



**NOAA
FISHERIES**

High Seas CWT Recoveries in 2011 and 2012

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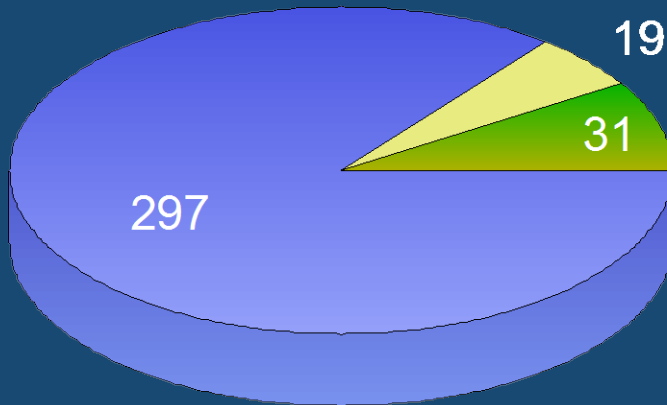
Auke Bay Laboratories, Alaska Fisheries Science Center

Juneau, AK 99801

Annual Meeting of the Regional Committee on Marking and Tagging,
Troutdale, OR, April 3-4, 2013

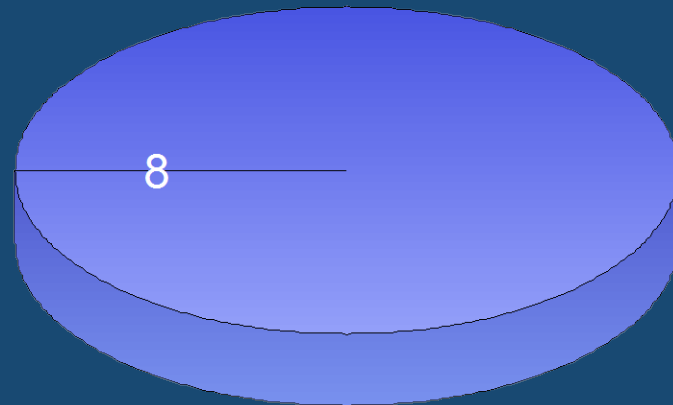
Bycatch of CWT salmonids in the 2011 trawl fishery in the Gulf of Alaska

Fish examined



Total Chinook caught = 20,769

CWTs



Total Estimated Contribution = ???

■ Sockeye ■ Chum ■ Pink ■ Coho ■ Chinook ■ Steelhead



Total Estimated Contribution (C)

1)

$$R_T = aR_O;$$

R_T = the estimated total recoveries of tags bearing the release group's code;

R_O = the observed number of tags of the appropriate code;

a = a sampling expansion factor: (total catch)/(sampled catch).

2)

$$C = bR_T;$$

C = the total estimated contribution of the release group to the fishery in that area at that time;

b = a marking expansion factor: (total fish released)/(total fish marked).

from Regional Overview of Coded Wire Tagging of
Anadromous Salmon and Steelhead in Northwest America



CWT Tunnel Detector Test, 2012

- GOA pollock fishery
- Kodiak processing plant
- September and October, 2012
- Proximate Goal: To test equipment function and logistics in a plant processing the Chinook salmon bycatch
- Ultimate goal: To increase numbers of CWTs recovered from the Chinook bycatch of ocean fisheries



Bycatch of CWT salmonids in the 2012 trawl fishery in the Gulf of Alaska: Tunnel Detector Test

Fish examined



Total Chinook caught = 22,582

CWTs



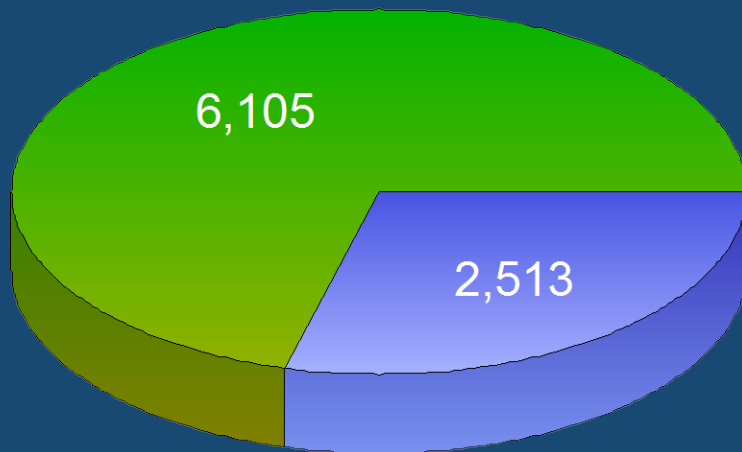
Total Expected CWTs = 1333

■ Sockeye ■ Chum ■ Pink ■ Coho ■ Chinook ■ Steelhead



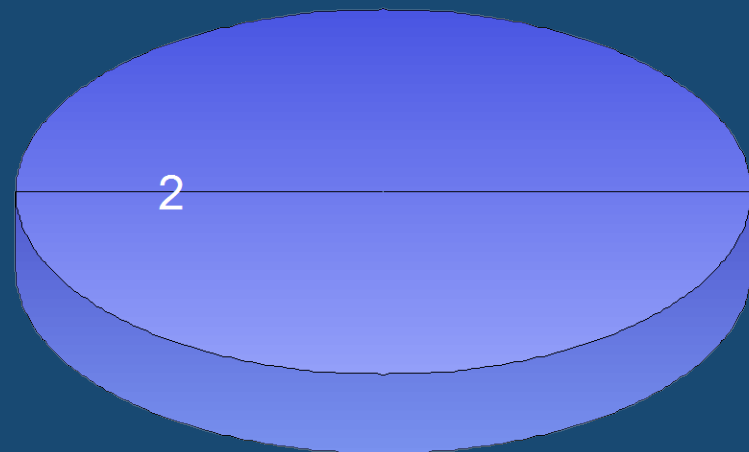
Bycatch of CWT salmonids in the 2011 trawl fishery in the Bering Sea and Aleutian Islands

Fish examined



Total Chinook caught = 26,670

CWTs



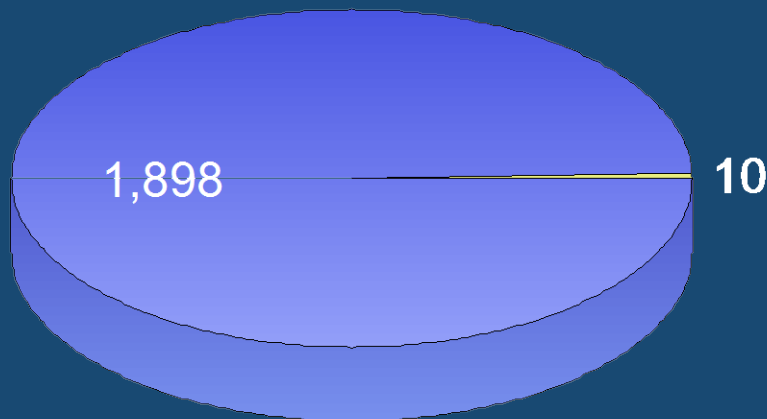
Total Estimated Contribution = 21.4

Legend: Sockeye (Red), Chum (Green), Pink (Pink), Coho (Yellow), Chinook (Blue), Steelhead (Grey)



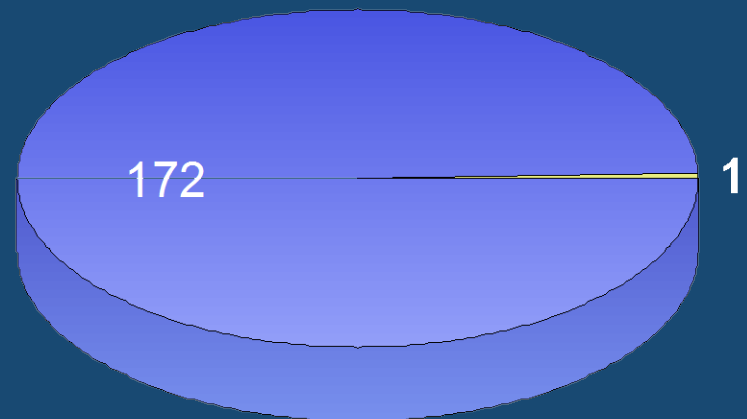
Bycatch of CWT salmonids in the 2011 trawl fishery off WA-OR-CA

Fish examined



Total Chinook caught = 4359

CWTs

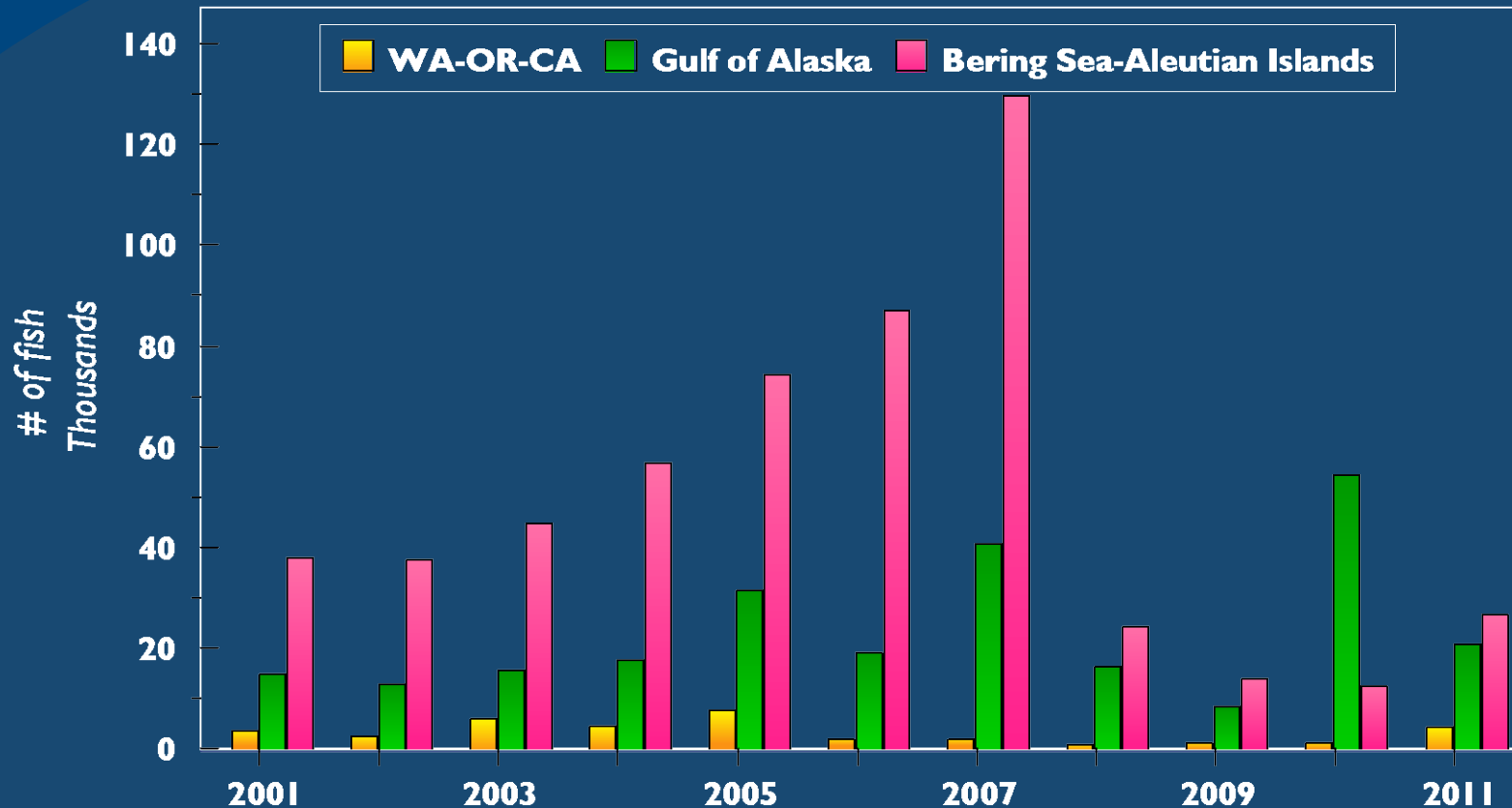


Total Estimated Contribution = 1703

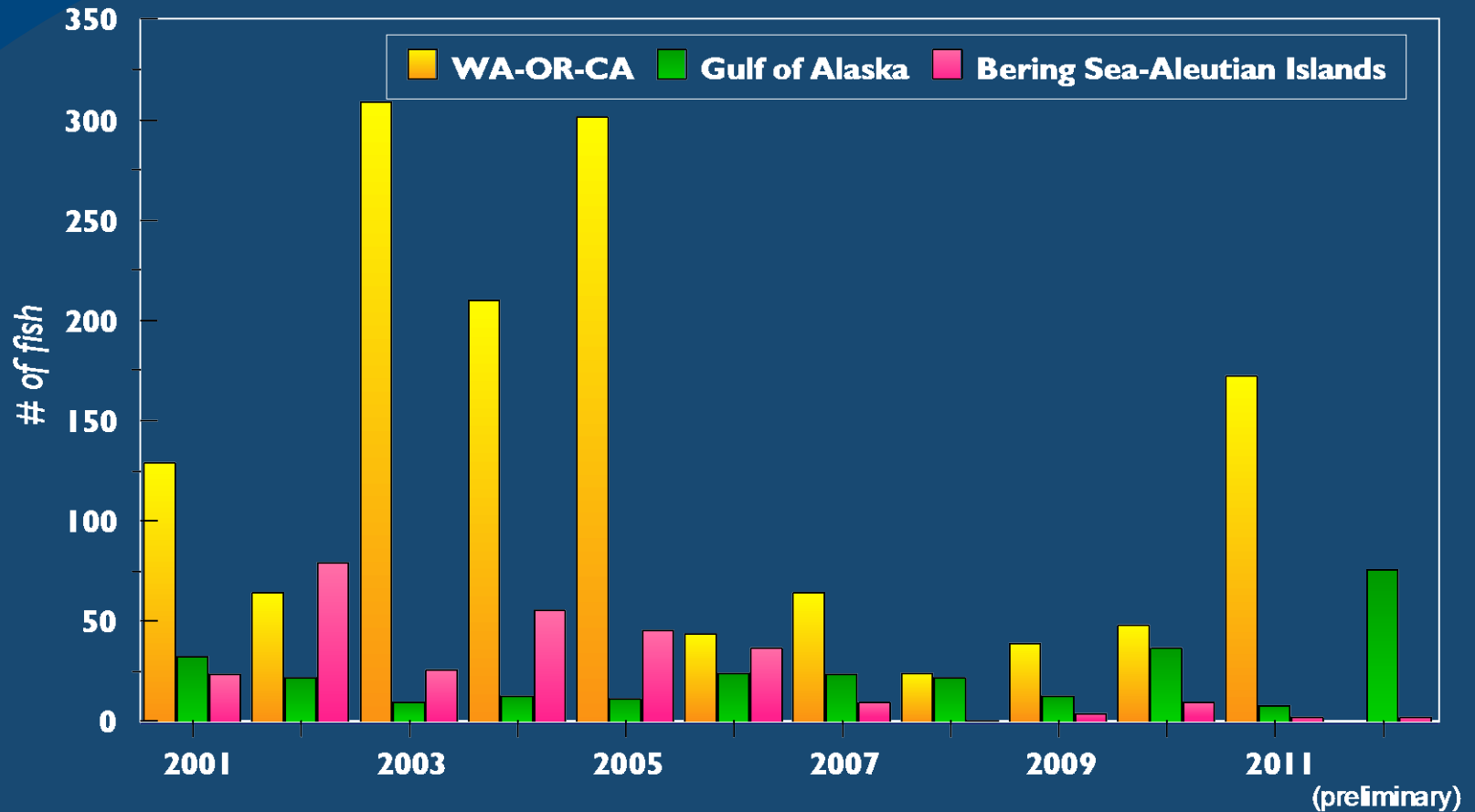
■ Sockeye ■ Chum ■ Pink ■ Coho ■ Chinook ■ Steelhead



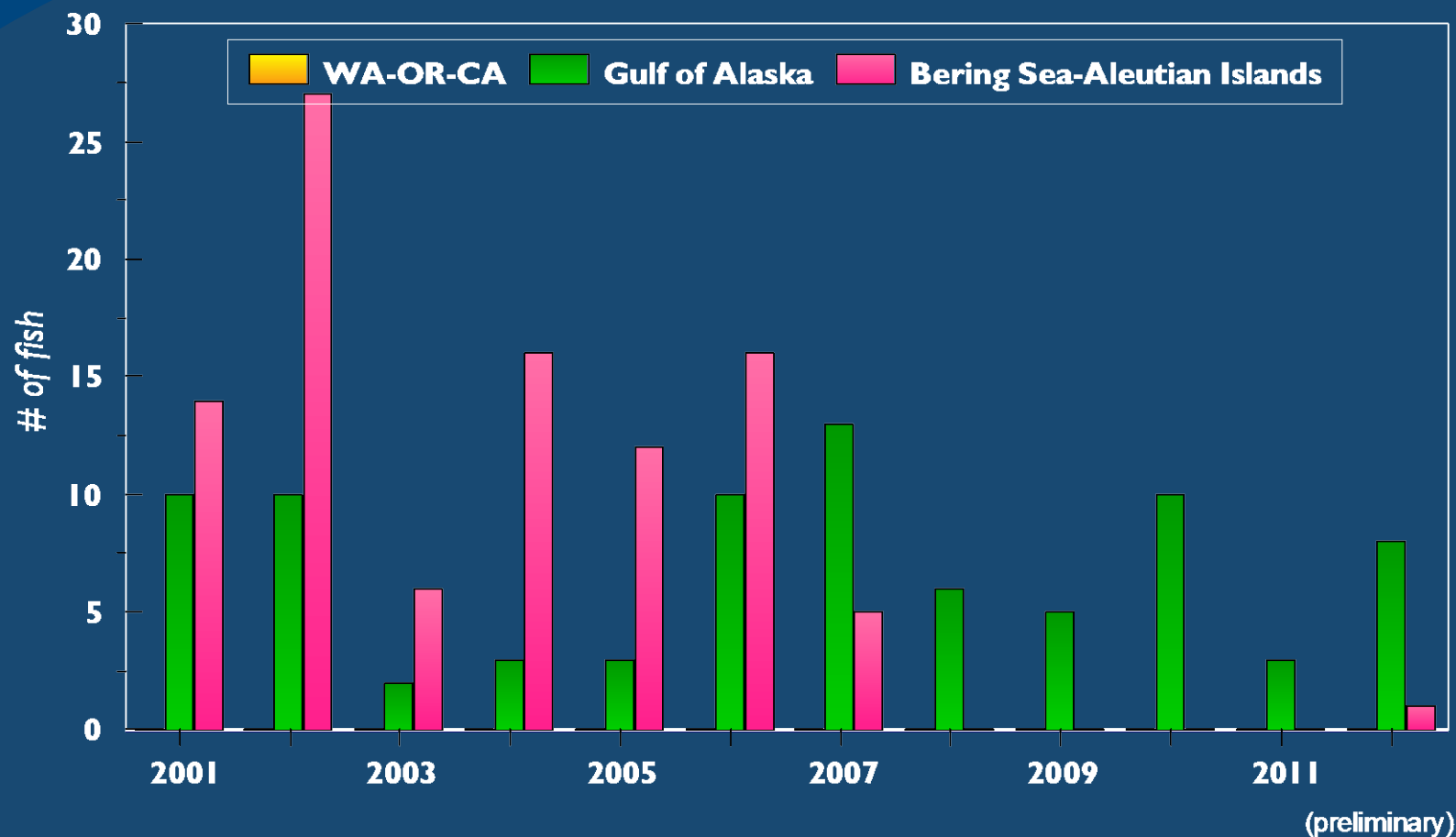
Total Chinook salmon bycatch in 3 high seas trawl fisheries, 2001-2011



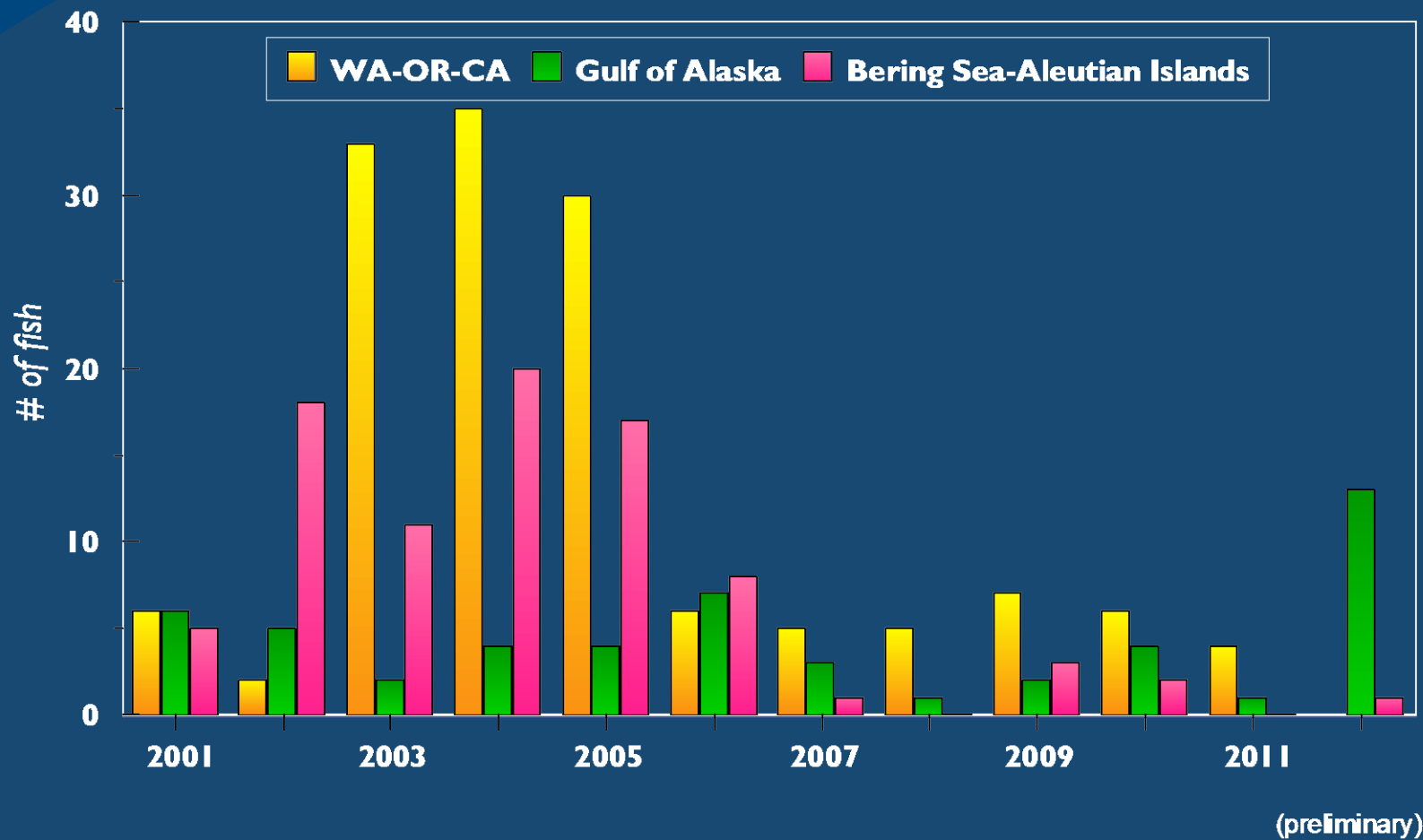
Occurrence of CWT Chinook salmon in 3 high seas trawl fisheries, 2001-2012



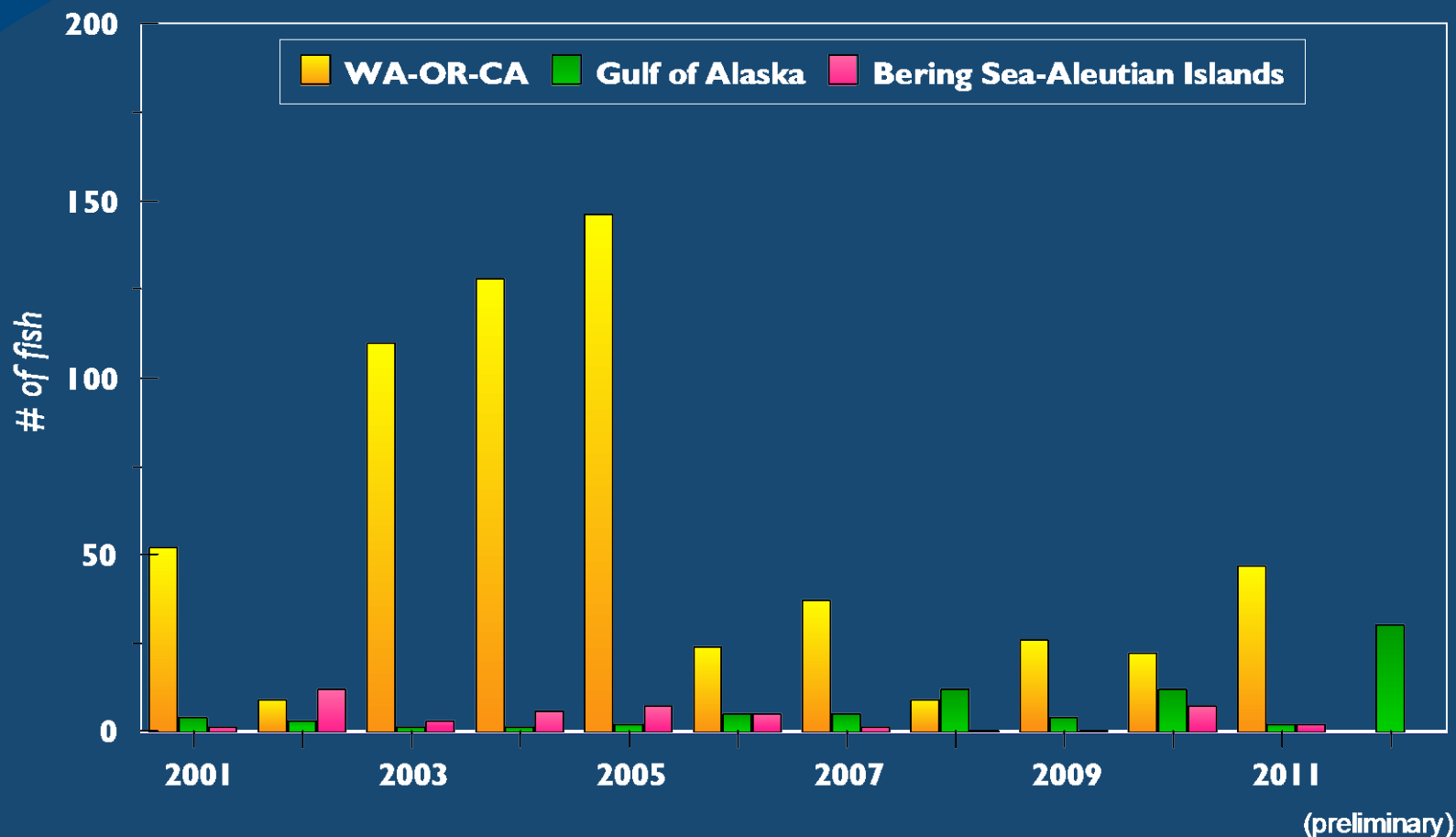
Occurrence of AK-origin CWT Chinook salmon captured in 3 high seas trawl fisheries, 2001-2012



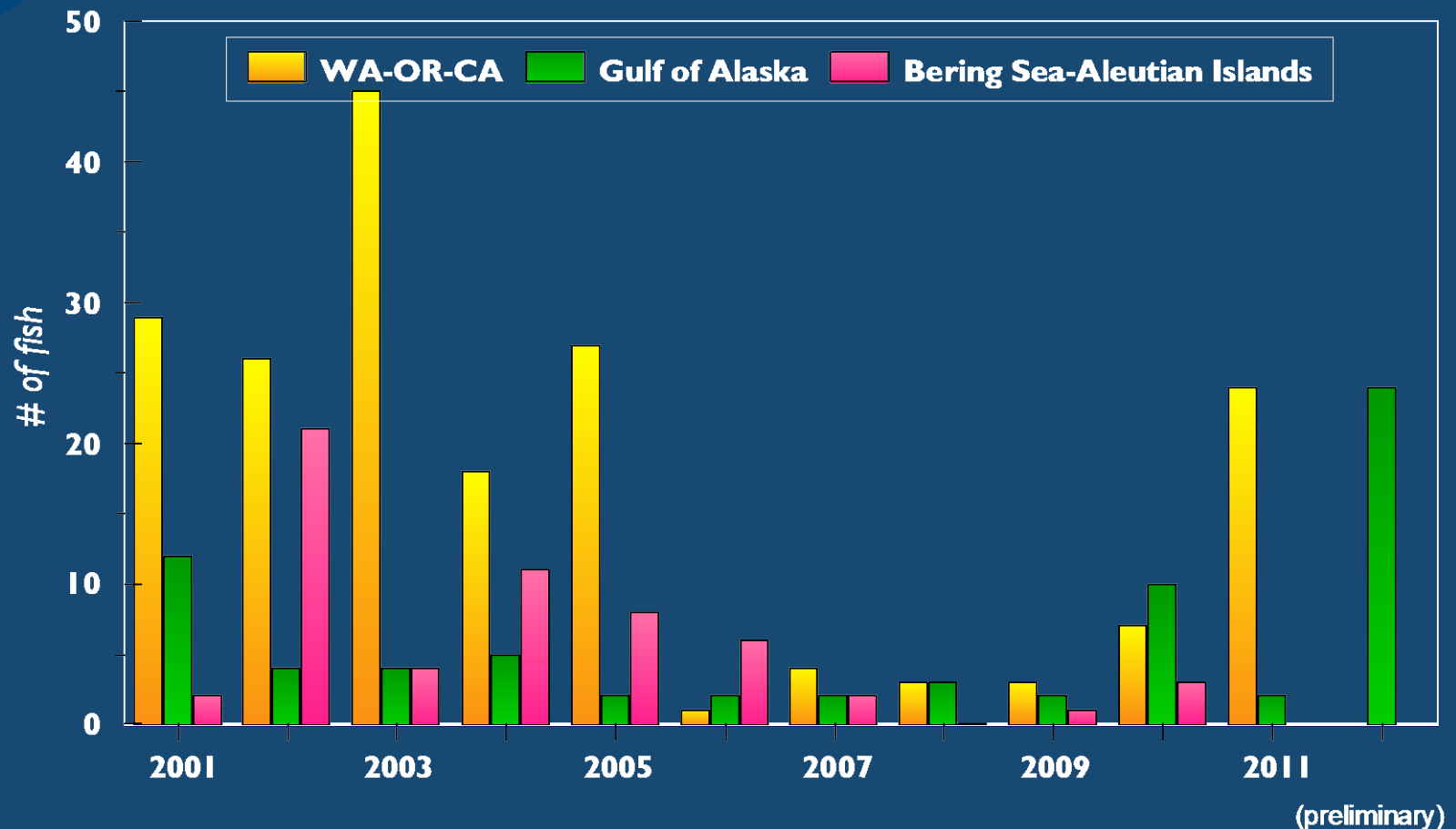
Occurrence of BC-origin CWT Chinook salmon captured in 3 high seas trawl fisheries, 2001-2012



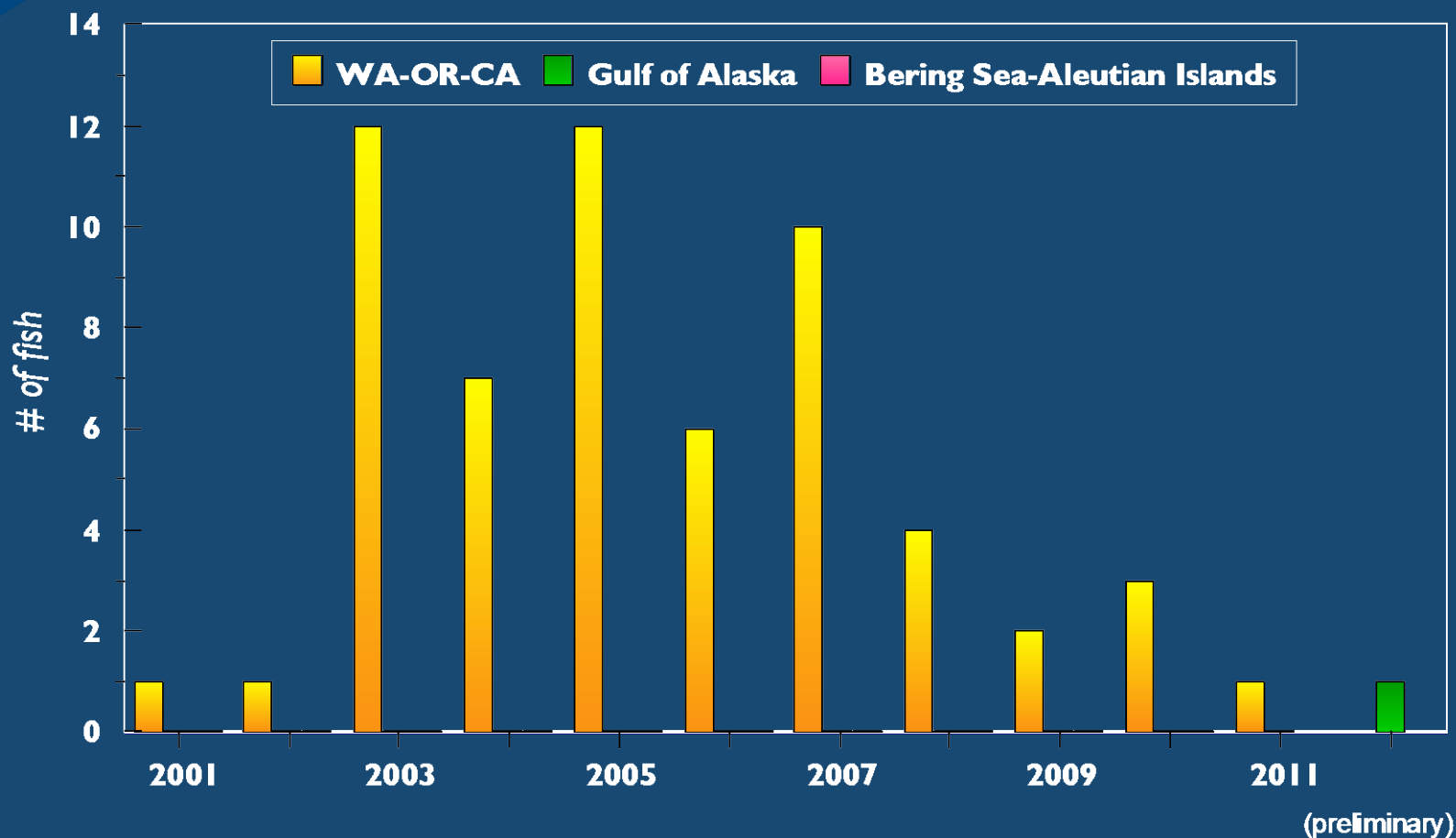
Occurrence of WA-origin CWT Chinook salmon captured in 3 high seas trawl fisheries, 2001-2012



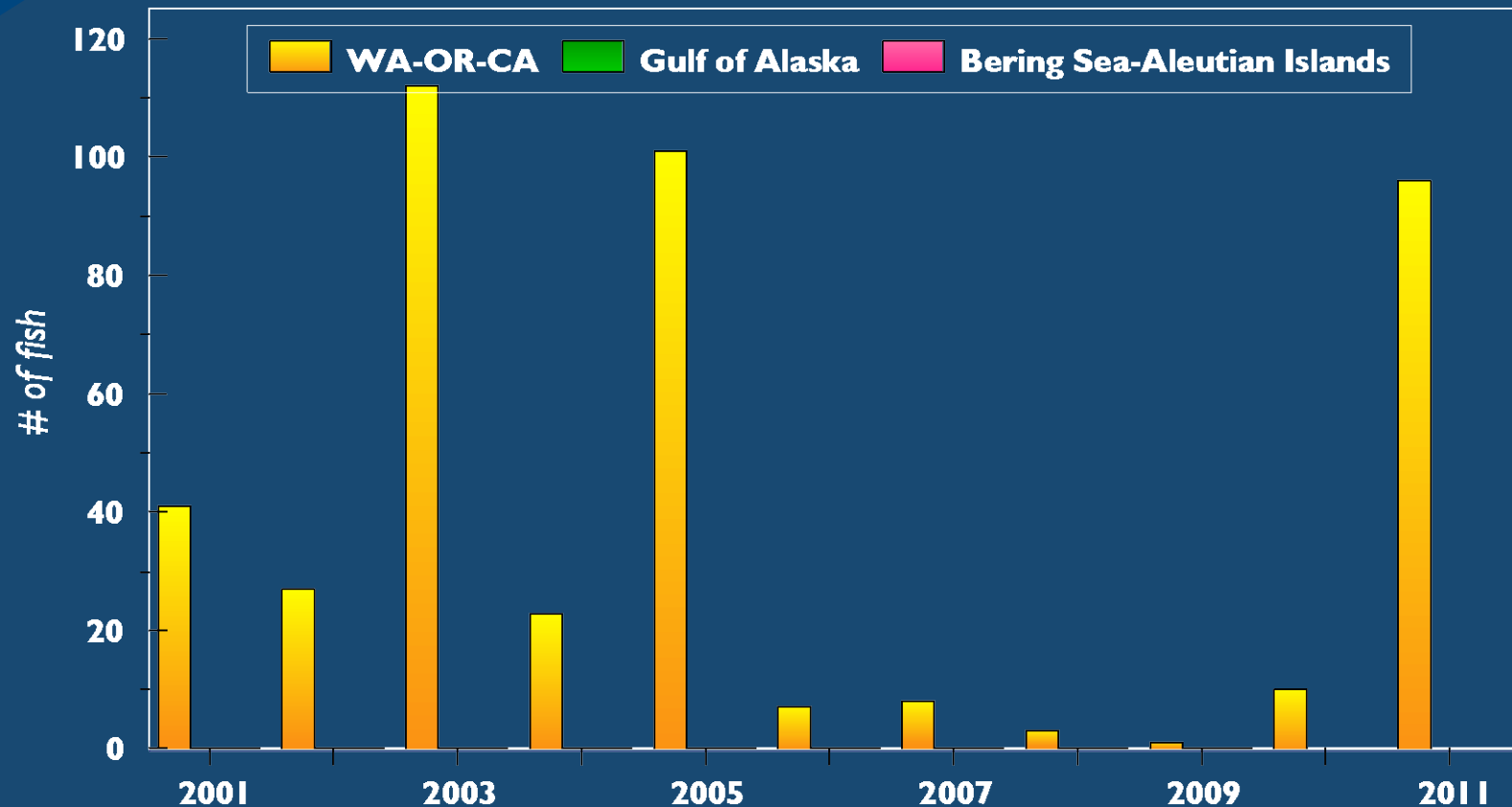
Occurrence of OR-origin CWT Chinook salmon captured in 3 high seas trawl fisheries, 2001-2012



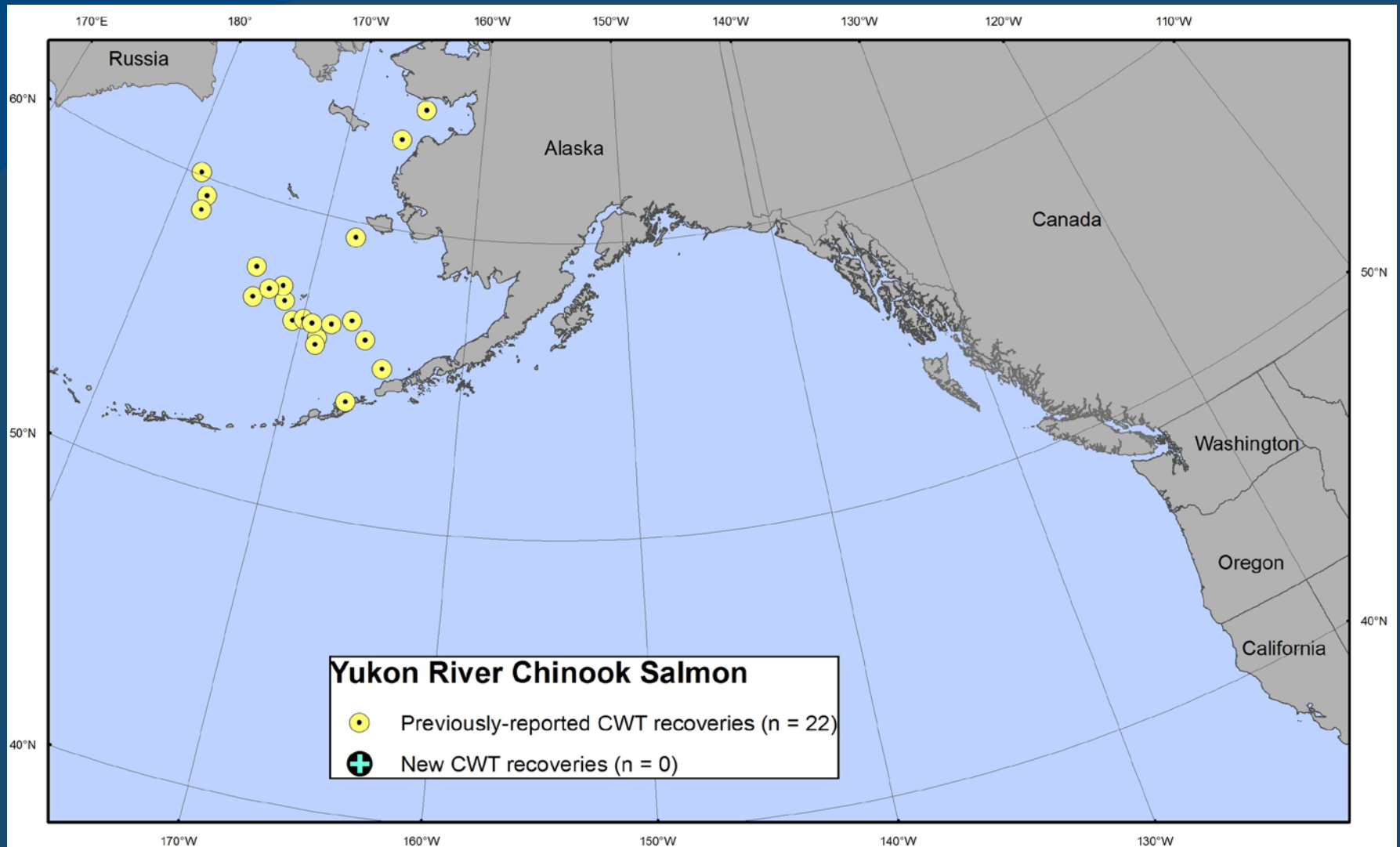
Occurrence of ID-origin CWT Chinook salmon captured in 3 high seas trawl fisheries, 2001-2012



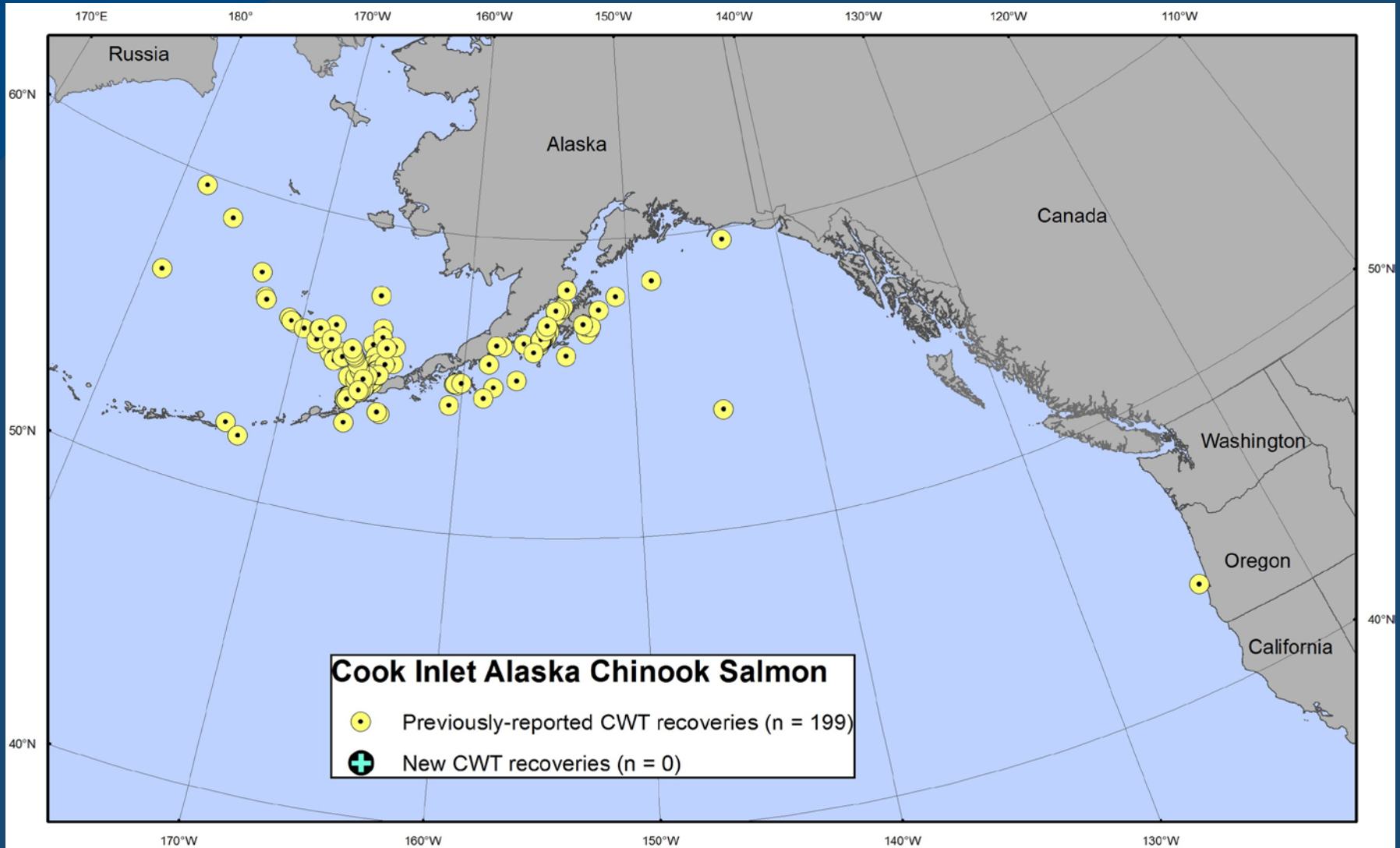
Occurrence of CA-origin CWT Chinook salmon captured in 3 high seas trawl fisheries, 2001-2012



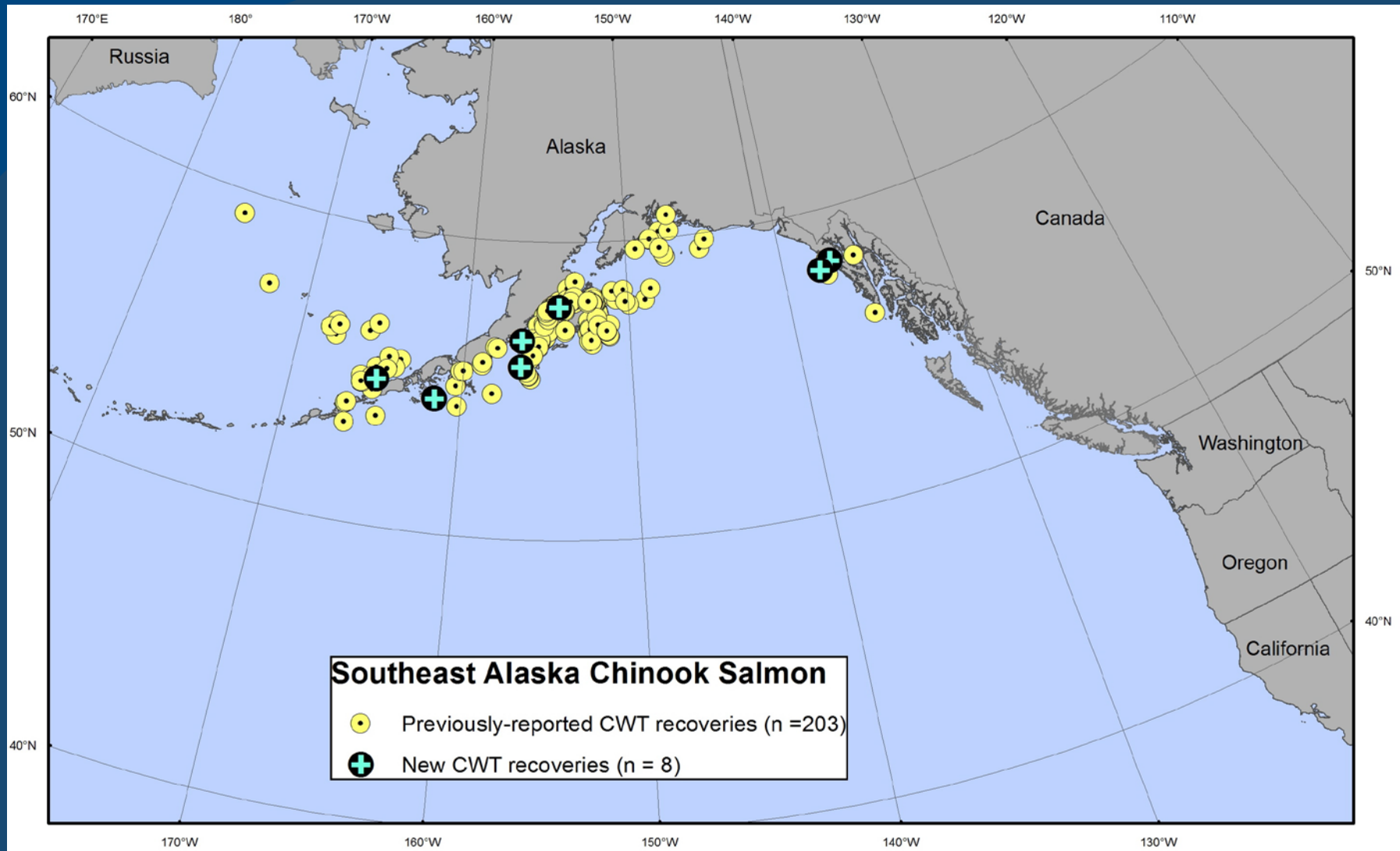
Ocean distribution of Yukon River Chinook salmon from CWT recoveries, 1981-2012



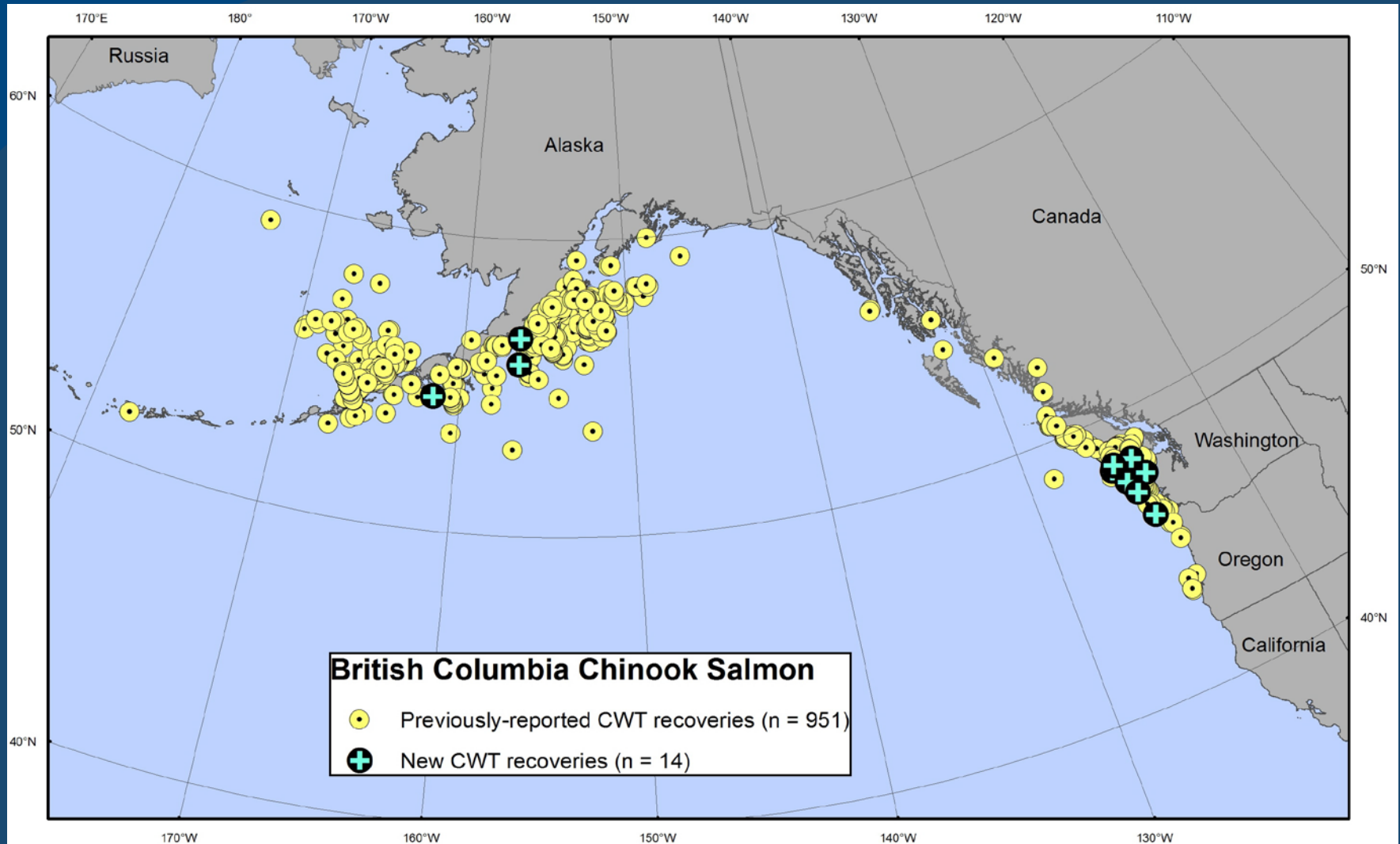
Ocean distribution of Cook Inlet, Alaska Chinook salmon from CWT recoveries, 1981-2012



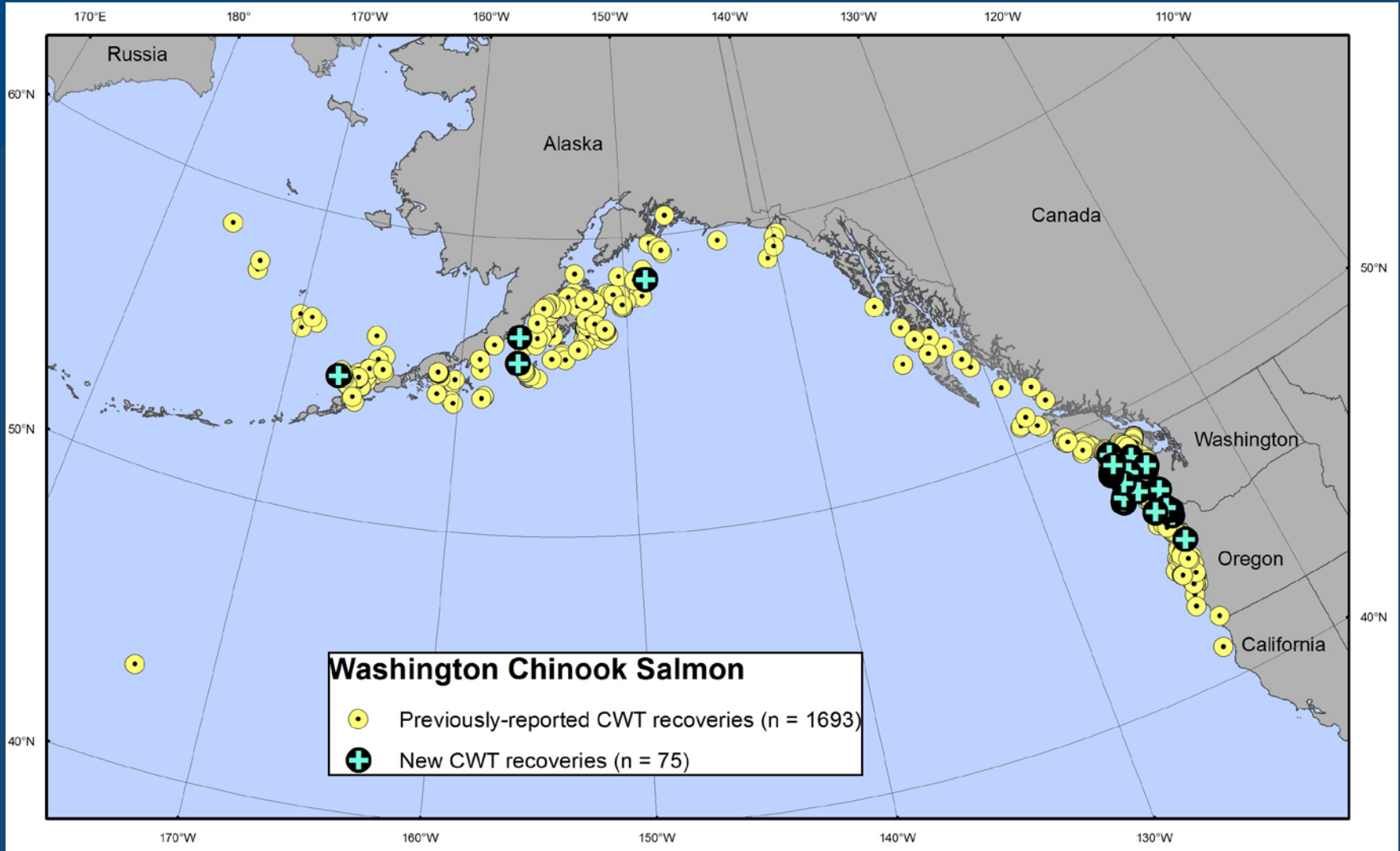
Ocean distribution of Southeast Alaska Chinook salmon from CWT recoveries, 1981-2012



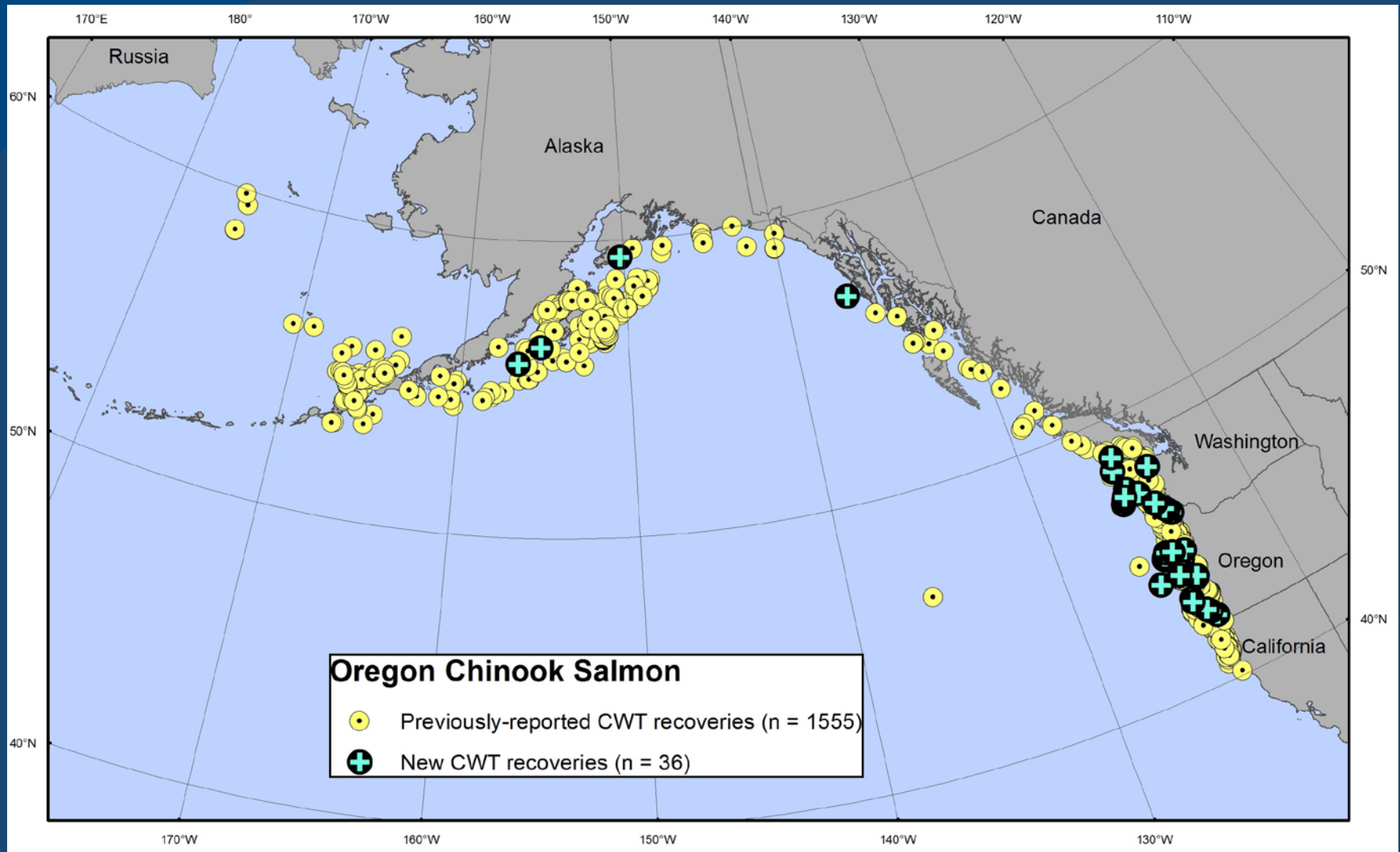
Ocean distribution of British Columbia Chinook salmon from CWT recoveries, 1981-2012



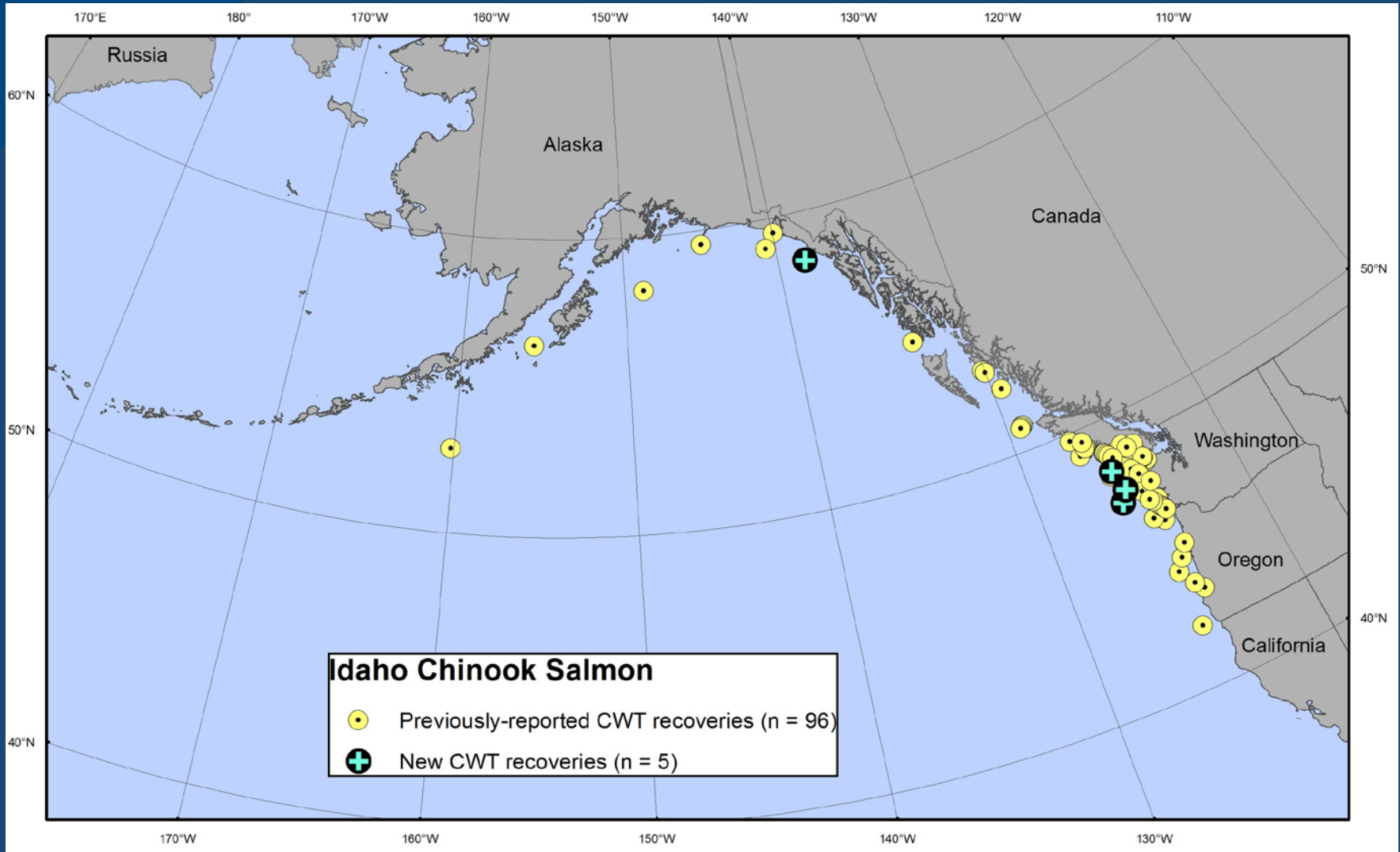
Ocean distribution of Washington Chinook salmon from CWT recoveries, 1981-2012



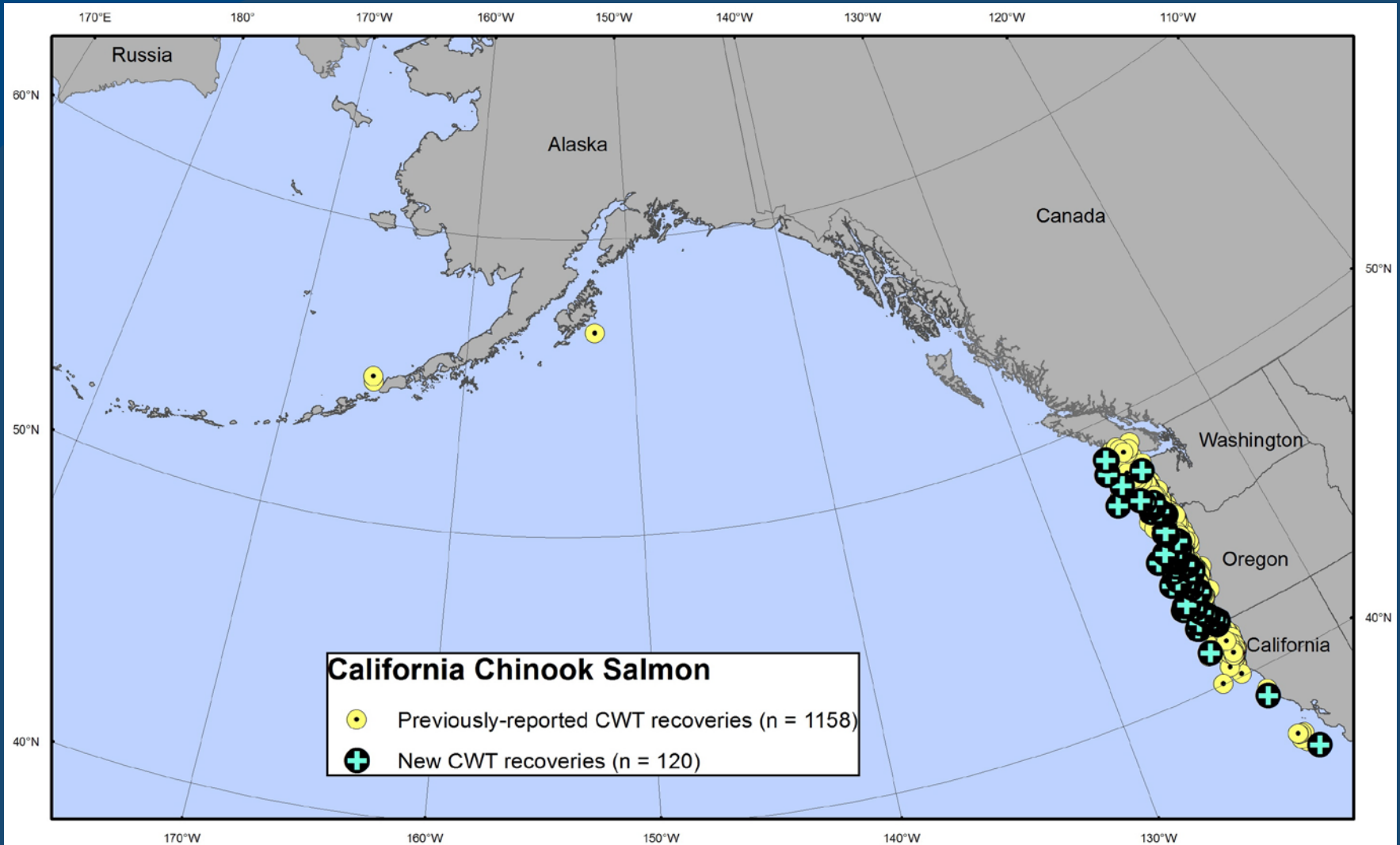
Ocean distribution of Oregon Chinook salmon from CWT recoveries, 1981-2012



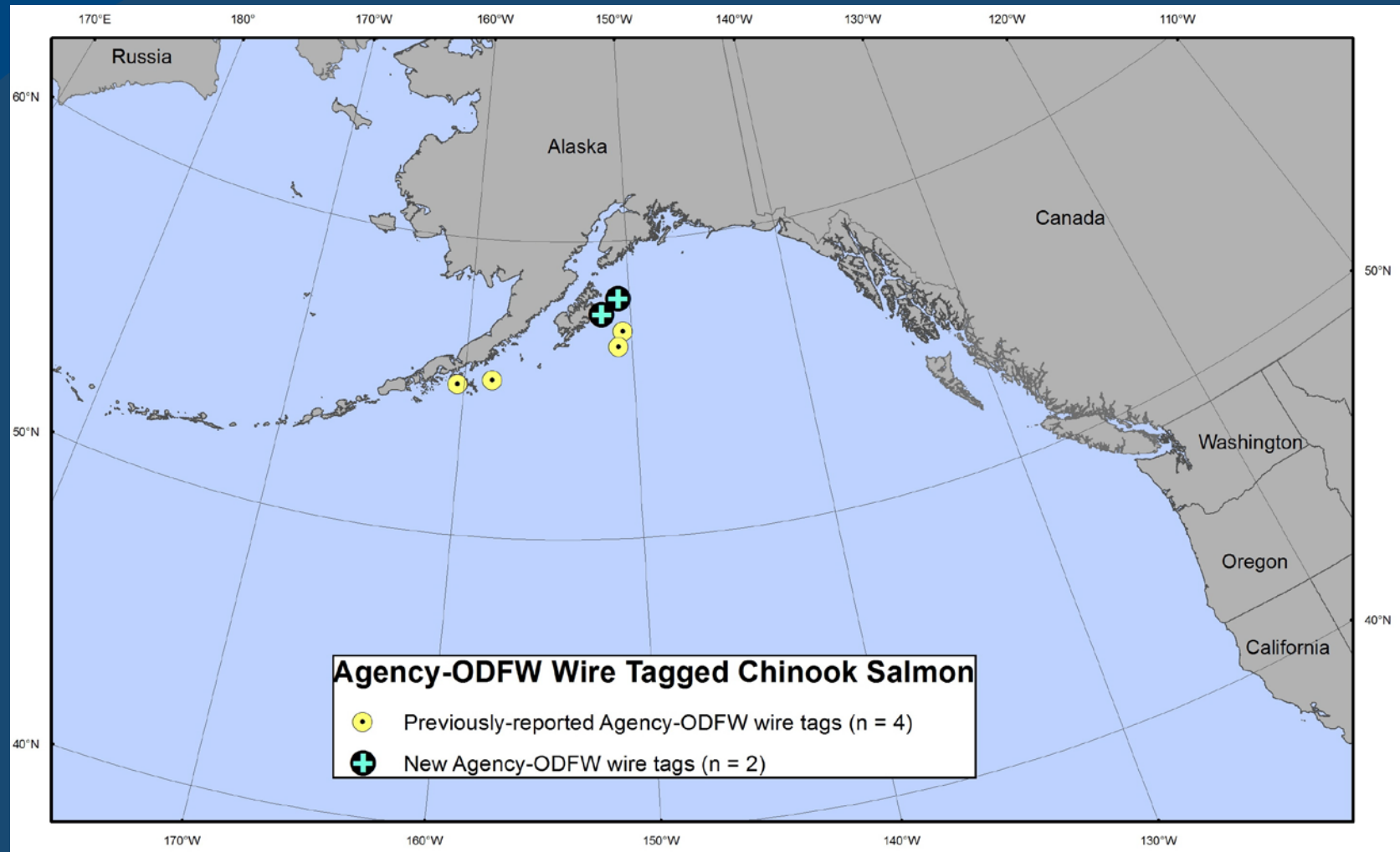
Ocean distribution of Idaho Chinook salmon from CWT recoveries, 1981-2012



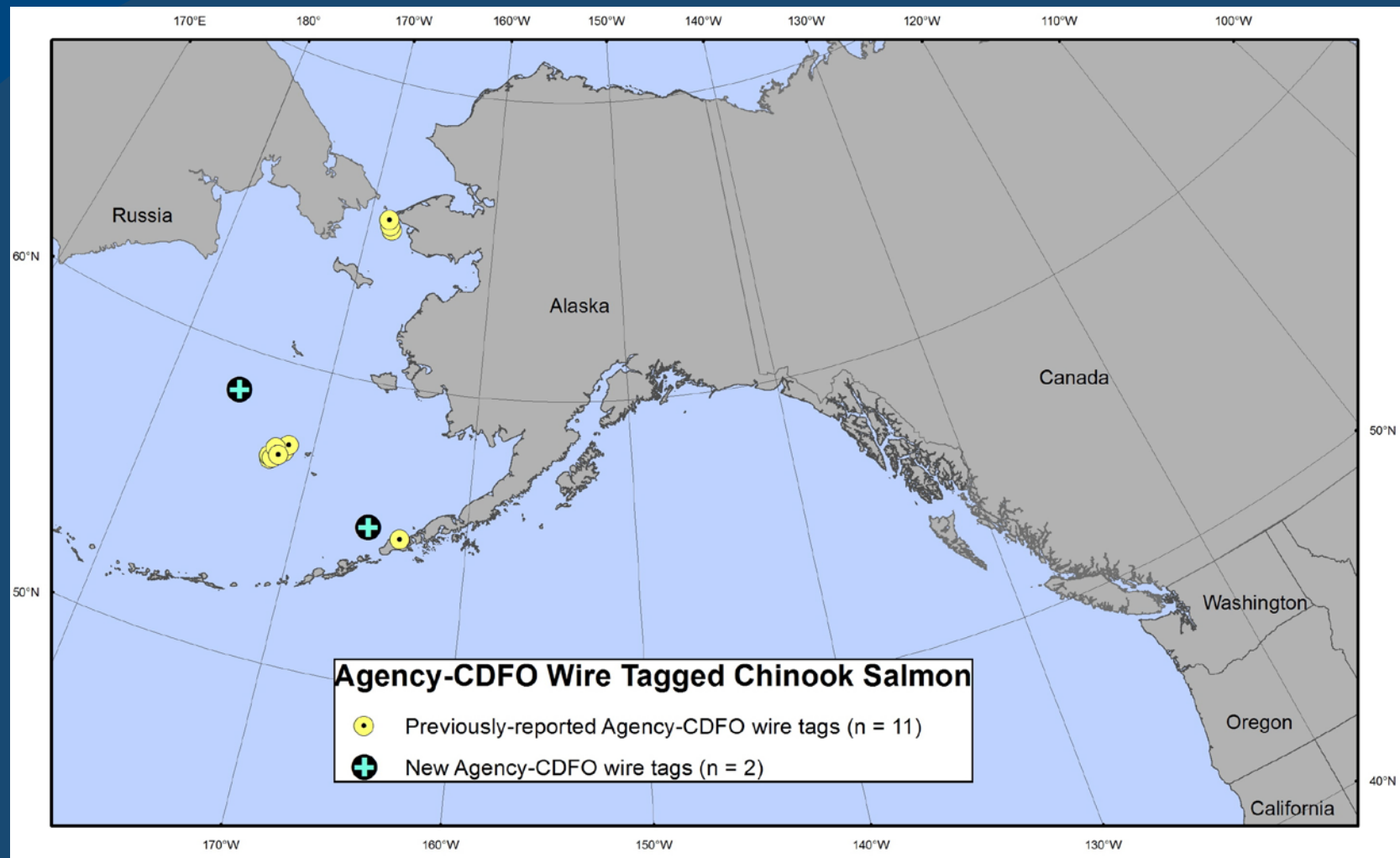
Ocean distribution of California Chinook salmon from CWT recoveries, 1981-2012



Ocean distribution of Oregon Chinook salmon from Agency-ODFW wire tags, (NOT CWTs), 2010-2012



Ocean distribution of Canada Chinook salmon from Agency-CDFO wire tags, (NOT CWTs), 2007-2012





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The End



Any questions?