



Researchers in the Bering Sea sort immature and maturing chum salmon catch. Photo by Jim Murphy.



The North Pacific Fishery Management Council (NPFMC) and the National Marine Fisheries Service (NMFS) together manage U.S. Federal groundfish fisheries, like Bering Sea pollock, between 3-200 nautical miles off Alaska. The NPFMC makes policy recommendations on allocations and conservation and NMFS implements Federal regulations.

## Salmon Bycatch

By law, Chinook and chum salmon that are caught pollock fishing **cannot** be retained or sold and must be returned to sea with minimal injury, after an observer has determined the number of salmon and collected any scientific data or biological samples. When feasible, salmon caught as bycatch are donated to food banks.

Chinook and chum salmon are caught most often as bycatch in the Bering Sea pollock fishery because they are in the same locations and depth as the pollock fishery. The Bering Sea pollock fishery is one of the cleanest in terms of incidental catch of other species. Less than 1% of the total catch in the Bering Sea pollock fishery is made up of other species.

## Salmon Genetics

Each year, the Council and NMFS use observer data to determine the stock of origin of salmon bycatch to understand if the salmon bycatch management program is working.

Not all salmon caught in the pollock fishery are from coastal Western Alaska. Based on the most recent genetic data from 2019:

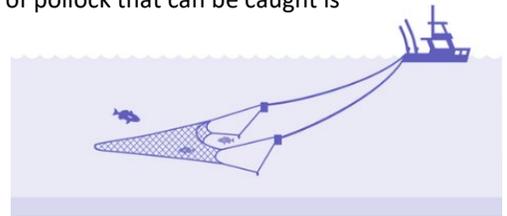
- 40% of the Chinook salmon bycatch originates from coastal Alaska river systems.
  - Chinook bycatch also originates from British Columbia (25%), northern Alaska Peninsula (15%), and the Pacific coast (14%).
- 16% of the chum salmon bycatch originates from coastal Alaska river systems.
  - Chum bycatch also originates from Asia (57% and primarily hatchery fish), Eastern Gulf of Alaska/Pacific Northwest (23%), and Southwest Alaska (4%).

2019 Genetics data indicate that **less than 1% of Chinook and chum salmon bycatch** was attributed to the middle/upper Yukon River systems.

## Bering Sea Pollock Fishing

Pollock is caught using midwater trawl gear – large nets towed through the water. The amount of pollock that can be caught is divided between two seasons:

- A - January 20-June 10
- B - June 10 to November 1



The NPFMC and NMFS have been actively addressing Chinook and chum salmon bycatch since the mid-1990s. The NPFMC's current management approach for salmon bycatch in the Bering Sea pollock fishery is to **avoid salmon in all conditions of salmon and pollock abundance.**

## Bering Sea Pollock Management

In 2011, the NPFMC implemented **Amendment 91** to increase incentives for fishers to further reduce Chinook salmon bycatch.

- **There is an overall limit of 60,000 Chinook salmon for the pollock fleet.** If the pollock fleet reaches that overall limit, the pollock fishery will close for the remainder of the year, even if the entire pollock catch limit has not been harvested.
- **The Performance Standard is 47,591 Chinook Salmon** ensures the pollock fleet does not reach the overall limit of 60,000 fish.

In 2016, under **Amendment 110**, the Council improved Chinook and chum salmon bycatch management in the Bering Sea by creating a comprehensive salmon bycatch avoidance program.

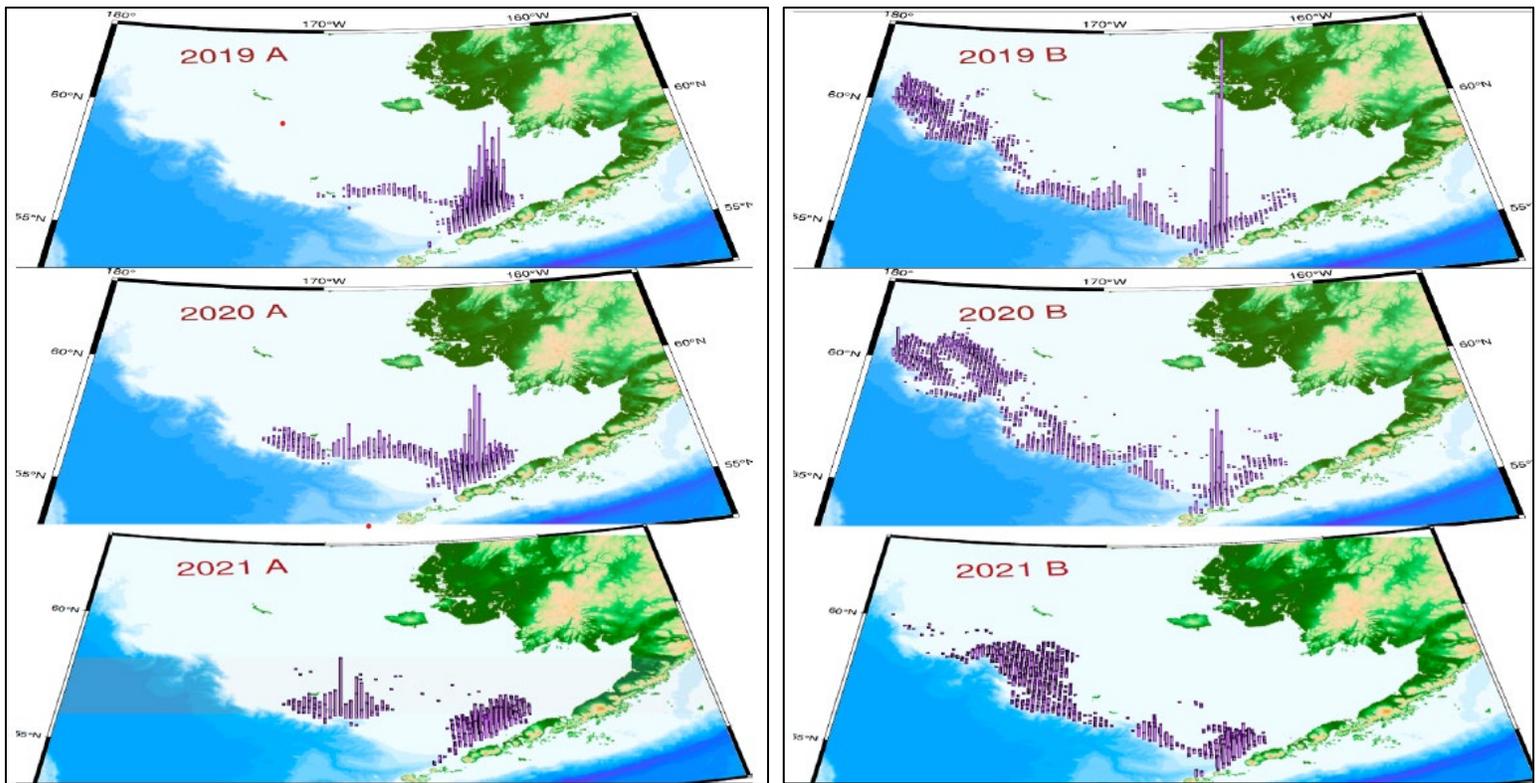
Additional regulations under Amendment 110 reduced the Chinook salmon hard cap limit and performance standard during times of very low runs in Western Alaska.

Each year, the Alaska Department of Fish & Game provides Chinook salmon total abundance based on post-season run size of Kuskokwim, Unalakleet, and Upper Yukon stocks.

If the total is **above 250,000 Chinook salmon**, the bycatch must be less than 60,000 fish with a performance standard of 47,591 fish.

If the total is **below 250,000 Chinook salmon**, the bycatch must be less than 45,000 with a performance standard of 33,318 fish.

- ✓ *The 2022 Bering Sea pollock fishery will operate under the 45,000 fish limit with a performance standard of 33,318 fish.*



Where Eastern Bering Sea pollock are caught during the A and B seasons, 2019 - 2021. Column height is proportional to catch.  
 Source: [https://apps-afsc.fisheries.noaa.gov/Plan\\_Team/2021/EBSPollock.pdf](https://apps-afsc.fisheries.noaa.gov/Plan_Team/2021/EBSPollock.pdf).

## Observer Program

NMFS has a comprehensive monitoring program that includes independent, at-sea observers and electronic cameras to collect data on salmon bycatch in the Bering Sea pollock fishery. NMFS uses this information to estimate how many Chinook and chum salmon are caught as bycatch from trawl vessels, where those fish came from, and whether a potential violation of laws occurred. No data is self-reported by captains.

**Every vessel** in the Bering Sea pollock fishery is required to have at least one scientifically trained observer onboard. Observers carefully monitor and count every Pacific salmon caught incidentally in the pollock nets, which provides very precise count of salmon bycatch.

- Catcher vessels that deliver pollock to shoreside processors or to motherships have one observer on board 100% of the time the vessel is operating. A census count of catcher vessel deliveries is conducted so every pollock delivery is monitored for salmon bycatch.
- Catcher processors and motherships have two observers onboard 100% of the time the vessel is operating. **Every haul** is monitored to ensure every salmon caught is counted and recorded.
- NMFS and the fishing industry are also currently testing electronic camera systems on pollock catcher vessels in both the Bering Sea and Gulf of Alaska to verify that limited, or no, discards of incidentally caught species is occurring at sea. This verification allows shoreside observers to monitor for salmon bycatch and collect biological information more efficiently. If this test proves successful, the program would be implemented through Federal monitoring regulations.



Observers sort through catch to identify species present. Source: NOAA Fisheries

The NPFMC's office is in Anchorage. The NPFMC has 15 members and 11 of them are voting members. Alaska has 6 votes (including one for Alaska Department of Fish & Game), Washington 3, and Oregon 1. NMFS, based in Juneau, also has one vote. The four non-voting members are from US Fish & Wildlife, US Coast Guard, Pacific States Fisheries Marine Commission, and the US State Department. If you'd like to know more, please visit [www.npfmc.org](http://www.npfmc.org).