

D4 BSAI Pacific Cod Pot Gear Cooperative Program

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JUNE 2024



Overview

- History of action & BSAI PCod management
- Elements of a LAPP
- Key program design decisions
- Bycatch and PSC management
- Crew
- Other BSAI cod fisheries
- Monitoring
- Safety



History of Action

- Guided by Council's June 2023 list of topics
- Motivated by decreasing TAC, increased participation, short seasons, race/safety concerns, variable crab bycatch
- Control date established as Summer 2023
- Next steps:
 - Clarify/affirm objectives; develop Purpose and Need
 - Identify program elements that might need further exploration, and give analysts the context of the program that those elements would fit into
 - Initial Review...



Recent Related Council Actions

- CPs
 - 2019 discussion paper considering instability (esp. B season) due to low TACs, reduced inseason rollovers, and potential new participation
 - December 2019 control date
 - Analysis of alternatives to modify endorsements on “latent licenses”
 - No action taken; determination that fishery’s challenges were mostly driven by period of lower TAC
- O60 CVs
 - Pot CVs were included in “scoping paper” that preceded the development of the PCTC (trawl) program
 - O60 CVs not included in the newest LAPP; Council encouraged pot cod participants to help design a LAPP that could be inclusive across more of the BSAI pot cod sectors



LAPP vs Other Types of Catch Share Programs

What distinguishes them? ... A “limited access privilege” means “a Federal permit, issued as part of a limited access system to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person.”

■ LAPPs

- AFA
- A80
- IFQ
- CR Program
- CGOA Rockfish

■ Other

- Voluntary Freezer Longline Cooperative
- NE Groundfish Sector Program



Program Elements

- There are several required and voluntary program elements of a LAPP defined in Section 303A of the MSA
- This presentation will cover some of those issues that appeared to the analysts to be most helpful in developing the program under consideration



Species Allocated

- Pacific cod
 - Exclude CDQ
 - Directed catch deducted from the Federal TAC
 - No, or almost no, participation in the GHL fisheries
 - Incidental catch in non-Pacific cod fisheries was small
 - Bait: sold and personal use
 - Area Harvested
- PSC
 - Potential impacts on monitoring requirements
 - Issues with variable annual catch and setting appropriate limits



Table 4-2 PSC in the BSAI Pacific Cod Pot Directed Fisheries by Sector, 2008 through 2023

Sector/PSC Species	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Avg.
Pot CPs																	
C. bairdi Crab	160.8	94.5	24.1	26.3	18.1	100.7	179.5	217.5	99.1	15.9	19.2	2.8	2.2	3.8	9.8	8.7	61.4
Golden King Crab	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red King Crab	3.6	0.1	0.1	8.5	4.1	51.9	72.6	94.6	13.5	4.0	12.3	1.5	0.0	0.1	0.0	0.0	16.7
C. opilio Crab	125.8	411.4	138.1	20.4	1.5	4.5	24.8	40.2	15.8	41.9	35.9	57.7	52.7	5.2	14.5	3.4	62.1
Blue King Crab	0.0	1.7	34.3	0.0	0.0	0.0	0.0	1.0	3.5	16.2	3.8	3.0	0.0	0.0	0.0	0.0	4.0
Halibut mortality (mt)	1	0	1	1	1	1	1	1	1	0	0	0	0	1	1	0	1
Chinook	Conf.	Conf.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-chinook	Conf.	Conf.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pot CVs ≥ 60 ft.																	
C. bairdi Crab	816.6	267.3	198.1	113.2	43.4	62.2	108.3	148.7	48.7	133.2	153.4	26.8	16.6	2.8	25.2	12.7	136.1
Golden King Crab	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Red King Crab	19.7	1.4	1.1	7.8	1.8	22.4	19.1	19.9	0.3	8.7	240.1	35.0	11.3	205.4	90.7	65.4	46.9
C. opilio Crab	369.3	80.3	279.2	42.1	7.4	4.7	29.1	35.7	1.3	29.2	2.8	1.4	8.7	6.0	1.0	0.2	56.1
Blue King Crab	0.1	0.1	84.9	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.8	0.0	0.0	0.0	0.0	0.0	5.4
Halibut mortality (mt)	2	0	1	3	2	1	0	0	1	1	0	1	1	2	6	2	1
Chinook	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-chinook	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Crab are reported in thousands of animals, halibut mortality in metric tons, and salmon in number of animals



Pacific Cod Catch Included in Allocation

- GHL Fisheries
 - CV \geq 60' LOA have had minimal participation in the AI GHL fishery
 - The Dutch Harbor Subdistrict of the Bering Sea area GHL is restricted to vessels less than or equal to 58' LOA
- Incidental Pacific cod catch



Fixed gear incidental catch of BSAI Pacific cod in non-groundfish fisheries

- Incidental catch of Pacific cod occurs in non-groundfish fisheries such as the halibut hook-and-line fishery and the crab pot gear fisheries.
- Sufficient data currently are not collected from these fisheries to extrapolate estimates of incidental catch.
- The total ICA amount of Pacific cod in the crab and Pacific halibut fisheries likely exceeds several thousand mt based on
 - (1) anecdotal information on the amount of incidentally caught Pacific cod used as bait in the crab fisheries,
 - (2) the summer Pacific halibut fishery typically occurs in relatively shallow water where Pacific cod are prevalent, and
 - (3) the amount of gear deployed and incidental catch rates (65 FR 51553).
- In the absence of the quantitative data needed to estimate incidental Pacific cod harvests in these fisheries, NMFS estimates the ICA is 500 mt



LLP Licenses with BS or AI Pot PCod Endorsement

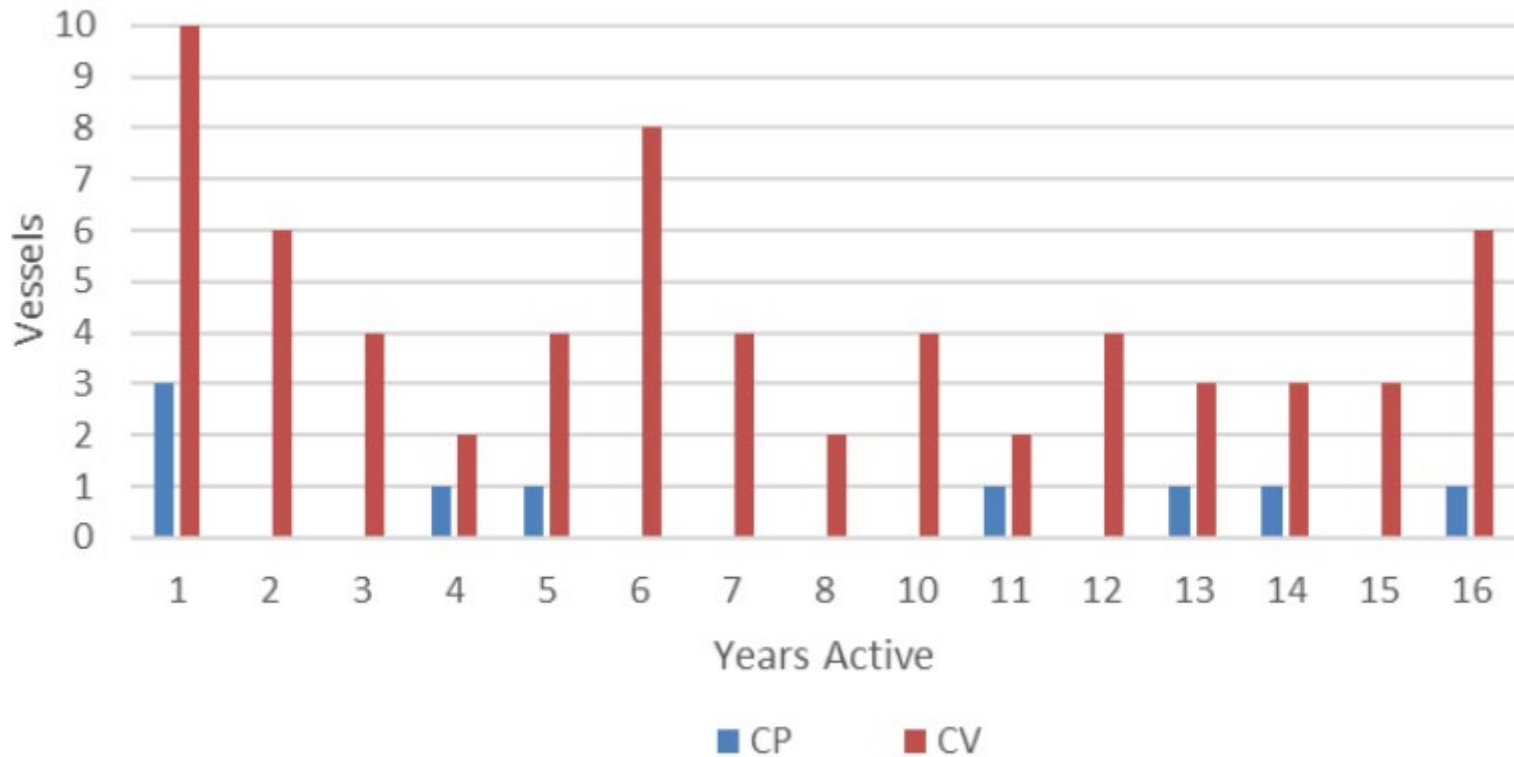
Table 3-1 Groundfish LLP licenses with a BS or AI pot Pacific cod endorsement

Mode/Pacific cod endorsements on LLP license	LLP Licenses
CP	
AI CP Pot; AI CP HAL; BS CP Pot; BS CP HAL	1
AI CP Pot; AI CP HAL; BS CP Pot; BS CP HAL; WG CP HAL; CG CP HAL	1
AI CP Pot; AI CP HAL; BS CP Pot; BS CP HAL; WG CP HAL; WG CP POT	1
AI CP Pot; AI CV HAL; BS CP Pot; BS CV HAL	1
AI CP Pot; BS CP Pot	1
BS CP Pot	2
CP Total	7
CV	
AI CV Pot	1
AI CV Pot; BS CV Pot	1
AI CV Pot; BS CV Pot; WG CV Pot	1
BS CV Pot	32
BS CV Pot; BS CV HAL; CG CV Pot	1
BS CV Pot; CG CV Pot	3
BS CV Pot; WG CV Pot	10
BS CV Pot; WG CV Pot; CG CV Pot	2
CV Total	51
Total	58

Source: 2024 RAM Groundfish LLP license file.



Count of CV and CP vessels by years active



CV catch, vessels and LLP licenses by year

Area Data	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	Total
AI																	
Metric Tons											1,302	541	C	C	C		3,355
Vessels											3	3	2	1	1		3
Licenses	-	-	-	-	-	-	-	-	-	-	3	3	2	1	1	-	3
BS																	
Metric Tons	11,362	6,488	11,590	16,408	12,729	12,436	11,170	10,415	11,037	13,725	13,968	12,744	C	C	C	5,085	177,828
Vessels	41	26	30	33	29	31	31	23	25	34	31	33	37	22	29	22	64
Licenses	42	27	31	37	33	33	32	25	27	35	33	33	38	23	29	23	51
Total																	
Metric Tons	11,362	6,488	11,590	16,408	12,729	12,436	11,170	10,415	11,037	13,725	15,270	13,285	11,191	7,138	11,855	5,085	181,183
Vessels	41	26	30	33	29	31	31	23	25	34	34	35	39	23	30	22	65
Licenses	42	27	31	37	33	33	32	25	27	35	36	35	40	24	30	23	52



CP catch, vessels and LLP licenses by year

Area Data	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	Total
AI																	
Metric Tons	C	C	C	C							C	C	C	C			3,863
Vessels	4	3	2	1							1	1	1	2			8
Licenses	1	2	2	1							1	1	1	3			5
BS																	
Metric Tons	C	C	C	C	4,178	6,344	5,477	6,171	5,699	4,947	C	C	C	C	1,777	834	54,112
Vessels	2	2	3	4	5	3	4	4	4	4	4	4	4	3	3	2	5
Licenses	2	2	3	4	5	3	4	4	4	4	4	4	4	3	4	3	5
Total																	
Metric Tons	3513	3,500	3,362	3,102	4,178	6,344	5,477	6,171	5,699	4,947	2,983	2,693	2,059	1,337	1,777	834	57,975
Vessels	6	4	5	4	5	3	4	4	4	4	5	5	5	4	3	2	9
Licenses	3	3	5	4	5	3	4	4	4	4	5	5	5	4	4	3	6



Pot Pacific Cod Deliveries to Motherships

- The Council specifically requested that staff provide information on any deliveries to motherships or CP's acting as motherships by ≥ 60 ft. Pot CVs from 2008 through June 11, 2023.
- Two pot vessels ≥ 60 ft. associated with four different LLP licenses made mothership deliveries (including deliveries to CPs acting as motherships) of Pacific cod in the open access Pacific cod fishery.
- All deliveries were harvested from the BS in 2008 and accounted for a small proportion of the overall Pacific cod catch by that sector and the catch associated with those vessels and LLP licenses.
- Due to the limited participation associated with those catch and delivery data, the actual catch amounts cannot be provided under confidentiality rules.



Equal Shares

- The Council is considering “equal shares” as an option for ≥ 60 ft. CVs
- Moving forward with this concept will require defining certain parameters
 - Will equal shares apply to all or part of the sector’s TAC
 - What is required to be eligible to receive the equal share allocation.
 - Vessel owners or LLP holders satisfying some minimum requirements
 - Vessel size, catch history, the number of consecutive years of participation in the fishery, or some combination of two or more of these factors.
- One issue with equal shares is that persons that have a relatively small catch history based on either few years of participation or small amounts of catch when they did participate will have their relative shares increased, and highliners (those who have historically accounted for a disproportionate share of the landings) and fish most years will be brought down to the level of the average fisherman.



Table 4-5

Catcher Vessel >60' LOA BSAI Pacific Cod Pot
Revenue Percent of Total Revenue, 2014-2023
(number of vessels)

BSAI Pot Pacific Cod Rev as a % of Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2014-2023
<1%	0	4	6	0	0	0	1	0	0	0	1.10
.1-10%	17	10	7	10	3	12	12	7	6	4	8.80
10-20%	7	3	6	11	13	8	10	8	3	2	7.10
20-30%	2	1	2	6	4	7	3	4	3	4	3.60
30-40%	0	0	1	0	2	2	5	1	6	2	1.90
40-50%	0	2	0	0	3	2	0	0	5	1	1.30
50-60%	2	0	0	1	2	0	0	1	1	4	1.10
60-70%	0	1	1	1	2	1	0	0	0	0	0.60
70-80%	0	1	0	0		0	0	0	1	3	0.56
80-90%	0	0	1	1	1	1	0	0	0	1	0.50
90-100%	3	1	0	3	1	2	7	2	5	1	2.50
Total	31	23	24	33	31	35	38	23	30	22	29.00

Table 4-6

Catcher Vessel >60' LOA BSAI Open Access
Pacific Cod Pot Vessels by Categorical Percent of
Total Revenue, 2014-2023 (number of vessels)

Rev as a % of Total	BSAI Pacific Cod	BSAI Crab	Sablefish	Halibut
<.1%	1.1	6.2	26.5	26.3
.1-10%	8.8	0.0	0.6	0.1
10-20%	7.1	0.3	0.3	1.1
20-30%	3.6	1.0	0.9	0.3
30-40%	1.9	1.6	0.4	0.5
40-50%	1.3	1.7	0.2	0.7
50-60%	1.1	2.5	0.0	0.0
60-70%	0.6	2.4	0.0	0.0
70-80%	0.6	3.6	0.1	0.0
80-90%	0.5	5.2	0.0	0.0
90-100%	2.5	4.5	0.0	0.0



Vessel Owners with no LLP License

- The Council requested information regarding issuing quota shares to the owners of active vessels who do not own an LLP license.
- It appears that all LLP licenses with a Pacific cod pot gear endorsement for the BSAI have some qualifying catch history
- Catch data indicates that catch history is associated with six CP licenses and 52 CV licenses. Recall that one CP license was used to harvest Pacific cod with pot gear as a CV during the qualifying period.
- It is assumed, for this discussion paper, that the term “active vessels” refers to vessels that have made directed Pacific cod landings using pot gear in the open access fishery. It is further assumed that the phrase “do not own an LLP” means that Pacific cod catch was deducted from the sector’s TAC during the qualifying period, but no LLP license was associated with the catch. Either of these assumptions could be modified by the Council if it moves forward with an analysis of the proposed program.
- Seven vessels met the criteria (active vessels with no LLP license) defined in the assumptions above.
 - 3 were in the CP sector. All CP catch not associated with an LLP license was harvested from the AI sub-area and totaled 2,439 mt. 2 CP vessels only reported catch during 2008 and never had an LLP license listed in the data associated with that catch. The third vessel reported catch associated with an LLP license during some of the years considered, but most of its catch was not associated with an LLP license.
 - 4 CVs reported catch that was not associated with an LLP license. All the catch was reported to have been harvested from the BS. 2 of 4 vessels reported catch on more than 1 LLP license, 1 used a single LLP license, and 1 never reported Pacific cod pot catch associated with an LLP license during the 2008-2023, period. 1,249 mt of pot Pacific cod catch was reported by these 4 vessels that was not associated with an LLP license.



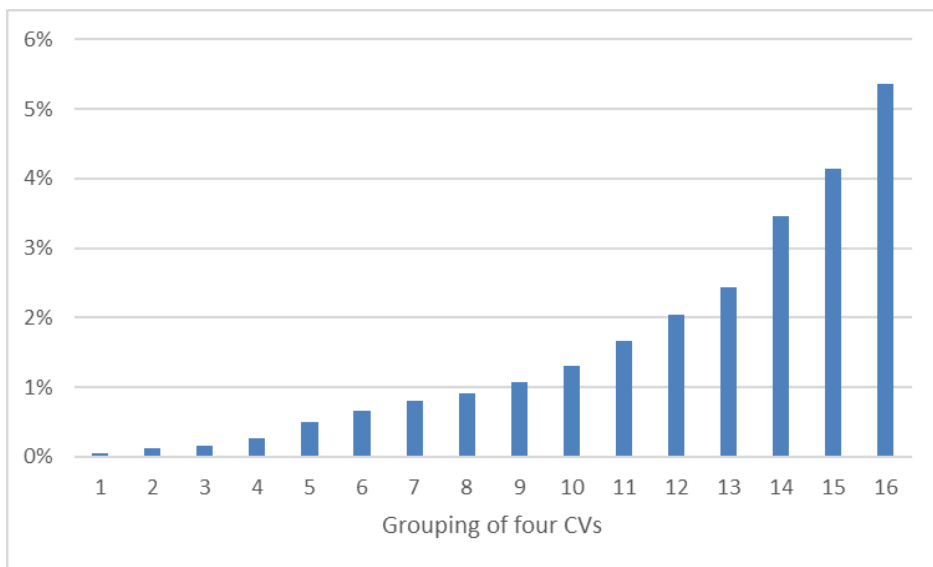
Pacific cod caught for use as bait (lbs.)

Year	Sold	Personal Use	Total
2008	60,579	106,815	167,394
2009	121,066	61,870	182,936
2010	235,271	146,476	381,747
2011	61,695	138,880	200,575
2012	20,862	108,543	129,405
2013	128,791	81,900	210,691
2014	61,463	115,532	176,995
2015	66,111	66,182	132,293
2016	76,439	106,438	182,877
2017	28,308	97,778	126,086
2018	54,476	83,050	137,526
2019	18,722	52,634	71,356
2020	30,232	81,472	111,704
2021	31,602	964	32,566
2022	198	9,837	10,035
2023	12,692	8,803	21,495

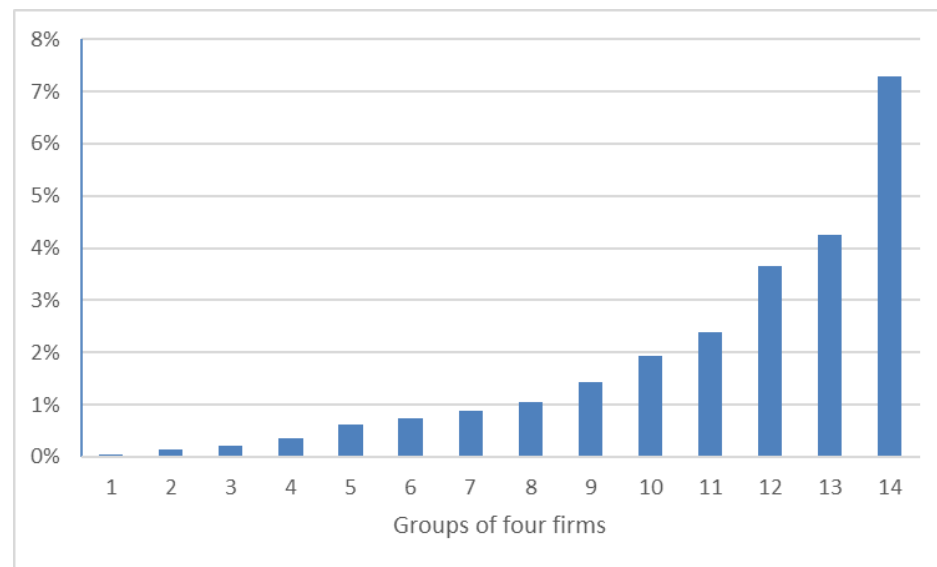


Establishing CV Excessive Share Limits

Catch by grouping of four catcher vessels as percent of sector's total catch, 2008 through June 11, 2023



Catch by grouping of four catcher vessel firms as percent of sector's total catch, 2008 through June 11, 2023



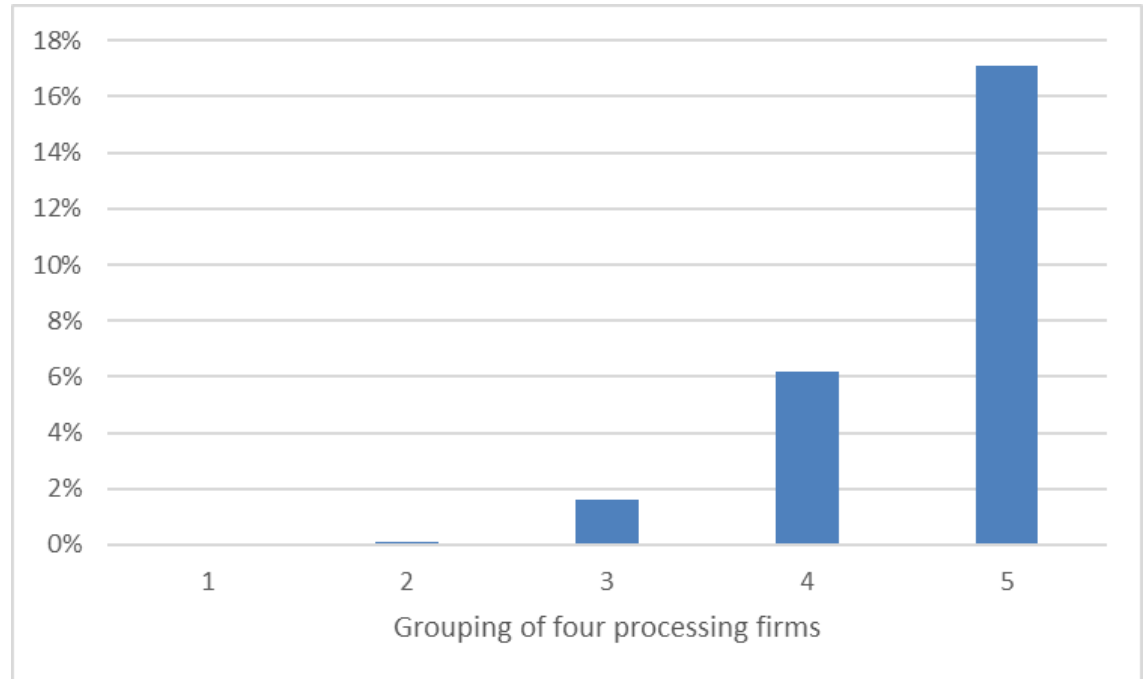
Establishing CP Excessive Share Limits

Limited information can be provided for the catcher processor sector because of the number of participants. The four vessels and firms with the most catch accounted for about 93% of the sector's total from 2008 through June 11, 2023.



Establishing Processor Excessive Share Limits

- The four processing firms that took the most deliveries averaged just over 17% of the sector total from 2008 through 2022
- It is worth noting that there is substantial variation in amounts by year. On an annual basis, the four firms taking the most deliveries averaged 16.9% to 24.8%



CVs with GOA Sideboards from CR Program

- CPs are either sideboarded in the GOA Pacific cod fishery or do have a GOA cod endorsement
- 3 CV's may fish GOA Pacific cod but have sideboards for other species. 1 CV can fish WG cod with no sideboard limit

Table 3-12 Groundfish LLP licenses with a BS or AI pot Pacific cod endorsement by Crab Rationalization imposed sideboard

Mode/Pacific cod endorsements on LLP license	CR GOA Sideboarded	CR GOA Sideboarded - except Pcod	CR GOA Sideboarded - no GOA Pcod Fishing	No Sideboard Limits	Total
CP					
AI CP Pot; AI CP HAL; BS CP Pot; BS CP HAL				1	1
AI CP Pot; AI CP HAL; BS CP Pot; BS CP HAL; WG CP HAL; CG CP HAL	1				1
AI CP Pot; AI CP HAL; BS CP Pot; BS CP HAL; WG CP HAL; WG CP POT	1				1
AI CP Pot; AI CV HAL; BS CP Pot; BS CV HAL				1	1
AI CP Pot; BS CP Pot				1	1
BS CP Pot				2	2
CP Total	2			5	7
CV					
AI CV Pot				1	1
AI CV Pot; BS CV Pot				1	1
AI CV Pot; BS CV Pot; WG CV Pot	1				1
BS CV Pot	4			28	32
BS CV Pot; BS CV HAL; CG CV Pot	1				1
BS CV Pot; CG CV Pot	3				3
BS CV Pot; WG CV Pot	6	1	2	1	10
BS CV Pot; WG CV Pot; CG CV Pot		2			2
CV Total	15	3	2	31	51
Total	17	3	2	36	58

Source: RAM 2024 Groundfish LLP License file



Incidental Catch in BSAI Pacific Cod Pot Fishery

- A wide variety of species are taken as incidental catch in the BSAI pot cod fishery.
- Only species that averaged more than 0.5 mt per year are included.
- Catches are often small amounts with high variability from year-to-year.

Table 4-1 Non-PSC Species Bycatch in BSAI Pacific Cod Pot Fisheries 2011 through 2023

Species	Mean	Std. Dev.	Max	Min
Yellowfin Sole	196.4	127.5	458.6	26.2
Sculpin	93.3	32.0	159.2	48.1
Octopus	84.3	105.1	425.2	12.6
Other Species	22.5	16.4	64.6	7.3
Sea star	26.9	64.2	245.3	0.1
BSAI Other Flatfish	9.5	6.0	22.9	0.8
Scypho jellies	3.2	5.1	20.7	0.7
Atka Mackerel	5.6	3.9	15.6	1.9
Snails	4.4	5.4	18.5	0.3
Misc fish	4.5	3.3	12.9	1.1
Pollock	3.8	3.4	11.7	1.6
Misc crabs	1.1	0.9	2.9	0.1
Arrowtooth Flounder	0.9	0.8	2.9	0.1
Other Rockfish	0.9	2.0	7.0	0.0
Sablefish	0.6	0.8	2.6	0.1

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT



IR/IU Implications

- IR/IU regulations require persons to retain IR/IU species when the directed Pacific cod fishery is open, with very limited exceptions.
- When directed fishing is closed persons are required to retain up to maximum retainable amount (MRA) that is typically 20 percent of the basis species.
- If the pot Pacific cod fisheries are rationalized, directed fishing is expected to remain open longer and potentially never closed meaning all cod catch in other fisheries would need to be retained throughout the year.
- Another issue is if a person has taken their allocation and still has pots set, they could be forced to rail-dump (dump all contents of the pot without bringing contents onboard the vessel) or exceed their allocation. This could violate IR/IU regulations.
- *To address these types of situations in other fixed-gear catch share programs (e.g., halibut/sablefish IFQ), the Council has implemented a 10 percent overage/underage provision.*



Vessel Crew

- CV crew size ranges around 5-7. Number may be influenced by pace of fishing, size of TAC, prices, expense-to-catch ratio, and the need to retain the right crew to fish adjacent seasons (crab, tendering).
- CP crew size range: 16-27
- Fleet size reduction is common in LAPPs but can be limited by program goals and design choices
- Rationalized fisheries can result in marginal crew reductions
- Crew positions paid on a % share might see new expenses “off the top” related to a LAPP – e.g. lease fees, additional monitoring, NMFS cost recovery
- LAPPs can result in greater stability and profitability for those who remain active; can affect crew safety and pay. Likely secondary factor to the dominant macroeconomic trends facing the industry



Connections to Other PCod Sectors

- U60 pot cod, DHS state-waters, shoreside processors
- What would be the mechanism for determining start date of DHS GHL fishery?
- Market competition, global demand, currency valuations & trade conflict affect demand for CVs to fish and ability to be profitable under “high cost conditions”
- If processing demand is less than CV fleet capacity, racing to fish or to secure a market could persist under a quota program... or cooperative management could be complex relative to “fully matched” co-op fisheries
- Would rationalized cod (PCTC; O60 CVs in the future?) be prioritized for delivery?
- If fleet consolidation occurs, what will determine which vessels continue to get markets?
- If CVs compete on price, it becomes more difficult to cover new costs associated with a LAPP
- 2024 A season does not resemble a fully utilized fishery that needs to be slowed down through management measures... so what is the goal of this LAPP under the current conditions?
- Would unrationalized vessels have to fish later in the year? Would ex-vessel prices be lower for them?



Monitoring Requirements

- Presuming allocation of cod quota to cooperatives AND apportionment of crab PSC to cooperatives...
- Monitoring, catch accounting and enforcement must be able to:
 - Ensure compliance where the need to enhance the value of quota-derived catch exists, as do greater incentives/opportunities to take actions that don't comply with retention/reporting standards
 - Accomplish more comprehensive catch monitoring and accounting (esp. for constraining PSC species that are not retained); would include observer coverage on all trips
 - Supply cooperatives and managers with timely and accessible data on catch & PSC
- Observer Coverage
 - Pot CPs currently required to have 100% coverage by a Level 2 observer; Cooperative mgmt. *could* make the deployment of Level 2 observers less challenging – although analysts do not expect a *dramatic* shift in the timing of fishing effort
 - O60 CVs in partial coverage. Realized coverage rates from 2014-2023 ranged from 7.7% of trips to 23.4% of trips (annually)
 - Using retrospective data, the O60 CV fleet could have required up to 13 additional observers on a given day to meet full coverage need (instances occurred in Jan., Sept. and Oct.)



Monitoring Requirements

- Moving pot cod O60 CVs to full coverage reduces the ex-vessel landings against which the partial coverage fee is assessed (smaller fee base), and would require cooperative vessels to directly fund observer coverage through “pay as you go” model
- Timely, accurate data are necessary for cooperative managers and vessel operators to make individual and collective decisions about PSC mitigation
- Need for timely, quality data likely requires CVs fishing cooperative allocations to provide observers with a computer and data service plan capable of running ATLAS software and making daily at-sea transmissions to NMFS
- For CVs, catch accounting of groundfish (not PSC that must be discarded at sea) would occur at shoreside processing facilities. Would require processors to have a certified scale and could require an approved Catch Monitoring Control Plan (CMCP).



Safety

- Council motion cited “unsafe conditions” in association with a race for fish
- Short seasons, limited TAC, catch history, desire to move into crab fisheries
- Flexibility of timing might occur on a small scale, but could still be valuable in terms of safety outcomes
- Timing/presence of quality fish, demand for pot cod, and distance from processors (use of tenders?) will continue to influence some vessel-level decisions
- Could allow coordination on use of grounds where other gear types also fish
- Management structures create the conditions for operators’ decisions that may affect safety of life and vessels
- “Fishery management policies influence operational decisions related to weather conditions, and that economic pressures generated by management policies or anticipated changes in policies can play an important role in decisions to fish in severe weather conditions.” (NIOSH 2021, presentation to USCG Marine Casualty Hearing for FV Scandies Rose)



Questions?

