




UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

September 4, 2020

MEMORANDUM FOR: Barry Thom
Administrator, West Coast Region

FROM: James W. Balsiger, Ph.D. 
Administrator, Alaska Region

SUBJECT: Delay in delivery of Part II of 2019 Annual Report for the
Alaska Groundfish Fisheries Chinook Salmon Coded Wire
Tag and Recovery Data for Endangered Species Act
Consultation

The Alaska Regional Office normally delivers Part II of the annual salmon bycatch report to the West Coast Region by October of each year. This report includes final 2019 data on salmon incidental catch in the Alaska groundfish fisheries, including stock of origin and coded wire tag (CWT) data for salmon caught in the Alaska groundfish fisheries in 2019. This report also includes annual data from the Alaska Fisheries Science Center's North Pacific Observer Program bycatch sampling, and it is meant to supplement the annual report data provided to you by February 2020 on salmon incidental catch and salmon bycatch reduction measures.

This report fulfills one of the terms and conditions of the incidental take statements in the December 2, 2009, and January, 11, 2007 (NMFS 2009a and NMFS 2007) supplements to the November 30, 2000, Biological Opinion (BiOp) regarding authorization of the BSAI and GOA groundfish fisheries (NMFS 2000), and the supplemental BiOp issued on January 9, 2012 (NMFS 2012).

Part I of this report, delivered in February 2020, indicated that the amount of Chinook salmon incidental take in the Bering Sea/Aleutian Islands and Gulf of Alaska groundfish fisheries in 2019 was well below the allowable amount of take specified in the incidental take statement. Monitoring during the 2020 groundfish fishing season will be tracking incidental take of Chinook salmon as usual.



The bycatch rate for listed Chinook salmon evolutionary significant units in the Gulf of Alaska groundfish fisheries has been negligible for the last 38 years (1981-2019) and is consistent with that evaluated in existing biological opinions. NMFS Alaska Region and West Coast Region will continue to monitor the data and whether any reinitiation triggers have been met.

Regarding Part II of the annual report, we do have the report from the North Pacific Observer Program (attached here) and can deliver that ahead of the October deadline. However, the CWT report will be delayed until 2021. As you know, this year we are under mandatory telework with the pandemic. Michele Masuda, the author of Part II of the CWT report, will not have access to the data for the report until she can return to the office in 2021. She also will not have access to software that is needed to complete the report until she can return to the office.

It is not yet determined when we will be able to return to our offices in 2021. Once we are able to return, we will make every effort to complete the CWT report and get it to you.

cc: Christina Iverson, West Coast Region
Susan Bishop, West Coast Region
Jeromy Jording, West Coast Region

North Pacific Observer Program Salmon Bycatch Sampling

The Alaska Fisheries Science Center, Fisheries Monitoring and Analysis (FMA) Division manages the North Pacific Observer Program (Observer Program), which monitors groundfish and halibut fishing activities in the U.S. Exclusive Economic Zone off Alaska. The Observer Program is responsible for the collection of fisheries data used by managers for stock assessment and inseason monitoring of the commercial groundfish fisheries. Data collected by observers are used by managers to monitor quotas, manage groundfish and prohibited species catch, and document interactions with protected resources. These data provide the best available scientific information for managing fisheries and developing measures to minimize incidentally caught species, including salmon. The methods used to estimate the number of incidentally caught salmon in the Alaska Federal groundfish fisheries vary by area and fishery.

Observers are deployed in the field for up to three months at a time and debrief with FMA staff following their deployment. The data are not finalized until all observers return from the field for debriefing and their data are scrutinized following FMA quality control protocols. Generally, the annual observer data are finalized in late March to early April of the year following the fishery.

In 2019 a T-Wand was issued to plant observers to detect the presence of coded wire tags (CWT). This is in addition to checking for a missing adipose fin. The goal of this project is to identify salmon species that contain snout Coded Wire Tags during Amendment 91 and Amendment 93 (GOA) offloads. When salmon are randomly selected for specimen collection (i.g. 1/10 Chinook Salmon and 1/30 Chum in the BSAI chosen for FMA ID and genetics, or for all Chinook and Chum encountered in the GOA) these salmon will also be checked for CWTs using a salmon wand (T-Wand). All other species (Sockeye, Pink, and Coho) should be checked for a CWT via (T-wand) whenever they are encountered. This is in addition to the normal salmon collection duties outlined below. If the randomly chosen salmon tests positive with the wand or has a clipped adipose fin, the salmon's snout must be taken according to program procedures. By documenting which salmon have clipped fins, and which ones test positive for a CWT, we can compare the effectiveness of CWT recovery based solely on fin clipped individuals.

Bering Sea Pollock Fishery Sampling and Data Collection

The Bering Sea pollock fishery is one of the most heavily observed fleets in the nation. The regulations governing the Amendment 91 fishery require 100% observer coverage in the Bering Sea pollock fisheries regardless of vessel length, 100% retention of all salmon species, a census of all salmon species in every haul or fishing trip, and an expanded biological sampling program. Also, NMFS requires shoreside processors to provide a location from which the observer is able to view all sorting and weighing of fish, as well the secure storage area for salmon. The sampling protocol for salmon in the Bering Sea pollock fishery were collected by the Observer Program from the Chinook salmon bycatch by using sampling protocols recommended previously (Pella and Geiger 2009). This protocol includes a complete census of retained salmon bycatch which is then sampled systematically by certified fishery observers.

On catcher/processors and motherships, the vessel personnel are required to save all salmon in an approved storage container until the end of the haul, and electronic monitoring systems are used to ensure compliance with this rule. For each haul, the observers count and identify every salmon retained. Observers implement a systematic sampling design for all Chinook and chum salmon collected from the haul by selecting every tenth Chinook and every thirtieth chum, with a random start point, for further biological data collection. The selected fish are used to obtain a length measurement, weight, a genetic tissue sample, and five scales to verify species identification. These randomly selected fish are also checked for a missing adipose fin, indicating a potential coded wire tag (CWT). If the adipose fin is missing, a snout specimen will be collected.

Chinook and chum salmon that are not selected using the systematic sample design are identified to species and counted, but no additional biological data are collected. All other salmon species are identified, measured, weighed, counted, and checked for a missing adipose fin. Additionally, a separate scale collection is collected to verify the observer's species identification skills.

On catcher vessels delivering to processing plants¹ observers do not conduct an at-sea census count of salmon because they may not sample every haul, or have access to all of the catch. Instead, observers attempt to sample all hauls and identify every salmon encountered in their randomly collected at-sea composition samples from these hauls. Salmon encountered in the at-sea samples are counted, weighed, sex determined, and checked for a missing adipose fin. Additionally, a separate scale collection is collected to verify the observer's species identification skills. These observers monitor that no salmon are discarded at sea to the best of their ability. Total retained salmon numbers and related genetics samples are obtained from catcher vessel pollock deliveries at the processing facility by the plant observer.

Once the catch is delivered to the processing facility, the plant and vessel observers coordinate to monitor the entire offload to ensure that all retained salmon are sorted and placed in an approved salmon storage container. The observers collect total salmon numbers and associated biological specimens following the same procedure outlined above for catcher/processors and motherships. These data are reported under the plant observer's cruise number.

In the 2019 Bering Sea pollock fishery, 2,480 Chinook, 11,458 chum, 160 coho, 1,517 pink, and 180 sockeye salmon were measured for length. Of these fish, 2,407 Chinook and 10,056 chum salmon were sampled for genetic tissue (Table 1). In addition, 48 Chinook, 15 chum, and 4 pink salmon were missing their adipose fin and their snouts were shipped to the Auke Bay Laboratories (Auke Bay Lab) to be scanned for CWT presence and analysis. It is important to note that every biological specimen, such as genetic tissue samples or scale samples, is associated with a length. For this reason the total number of lengths is expected to exceed the total number of any biological specimen.

BSAI Non-pollock Fishery Sampling and Data Collection

The non-pollock fisheries in the BSAI, such as flatfish and Pacific cod trawl, contribute a smaller number of incidentally caught salmon in comparison to the Bering Sea pollock fishery. In these fisheries, the total number of incidentally caught salmon is obtained by using the vessel observer's at-sea species composition samples that are extrapolated to the vessel's total catch. Sampling protocols for observers in these non-pollock fisheries are different than those in the pollock fishery, and genetic tissue samples are not required to be collected. However, all salmon species encountered in the randomly collected at-sea species composition samples are counted, weighed, measured, sex determined, checked for a missing adipose fin, and scale samples are collected to verify species identification. The catch is not monitored for salmon during off-load at the processing plant. In 2019 BSAI non-pollock fisheries, observers measured a total of 112 Chinook, 191 chum, 18 coho, 11 pink salmon and 2 sockeye for length. Of these fish, 4 Chinook and 3 chum salmon were sampled for genetic tissue (Table 1). In addition, 1 Chinook salmon was missing its adipose fin and its snout was shipped to the Auke Bay Laboratories (Auke Bay Lab) to be scanned for CWT presence and analysis.

¹ Catcher vessels delivering to motherships are not required to carry observers. The hauls are sampled by observers on the mothership following the procedures described for catcher/processors and motherships.

Table 1. - Number of length, genetic, and CWT samples collected from incidentally caught salmon in the 2019 Bering Sea/Aleutian Islands pollock and non-pollock fisheries.				
Area/fishery	Salmon species	Sample		
		Length	Genetic tissue	CWT ¹
BS pollock	Chinook	2,480	2,407	48
	Chum	11,458	10,056	15
	Coho	160	n/a ²	0
	Pink	1,517	n/a ²	4
	Sockeye	180	n/a ²	0
	subtotal	15,795	12,463	67
BSAI non-pollock	Chinook	112	4	1
	Chum	191	3	0
	Coho	18	n/a ²	0
	Pink	11	n/a ²	0
	Sockeye	2	n/a ²	0
	subtotal	334	7	1
Total		16,129	12,470	68
¹ Salmon head collected from fish missing adipose fin.				
² n/a - Not part of sampling protocol.				

GOA Pollock Fishery Sampling and Data Collection

The Observer Program's biological salmon sampling protocols for the GOA pollock fishery are guided by the regulations implementing Amendment 93 to the GOA FMP (77 FR 42629, July 20, 2012). These regulations require 100% retention of all salmon caught in the Western and Central GOA directed pollock trawl fishery. The restructured observer program requires participation of catcher vessels between 40 ft. and 125 ft. LOA in the partial coverage observer program. These vessels are randomly selected for observer coverage on a trip by trip basis through the Observer Declare and Deploy System (ODDS).

In 2019, the 100% retention of all salmon by vessels with observers in the pollock fishery allowed catcher vessel observers to check every salmon encountered in their randomly collected at-sea composition samples for missing adipose fins, collect a scale sample to verify species identification, and monitor the vessel offload at the shoreside processing facility to record a total count of salmon species retained by the vessel personnel. The catcher vessel observers also monitored that no salmon were discarded at sea to the best of their ability while completing other sampling duties. The total number of salmon encountered by the vessel observer while monitoring the offload was used as the source of total salmon numbers for the vessel. The information obtained from observed vessels was then used to determine a prohibitive species catch (PSC) rate of salmon for un-observed vessels.

It is important to note that, unlike the Bering Sea pollock fishery, observers were not stationed at Gulf of Alaska shoreside processing facilities in 2019. Vessel observers collected biological specimens at the shoreside processing facility from salmon delivered by the vessel following the same procedure outlined above for catcher/processors and motherships fishing BSAI pollock. Due to the restructured observer program, vessel observers were not deployed on all catcher vessels fishing pollock in the GOA. Genetic

samples were collected from all Chinook and chum salmon made available to the vessel observer by plant personnel.

Data collected from the observed vessels provided an indication of the relative numbers and species of salmon incidentally taken in the GOA pollock fishery. The total numbers of incidentally caught salmon were obtained using the number encountered by the vessel observers during the vessel offload at the processing facility. In rare circumstances where the offload sample was not completed, NMFS Alaska Region used the number of salmon in the at-sea samples to extrapolate to the entire vessel offload.

Total numbers of all other salmon species were collected following the Chinook and chum sampling protocols described above while length measurements and biological data were only collected from Chinook and chum salmon encountered within the at-sea composition sample or during the vessel offload monitored by the vessel observer. In the 2019 GOA pollock fishery, 3,290 Chinook, 1,141 chum, 1 coho, 4 pink and 1 sockeye salmon were measured for length. Of these fish, 3,216 Chinook and 1,123 chum salmon were sampled for genetic tissue (Table 2). In addition, 245 Chinook, and 3 chum salmon were missing their adipose fin and their snouts were shipped to the Auke Bay lab to be scanned for CWT presence and analysis.

GOA Non-pollock Fishery Sampling and Data Collection

The non-pollock fisheries in the GOA, such as flatfish and Pacific cod trawl, contribute a smaller number of incidentally caught salmon in comparison to the pollock fishery. In 2019, observer coverage for groundfish vessels was the same for both pollock and non-pollock vessels with the exception of the rockfish fishery that requires 100% observer coverage regardless of vessel length.

In these non-pollock fisheries, the total number of incidentally caught salmon is obtained using at-sea species composition samples collected by vessel observers and extrapolated to the vessel's total catch. Sampling protocols for observers in these non-pollock fisheries are different than those in the pollock fishery, length measurements and biological data were only collected from Chinook and chum salmon encountered within the randomly collected at-sea composition sample. However, all salmon species encountered in the randomly collected at-sea species composition samples are checked for missing adipose fins indicating a potential CWT, and scale samples are collected to verify species identification.

In the 2019 GOA non-pollock fisheries, observers measured a total of 28 Chinook, 13 chum and 7 coho salmon for length. A total of 25 Chinook and 6 chum salmon were sampled for genetic tissue. Of these fish, 2 Chinook salmon was missing an adipose fin (Table 2). This salmon snout was collected and shipped to the Auke Bay Lab to be scanned for CWT presence and analysis.

Table 2. - Number of length, genetic, and CWT samples collected from incidentally caught salmon in the 2019 Gulf of Alaska pollock and non-pollock fisheries.				
Area/fishery	Salmon species	Sample		
		Length	Genetic tissue	CWT ¹
GOA pollock	Chinook	3,290	3,216	245
	Chum	1,141	1,123	3
	Coho	1	n/a ²	0
	Pink	4	n/a ²	0
	Sockeye	1	n/a ²	0
	subtotal		4,437	4,339
GOA non-pollock	Chinook	28	25	2

Chum	13	6	0
Coho	7	n/a ²	0
Pink	0	n/a ²	0
Sockeye	0	n/a ²	0
subtotal	48	31	2
Total	4,485	4,370	250
¹ Salmon head collected from fish missing adipose fin. ² n/a - Not part of sampling protocol.			