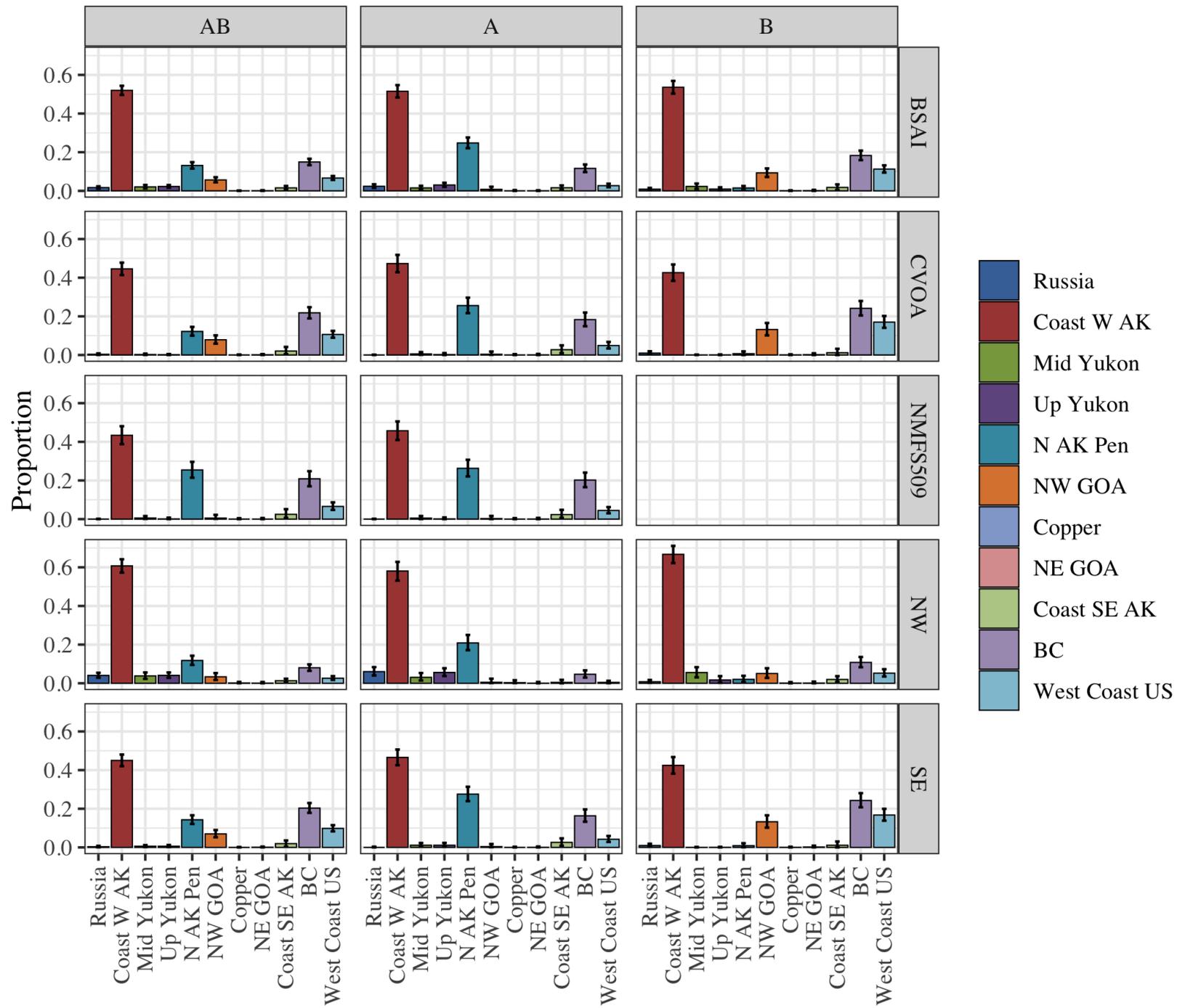
Region	"A" Season (N=1371)				"B" Season (N=1243)				Bering Sea all (N=3,241)			
	Est. #	Mean	SD	95% CI	Est. #	Mean	SD	95% CI	Est. #	Mean	SD	95% CI
Russia	435	2.4	0.48	(1.5,3.4)	123	0.9	0.28	(0.4,1.5)	552	1.7	0.30	(1.2,2.3)
Coast W AK	9,469	51.5	1.64	(48.3,54.7)	7,467	53.6	0.68	(50.3,56.9)	16,796	52.0	1.21	(49.6,54.4)
Mid Yukon	281	1.5	0.49	(0.7,2.6)	318	2.3	0.73	(1.0,3.8)	670	2.1	0.47	(1.2,3.0)
Up Yukon	557	3.0	0.54	(2.1,4.2)	130	0.9	0.41	(0.3,1.8)	729	2.3	0.36	(1.6,3.0)
N AK Pen	4,553	24.8	0.41	(22.1,27.6)	208	1.5	0.48	(0.7,2.5)	4,247	13.1	0.84	(11.5,14.8)
NW GOA	143	0.8	0.53	(0.3,2.1)	1,295	9.3	1.12	(7.2,11.6)	1,825	5.7	0.68	(4.4,7.1)
Copper	0	0.0	0.11	(0.0,0.4)	7	0.0	0.08	(0.0,0.3)	0	0.0	0.06	(0.0,0.2)
NE GOA	3	0.0	0.10	(0.0,0.3)	12	0.1	0.15	(0.0,0.5)	14	0.0	0.10	(0.0,0.3)
Coast SE AK	297	1.6	0.55	(0.7,2.8)	249	1.8	0.73	(0.5,3.3)	497	1.5	0.47	(0.7,2.6)
BC	2,138	11.6	1.01	(9.7,13.6)	2,548	18.3	0.25	(15.9,20.8)	4,824	14.9	0.84	(13.3,16.6)
West Coast US	494	2.7	0.47	(1.9,3.7)	1,569	11.3	0.95	(9.5,13.2)	2,141	6.6	0.52	(5.7,7.7)
Total Catch	18,369				13,925				32,294			

81% from Alaskan river systems flowing into the Bering Sea for "A" Season

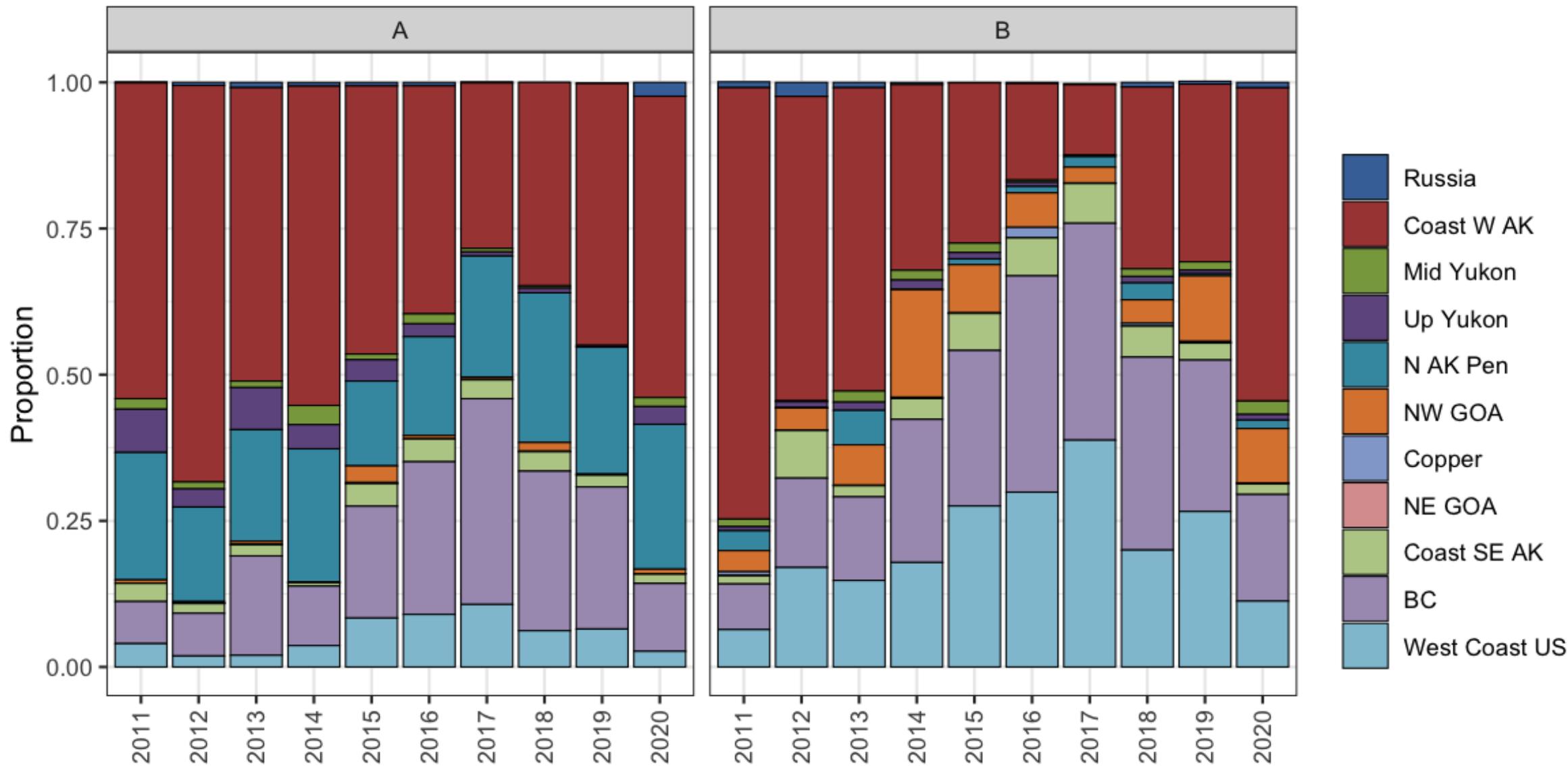
58% from Alaskan river systems flowing into the Bering Sea for "B" Season

69% from Alaskan river systems flowing into the Bering Sea for entire year



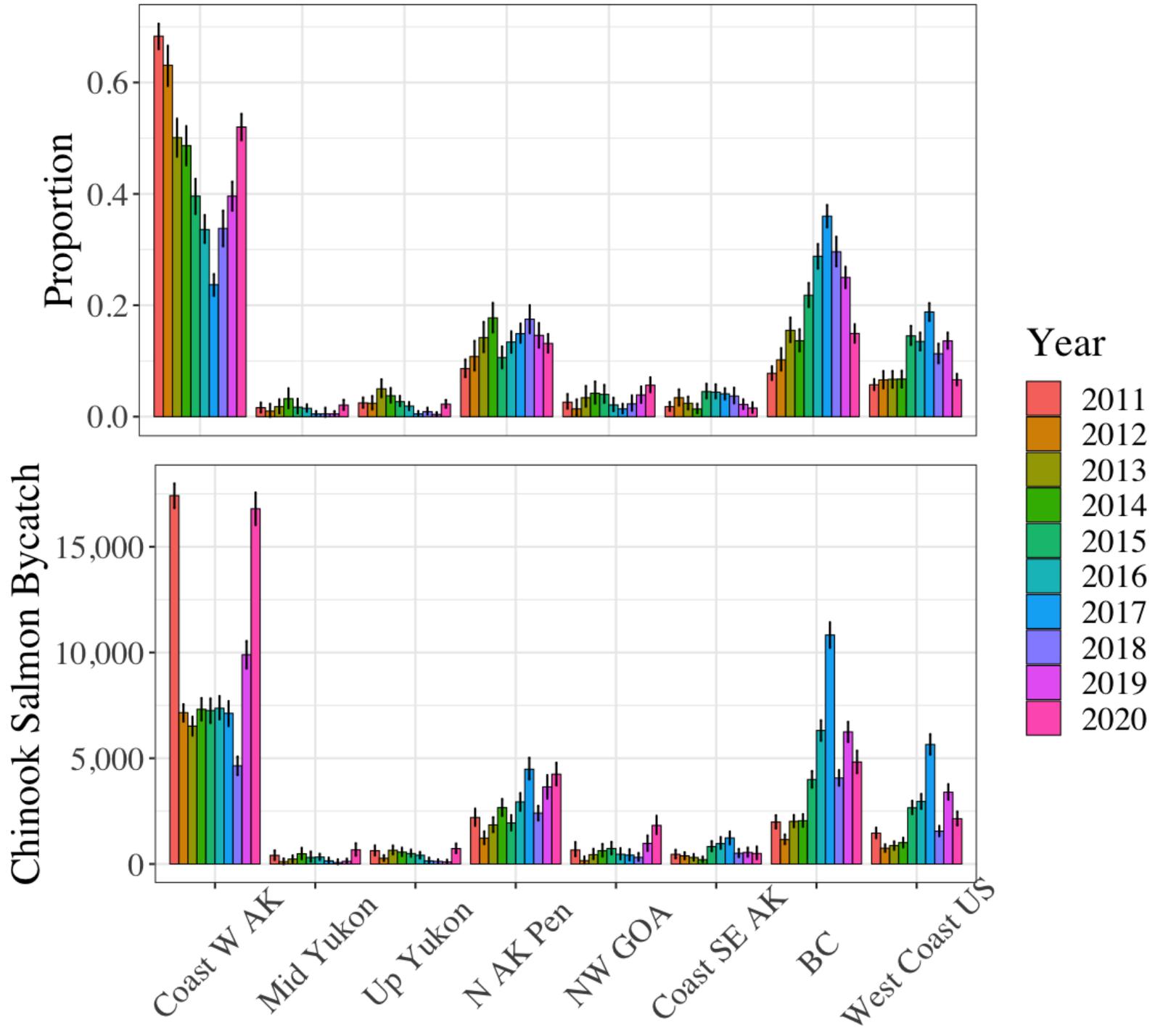


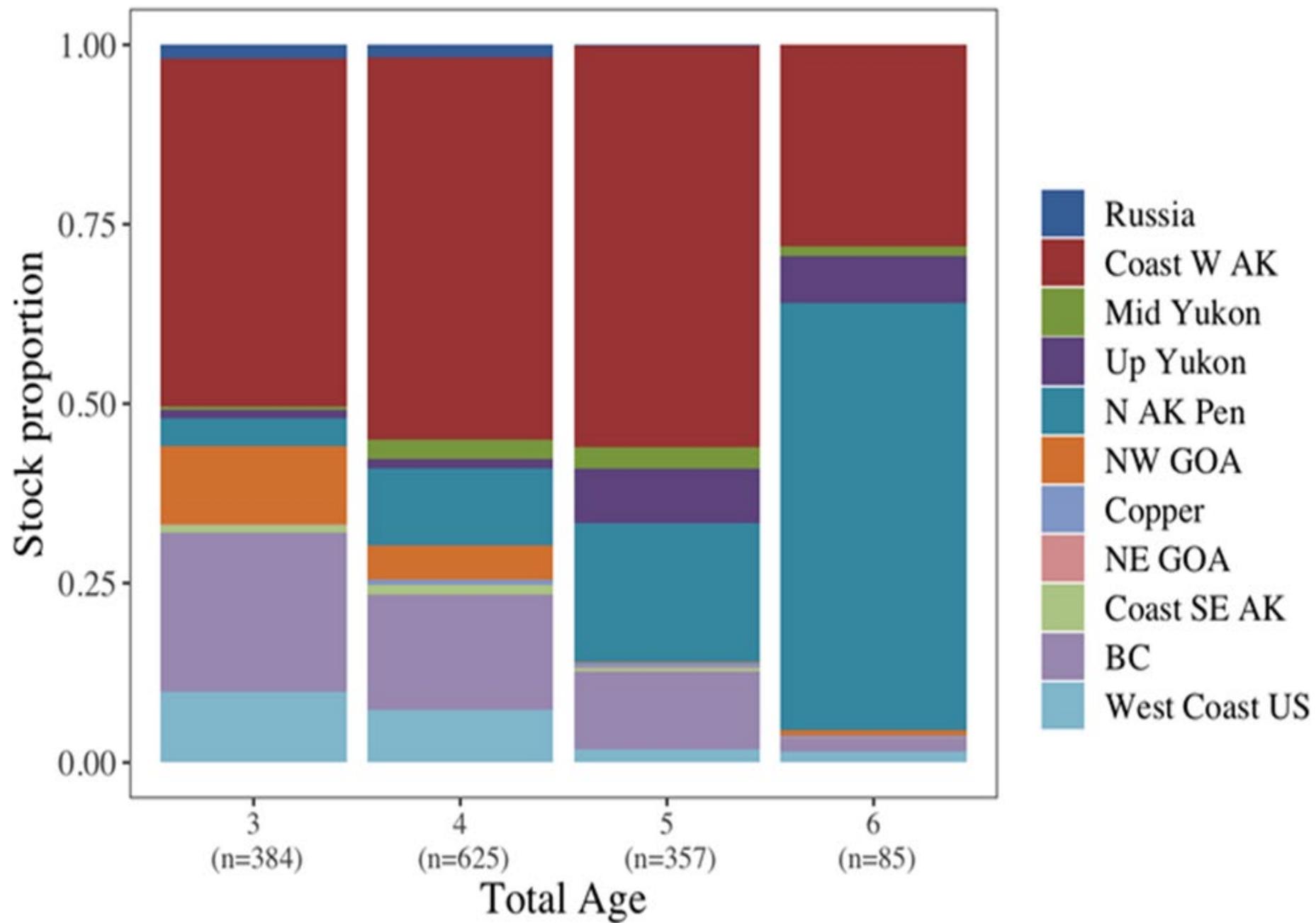
Chinook Salmon Bering Sea Bycatch Seasonal Stock Differences



2020 A Season: 1,371 samples

2020 B Season: 1,243 samples





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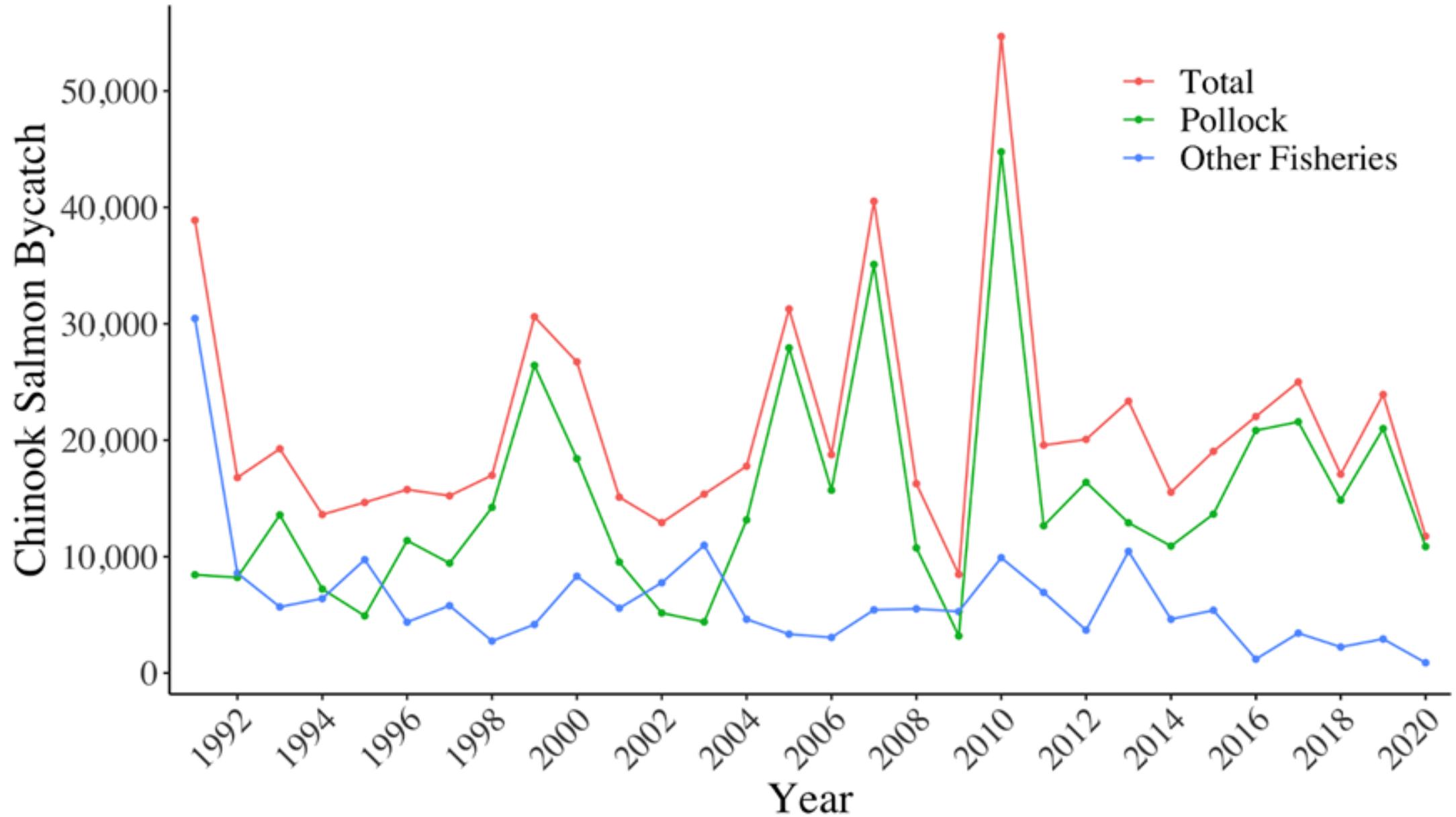
Genetic Stock Composition Analysis to the Chinook Salmon Bycatch Samples from the 2020 *Gulf of Alaska* Trawl Fisheries

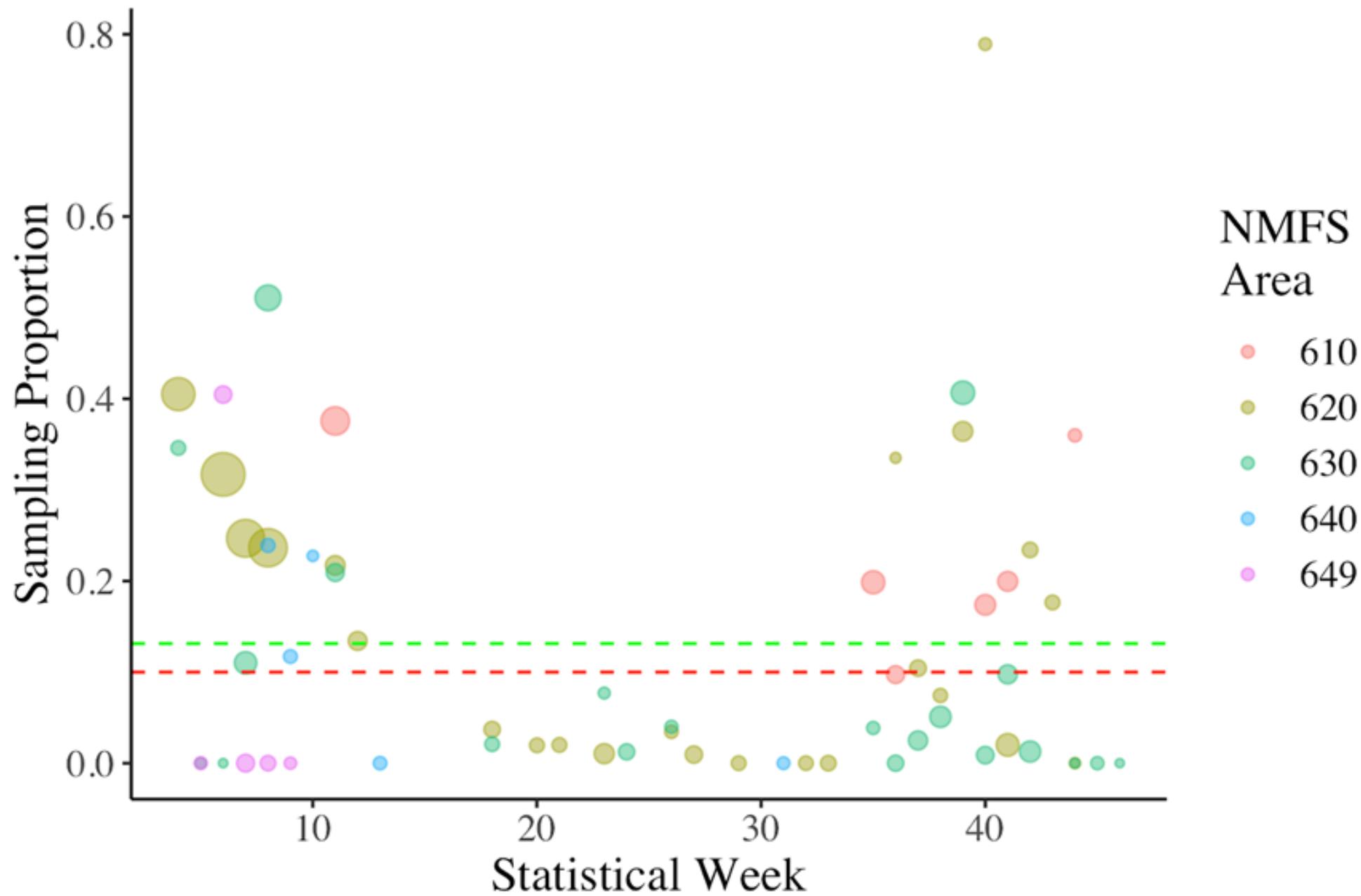
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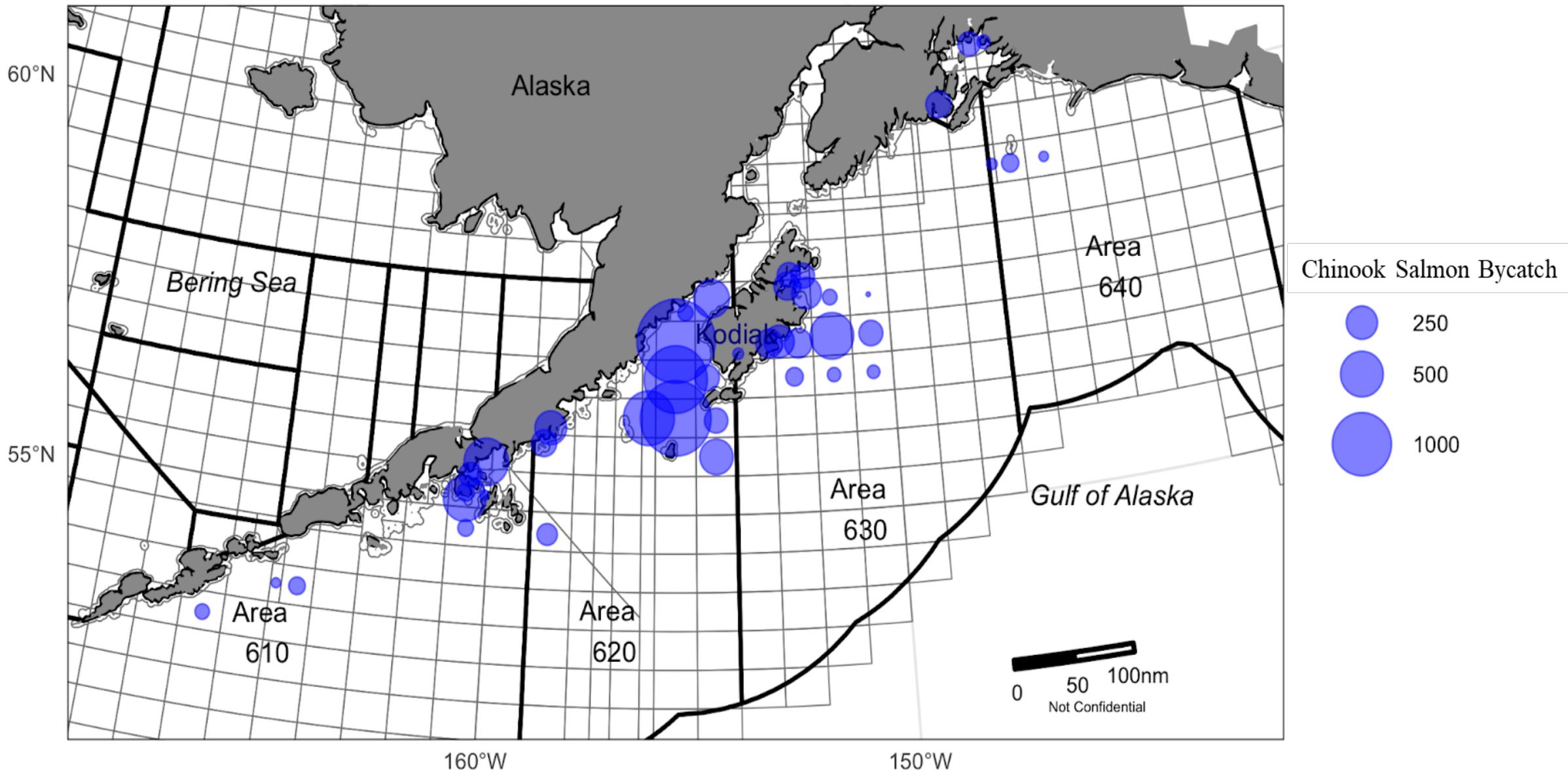
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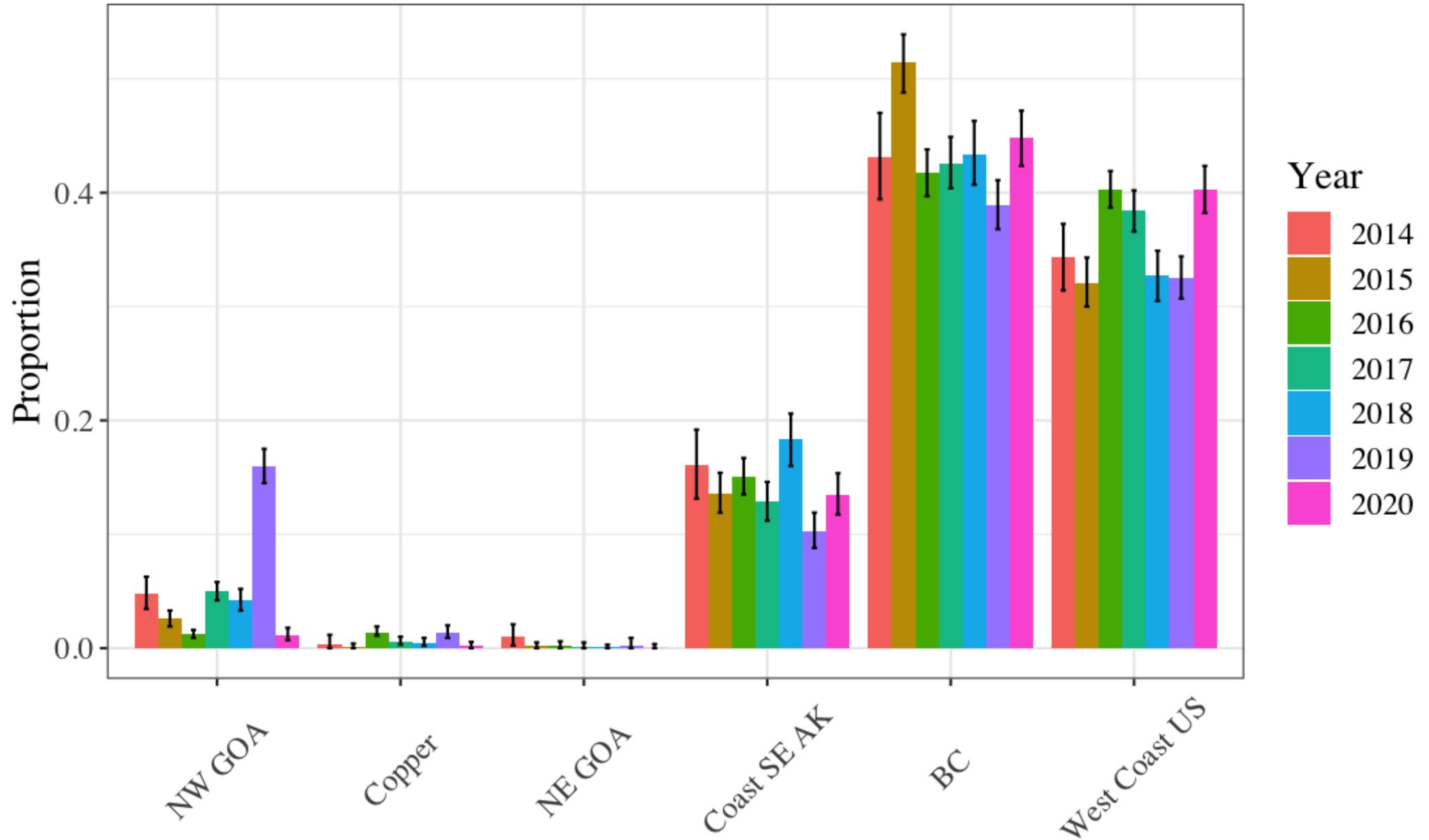
Chinook Salmon GOA Bycatch

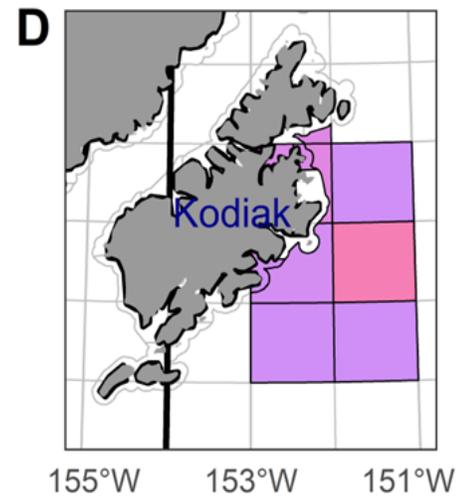
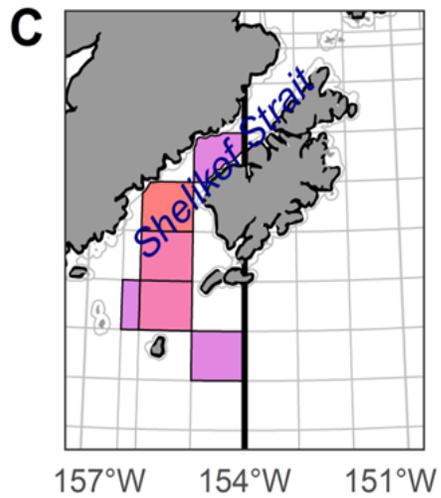
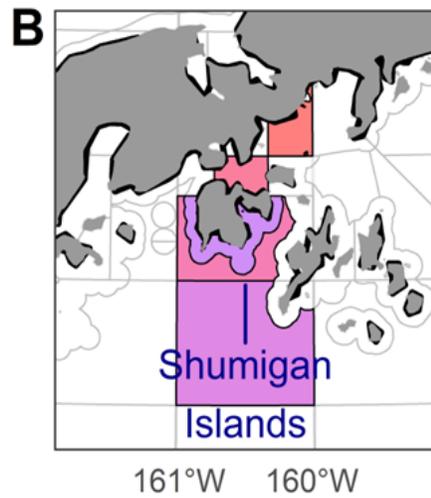
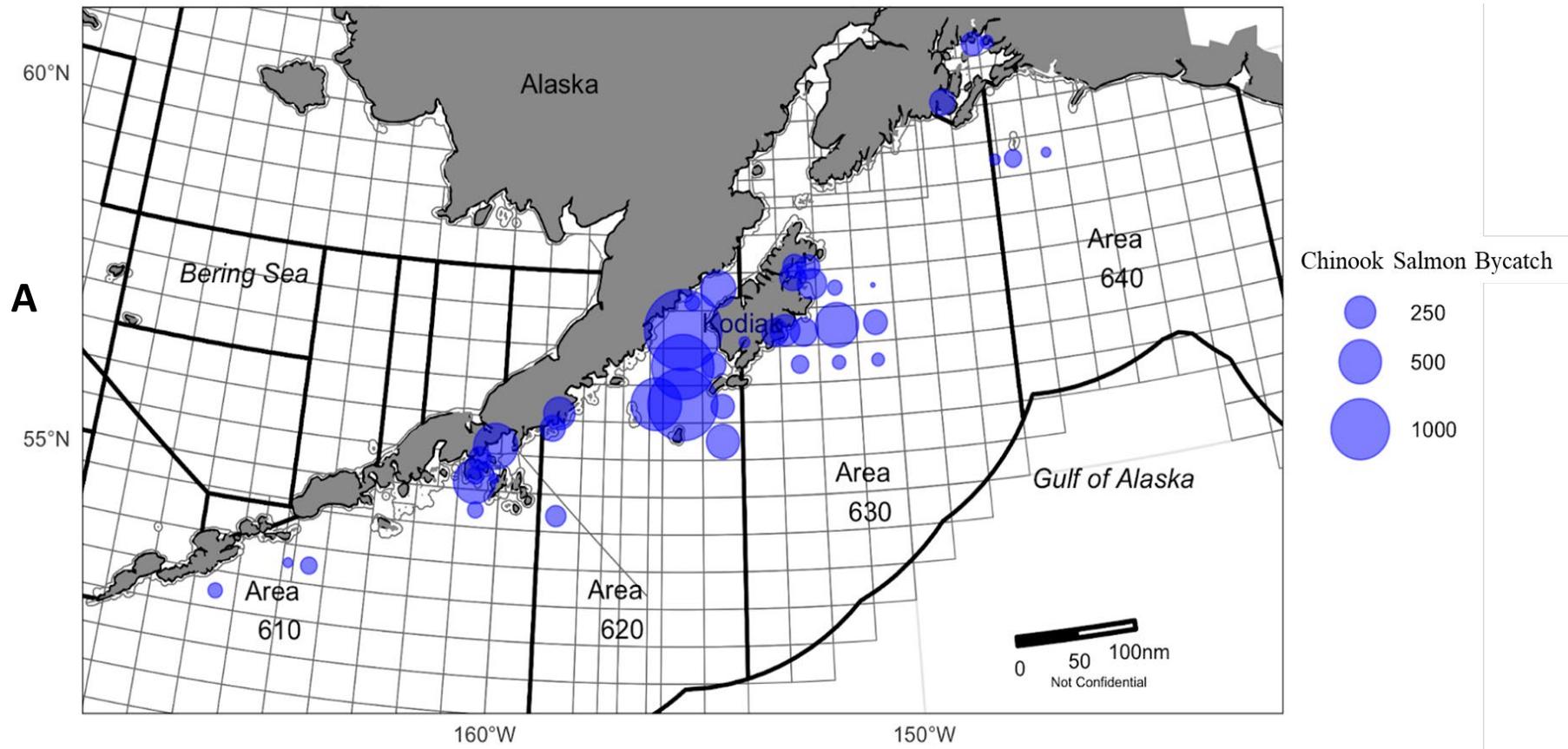


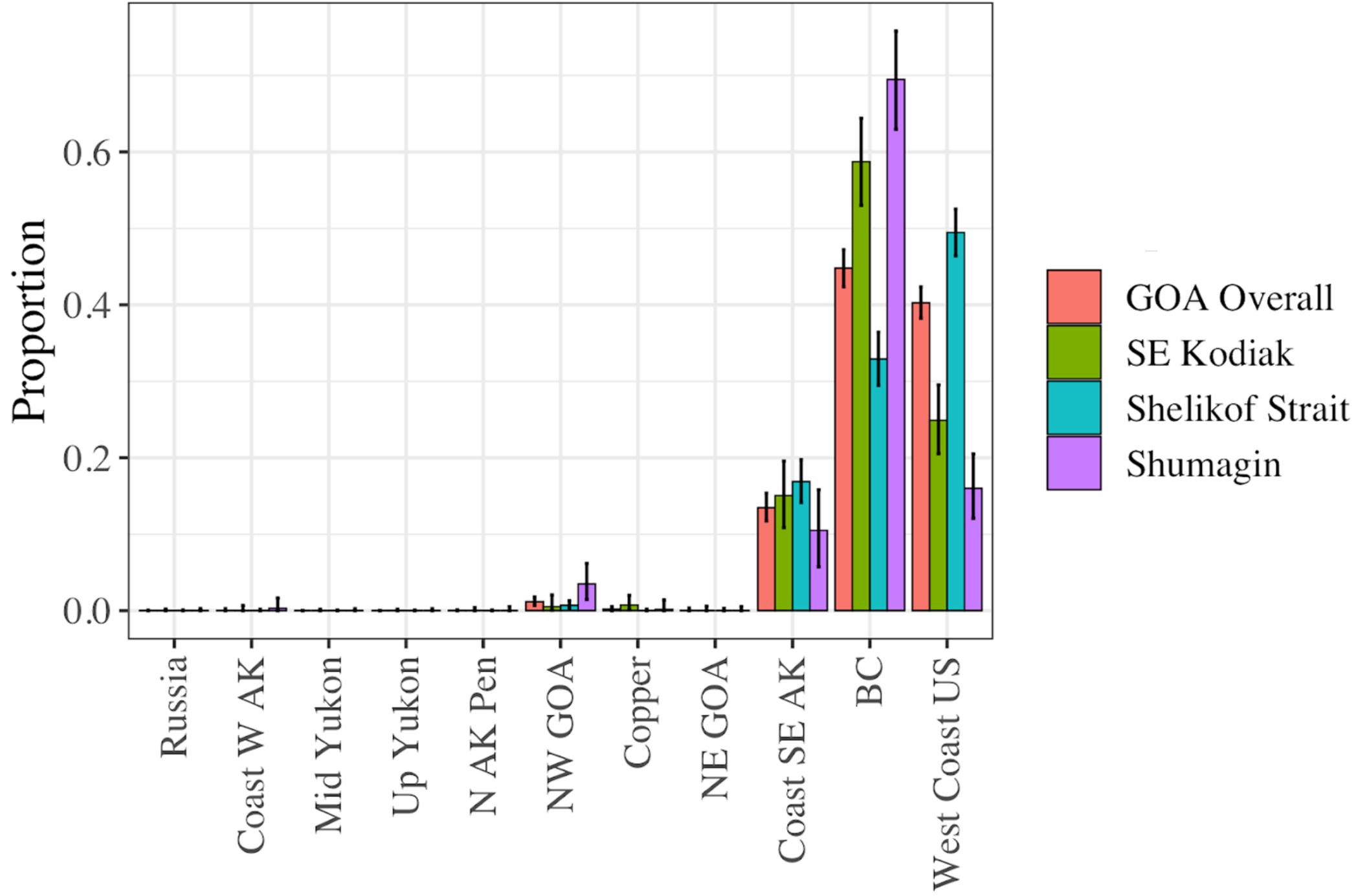


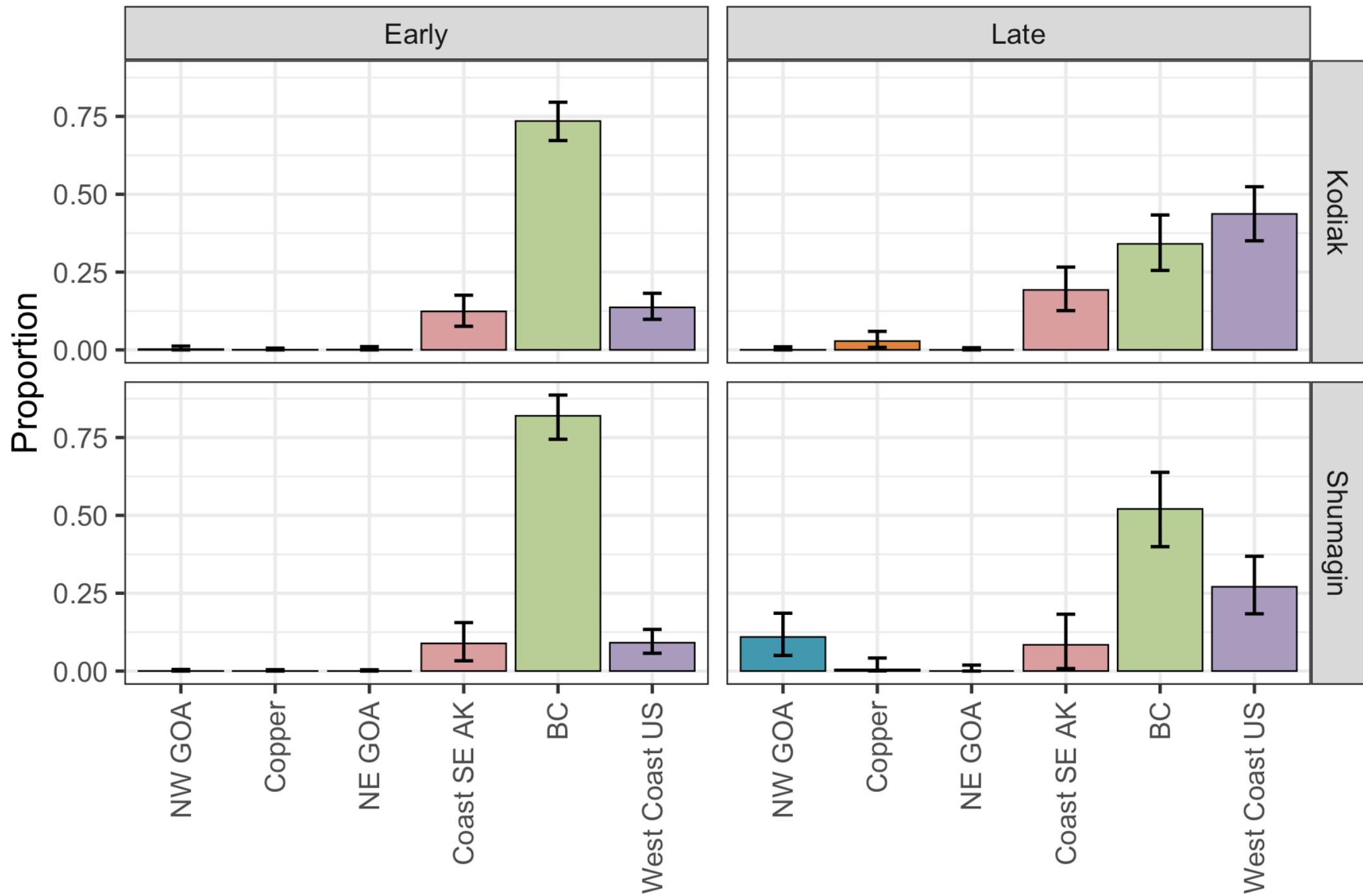


Yearly Chinook Salmon GOA Bycatch - Pollock

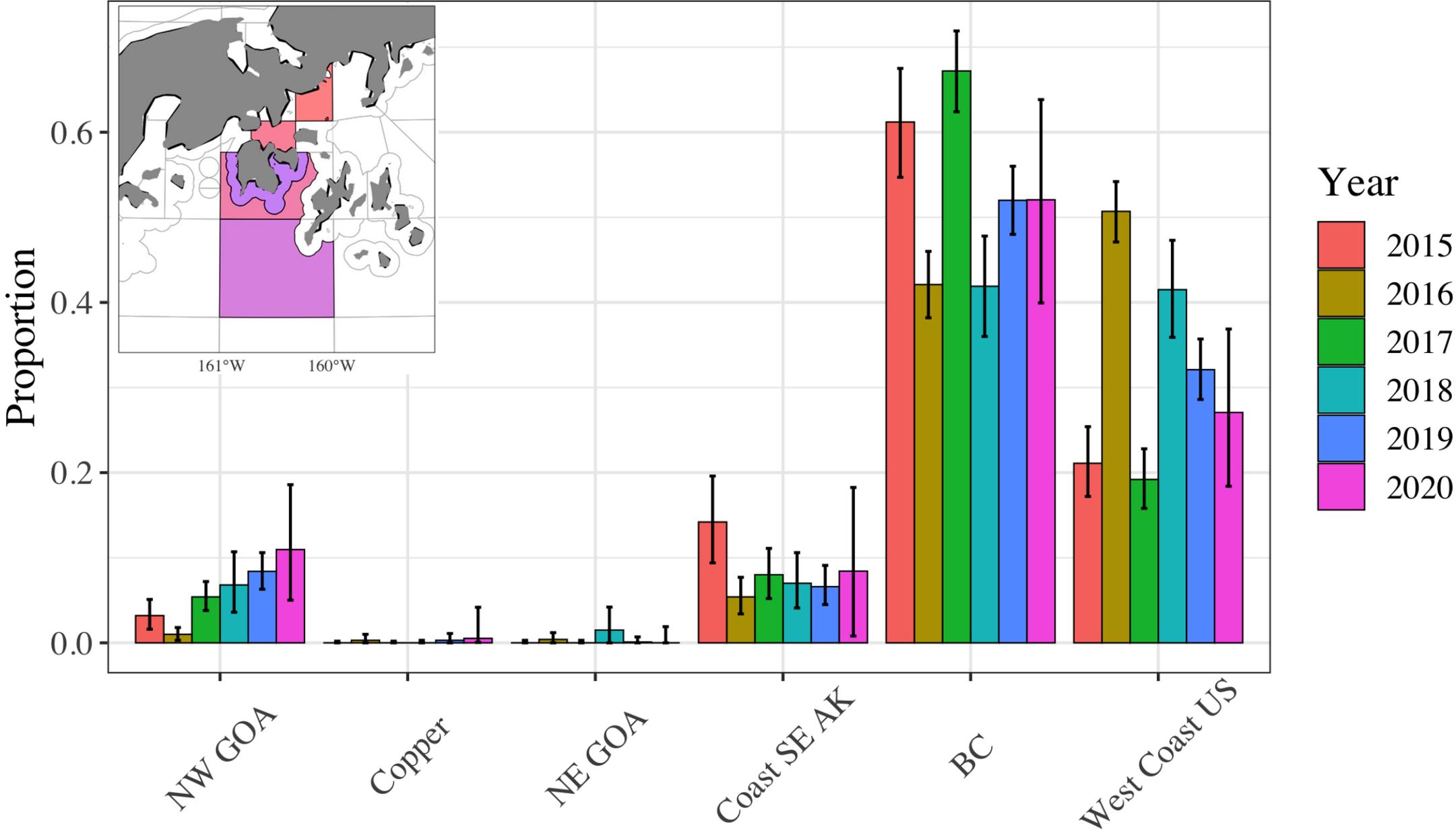




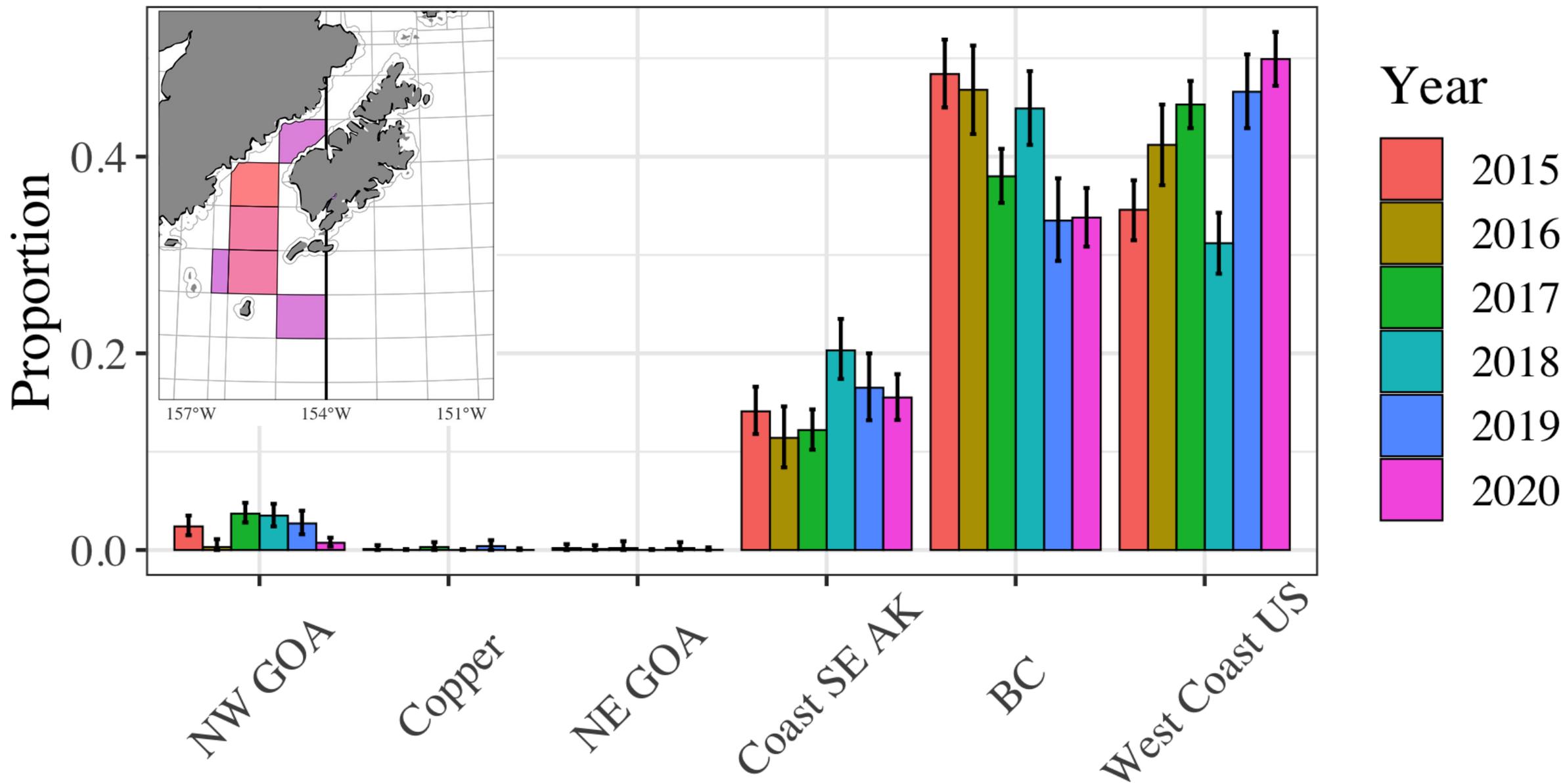




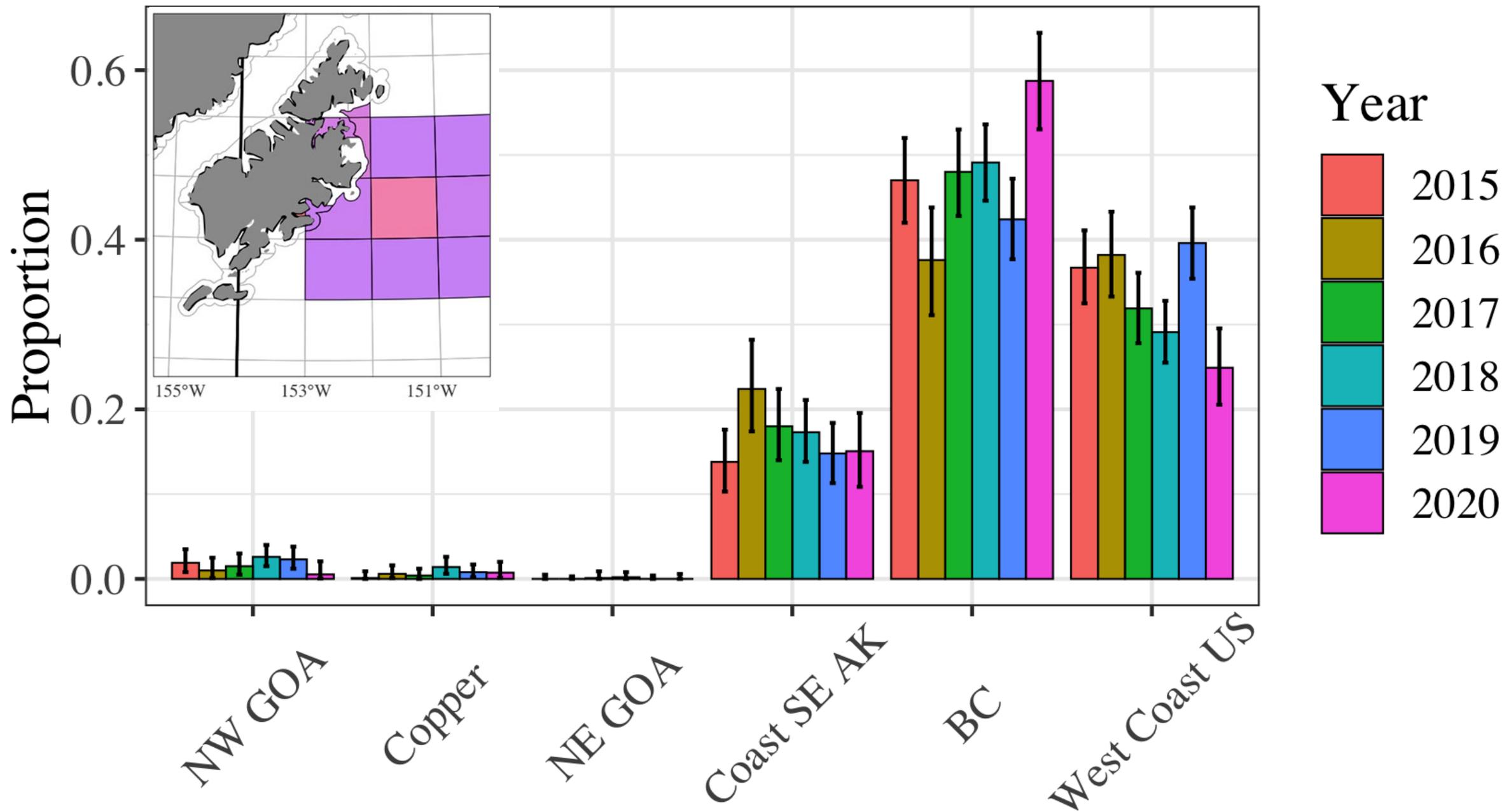
Shumagin Islands Late Chinook Bycatch - Pollock



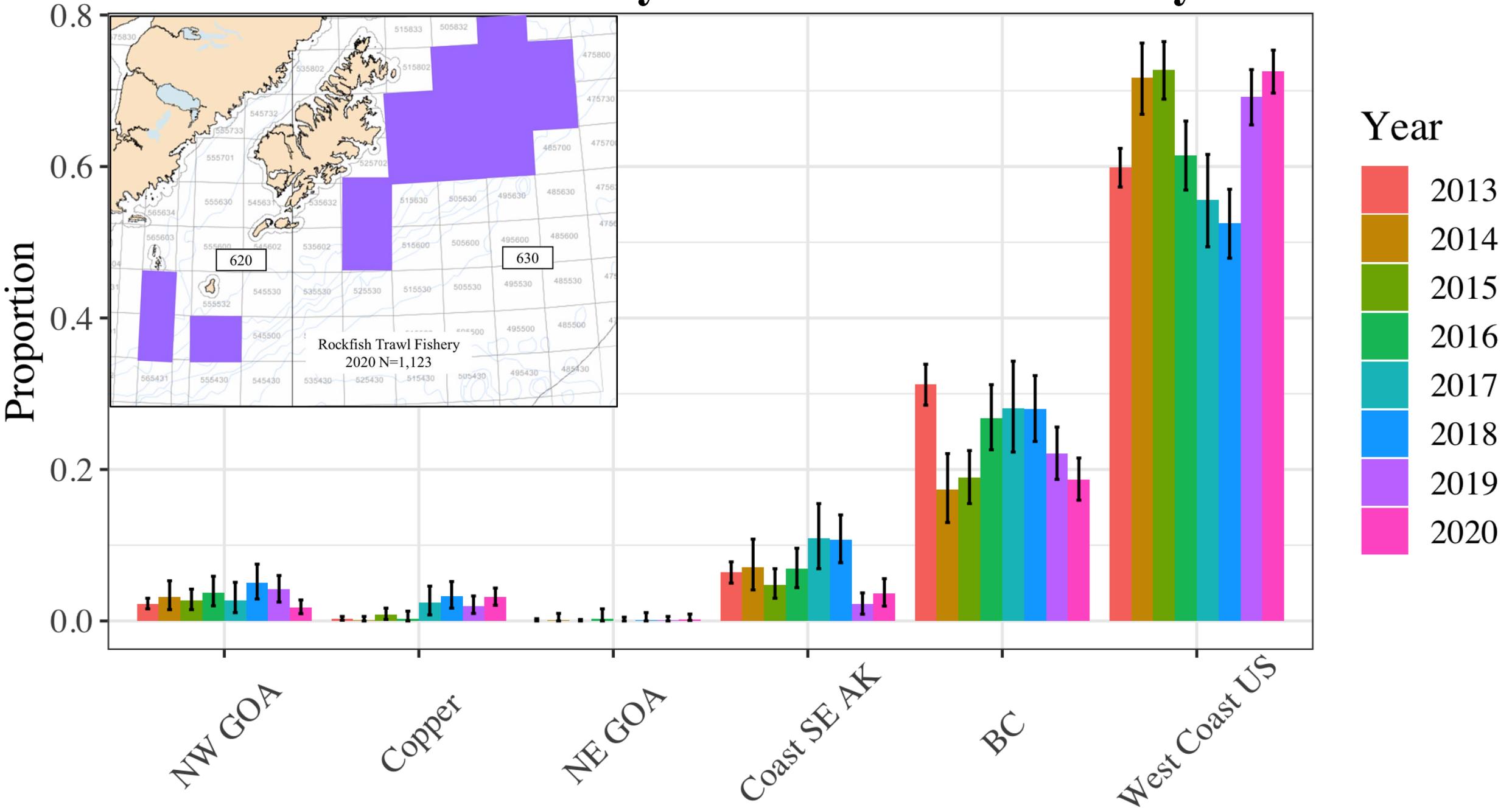
Shelikof Strait Chinook Bycatch - Pollock



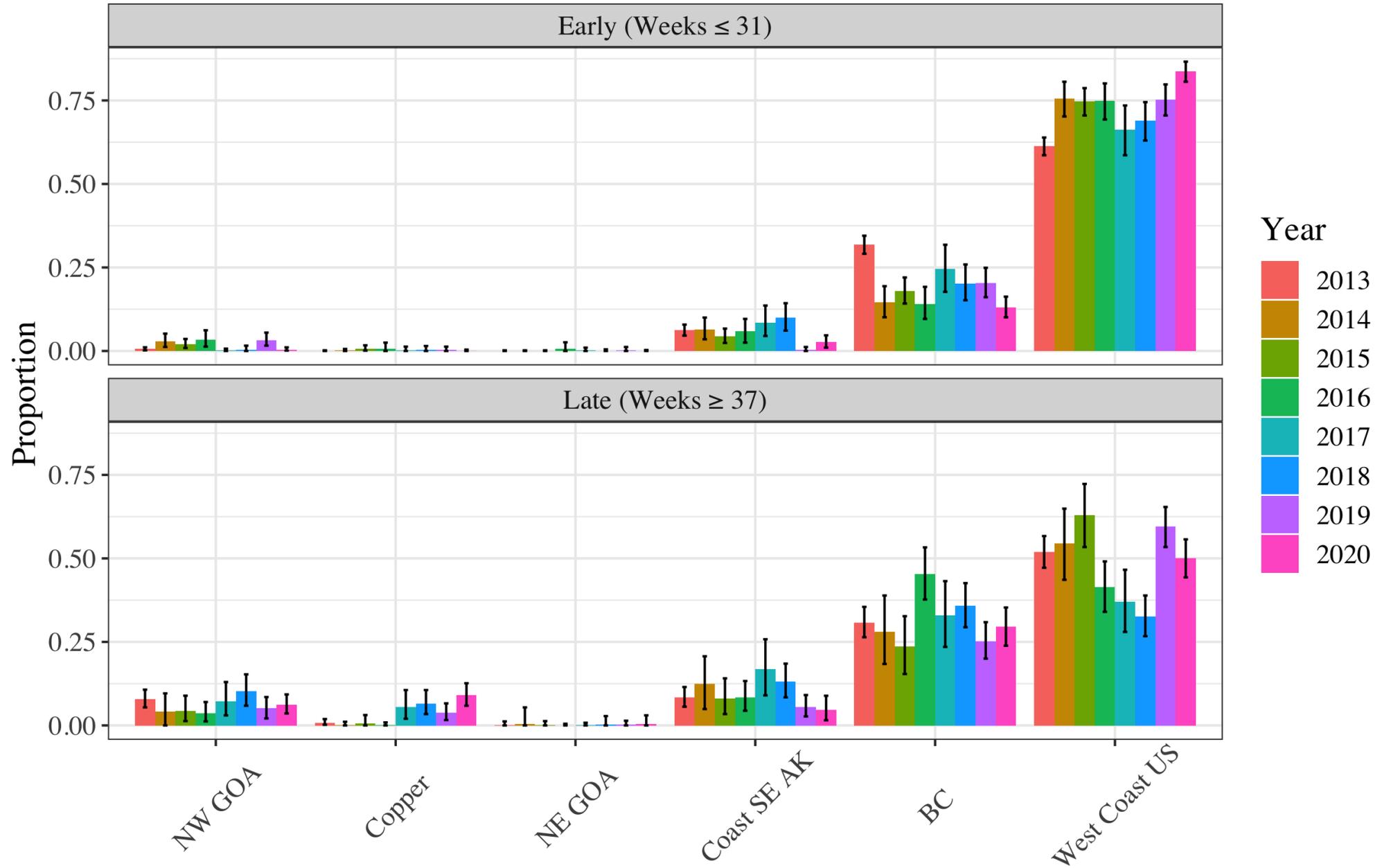
SE Kodiak Chinook Bycatch - Pollock



GOA Chinook Bycatch - Rockfish Fishery



GOA Chinook Bycatch - Rockfish Fishery



CHINOOK SALMON BYCATCH ASSESSMENT: MARK LAB, ADF&G COMPONENT

by

Bev Agler, Lorna Wilson, and Jodi Neil

Alaska Department of Fish and Game Division Commercial Fisheries, Juneau

Origin of thermal-marked Chinook Salmon otoliths collected in 2017-2020 from the Gulf of Alaska trawl fishery for rockfish as sampled by Alaska Groundfish Data

State/Province	2017	2018	2019	2020	Grand Total
South Central Alaska	1	6	4	0	11
Southeast Alaska	9	10	20	6	39
Oregon	2	2	1	0	5
Washington	9	15	3	19	27
British Columbia	1	4	8	18	13
	22	37	36	43	138

Release and recovery information for coded-wire tagged Chinook salmon captured as bycatch in the 2017-20 Gulf of Alaska trawl fishery for rockfish as sampled by Alaska Groundfish Data Bank. The number of Chinook salmon with readable coded-wire tags (CWTs) and clipped adipose fins (ad-clipped) is in parentheses.

From Michele Masuda – NOAA-Auke Bay Labs

Detection method	Number sampled				Number ad-clipped				Number with readable CWTs			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Electronic wand	299	504	695	1,123	42	67	98	186	14 (12)	27 (23)	35 (28)	81 (70)
Release state	Number of CWTs				Ad-clipped				Not ad-clipped			
	2017	2018	2019	2020		2019	2020		2019	2020		
Alaska	2	5	0	6		0	6		0	0		
British Columbia	2	1	2	4		2	4		0	0		
Washington	7	14	23	35		18	28		5	7		
Idaho	0	0	0	9		0	7		0	2		
Oregon	3	7	10	27		8	25		2	2		
Rearing type	Number of CWTs				Ad-clipped				Not ad-clipped			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Hatchery	12	27	34	80	10	23	27	69	2	4	7	11
Wild	2	0	1	1	2	0	1	1	0	0	0	0

Acknowledgements

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Alaska Region

AKFIN

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Camille Kohler

Bob Ryznar

ADF&G

Dani Evenson

Tyler Dann

MTA Lab

Bev Agler

Jodi Neil

Alaska Groundfish Data Bank

Julie Bonney

Katy McGauley