

Pollock Conservation Cooperative

and

High Seas Catchers' Cooperative

Joint Annual Report 2019



North Pacific Fishery Management Council

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Pollock Conservation Cooperative Annual Report

Introduction

In 1998, the owners of the catcher-processors and catcher-vessels that deliver to catcher-processors in the Bering Sea and Aleutian Islands (BSAI) pollock fishery formed separate fishing cooperatives to coordinate pollock harvesting under the American Fisheries Act. The Pollock Conservation Cooperative (PCC) is the catcher-processor cooperative, and the High Seas Catchers' Cooperative (HSCC) is the catcher-vessel cooperative. On January 21, 1999, the PCC and HSCC completed an inter-cooperative agreement to facilitate efficient management and accurate accounting between the two cooperatives. The agreement, "Cooperative Agreement Between Offshore Pollock Catchers' Cooperative and Pollock Conservation Cooperative" remains in force, has not been changed, and is available upon request from the NPFMC.

Purpose of Report

This report is intended to disclose all information required or identified in the American Fisheries Act (AFA), per the North Pacific Fishery Management Council (NPFMC) October 1999 recommendation to the U.S. Secretary of Commerce, and in further guidance provided by the NPFMC in letters dated October 21, 1999 and November 1, 1999. The tables and figures in this report are largely self-explanatory, although some notes have been included to provide detail. The catch data in this report was provided by SeaState, Inc., and was obtained from the National Marine Fisheries Service (NMFS) North Pacific Groundfish Observer Program.¹

Reporting Requirements

Fishing cooperatives formed under the AFA are subject to certain annual reporting requirements. Section 210(a)(1)(B) of the AFA requires the North Pacific Fisheries Management Council and the US Secretary of Commerce to "make available to the public in such a manner as the North Pacific Council and Secretary deem appropriate, catch information for all species (including bycatch) in the directed pollock fishery on a vessel-by-vessel basis." In doing so, however, the NPFMC and Secretary must take into account "the interest of the parties to [a fishing cooperative] in protecting the confidentiality of proprietary information."

In October 1999, the NPFMC took action to implement section 210(a)(1)(B) of the AFA by requiring that cooperatives annually prepare a report containing: (1) the allocation of pollock and sideboard species to a cooperative; (2) any sub-allocations of pollock and sideboard species on a vessel-by-vessel basis; (3) retained and discarded catch on an area-by-area and vessel-by-vessel basis; (4) the methods used to monitor fisheries in which cooperative vessels participated; (5) any actions taken by cooperatives to enforce vessel or aggregate catches that exceed allowed catch and bycatch in the pollock and sideboard fisheries; (6) the total weight of pollock landed outside the State of Alaska on a vessel-by-vessel basis; (7) the number of salmon taken by species and season; and (8) the number of times each vessel appears on the weekly 'dirty 20' lists for non-Chinook salmon

¹ The NMFS catch database for the 2019 fishing year is still subject to revision as catch data and other information from the fishery is finalized. To the extent that information in this report is based on NMFS data, it is still subject to revision. At this point, however, neither the PCC nor the HSCC are aware of any data discrepancies that would materially alter the substantive elements of this report.

Cooperative Members and Allocations

The Pollock Conservation Cooperative was formed in December 1998 in order to promote the rational and orderly harvest of pollock by the catcher-processor (CP) sector of the BSAI pollock trawl fishery. The PCC is made up of the companies that today operate 18 CPs eligible to harvest and process pollock in the BSAI directed pollock fishery under section 208(e)(1)-(20) of the AFA. In September 2005 the PCC companies adopted an amended and restated membership agreement.

According to the PCC harvest schedule, each member is allocated a percentage of the directed fishery specified under Section 206(b) of the AFA. The percentage of the catcher-processor directed pollock fishery allocated to each PCC member by the amended membership agreement is shown below².

Company	Directed Pollock Fishery Share (%)	PCC Share (%)
C/P Northern Hawk, L.L.C.	1.000	2.73
Starbound, L.L.C.	1.585	4.33
Arctic Fjord, Inc.	1.792	4.90
Arctic Storm, Inc.	1.841	5.03
Glacier Fish Company, L.L.C.	6.222	17.00
Trident Seafoods Corp.	6.824	18.64
American Seafoods, L.L.C.	17.336	47.37
Total:	36.600	100.00

Inter-Cooperative Agreement Between PCC and HSCC

Under the inter-cooperative agreement, the PCC and HSCC established a joint harvest schedule and agreed to retain the same independent quota monitoring service. The inter-cooperative agreement governs the harvest and processing of the HSCC members' share of the BSAI directed pollock fishery and the transfer of pollock allocations between members of the two cooperatives. Table 1 shows PCC and HSCC pollock allocations and catch for 2019 by company and vessel, and Table 2 shows PCC pollock directed fishing catch and prohibited species bycatch (PSC) for 2019.

² Under sections 205(4) (definitions) and 206 (allocations) of the AFA, the BSAI directed pollock fishery (DPF) is the amount of the total allowable catch remaining after 10 percent has been deducted for the western Alaska Community Development Quota program and an additional amount has been deducted for the incidental catch of pollock in other groundfish fisheries. Section 206(b)(2) of the American Fisheries Act allocates a total of 40 percent of the DPF to catcher-processors and the catcher vessels that deliver to catcher-processors, and section 210(c) allocates 8.5 percent of this amount (3.4 percent of the DPF) to catcher vessels that deliver to catcher processors. Subsequently, the AFA was amended by the Consolidated Appropriations Act of 2004, which reallocated the AI DPF to the Aleut Corporation for the purpose of economic development of Adak, Alaska.

Table 1. PCC and HSCC Pollock Allocations and Catch.

2019	Company Vessel	Cooperative Shares (mt)			Catch (mt)		
		Harvest Schedule	Transfers	Final Allocation	Vessel Harvest	Company Total	Amount Remaining
PCC	American Seafoods	212,429	2,031	214,460		214,432	28
	American Dynasty				39,153		
	American Triumph				46,607		
	Northern Eagle				46,707		
	Northern Jaeger				43,329		
	Ocean Rover				38,636		
	Arctic Fjord Ltd.	21,956	14,302	36,258		36,258	
Arctic Fjord				36,258			
Arctic Storm Ltd.	22,560	14,420	36,980		36,980		
Arctic Storm				36,980			
C/P Northern Hawk Ltd.	12,259	12	12,271		12,271		
Northern Hawk				12,271			
Glacier Fish Co.	76,243	-1,483	74,760		74,760		
Alaska Ocean				74,760			
Starbound Ltd.	19,418	10,880	30,298		30,298		
Starbound				30,298			
Trident Seafoods	83,623	1,493	85,116		85,115		
Island Enterprise				27,626			
Kodiak Enterprise				28,690			
Seattle Enterprise				28,799			
HSCC	Forum Star	8,679	-8,679	-			
	American Chall.	3,859	-3,859	-			
	Ocean Harvester	5,300	-5,300	-			
	Neahkanie	8,184	-8,184	-			
	Sea Storm	10,080	-10,080	-			
	Muir Milach	5,561	-5,561	-			
Totals			490,143	490,114	490,114	29	

Table 2. 2019 BSAI PCC Pollock Directed Fishing Catch and Bycatch.

Vessel	Pollock (mt)	Other Ground-fish (mt)	Halibut Mortality (mt)	Herring (mt)	Red King Crab (N)	<i>Bairdi</i> Crab (N)	<i>Opilio</i> Crab (N)	Chinook Salmon A (N)	Chinook Salmon B (N)	Other Salmon A (N)	Other Salmon B (N)
Alaska Ocean	74,760	987	7	0	0	3	0	901	427	17	15,171
American Dynasty	39,153	772	8	61	0	0	9	570	180	44	6,699
American Triumph	46,607	931	6	19	0	7	0	727	367	47	8,782
Arctic Fjord	36,258	521	4	1	4	9	3	518	482	13	10,973
Arctic Storm	36,980	813	5	0	0	15	3	574	454	17	5,560
Island Enterprise	27,626	822	2	0	11	6	0	298	141	7	15,246
Kodiak Enterprise	28,690	670	4	0	0	8	0	420	20	14	4,393
Northern Eagle	46,707	1,024	2	57	3	0	4	837	227	24	5,456
Northern Hawk	12,271	156	1	0	0	1	0	190	13	3	693
Northern Jaeger	43,329	1,023	3	23	0	31	9	682	470	32	11,022
Ocean Rover	38,636	2,017	13	0	0	9	0	584	212	24	7,018
Pacific Glacier	28,799	754	4	0	0	13	6	445	29	13	9,107
Seattle Enterprise	30,298	991	6	0	0	8	4	450	105	14	13,258
Starbound	74,760	987	7	0	0	3	0	901	427	17	15,171
Totals*	490,115	11,480	66	164	18	110	38	7,196	3,127	269	113,378
Catch Rate (species catch/total groundfish)		0.9771	0.0229	0.0001	0.0003	0.0000	0.0002	0.0001	0.0143	0.0062	0.0005

*Of the 501,595 tons of total groundfish catch (pollock and other non-pollock groundfish), 4,058 tons were discarded. Thus, over 99.2 percent of all groundfish harvested by PCC vessels in the directed-pollock fishery was retained and used to make a marketable product.

Yellowfin Sole, Atka Mackerel, and Pacific Cod Fisheries

A total of three PCC vessels participated in the directed fishery for BSAI yellowfin sole in 2019. Groundfish catch and PSC bycatch for PCC yellowfin sole directed fishing is shown in Table 3. Catch rates are provided to assess target catch and PSC bycatch per ton of total groundfish catch. For example, in 2019, average halibut mortality was 3 kilograms per ton of groundfish in the yellowfin sole directed fishery, and yellowfin sole catches were on average about 61 percent of the total groundfish catch. To interpret catch rates of PSC collected as number of individuals (N): In 2019, 1 *Opilio* crab was caught for every two tons of groundfish in the yellowfin sole directed fishery. Table 4 shows similar information for the catch of the F/T Northern Glacier in the 2019 Central Aleutian Islands Atka mackerel fishery and the catch of the F/T Katie Ann in the 2019 directed Pacific cod fishery.

Halibut Bycatch Reduction Efforts in the BSAI Trawl Limited Access Sector Yellowfin Sole Fishery

In 2017, the Council requested that participants in the BSAI Trawl Limited Access Sector (TLAS) Yellowfin Sole directed fishery should include information about measures taken to reduce halibut bycatch in the TLAS yellowfin sole fishery in their respective cooperative reports. While the TLAS YFS fishery did not have a comprehensive bycatch reduction plan that applied to all participants in the fishery, the AFA CP participants were subject to a fishing plan which allocates halibut mortality pro-rata to participants based on historical participation in the fishery. In addition, GOAL and WARNING level bycatch performance is reported by vessel to the fleet and fleet managers on a bi-weekly basis throughout the course of the season. The WARNING level is consistent with the fishery exceeding its annual PSC allocation. Additionally, bycatch reports keep the vessels and vessel managers apprised of their bycatch performance relative to the other participants in the BSAI TLAS YFS fishery. For example, in 2019, the AFA CP fleet took a total of 4,988 tons of yellowfin sole and accounted for just 29.33 tons of halibut mortality. This is a bycatch rate of 5.88 kg of halibut mortality per ton of YFS catch. The total catch in 2019, before the fishery was closed for exceeding the halibut PSC allocation, was of 17,161 tons of YFS and 157.3 tons of halibut mortality. The CV participants in the fishery therefore had a bycatch rate of 10.51 kg of halibut mortality per ton of YFS catch. This rate was nearly double the rate of the CP fleet.

Table 3. PCC Yellowfin Sole Directed Fishing Catch and Bycatch

Vessel	Yellowfin Sole (mt)	Total Groundfish (mt)	Halibut Mortality (mt)	Herring (mt)	Red King Crab (N)	<i>Bairdi</i> Crab (N)	<i>Opilio</i> Crab (N)	Chinook Salmon (N)	Other Salmon (N)
Arctic Storm	362	563	5	0	90	1,643	2,056	0	0
Katie Ann	1,238	1,843	7	1	583	20	785	22	0
Northern Glacier	3,388	5,616	18	12	2,592	5,154	1,840	40	0
2019 Totals	4,988	8,022	29.33	13	3,265	6,817	4,681	62	0
Catch Rate	0.622	1	0.004	0.002	0.407	0.850	0.584	0.008	0

Table 4. PCC Atka Mackerel and Pacific Cod Directed Fishing Catch and Bycatch.

Vessel	Atka Mackerel CAI (mt)	Total Groundfish (mt)	Halibut Mortality (mt)	Herring (mt)	Red King Crab (N)	Bairdi Crab (N)	Opilio Crab (N)	Chinook Salmon (N)	Other Salmon (N)
Northern Glacier	448	477	0	0	0	0	0	0	0
2019 Totals	448	477	0	0	0	0	0	0	0
Catch Rate	0.939	1.000	0	0	0	0	0	0	0

Vessel	Pacific Cod (mt)	Total Groundfish (mt)	Halibut Mortality (mt)	Herring (mt)	Red King Crab (N)	Bairdi Crab (N)	Opilio Crab (N)	Chinook Salmon (N)	Other Salmon (N)
Katie Ann	388	489	9	0	0	131	198	98	36
2019 Totals	388	489	9	0	0	131	198	98	36
Catch Rate	0.793	1.000	0.018	0.000	0.000	0.268	0.405	0.200	0.074

AFA Sideboard Limits and Total Groundfish Catch

PCC vessels are all AFA Catcher Processors. The 2019 AFA C/P sideboard limits and catches of sideboard-limited groundfish and PSC species are shown in Table 5. The groundfish sideboard limits control PCC directed fishing for each species listed. For some groundfish species catch is greater than the sideboard limit, but in every case this catch occurred as bycatch in the pollock, yellowfin sole, Atka mackerel and Pacific cod fisheries, and not as directed fishing on these sideboard species. Note yellowfin sole was not sideboard limited in 2019. The PSC limits cap bycatch of these species in the non-pollock fisheries, therefore the PSC bycatch amounts in Table 5 reflect total PCC bycatch of PSC species in the yellowfin sole, Atka mackerel, and Pacific cod fisheries only.

On February 8, 2019, NMFS published a final rule (84 FR 2723) that modifies regulations for AFA Program participants subject to sideboard limits in the BSAI. The final rule establishes regulations to prohibit directed fishing for sideboard limits for specific groundfish species or species groups, rather than prohibiting directed fishing for AFA Program sideboard limits through the BSAI annual harvest specifications. Once the final rule is effective (effective March 11, 2019), NMFS will no longer publish in the annual BSAI harvest specifications the AFA Program sideboard limit amounts for groundfish species subject to the final rule, and the groundfish species subject to the final rule will be prohibited to directed fishing in regulation (84 FR 2723).

Future reports will therefore not report on sideboard catches. Table 6 shows PCC catches of all groundfish and PSC species by vessel from the pollock, yellowfin sole, Atka mackerel, and Pacific cod fisheries combined. Note the difference between the pollock catch given in Table 1 and that in Table 6 is because Table 6 includes all pollock catches from PCC vessels, including incidental pollock catch in the yellowfin sole, Atka mackerel, and Pacific cod fisheries, while Table 1 includes only directed pollock fishing catch.

Table 5 . PCC Species Sideboard Limits and Catch.

Groundfish Species	2019 Catch	2019 Limit	Over (Under) Limit*
Alaska plaice - BSAI (mt)	657	15	642
Arrowtooth flounder - BSAI (mt)	151	14	137
Atka mackerel - BS + EAI (mt)	20	0	20
Atka mackerel - CAI (mt)	448	1,478	(1,030)
Atka mackerel - WAI (mt)	0	3,500	(3,500)
Flathead sole - BSAI (mt)	598	466	132
Greenland turbot - BS (mt)	12	30	(18)
Greenland turbot - AI (mt)	0	1	(1)
Kamchatka flounder - BSAI (mt)	13	9	4
Northern rockfish - BSAI (mt)	42	39	3
Octopus - BSAI (mt)	1	3	(2)
Other flatfish - BSAI (mt)	176	320	(144)
Other Rockfish - BS (mt)	9	7	2
Other Rockfish - AI (mt)	2	10	(8)
Pacific Ocean perch - BS (mt)	4,758	25	4,733
Pacific Ocean perch - EAI (mt)	0	197	(197)
Pacific Ocean perch - CAI (mt)	1	7	(6)
Pacific Ocean perch - WAI (mt)	0	36	(36)
Rock sole -BSAI (mt)	1,341	1,556	(215)
Rougheye rockfish - EBS+EAI (mt)	10	1	9
Rougheye rockfish - CAI+WAI (mt)	0	3	(3)
Sablefish - BS (mt)	42	10	32
Sablefish - AI (mt)	0	0	0
Sculpins - BSAI (mt)	123	34	89
Sharks - BSAI (mt)	29	1	28
Shortraker rockfish - BSAI (mt)	92	5	87
Skates - BSAI (mt)	310	177	133
Prohibited Species	2019 Catch	2019 Limit	Over (Under) Limit
Halibut mortality - BSAI (mt)	105	286	(181)
Red king crab - Zone 1 (N)	288	606	(318)
<i>C. opilio</i> crab - COBLZ (N)	3,928	1,628,133	(1,624,205)
<i>C. bairdi</i> crab - Zone 1 (N)	1,690	122,520	(120,830)
<i>C. bairdi</i> crab - Zone 2 (N)	4,167	132,611	(128,444)

* For some groundfish species catch is greater than the sideboard limit, but in every case this catch occurred as bycatch in the pollock, yellowfin sole, and Atka mackerel fisheries, and not as directed fishing on these sideboard species.

Table 6. All 2019 PCC Catches by Vessel.

Vessel	Pollock (mt)	Atka Mac- kerel (mt)	Yellowfin Sole (mt)	Pacific Cod (mt)	Sablefish (mt)	Alaska Plaice (mt)	Arrowtooth Flounder (mt)	Flathead Sole (mt)
Alaska Ocean	74,760	0.1	13	257	1.15	0	9	66
American Dynasty	39,153	0.1	2	184	2.90	0	10	36
American Triumph	46,607	0.3	6	210	0.56	0	11	62
Arctic Fjord	36,258	0.2	2	185	0.91	0	7	27
Arctic Storm	37,071	17.0	365	197	0.54	26	6	31
Island Enterprise	27,626	0.3	1	98	0.13	0	4	28
Katie Ann	216	0.0	1,239	489	1.64	125	53	9
Kodiak Enterprise	28,690	0.2	3	108	13.77	0	5	21
Northern Eagle	46,707	0.0	10	138	0.14	0	5	38
Northern Glacier	847	447.6	3,463	393	0.00	504	3	33
Northern Hawk	12,271	0.0	1	98	3.01	0	4	16
Northern Jaeger	43,329	1.5	12	240	0.80	0	6	62
Ocean Rover	38,636	0.3	44	261	9.84	1	12	86
Seattle Enterprise	28,799	0.1	5	166	5.38	0	9	35
Starbound	30,298	0.2	10	137	1.12	0	7	48
TOTAL	491,270	468	5,176	3,162	42	657	151	598

Table 6 continued

Vessel	Green- land Turbot (mt)	Kam- chatka Flounder (mt)	Rock Sole (mt)	Other Flat- fishes (mt)	Northern Rockfish (mt)	Rougheye Rockfish (mt)	Short- raker Rockfish (mt)	Pacific Ocean Perch (mt)
Alaska Ocean	1.9	2	151	7	17	0.2	3.8	387
American Dynasty	1.7	1	49	4	0	0.3	34.0	308
American Triumph	0.7	1	54	9	3	0.5	3.8	413
Arctic Fjord	0.8	1	34	3	3	0.0	1.5	174
Arctic Storm	0.4	1	122	3	2	0.1	4.0	373
Island Enterprise	0.9	1	33	4	1	1.5	1.9	261
Katie Ann	0.0	1	129	41	0	0.0	0.0	0
Kodiak Enterprise	0.1	0	27	4	2	1.9	0.0	254
Northern Eagle	0.8	0	27	3	0	2.7	9.1	476
Northern Glacier	0.0	0	450	73	8	0.0	0.0	1
Northern Hawk	0.1	0	14	1	0	0.0	0.0	3
Northern Jaeger	1.0	1	47	4	2	0.1	18.4	464
Ocean Rover	1.5	2	92	9	0	2.2	14.8	1,019
Seattle Enterprise	0.4	1	67	4	1	0.7	0.6	220
Starbound	1.7	1	44	7	2	0.2	0.5	406
TOTAL	11.9	13	1,341	176	42	10.3	92.4	4,759

Table 6 continued

Vessel	Other Rockfishes (mt)	All sculpins (mt)	All sharks (mt)	All skates (mt)	All octopi (mt)	All squids (mt)
Alaska Ocean	0.0	1	2	33	0.1	33.2
American Dynasty	0.0	1	3	11	0.1	122.8
American Triumph	0.0	1	2	30	0.1	123.3
Arctic Fjord	0.0	1	1	25	0.0	53.3
Arctic Storm	0.0	11	2	28	0.1	93.5
Island Enterprise	0.0	1	2	9	0.0	374.4
Katie Ann	0.0	16	0	24	0.0	0.0
Kodiak Enterprise	0.0	1	3	8	0.1	217.7
Northern Eagle	0.0	1	2	4	0.0	305.2
Northern Glacier	1.8	84	0	46	0.0	0.0
Northern Hawk	0.0	0	0	6	0.0	9.8
Northern Jaeger	0.0	1	5	17	0.1	138.6
Ocean Rover	0.0	3	2	26	0.1	429.6
Seattle Enterprise	0.0	1	4	20	0.0	215.7
Starbound	0.0	2	2	23	0.1	297.0
TOTAL	1.8	123	29	310	0.8	2,414

Table 6 continued

Vessel	Halibut Mor- tality (mt)	Pacific Herring (mt)	Red King Crab (N)	Tanner Crab, <i>Bairdi</i> (N)	Snow Crab, <i>Opilio</i> (N)	Chinook Salmon (N)	Other Salmon (N)
Alaska Ocean	7	0.5	0	3	0	1,328	15,192
American Dynasty	8	61.2	0	0	9	750	6,760
American Triumph	6	18.7	0	7	0	1,094	8,830
Arctic Fjord	4	1.2	4	9	3	1,000	11,002
Arctic Storm	10	0.4	90	1,658	2,059	1,028	5,579
Island Enterprise	2	0.1	11	6	0	439	15,256
Katie Ann	16	0.9	601	151	983	120	42
Kodiak Enterprise	4	0.0	0	8	0	440	4,431
Northern Eagle	2	57.3	3	0	4	1,064	5,487
Northern Glacier	19	13.3	2,738	5,274	1,840	40	0
Northern Hawk	1	0.4	0	1	0	203	696
Northern Jaeger	3	23.4	0	31	9	1,152	11,062
Ocean Rover	13	0.1	0	9	0	796	7,050
Seattle Enterprise	4	0.3	0	13	6	474	9,131
Starbound	6	0.2	0	8	4	555	13,273
TOTAL	105	178.1	3,447	7,178	4,917	10,483	113,791

Pollock Fishery Discards

Groundfish bycatch amounts and total amounts of other (non-pollock) groundfish³ in the pollock target fishery are reported in Table 2 by vessel. These groundfish bycatch amounts include catches of all of the species groups listed on the Bering Sea and Aleutian Islands “TAC sheet.” In contrast to groundfish bycatch, groundfish discards include all groundfish catches, including pollock, from which no edible, saleable product was produced. An estimate of the total groundfish discard amount is provided as a footnote to Table 2. Table 7 provides additional pollock-fishery bycatch and discards detail, including in particular the bycatch and discard of forage and non-specified species. These discard estimates are made by the North Pacific Groundfish Observer Program. The non-specified category includes species that occur infrequently in the BSAI, or have little or no economic value, and so are neither targeted by the commercial fisheries nor managed by the National Marine Fisheries Service. In 2019, jellyfish accounted for 93.7 percent of the non-specified species bycatch in the pollock fishery. Table 8 shows the estimated pollock discards by vessel in the pollock fishery for 2019.

Table 7. PCC Pollock Fishery Discards.

Species Category	2019 Discard Amount (mt)	Year	Groundfish Bycatch Ratio (mt/mt)**	Groundfish Discard Ratio (mt/mt)***
Pollock	161	2007	0.007	0.005
Other Roundfish	1,458	2008	0.025	0.008
Flatfish	338	2009	0.040	0.010
Skates	137	2010	0.030	0.009
Squid and Octopi	1,936	2011	0.038	0.010
Sharks	28	2012	0.034	0.014
Total Groundfish	4,058	2013	0.031	0.007
		2014	0.020	0.006
Forage	0	2015	0.018	0.005
Non-specified	1,181	2016	0.017	0.004
		2017	0.018	0.006
Total discards*	5,239	2018	0.012	0.004
		2019	0.023	0.008

*Does not include the prohibited species amounts listed in Table 2. By regulation, all prohibited crab species, halibut, and herring must be discarded, while salmon may be discarded or donated to food banks.

**Groundfish bycatch ratio is groundfish bycatch divided by total groundfish catch.

***Groundfish discard ratio is groundfish discards divided by total groundfish catch.

³ In this report the term “bycatch” includes all non-target groundfish species that are taken incidental to directed fishing for pollock, yellowfin sole, Pacific cod and Atka mackerel, whether such catch is retained and sold or discarded. This is different from the definition of “bycatch” in Section 3(1) of the Magnuson-Stevens Act 16 USC 1802, which defines bycatch as non-retained (discarded) catch.

Table 8 . Pollock Discards by Vessel.

Vessel	Amount (mt)
Alaska Ocean	0
American Dynasty	0
American Triumph	0
Arctic Fjord	0
Arctic Storm	46
Island Enterprise	26
Kodiak Enterprise	0
Northern Eagle	0
Northern Hawk	0
Northern Jaeger	0
Ocean Rover	0
Seattle Enterprise	87
Starbound	1
2019 Total	160

Pollock Landed Outside of Alaska

No pollock was landed outside the state of Alaska in 2019.

Chinook and Chum Salmon Bycatch Avoidance

Chinook

Amendment 91 to the BSAI FMP limits Chinook salmon bycatch in the Bering Sea pollock fishery. Regulations implementing the Amendment 91 program came into force in 2011. The program is an innovative approach to managing Chinook salmon bycatch that combines overall, sector-specific limits on the amount of Chinook salmon bycatch with a voluntary incentive plan agreement (IPA) and performance standard requirement designed to minimize Chinook bycatch by each individual vessel. These vessel-level incentives are created through contracts among the IPA participants. Amendment 110 to the BSAI FMP further specifies incentive plan components as well as reduces the Chinook salmon bycatch limits in the Bering Sea pollock fishery in years when a 3-river run index of Western Alaskan Chinook is determined to be low abundance. Regulations implementing the Amendment 110 program came into force in 2017.

The PCC member companies participate in a *Chinook and Chum Salmon Bycatch Reduction Incentive Plan and Agreement*. The agreement was first implemented in 2011, revised in 2017, and is designed to provide the incentives necessary to accomplish the goals and objectives of Amendment 91 and 110. The plan builds on experience gained in the development and refinement of time-and-area-based salmon “hot-spot” (bycatch avoidance-area) programs. The plan creates incentives to avoid Chinook bycatch by restricting the pollock fishing opportunities of vessels with poor bycatch performance while allowing vessels with good bycatch performance less restricted access to fishing grounds. Losing access to good fishing grounds increases

vessel operating costs and reduces product values; avoiding these costs and producing more high-value products increases vessel profitability.

The plan is designed to work in concert with the annual Chinook bycatch limits specified in Amendment 91 and 110. Primary plan components include: (1) data gathering, monitoring, reporting, and information sharing; (2) identification of bycatch avoidance areas; and (3) pollock fishing prohibitions for vessels with poor bycatch performance. The plan also includes an A-season closure area (Chinook Salmon Conservation Area). This 735 square-mile area is on the northwestern flank of the Bering Canyon, and remains closed to pollock fishing for the entire A-season. An analysis of A-season data from 1995-2007 showed that in some years nearly 20 percent of the Chinook salmon bycatch occurred in this area along with only 2-3 percent of the pollock catch.

Chum

Prior to 2017, all BSAI pollock cooperatives participated in an inter-cooperative chum salmon bycatch avoidance (hot-spot closure) program. The PCC first began participating in this program in 2001, and since then has worked to improve the program. The program became a regulated component of the Bering Sea pollock fishery in 2006 (Amendment 84 to the BSAI Fishery Management Plan). As with the Chinook bycatch management program, the chum bycatch avoidance program was implemented via contracts among the program participants.

However, Amendment 110 to the BSAI FMP, required pollock fishery participants who conduct fishing operations under incentive plan agreements to include measures for avoiding chum salmon as well as Chinook salmon. Since Amendment 110 regulations superseded those of Amendment 84, the inter-cooperative agreement and contracts were annulled and along with it the cooperative rolling hot spot program as well as the “Dirty 20 List”. The PCC amended its Incentive Plan Agreement to include new measures that reduce chum salmon bycatch during the B-season at all levels of pollock and chum salmon abundance. The incentive measures created to reduce chum salmon bycatch utilize the same time-and-area-based salmon “hot-spot” (bycatch avoidance-area) program along with the same plan components described above for Chinook salmon. Details of the revised IPA agreement and incentive measure performance results are provided in the CP IPA report available from the NPFMC.

Monitoring and Enforcement

All data used in monitoring pollock and non-pollock fishing activities was obtained from the North Pacific Groundfish Observer Program. Aboard each vessel, the catch is weighed using motion-compensated flow scales. The species composition of the catch is determined from observer sampling. Since two observers are required on AFA catcher-processors, the number of unsampled hauls is very low. In 2019, virtually 100 percent of pollock hauls were sampled. For the rare hauls that were not sampled, species composition data from the next nearest haul (in time and area) within the same vessel and gear type is applied to the unsampled catch. Priority in this imputation process is given to a sampled haul that occurs on the same day, but prior to the non-sampled haul.

Information concerning the catch and bycatch of individual vessels is available from a NMFS data server 24 hours a day, and is generally accessible 20 minutes after transmission from the vessels. SeaState, Inc., a company that provides catch accounting services, is authorized by the PCC and HSCC companies to receive and process this data and report on the status of the harvest. Observer data are downloaded one or two times per day, processed to generate catch and bycatch information, and then sent to a SeaState web site where company representatives may verify catch and bycatch data for their vessel(s). Typically, either an operations manager or vessel operator checks into the site each day to make sure recorded harvest amounts for his vessel(s) are consistent with vessel tallies.

Companies with several vessels often set initial vessel allocations, and then manage vessel harvests independently until late in the season. Typically, inter- and intra-company transfers of pollock occur near the end of the season to promote quota usage. No enforcement actions were taken by the PCC against any members during 2019.

20th Anniversary Edition

The year 2000 was the second year that the owners of catcher/processors and catcher vessels that delivered to catcher/processors in the Bering Sea and Aleutian Islands pollock fishery were able to form fishing cooperatives and coordinate harvest efforts, rather than race for fish. This edition of the PCC-HSCC annual cooperative report marks the 20th year it has been provided to the North Pacific Fishery Management Council. In this edition, some historical milestones will be highlighted, such as the drastic improvement in product recovery rates, the sustained high percentage of retained catch in directed pollock fisheries, and the Chinook bycatch reduction agreements that have reduced bycatches of salmon across the recent 2010-2019 period.

Some of the more astonishing statistics are that product recovery rates of pollock have nearly doubled in the recent 20 year period from just 20 tons of finished product per 100 tons of round weight pollock catch in 1999 to nearly 40 tons of finished product per 100 tons of round weight pollock catch in 2019. Product mixes have remained relatively stable over the time series, although there has been a slight increase in fish meal and fish oil production as well as some other ancillary products. Finally, the pollock fishery continues to have less than 2% bycatch across the time series. The retention of all groundfish landed by the catcher processor fleet also continues to remain at nearly 100% over the time series.

Figure 1. PCC Total Product Recovery 1998-2000, 2017 & 2019 (DFA and CDQ Pollock)

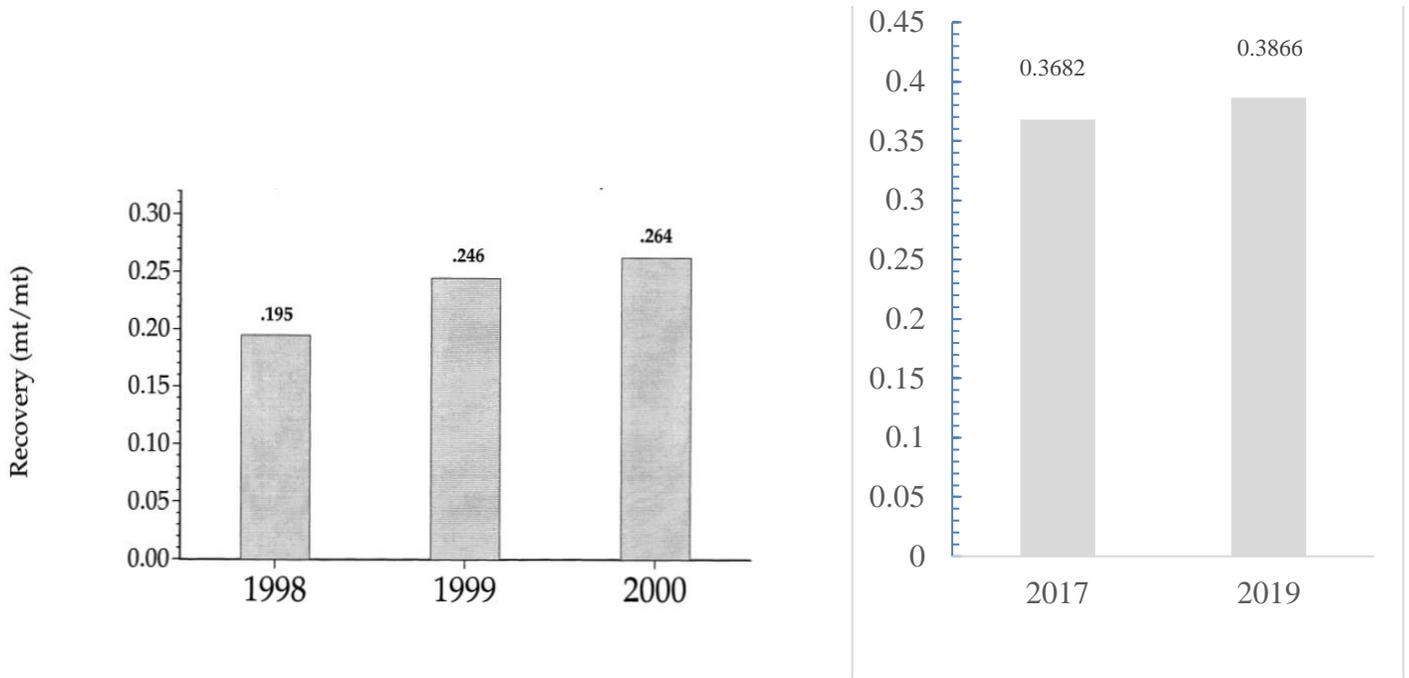


Figure 2. PCC Overall Product Mix 1998-2000, 2019 (DFA and CDQ Pollock)

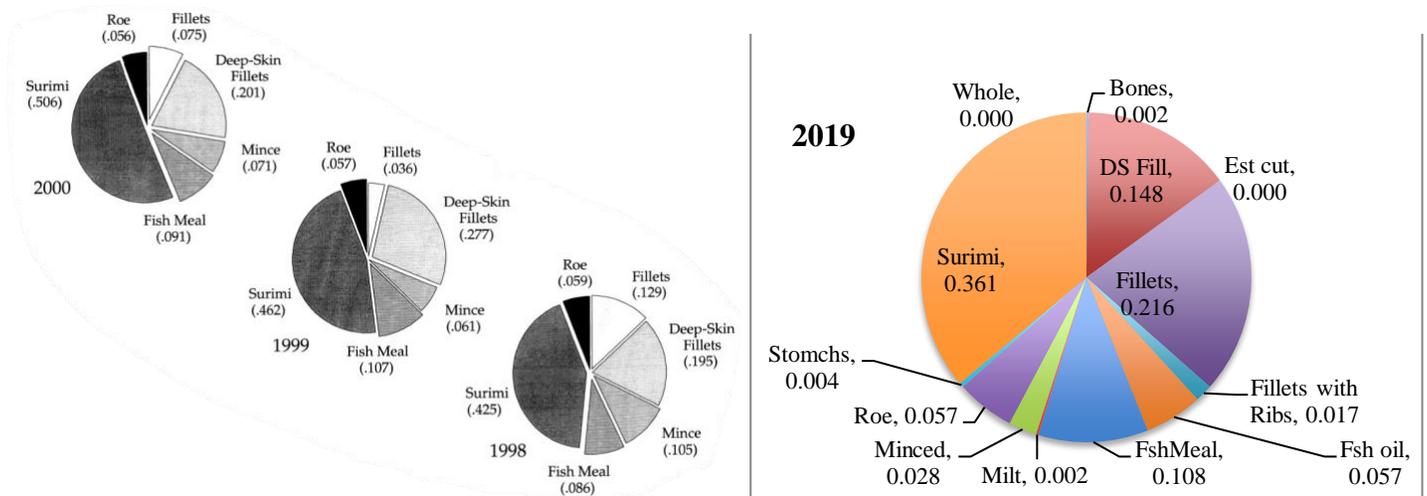


Figure 3. PCC Average Product Mix and Yield 1998-2000, 2017 & 2019 (Per 100 Metric Tons of Round Pollock Over the Course of the Fishing Year)

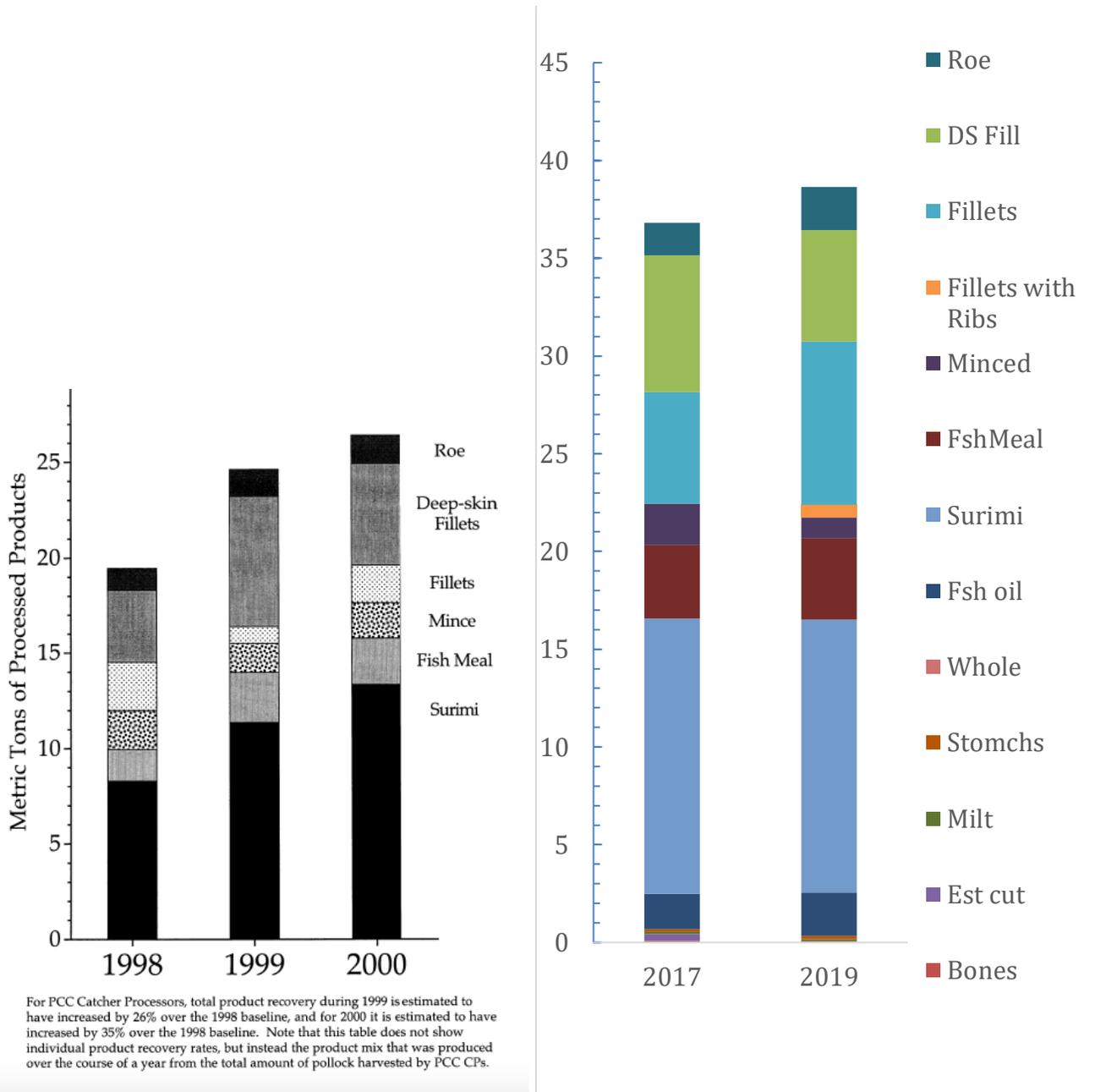


Figure 4. PCC Groundfish Bycatch Ratio 1999-2019

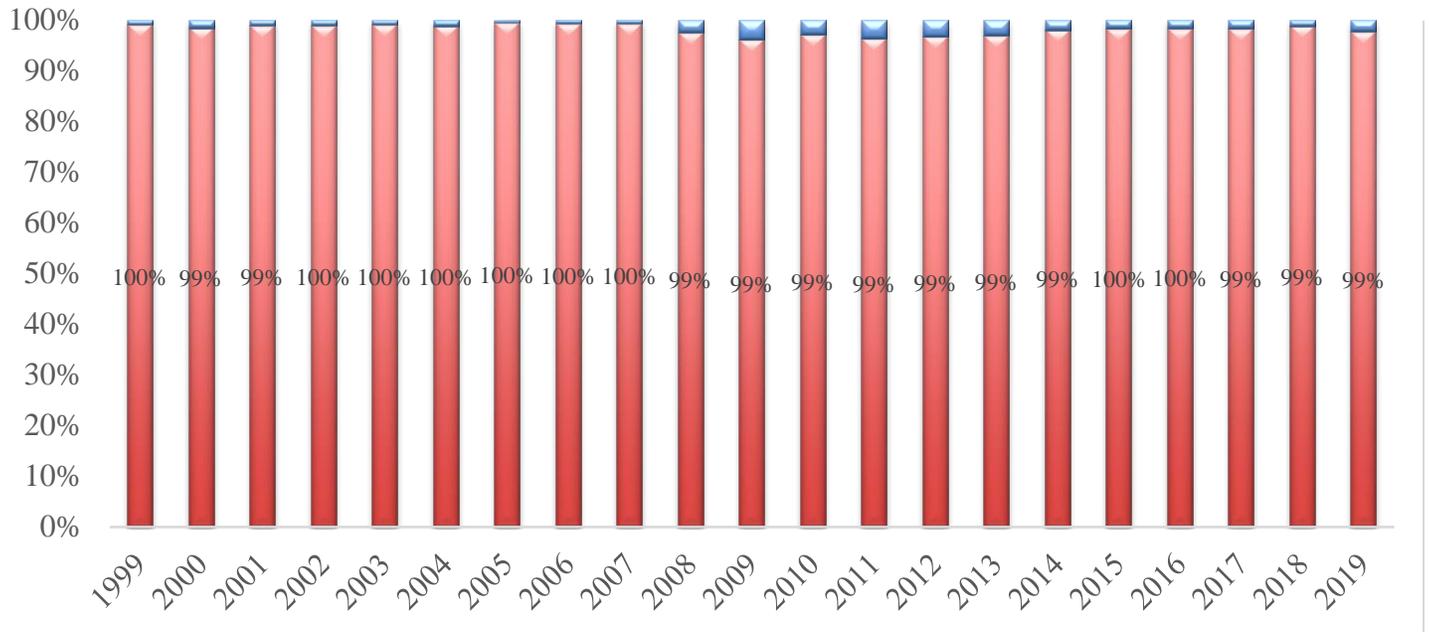


Figure 5. PCC Groundfish Discard Ratio 2000-2019

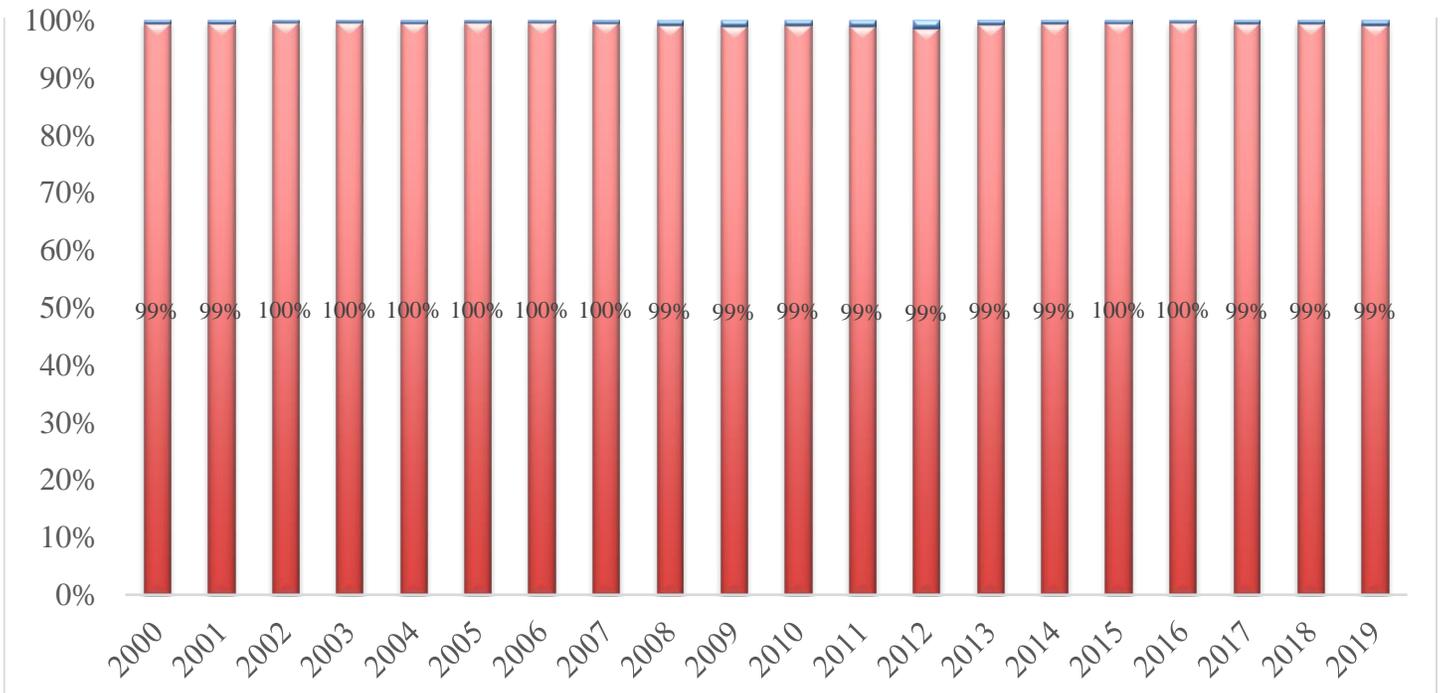
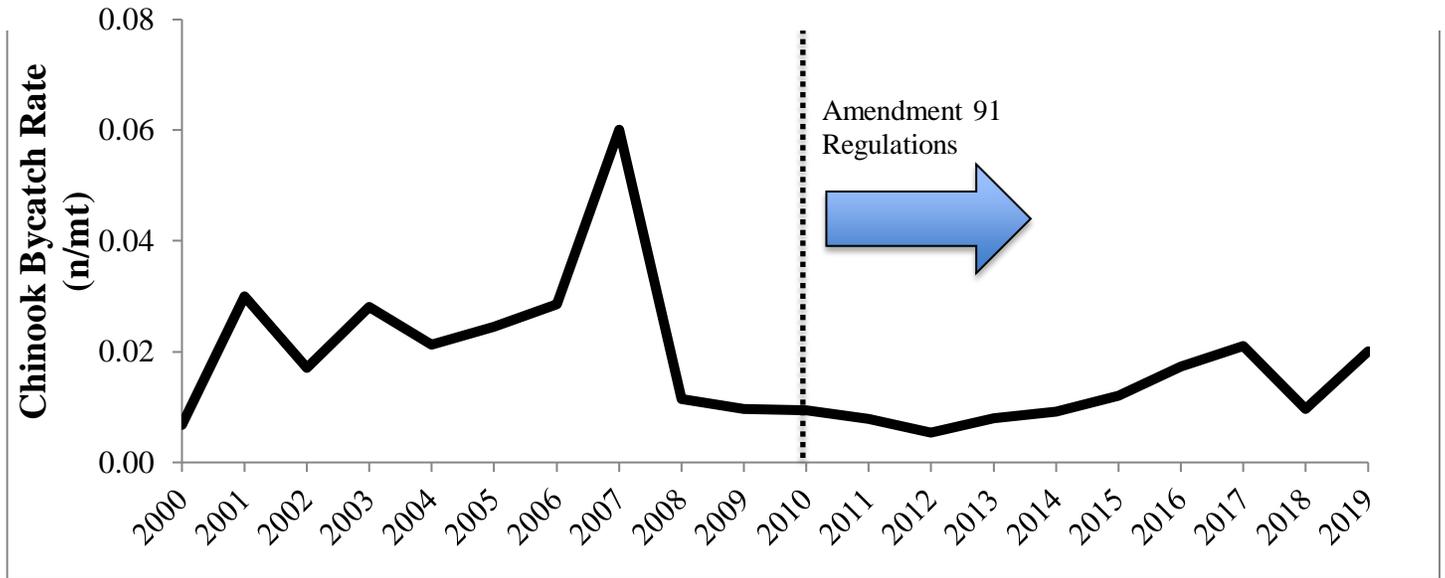


Figure 6. PCC Chinook Bycatch Rate 2000-2019 Pollock (DFA and CDQ Pollock)



High Seas Catchers' Cooperative Annual Report

Introduction

The High Seas Catchers Coop is a fisheries cooperative of all vessels eligible to fish for BSAI pollock under section 208(b) of the American Fisheries Act (AFA). The HSCC is party to an inter-cooperative agreement with the PCC for purposes of pollock harvest management, and a participant in an AFA catcher-vessel inter-cooperative agreement for purposes of sideboard species harvest management.

Cooperative Members and Allocations

The member vessels of HSCC include the F/Vs American Challenger, Forum Star, Muir Milach, Neahkahnie, Ocean Harvester, and Sea Storm. The HSCC Membership agreement was amended in 2015 to replace the Tracy Anne with the vessel Forum Star and is available from the NPFMC.

Allocations of pollock to members of HSCC were established within the HSCC membership agreement, as well as within the Cooperative Agreement with the PCC. Allocations of the BSAI Pacific cod sideboard amounts available for 2019 in the "Intercoop BSAI Cod Sideboard Allocation Agreement" were made by the HSCC Board of Directors through a roll over of the "Consent of Directors" document included as an appendix to the HSCC 2000 Annual Report. Other sideboard species were allocated by action of the HSCC Board of Directors. Prior to participation in any sideboard fishery, members were required to provide notice to the HSCC Executive Director, and-or the Manager of the Catcher Vessel Inter-Cooperative Agreement (CVICA). There is additional information about the flow of information between the vessels, the HSCC, SeaState, the CVICA Manager, and NMFS in the Catcher Vessel Inter-Cooperative Agreement (available from the NPFMC).

The 2019 distribution in metric tons to the HSCC vessels based on 206(b)(2) allocation of the directed pollock fishery to catcher-processors and catcher vessels, including releases from the pollock incidental catch allowance and rollovers from the Aleutian Islands fishery, is as follows:

Vessel	Allocation (mt)
Forum Star	8,679
American Challenger	3,859
Ocean Harvester	5,300
Neahkahnie	8,184
Sea Storm	10,080
Muir Milach	5,561
Total	41,663

Inter-Cooperative Agreement Between HSCC and PCC

The members of PCC and HSCC are allocated pollock under section 206(b)(2) of the AFA. As noted, HSCC is a party to the “Cooperative Agreement Between Offshore Pollock Catchers’ Cooperative and Pollock Conservation Cooperative” for purposes of pollock management, and this agreement is available from the NPFMC.

Catcher Vessel Inter-Cooperative Agreement

HSCC is also a party to the Catcher Vessel Inter-Cooperative Agreement (CVICA) for purposes of groundfish sideboard harvest management. Compliance with both agreements is based upon monitoring of catch and bycatch by SeaState, Inc. Information concerning CVICA allocations and rules as well as inter-cooperative transfer arrangements is contained in an annual report submitted to the NPFMC by the CVICA Manager. Among other things, the CVICA contains specific provisions on management of halibut prohibited-species catches (PSC) in the BSAI Pacific cod fishery, in which some HSCC vessels participate (see below). Prohibited species bycatch (PSC) by HSCC vessels is provided in Table 9.

Bering Sea Pollock Transfers and Directed Pollock Fishing

Based upon the January 1999 “Cooperative Agreement Between Offshore Pollock Catchers’ Cooperative and Pollock Conservation Cooperative,” individual members of HSCC have made transfers of pollock to individual members of PCC. These transfers are reported in Table 1 while no directed catch of Bering Sea pollock by HSCC vessels occurred in 2019.

Bering Sea and Aleutian Islands Shellfish Fisheries

The BSAI crab rationalization program was implemented in August 2005. As part of that program, the AFA crab sideboard limits were eliminated. The HSCC vessel Forum Star leased all of its scallop catch history and so did not catch any scallops in 2019.

AFA Sideboard Limits

The NMFS publishes in the Federal Register the sideboard limits for all AFA catcher vessels as well as a set of information tables which provide historic catches of sideboard species by cooperative for those species for which directed fishing is allowed. The regulations allow two or more cooperatives to enter into an inter-cooperative agreement where vessel catches are limited by the combined cooperative sideboard limits.

Bering Sea and Aleutian Islands Sideboard Fisheries

Three non-sideboard-exempt vessels participated in the Pacific cod fishery in 2019 and caught 2,836 metric tons of cod. Table 9 shows target, bycatch, and prohibited species catch by vessel for this fishery. Catch rates are provided to assess target catch and PSC use. Total groundfish catch by species is shown in Table 10.

Table 9. HSCC BSAI Directed Pacific Cod Catch and Bycatch by Vessel.

Vessel	Total Groundfish (mt)	Cod (mt)	Halibut mortality (mt)	King crab (N)	<i>Bairdi</i> (N)	<i>Opilio</i> (N)	Herring (mt)	Chinook (N)	Other salmon (N)
Muir Milach	1,284	1,265	1.66	0	97	0	0	0.092	0
Ocean Harvester	413	397	1.66	0	52	0	0	0.000	0
Sea Storm	1,221	1,174	9.24	0	56	1	0	2.544	0
2019 Totals	2,918	2,836	12.56	0	206	1	0	3	0
Catch Rate	1.000	0.972	0.004	0.000	0.070	0.000	0.000	0.001	0.000

Table 10. HSCC Catch of BSAI Groundfish.

Species	Catch (mt)
Pacific Cod	2,836
Pollock BSAI	20
Alaska Plaice	0
Arrowtooth Flounder	4
Flathead Sole	5
Kamchatka Flounder	1
Rock Sole	31
Yellowfin Sole	1
Northern Rockfish	4
Other Flatfish	2
Other Rockfish	1
Octopus	0
Pacific Ocean Perch	0
Sculpins	5
Skates	9
2019 Total	2,918

Gulf of Alaska Sideboard Fisheries

No HSCC vessels participated in Gulf of Alaska sideboard fisheries in 2019.

Monitoring and Enforcement

All data used in monitoring HSCC pollock and non-pollock fishing for delivery to offshore processors was obtained from the NMFS North Pacific Groundfish Observer Program. Information is available on the NMFS password-protected web site 24 hours a day, and is generally accessible 20 minutes after transmission from the vessel. Sea State, Inc. is authorized by the HSCC and its members to receive and process this observer data and report back to the members on the status of the harvest. The methods are the same as those described above under PCC Monitoring and Enforcement.

For deliveries to shore-side processors, each company submitted copies of its Alaska Department of Fish and Game (ADFG) fish tickets to SeaState, Inc. for tabulation through the NMFS Electronic Fish Ticket Program. In addition, HSCC member companies provided confidentiality waiver requests to ADFG for release of the data directly to SeaState to verify the completeness and accuracy of data submitted by HSCC members. This information was then made available to all HSCC members on the SeaState web site.

Penalty Structures within the HSCC and Between Cooperatives

The Cooperative Agreement between HSCC and PCC provides for inter-cooperative enforcement of penalties in the event of over-harvest of pollock. The CVICA also contains penalty provisions for over-harvest of sideboard species. HSCC members took no enforcement actions in either its pollock or sideboard fisheries in 2019; members complied with the provisions of the membership agreement.