

C4 Small Sablefish Release Initial Review

Presentation the SSC, June 2024



Presenters:

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Presentation Outline

1. History of Action
2. Purpose and Need
3. Description of Alternatives (includes management considerations)
4. Description of Fisheries
5. Potential Impacts
 - Overview of environmental assessment
 - Sablefish simulation analysis
 - Economic impact analysis



History of Action

Apr 2018

- IFQ fishermen provide Council testimony regarding influx of small, low-value sablefish in catch.
- Council initiates a discussion paper on a **proposal to release small sablefish.**

Oct 2018-
Dec 2019

- Council reviews 3 discussion papers on the small sablefish release issue.

Dec 2019

- Council adopts a purpose and need statement and develops alternatives to initiate analysis.

Alt 2: Allow Voluntary Release of Sablefish in the IFQ Fishery

Feb 2021

- Council receives initial review analysis
- SSC recommends additional analyses before final action
 - Assess trade-off in lost yield of younger fish vs preserving spawning biomass and future value of catch
 - Impact of selectivity on reference points
 - SPR analysis
 - Differential impacts across communities or regions



History of Action (cntd)

Oct 2021-
June 2022

- Council directs staff to prepare and schedule second initial review analysis when time and resources allow.
- Council noted that discussion about a minimum size limit (MSL) for sablefish retention should **not** be considered in the revised analysis.

June 2023

- Staff “update” document reviewed at Council
- **Council revised alternatives**
 - **Included option for voluntary release <22 inches (retention required ≥22 inches)**

Feb 2024

- SSC reviews methods for proposed simulation analysis, selects DMRs for analysis.



Purpose and Need (revised June 2023)



“Beginning with the 2014 age class, a continuing series of large year classes of sablefish are resulting in significant catches of small sablefish in the IFQ fixed gear fisheries and current regulations require IFQ holders to retain all sablefish. Small sablefish have low commercial value under current market conditions. Although no scientific studies are available to estimate survival rates for Alaska sablefish, information from other areas suggests that survival rates for carefully released sablefish may be high enough to warrant consideration of relaxing full retention requirements. Limited operational flexibility to carefully release sablefish may increase the value of the commercial harvest and allow small fish to contribute to the overall biomass.”

Alternatives

Alternative 1, No Action (Status quo) – No discarding

Under the No Action alternative, all regulations and FMP language related to a prohibition on discarding sablefish would remain intact.

Alternative 2, Allow Release of Sablefish in the IFQ Fishery

Option 1: eliminate the regulatory restrictions that prohibit release of sablefish caught by sablefish IFQ vessels as well as the FMP provision prohibiting discarding.

Option 2: Require retention of sablefish 22 inches total body length or longer (provides for voluntary release of sablefish under 22 inches total body length)



Appendix 1: sablefish size and weight at age metrics

Courtesy of Jane Sullivan
and Katy Echave

Sex	Age	Proportion Females Mature	Total length (in)	Round weight (lb)	Dressed weight (lb)
Male	1	--	18.3	1.5	1.0
Male	2	--	20.3	2.4	1.5
Male	3	--	21.9	3.2	2.0
Male	4	--	23.1	3.9	2.5
Male	5	--	24.1	4.6	2.9
Male	6	--	24.9	5.1	3.2
Male	7	--	25.5	5.5	3.5
Male	8	--	26.0	5.9	3.7
Male	9	--	26.4	6.2	3.9
Male	10	--	26.7	6.4	4.0
Male	11	--	27.0	6.5	4.1
Male	12	--	27.2	6.7	4.2
Male	13	--	27.3	6.8	4.3
Male	14	--	27.5	6.8	4.3
Male	15	--	27.6	6.9	4.4
Female	1	0.01	18.1	1.5	1.0
Female	2	0.02	20.4	2.4	1.5
Female	3	0.05	22.4	3.3	2.1
Female	4	0.10	24.0	4.3	2.7
Female	5	0.18	25.4	5.3	3.3
Female	6	0.32	26.6	6.2	3.9
Female	7	0.49	27.6	7.0	4.4
Female	8	0.67	28.5	7.8	4.9
Female	9	0.81	29.2	8.5	5.3
Female	10	0.90	29.8	9.1	5.7
Female	11	0.95	30.3	9.6	6.1
Female	12	0.97	30.7	10.1	6.4
Female	13	0.99	31.1	10.5	6.6
Female	14	0.99	31.4	10.9	6.9
Female	15	1.00	31.6	11.2	7.0



Elements of Alternative 2 (Analyzed in relation to Option 2)

Element 1: DMRs

Apply a DMR to discarded sablefish of:

1. 5%
2. 12%
3. 16%
4. 20%
5. 25%
6. SSC recommends the DMR through the stock assessment process

Sub-option: Select different DMRs for pot gear and hook and line gear

Element 2: Catch and Release Mortality Accounting

Sablefish catch and release mortality associated with the IFQ fishery will be accounted for in the stock assessment. The analysis should describe the potential implications of voluntary discards on the sablefish stock assessment, specifications process and catch accounting in the context of other uncertainties.

Element 3: Monitoring and Enforcement

The analysis should describe potential monitoring and enforcement provisions that could improve estimates of voluntary and regulatory discards.

Element 4: Review

Option 1: The ability to release sablefish will be reviewed in a) 3 years b) 5 years c) 7 years following implementation.

Option 2: The ability to release sablefish will sunset after 5 years following implementation.



The analysis should include a discussion of selectivity in sablefish pots and whether requiring escape mechanisms meet the objective of this action.

**SSC Action Item:
(Circle back)**



Review EA/RIR including simulation results (Appendix 5) and determine if ready to be used in final action (after minor revisions/additions)

OR

Does the proposed action require further analysis (another initial review and SSC review)?

Specifically, does the document provide an adequate analysis of potential impacts of the alternatives, using the BSIA, for the Council to use in decision-making?

Element 1: Discard Mortality Rate (DMR)

Element 1: DMRs

Apply a DMR to discarded sablefish of:

1. 5%
2. 12%
3. 16%
4. 20%
5. 25%
6. SSC recommends the DMR through the stock assessment process

Sub-option: Select different DMRs for pot gear and hook and line gear



DMRs selected for analysis by SSC in February 2024: **12%, 20%, 35%**



Element 2: Catch and Release Mortality Accounting

The analysis should describe the potential implications of voluntary discards on the sablefish stock assessment, specifications process and catch accounting in the context of other uncertainties

- Majority of data come from observer data, which are limited in sablefish IFQ fishery.
 - Observers collect # and size of fish on total (unsorted) catch. Current protocols do not separate retained/discarded. Would require changes to protocols at the cost of other monitoring priorities, or changes in Catch Accounting protocols.
 - EM data could provide # of fish discarded, but not size.
- Current assumption used is that weight distribution of discards is similar to that of retained catch (due to full retention requirement).
 - Enables estimation of size distribution and amount of total fishery removals.
 - Voluntary discards even under a minimum retention size limit violates this assumption



Element 2: Catch and Release Mortality Accounting

- Overestimation risk by not adjusting total catch estimation methods for size-selective discards.
- Require implementing new total catch accounting method for IFQ and CDQ sablefish fisheries to estimate discards that inform the assessment and information necessary to manage the fishery (e.g. OFL, ABC, TAC, discard mortality rates (DMRs), and incidental catch allowances (ICAs)).
- New methods to account for voluntary discarding would be unique process for sablefish compared to other groundfish species and require substantial modification to catch accounting estimation processes.



Element 2: Catch and Release Mortality Accounting

- Sablefish IFQ program requires full retention and only retained fish count towards the annual amount of an individual's IFQ.
- Discard accounting in other catch-share programs requires data on discard amounts specific to the harvesting vessel, thus 100% monitoring
- Sablefish IFQ program partially observed and discard estimates based on mix of vessel activity.
- Vessels may behave differently when observers or EM are present or not influencing ability to estimate accurate discard estimate



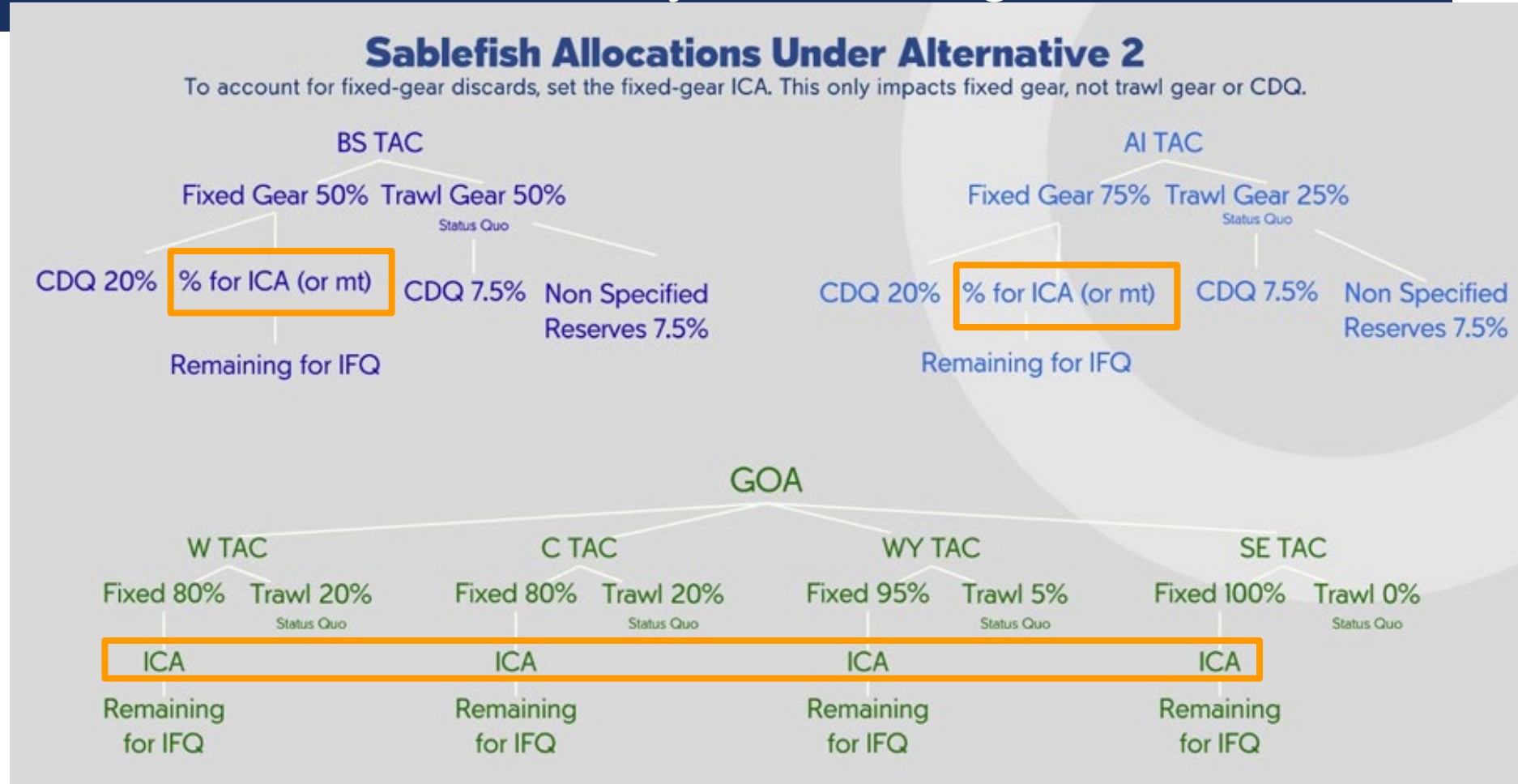
Table 1. Summary of selection rates and the number of trips expected to be monitored by observers and/or EM in each sampling stratum in 2024.

Component	Pool	Stratum	Selection Rate (%)	Number of Trips Expected to be Observed
Partial Coverage	Observer Trip Selection	Fixed-gear BSAI	44	123
		Fixed-gear GOA	13	264
		Trawl BSAI	72	22
		Trawl GOA	21	82
	Fixed-Gear EM trip selection	Fixed-gear EM GOA	24	232
		Fixed-gear EM BSAI	74	43
	Trawl EM EFP	Trawl EM GOA	33% shoreside monitoring (plus 100% EM coverage at-sea)	241
No selection	Zero Coverage	0	0	
Full Coverage	Observer Full Coverage	Observer	100	1,172
	Trawl EM EFP	Trawl EM BSAI	100% shoreside monitoring (plus 100% EM coverage at-sea)	1,661

Source: 2024 Annual Deployment Plan for Observers and Electronic Monitoring in the Groundfish and Halibut Fisheries off Alaska

Element 2: Catch and Release Mortality Accounting

New **incidental catch allowance (ICA)** for fixed gear to account for sablefish discard mortality.



Element 3: Monitoring and Enforcement

The analysis should describe potential monitoring and enforcement provisions that could improve estimates of voluntary and regulatory discards.

- Trade-offs to account for size-selective discards in at-sea observer sampling
 - Collection of length/age data on discarded sablefish could result in decreased biological sampling of other species (e.g. halibut, rockfish, crab, etc.)
 - Increase reliance on crew to collect samples (e.g. crew sorting retained sizes from discarded sizes)
- Changing observer sampling complex due to evaluating data needs of Council priorities, stock assessments, and other mandates.
- Voluntary discarding behavior can be impacted by observer or EM presence and bias data collection.
- ADP does not consider fishery or individual species and allocation of sampling resources would remain unchanged.



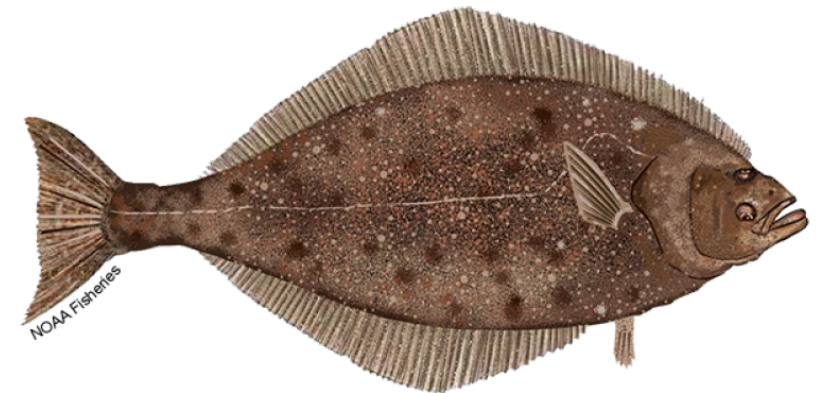
Element 3: Monitoring and Enforcement

Enforcement

- To minimize sablefish discard mortality, Council may wish to recommend careful release handling requirements for longline and pot gear.
- Careful Release Provisions required for:
 - Prohibited Species Catch (PSC) Bycatch (50 CFR 679.21)
 - Halibut discard (50 CFR 679.102 and 679.7)
- Enforceability limitations with careful release and minimum retention size requirement (Alternative 2 Option 2).
 - Observers would have to witness and report the discard of legal sablefish (≥ 22 inches)

50 CFR 679.7
Prohibitions

- (a)(13) **Halibut** caught with fixed gear: it is unlawful to:
- Fail to release the halibut outboard a vessel's rails.
 - Release halibut caught with longline gear by any method other than—
 - Cutting the gangion.
 - Positioning the gaff on the hook and twisting the hook from the halibut.
 - Straightening the hook by using the gaff to catch the bend of the hook and bracing the gaff against the vessel or any gear attached to the vessel.
 - Puncture the halibut with a gaff or other device.
 - Allow halibut caught with longline gear to contact the vessel, if such contact causes, or is capable of causing, the halibut to be stripped from the hook.



Section 2.2.3, page 27–30



Management and Enforcement Considerations

Release of sablefish by the IFQ target fisheries is currently prohibited by regulation 50 CFR 679.7

- Alternative 2 allows for discarding of sablefish of any size (Option 1) or below 22 inches total body length (Option 2).
- Concern to accurately estimate the annual variability in number, size, and composition of sablefish.
- Data collection biases
 - Voluntary discards can only be based on a portion of the IFQ sector but apply to whole IFQ program when determining ICAs and the resulting TAC.
 - Trade-offs in sampling priorities for other species.
 - Observer/EM effect of discards on observed vs unobserved vessels



Management and Enforcement Considerations

NMFS recommends the Council consider adding an Alternative for analysis that considers requiring gear modifications to improve size-selectivity of sablefish.

- Gear modification that improves size-selectivity of a target species and reduce bycatch such as, escape rings, vents, panels, stretch mesh, etc.
 - May reduce capture of small sablefish.
 - May reduce uncertainty associated with data collection, stock assessment impacts, discard mortality, and potential interactions with marine mammals.



Sablefish



Black sea bass

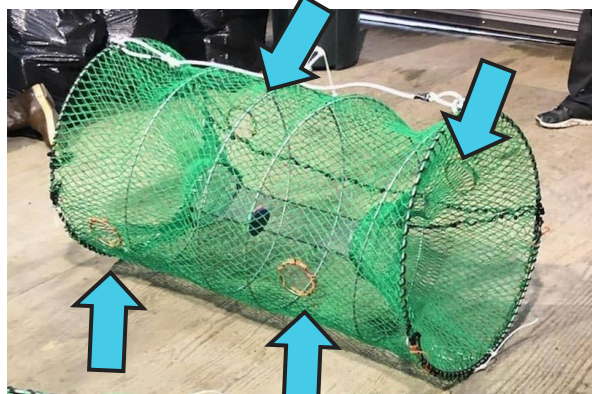
G.R. Shepherd et al. / Fisheries Research 54 (2002) 195–207



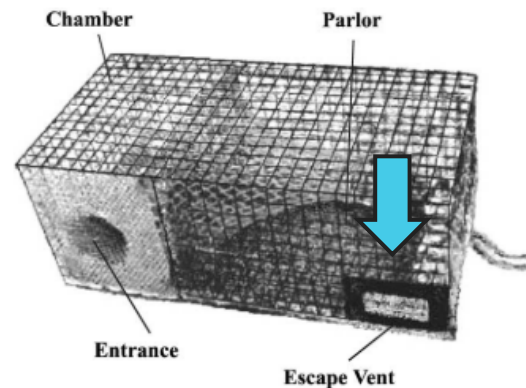
American Lobster



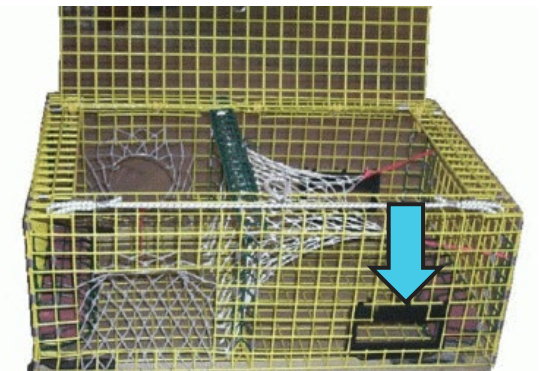
Source: Seattle Marine and Fishing Supply



Source: Fish Tech Inc.



Source: New England Marine and Industrial



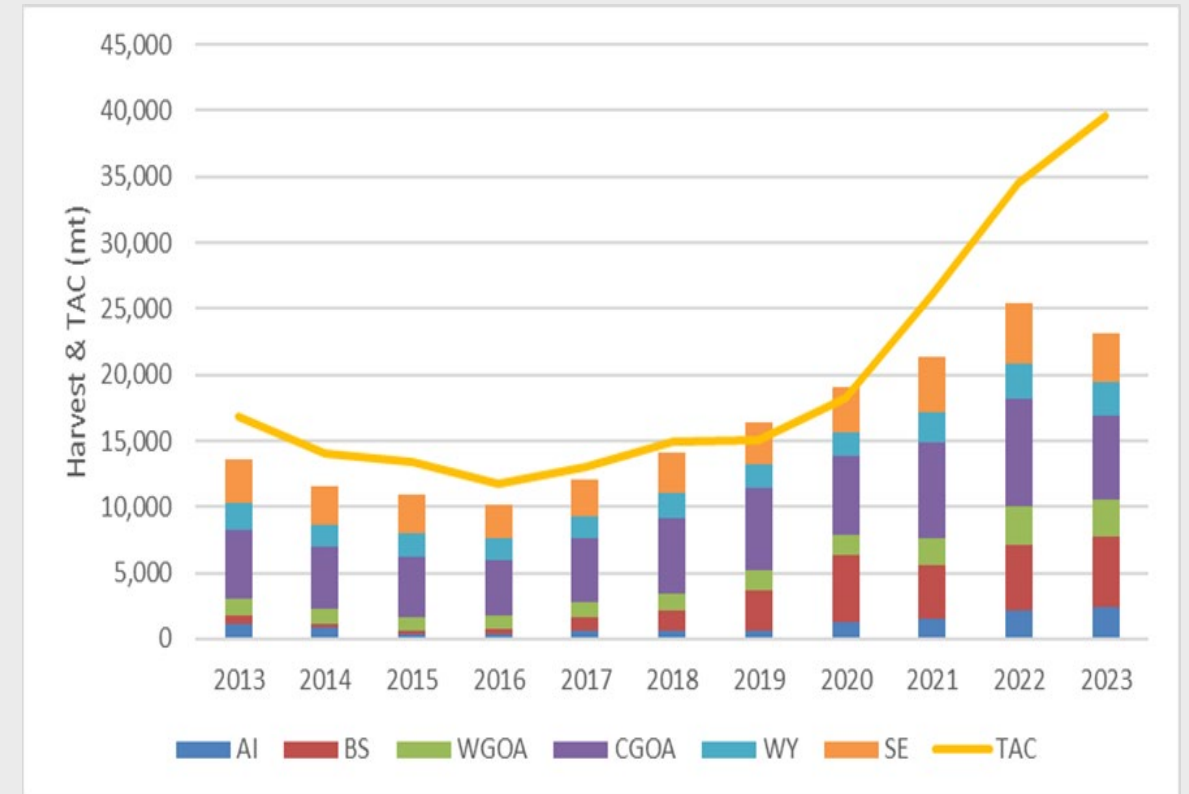
Chapter 3 - Description of Sablefish Fisheries

- Chapter 3 includes four sections
 - **Section 3.1 - Sablefish of IFQ Fishery, CDQ fixed-gear sablefish fishery, whale depredation in the sablefish IFQ fishery, non-target sablefish catch**
 - **Section 3.2 - Target products**
 - **Section 3.3 – Markets**
 - **Section 3.4 – Local knowledge, traditional knowledge, and subsistence**



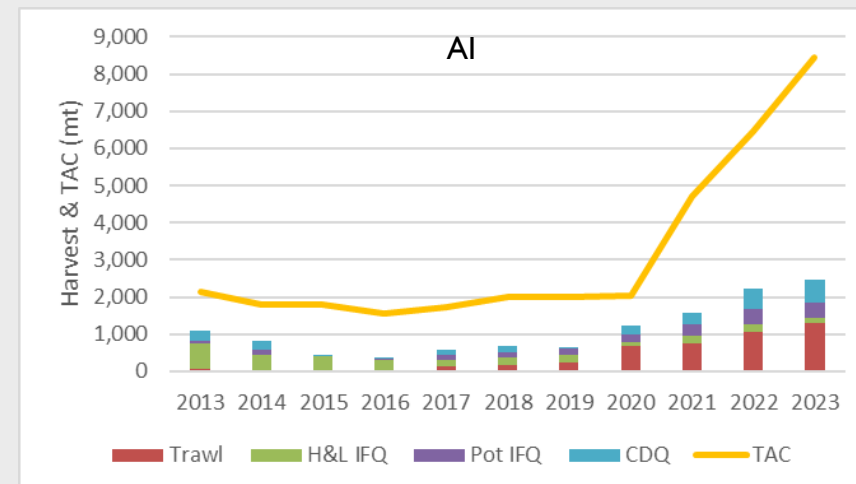
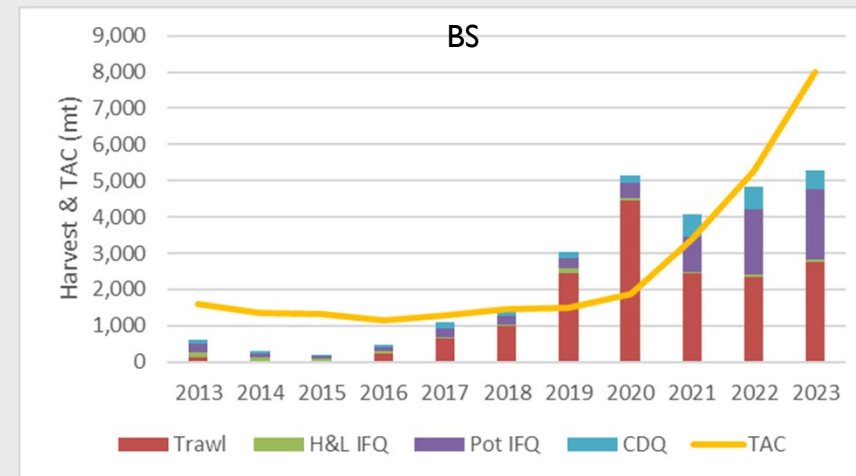
CHAPTER 3 - DESCRIPTION OF SABLEFISH FISHERIES

- Table 3-1 and Figure 3-1 on page 35 presents TAC (mt) and harvest of sablefish (mt) by FMP subarea, 2013-2023
- From 2013-2016, average harvest was 83% of TAC
- 2017 & 2018 average harvest was 93% & 94%
- 2019 & 2020 average harvest exceeded TAC
- 2021-2023 average harvest as percent of TAC declined sharply



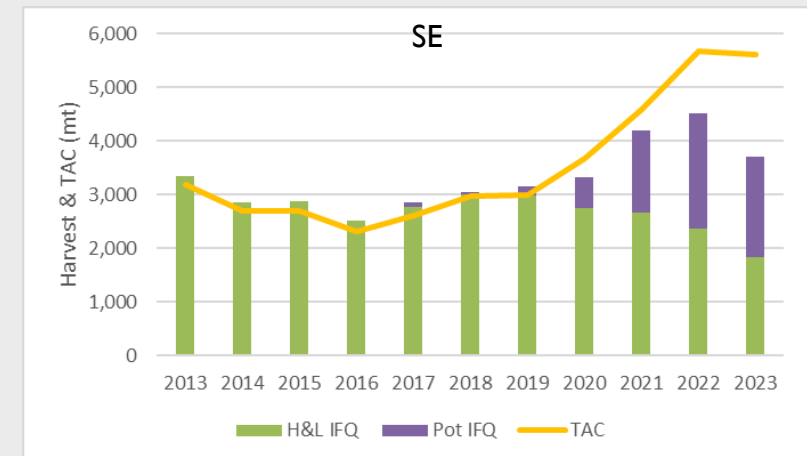
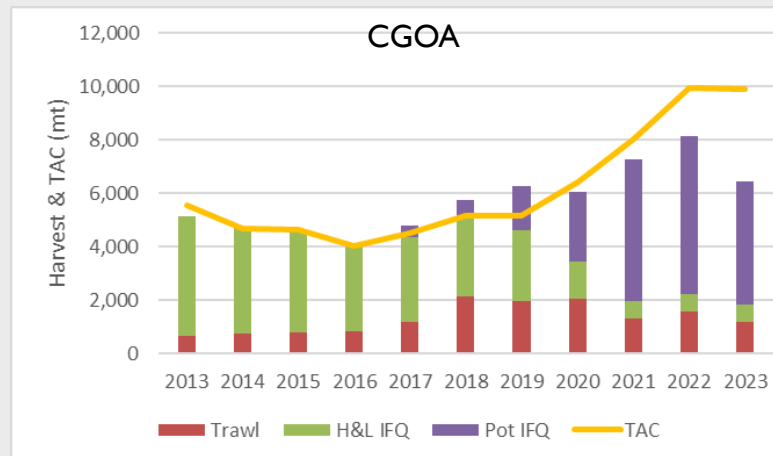
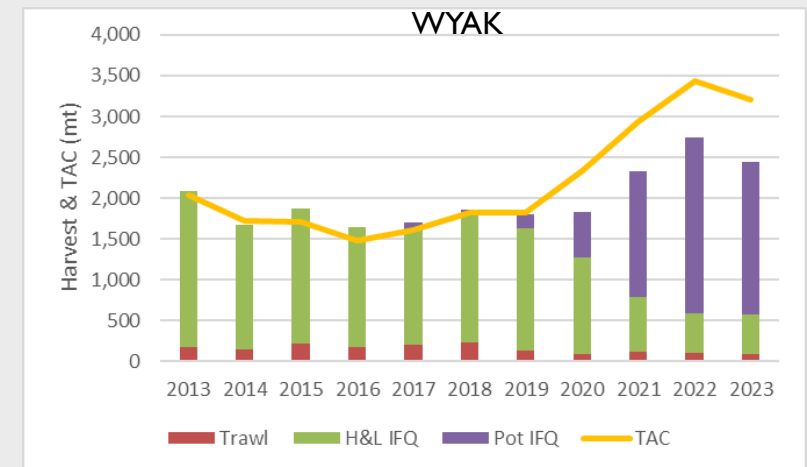
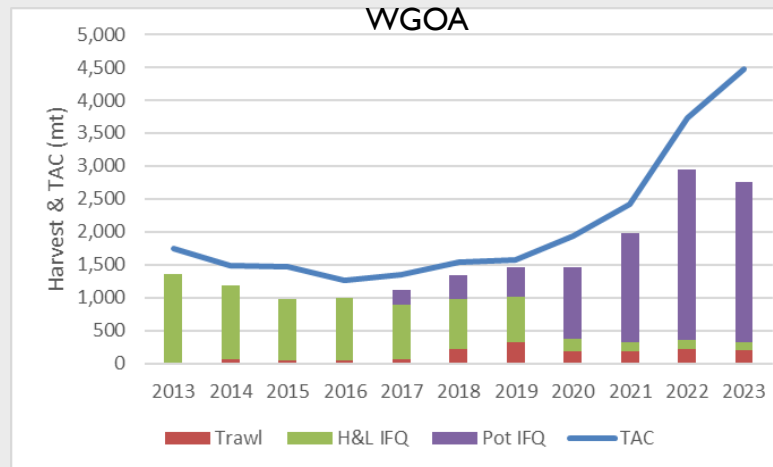
CHAPTER 3 - DESCRIPTION OF SABLEFISH FISHERIES

- Next series of tables and figures from page 36 – 41 present TAC (mt) and harvest of sablefish (mt) for each FMP subarea by sector from 2013-2023
- Presented in these figures are BS and AI TAC and sablefish harvest by sector from 2013 through 2023
- These figures illustrate the recent trend of TAC remaining unharvested
- The BS figure also illustrates the sharp increase in harvest of sablefish by the trawl sector



CHAPTER 3 - DESCRIPTION OF SABLEFISH FISHERIES

- Presented in these figures are GOA subareas TAC and sablefish harvest by sector from 2013 through 2023
- Again, these figures illustrate the recent trend of TAC remaining unharvested
- They also illustrate the growing utilization of pot gear to harvest IFQ sablefish
 - Starting in 2017, pot gear was authorized in the GOA sablefish IFQ fishery



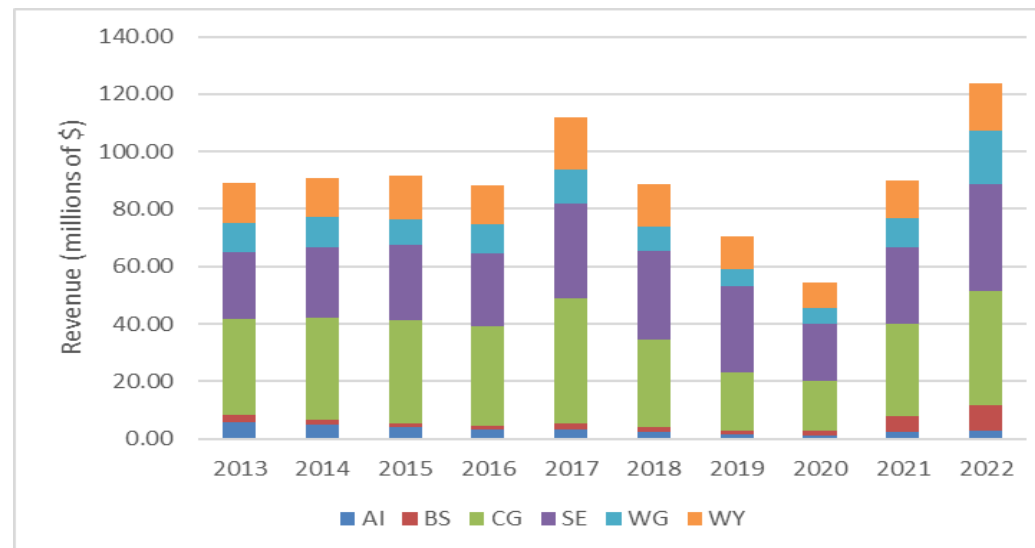
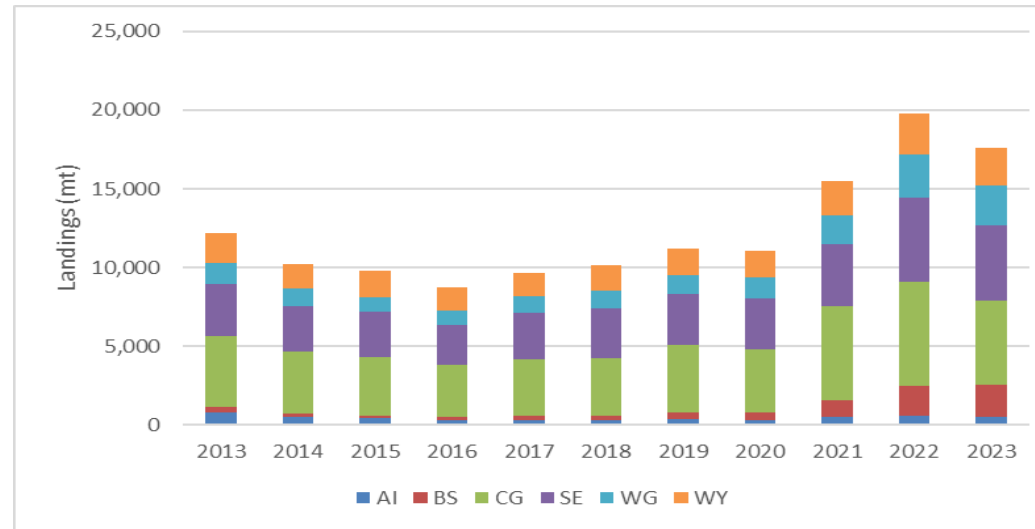
Chapter 3.1.1 – Sablefish IFQ Fishery

- Chapter 3.1.1 includes four sections
 - **Section 3.1.1.1 - sablefish IFQ gear types (pages 43-44)**
 - **Section 3.1.1.2 – sablefish IFQ/CDQ vessel count and vessel classes (pages 44-46)**
 - **Section 3.1.1.3 – sablefish IFQ revenue (pages 45-49)**
 - **Section 3.1.1.4 – sablefish IFQ processor grade prices and composition (pages 49-57)**



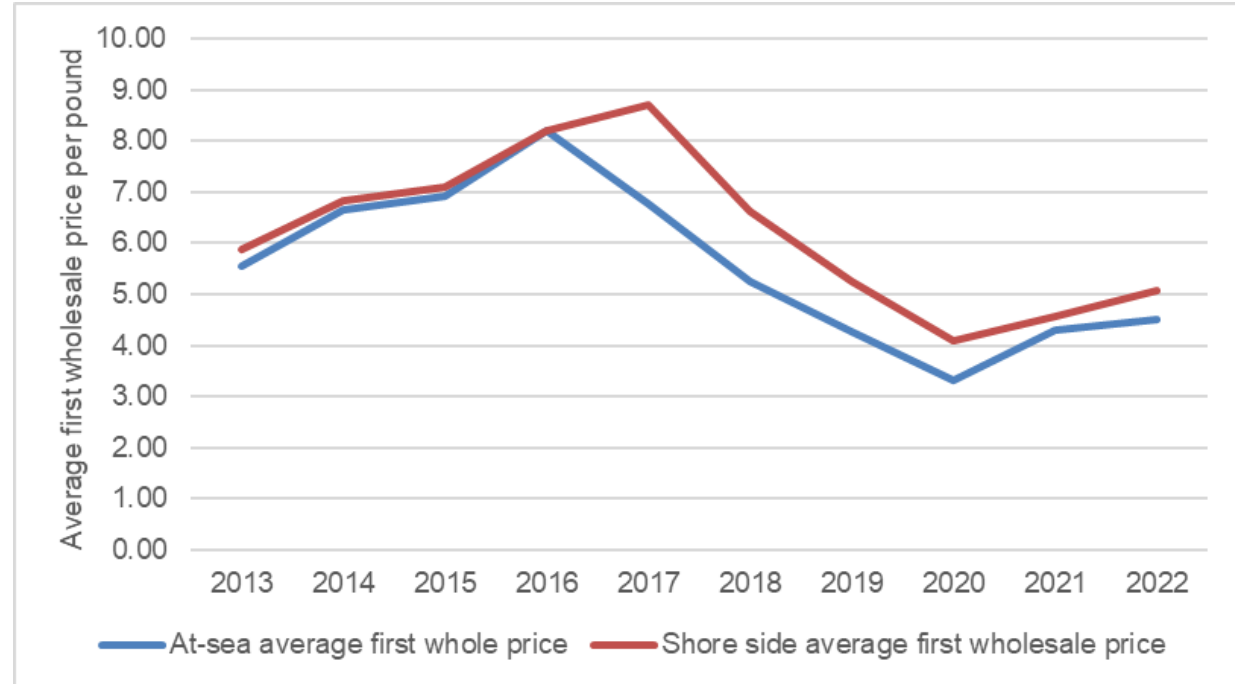
Chapter 3.1.1.3 – Sablefish IFQ Revenue

- Table 3-13 (page 48) provides sablefish IFQ allocations (mt), landings (mt), and ex-vessel revenue (millions of 2022 \$) by subarea from 2013-2023
- Table 3-14 (page 48) provides sablefish IFQ ex-vessel revenue by area and gear from 2013-2023
- Although not official yet, estimated total ex-vessel revenue for 2023 is \$51 million which is lower than 2020 ex-vessel revenue



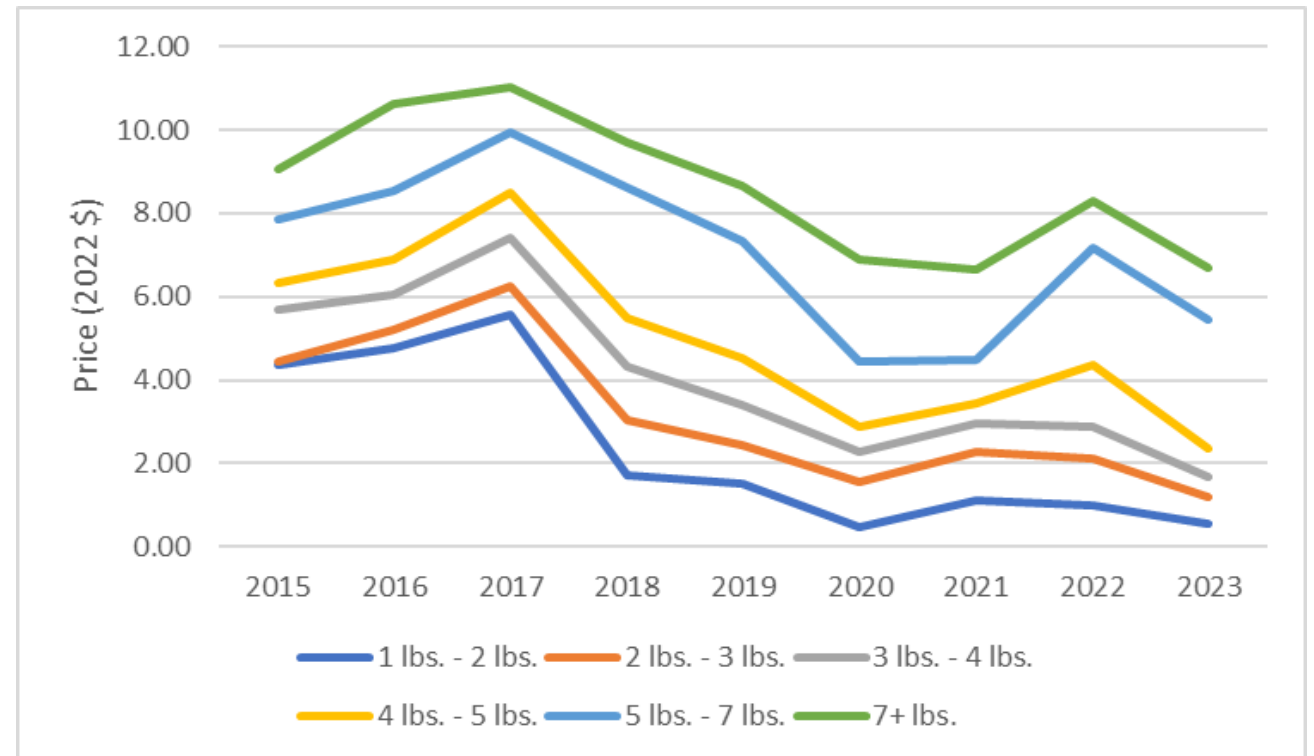
Chapter 3.1.1.3 – Sablefish IFQ Revenue

- Table 3-15 (page 49) provides average first wholesale revenue for at-sea processors and shoreside processors from 2013 through 2022
- Prices increase from 2013 through 2016/2017 but declined until 2020 followed by slight increase in 2021 and 2022



Chapter 3.1.1.4 – Sablefish IFQ Processor Grade Prices and Composition

- Table 3-16 (page 50) provides Alaska-wide average sablefish processor size grade prices in 2022 dollars from 2015-2023
- Table 3-17 (page 51) provides average sablefish processor grade prices by regulatory area
- Prices were uniform in movement with the except of 2022 when higher grades increased while lower grades declined
- 2023 saw the lowest prices for each grade since 2015



Chapter 3.1.1.4 – Sablefish IFQ Processor Grade Prices and Composition

- Table 3-19 (page 53) provides percent of sablefish IFQ landings by grade for all regulatory areas combined, 2015-2023
- Composition of sablefish IFQ landings is changing where premium grade landings are diminishing as a percent of total landings while smaller grades are increasing
- Figures 3-12 through 3-17 show the composition of landings for each subarea from 2015-2023
 - In general, 2 lbs. to 3 lbs. grade increased as a proportion to total landings and 7+ grade diminished
- Table 3-20 (page 56) provides percent of sablefish IFQ gross ex-vessel revenue by regulatory area and market grade

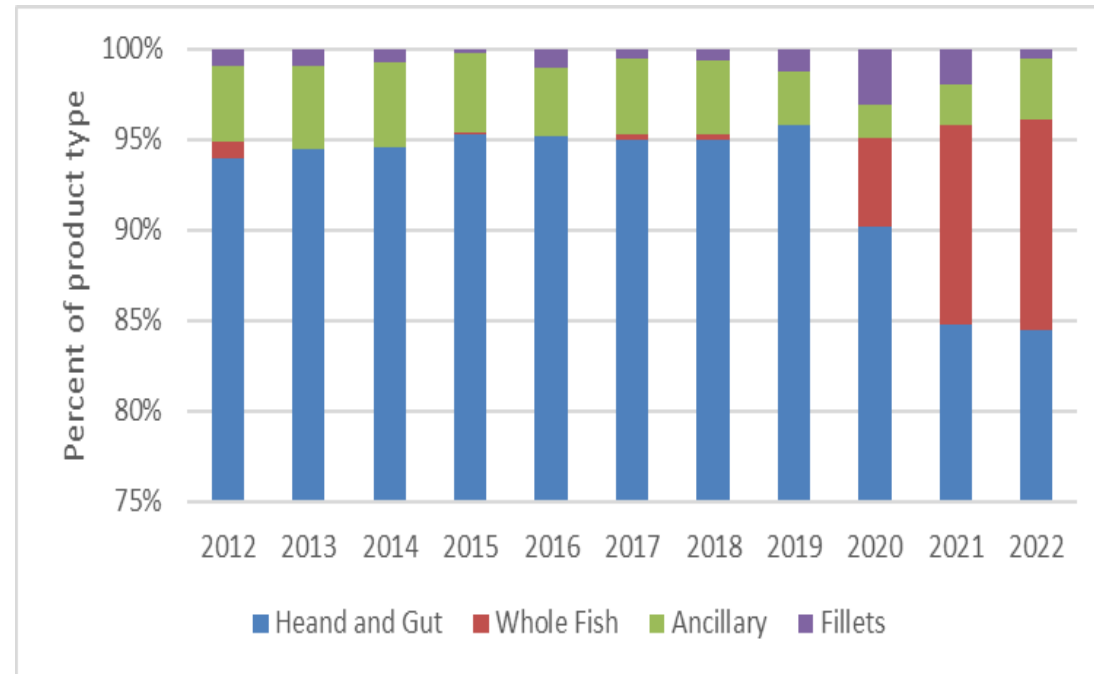
Grades	2015	2016	2017	2018	2019	2020	2021	2022	2023
7 UP	23%	20%	24%	22%	12%	7%	4%	3%	3%
5 to 7 Lbs	27%	26%	26%	23%	21%	19%	9%	10%	14%
4 to 5 Lbs	22%	24%	19%	21%	19%	22%	15%	17%	20%
3 to 4 Lbs	23%	20%	18%	18%	24%	25%	37%	32%	32%
2 to 3 Lbs	5%	7%	9%	13%	18%	21%	28%	31%	25%
1 to 2 Lbs	1%	3%	5%	4%	7%	5%	7%	7%	5%

Source: AKFIN; source file is sablefish_Grading_Area(4-30-24)



Chapter 3.2 – Target Products

- Table 3-26 (page 64) shows sablefish production (mt) by product form, 2012-2022
- The dominant sablefish wholesale product is H&G followed by whole fish as illustrated in Figure 3-21
- First wholesale volume of sablefish products averaged just under 8,000 mt annually
 - However, in 2021 and 2022 production has increased which has flooded the market which has results in lower prices
 - COVID-19 restrictions also likely contributed to the decline in prices



Chapter 3.3 – Sablefish Markets

- Japan is the primary market for Alaska's sablefish, generally accounting for over 70 percent of total export volume followed by China but is a third of Japan's market share
- U.S. and Canada have accounted for nearly all global production of sablefish
 - Alaska is the primary contributing an annual average of 62 percent between 2016 and 2020
- As report in Undercurrent News, Russia, which has been a relatively small contributor to world sablefish production, could play a more significant role as catch recommendations have increased dramatically
 - However, there is some uncertainty how and if Russian fishing fleet can capitalize on these high harvest recommendations
- Preliminary indications are that sablefish ex-vessel prices for 2024 are even lower than 2023 thus far
- Finally, there are numerous geopolitical, trade inequities, and economic factors that are not directly controlled by seafood participants that are impacting the Alaska sablefish fishery
 - These include large harvests by overseas competitors with low currency valuations (Russia), trade conflicts with a major U.S. export receiver (China), higher operating costs due to domestic inflation, lingering COVID-19 logistical challenges associated with shipping, and high interest rates that have affected processors' ability to finance operations and needed investments to support vessel fleets and crews



Environmental Assessment

Impacts to the following resource components analyzed:

- Sablefish (simulation analysis)
 - Incidental catch
 - Halibut & crab PSC
 - Marine mammals
 - Seabirds
 - Habitat
- Methods based on:

No significant impacts on the above resource components



Table 5-17 Estimated fishing effort under Alternative 2 based on average retention rate for 2 lbs.+ sablefish IFQ from 2021 through 2023

Area	Average discard rate of sablefish IFQ 1 lbs. – 2 lbs. during 2021 - 2023	Retention rate of 2+ lbs. (1-discard rate)	Estimated effort associated with harvesting all sablefish IFQ 2+ (1/retention rate)
H&L			
AI	5%	95%	106%
BS	2%	98%	102%
CG	6%	94%	106%
SE	2%	98%	102%
WG	5%	95%	105%
WY	2%	98%	102%
Pot			
AI	24%	76%	132%
BS	11%	89%	113%
CG	8%	92%	109%
SE	3%	97%	103%
WG	6%	94%	107%
WY	4%	96%	105%

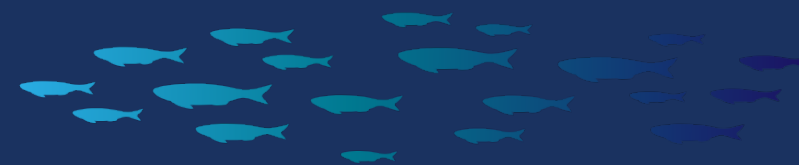
Move to presentation slides by Dan Goethel (AFSC)



A Projection Analysis Quantifying the Implications of the Small Sablefish Release Motion



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Analysis of Economic and Social Impacts

Mr. Jon McCracken



Social Impact Assessment

Harvesters

- Section 5.2 Social Impact Assessment (pages 109-124)
- Tables 5-1 & 5-2 (pages 112 & 113) provide counts of active sablefish IFQ/CDQ CVs and CPs by community of historical ownership address from 2013-2023
 - Vessel ownership for CVs is concentrated in Alaska, specifically Homer, Seward, Kodiak, Juneau, Petersburg, and Sitka, which accounts for 55% of CVs
 - For CPs, ownership is also concentrated in Alaska at 70%, with Sitka having the highest percentage of ownership address at 33%
- Table 5-3 (page 114) provides sablefish IFQ/CDQ ex-vessel gross revenue by ownership address at the community level
 - Of the Alaska communities, Petersburg at 19% and Sitka at 14% had the largest sablefish ex-vessel gross revenue by ownership address



Social Impact Assessment

Harvesters

- Table 5-4 (page 115) provides ex-vessel gross revenue diversification for sablefish IFQ/CDQ vessels by historic ownership address
 - Sablefish IFQ/CDQ vessels with a high degree of dependency on the sablefish IFQ/CDQ fishery by historic ownership address include Petersburg at 58%, Cordova & Sitka at 41%, and Seward at 33%
- Table 5-5 (page 116) provides overall vessel community dependency on sablefish IFQ/CDQ fishery
 - Several Alaska communities are dependent on the sablefish IFQ/CDQ fishery: Sitka at 23%, Seward at 22%, and Petersburg at 12%.



Social Impact Assessment

Harvesters

- Table 5-6 (page 117) provides annual sablefish IFQ/CDQ vessel dependency on the sablefish IFQ/CDQ fishery
 - Table shows that since 2013, the number of vessels receiving less than 30% revenue from the sablefish IFQ/CDQ fishery has declined significantly
 - At the same time, the number of vessels receiving a larger portion of revenue from the sablefish IFQ/CDQ fishery has increased slightly
- Table 5-7 (page 117) provides fishery diversification for sablefish IFQ/CDQ vessels
 - For sablefish IFQ/CDQ vessels, the sablefish and halibut IFQ fisheries are the primary source of ex-vessel revenue, while salmon and Pacific cod are less important



Social Impact Assessment

Harvesters

- Table 5-8 (page 118) provides crew numbers harvesting sablefish IFQ by vessel size
 - Crew numbers have declined over the years, but in 2021 and 2022 crew numbers have increased
 - Crew numbers for the less than 40' and the greater than 60' have shown the greatest loss in crew numbers since 2013



Social Impact Assessment

Quota Share Owners

- Table 5-9 (119) provides the number of sablefish IFQ quota share owners by address
 - Sitka has the largest number of quota share owners at annual average of 123
 - Other communities with high numbers of quota share owners are Kodiak at 68 owners, Petersburg at 59 owners, and Seward at 57 owners
- Table 5-10 (page 120) provides sablefish quota share by community
 - The region with highest concentration of sablefish quota share is Southeast at 106 million shares which accounts for 31% of the total sablefish quota shares
 - Of the Southeast communities, Petersburg at rough 53 million shares or 15% of the total shares and Sitka at 31 million shares or 9% of the total shares had the largest number of shares



Social Impact Assessment

Shore Processors

- Table 5-11 (page 121) provides annual number of processors in Alaska accepting sablefish IFQ/CDQ deliveries by community from 2013 through 2023
 - Annual average number of processors was 34
- Table 5-12 (page 122) provides wholesale values of sablefish IFQ/CDQ deliveries to shore processors by community
 - As shown, Sitka, Seward, Kodiak, and Petersburg combined accounted for approximately 67% of the average annual first wholesale gross revenue from the sablefish IFQ/CDQ fishery from 2013 through 2023
- Table 5-13 (page 123) provides dependency information for those shore processors that accept sablefish IFQ/CDQ deliveries
 - Sitka at 36%, Seward at 25%, and Juneau at 14% sablefish processors were highly dependent on the sablefish fishery



Social Impact Assessment

Shore Processors

- Table 5-14 (page 121) provides dependency information for those communities with shore processors that accept sablefish IFQ/CDQ deliveries
 - Seward at 24% and Sitka at 17% were the two communities with highest dependency on the sablefish fishery
 - Other communities with dependency greater than 5% included Petersburg and Juneau at 7%, and Kodiak at 5%.
-



Economic and Social Impacts

Alternative 1, No Action

- Selecting Alt 1 would leave in place the existing regulatory restrictions prohibiting release of any sablefish caught by sablefish IFQ vessels either when directing on sablefish or when anyone onboard has unused IFQ in their account
- Under Alt 1, harvest participation and fishing behavior are likely to be similar to the current participation and fishing practices given the numerous factors impacting the fishery to include:
 - Not harvesting all their allocations (Table 5-15 and Figure 5-1 on page 125 shows annual percent of allocations harvested by regulatory area)
 - Reduced number of vessels active in the fishery (Figure 5-2 on page 126 shows declining number of active vessels)
 - Reduced fishing days (Figure 5-3 on page 126), especially for vessels fishing less than 24 days a year (Table 5-16 and Figure 5-4 on page 127)
 - More dependent on the sablefish fishery in more recent years (Table 5-6 on page 117 & Figure 5-5 on page 128)
 - Little ability to improve ex-vessel revenue with higher encounter rates of smaller sablefish and continued very low prices for smaller sablefish due to world market for sablefish



Economic and Social Impacts

Alternative 1, No Action

- Processors that receive deliveries of sablefish IFQ/CDQ would experience similar processing activity and would also be negatively impacted under Alt 1 relative to Alt 2
 - As noted earlier, Table 5-13 (page 123) provides dependency information for those shore processors that accept sablefish IFQ/CDQ deliveries
 - These processors that are dependent on the sablefish fishery are in Sitka, Seward, and Juneau
- Communities that are directly engaged and dependent on the sablefish fishery would likely see similar expenditure patterns associated with the sablefish fishery under Alt 1
 - Communities impacted the greatest under Alt 1 include Sitka, Seward, Petersburg, Juneau, Kodiak, and Homer
 - The communities would likely experience reduced direct, indirect, and induced expenditures under Alt 1 relative to Alt 2 from reduced harvesting and processing of sablefish



Economic and Social Impacts

Alternative 2: Allow Release of Sablefish in the IFQ Fishery

- Simulation results show only slight improvements in total revenue from allowing highgrading of sablefish less than 22" with sablefish greater than equal to 22"
 - One of the primary reasons is due to the encounter rates of smaller, less valuable, sablefish relative to larger, more valuable, sablefish
 - These encounter rates are significant impediment to the economic success of highgrading smaller sablefish for larger sablefish
- Simulation results do not account for the complexity and variation of key economic inputs at the harvester level that when factored could result in different gross ex-vessel revenue results
 - For example, there are likely many different levels of fishing effort across the many harvesters, there are likely changes in ex-vessel prices over time and between harvesters
 - Factoring in these and other economic inputs across the fleet of sablefish IFQ harvesters, the resulting gross ex-vessel revenue could be different from estimates depicted in the simulations



Economic and Social Impacts

Alternative 2: Allow Release of Sablefish in the IFQ Fishery

- Discarding small sablefish would enhance harvester flexibility to improve gross ex-vessel revenue and to reduce use of sablefish of no economic value
 - Harvester participation and fishing behavior would likely change when there is perceived benefit from discarding
 - Not all harvesters would change their fishing behavior, case in point H&L CPs in the BS
- Factors influences sablefish IFQ harvesters to discard smaller sablefish include:
 - Continued population trends in sablefish stocks which have resulted in high proportion of small sablefish relative to large sablefish
 - Increased fishing effort by existing harvesters to highgrade which could increase costs of fishing (higher fuel costs, bait costs, observer costs, vessel maintenance costs and higher crew costs)
 - Continued low prices for smaller sablefish due to seafood world market conditions
 - The relative percentage of sablefish IFQ that can be highgraded under Alt 2
 - The use of an ICA to account for discards
- Collectively these factors could make it difficult for some harvesters to increase their ex-vessel revenue from highgrading smaller sablefish, but there is potential for some harvesters to increase their ex-vessel revenue



Economic and Social Impacts

Alternative 2: Allow Release of Sablefish in the IFQ Fishery

- Processors that receive deliveries of sablefish IFQ/CDQ would likely face challenges in benefiting from Alt 2 for many of the same reasons that could impact harvesters
 - Continued downward pressure on sablefish prices for all grades of sablefish combined with the relatively small percentage of sablefish that can be highgraded could result in less than expected gross first wholesale revenue
- Communities that are directly engaged and dependent on the sablefish fishery would depend on the success of harvesters and processors utilizing Alt 2 highgrading to improve ex-vessel and first wholesale revenue which would likely increase expenditures in the communities
 - Communities impacted the greatest under Alt 2 include Sitka, Seward, Petersburg, Juneau, Kodiak, and Homer



SSC Action Item

Review EA/RIR including simulation results and determine if ready to be used in final action (after minor revisions/additions)?

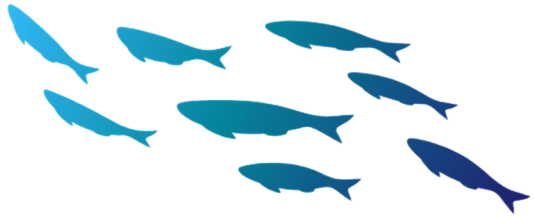
OR

Is there something else that requires further analysis (another initial review and SSC review)?

Specifically, does the analysis:

Provide an adequate analysis of impacts, including BSIA, for the Council to use in decisionmaking?





Questions?

