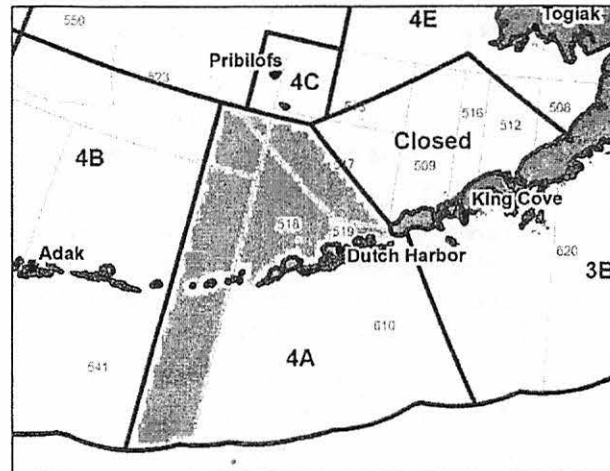


Individual Fishing Quota Program Proposal to Allow IFQ halibut in Area 4A to be retained in IFQ sablefish pots

North Pacific Fishery Management Council
Expanded Discussion Paper
March 2013

Background

In December 2012 the Council considered a proposal submitted to the International Pacific Halibut Commission (IPHC) in 2008. The IPHC had requested a Council recommendation before it considered the proposal for adoption during its annual meeting. If adopted the IPHC would redefine legal gear for harvesting commercial halibut to include groundfish pots (single or longline, as allowed under Federal regulations) as legal gear in Area 4A (only). The result would allow the use of sablefish pots fished in the Bering Sea and Aleutian Islands management areas to retain only Area 4A halibut IFQs. If adopted by the IPHC, the proposal also would require Federal rulemaking¹.



During its review of a December 2012 discussion paper the Council requested information to address four additional topics (listed below) that it identified after its review of a discussion paper (Appendix 1). The Council identified this information as necessary before it would decide whether to recommend the action to the IPHC for the latter's adoption. The Council also noted that the issues addressed under this proposal would be informative on another IFQ proposal under Council consideration, i.e., to consider allowing the use of pot gear for sablefish in the Gulf of Alaska. The Council identified its interest in forming a gear committee to develop information to be included in a future discussion paper.

The four topics covered in this paper follow. Some additional management clarifications are provided.

1. Determine whether there is overlap in the spatial and/or temporal distribution of halibut longlining and sablefish pot fishing in the portion of Area 4A to which this proposal would apply.
2. Discuss the potential need for the following regulations:
 - a. Requiring the removal of sablefish pots from the fishing grounds upon completion of the harvest of the vessel's sablefish IFQ, and at the end of the season.
 - b. Requiring radar reflectors or other gear markers at both ends of a longline pot string.
 - c. Prohibiting "pot sharing" while pots are in the water.
 - d. Prohibiting the modification of sablefish pot tunnels.
3. Discuss the physical and market condition of halibut incidentally caught in sablefish pots.
4. Provide a discussion of the experiences and lessons learned by the industry and managers in Areas 2A and 2B from allowing the retention of halibut incidentally caught in sablefish pots, including retention caps.

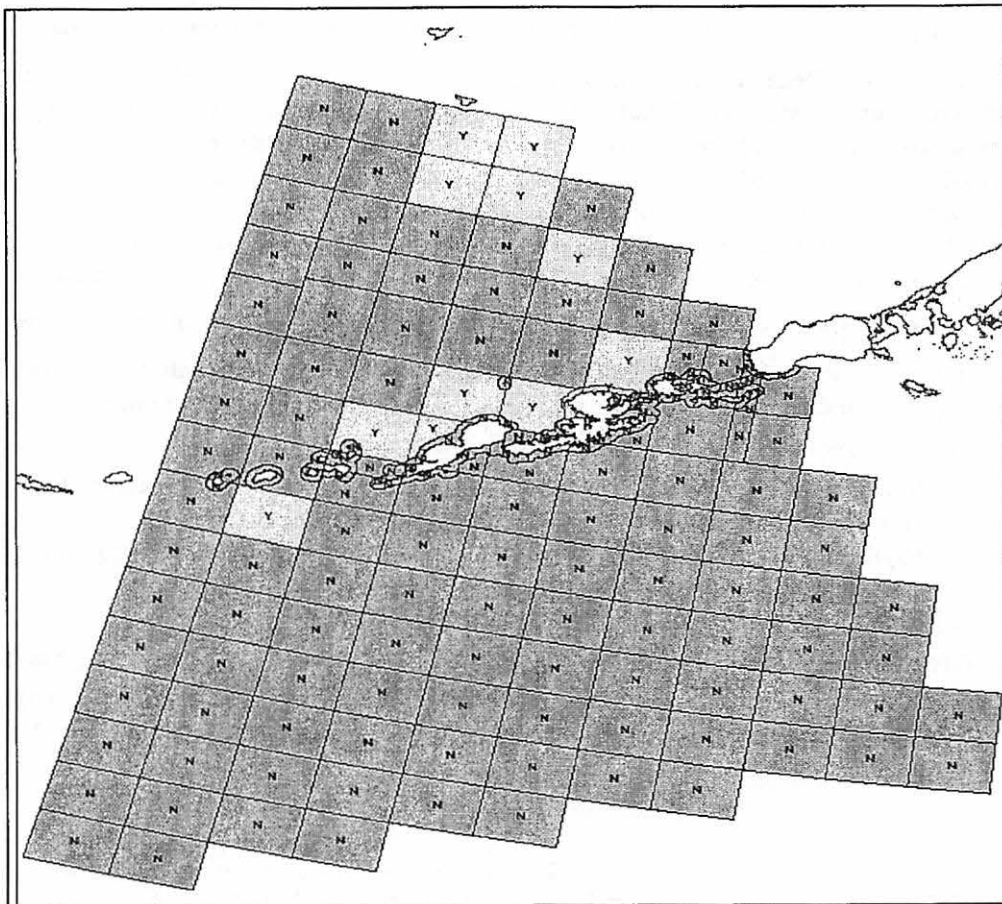
¹ The Council may decide that a complementary regulatory amendment would not need to return through the Council process, but could proceed with Council staff working directly with the NMFS Regional Office.

In summary, the action before the Council is whether to send a letter to the IPHC to recommend the proposed action. As proposed, direct action by the Council likely would be required to amend Federal regulations to allow sablefish (i.e., groundfish) pots as legal gear for the retention of halibut, however the Council may wish to wait to initiate the required analyses until after the IPHC indicates an interest in this proposal. Action also may be required by the Alaska Board of Fisheries. The IPHC has taken no position on the proposal; to date it only has forwarded the proposal to the Council to gauge the latter's support for moving the proposal forward in the IPHC process. If adopted by the IPHC, the proposed action could be implemented in IPHC regulations to coincide with NMFS rulemaking at a later time, "... pursuant to regulations promulgated by NMFS and published in 50 CFR Part 300."

1. **Determine whether there is overlap in the spatial and/or temporal distribution of halibut longlining and sablefish pot fishing in the portion of Area 4A to which this proposal would apply.**

There are two management issues of interest related to the proposal to allow halibut to be retained in sablefish IFQ pots in a limited subarea of Area 4A: 1) the spatial and temporal overlap between the halibut IFQ longline fishery in Area 4A and the sablefish IFQ pot fishery and 2) the amount of halibut currently caught in sablefish IFQ pots and currently required to be discarded.

The following graph depicts the statistical areas where IFQ sablefish pots and IFQ halibut longlines were fished in the same week in Area 4A during 2009-2011. More detailed information (monthly plots) will be provided in a supplement.



Observer data for 2005-2011 showed that between 5 and 9 vessels were observed in the Area 4A fishing pots for sablefish. Between 1 and 7 halibut vessels in the Area 4 IFQ fishery were observed during the same period. Further examination of this data set was not pursued to demonstrate spatial/temporal overlap of the two fisheries.

The second issue of halibut discards in IFQ sablefish pots was addressed in maps presented in December 2012 (Appendix 1). There appear to be halibut discards throughout the IFQ season, with the highest occurrence in numbers of halibut in May (see table below). The spike in halibut corresponds to the map of sablefish pot and halibut longline fishery interactions in May (as shown in the December 2012 appendix; there is no corresponding spike in sablefish in May.

Table 1 Frequency and timing of Area 4A halibut IFQ incidental catch in the BS and AI sablefish pot IFQ fishery in 2012. * Source: AKFIN data

Landing Date	Number of halibut	Number of sablefish landings	Pounds of sablefish
Mar	53	322	281,844
Apr	194	1,626	517,396
May	269	8,609	568,199
Jun	161	1,135	348,169
Jul	165	1,110	388,681
Aug	116	74	292,879
Sep	335	527	861,411
Oct	274	196	540,956
Nov	64	71	174,151
Grand Total	1631	13,670	3,973,686

2. Discuss the potential need for the following regulations:
 - a. Requiring the removal of sablefish pots from the fishing grounds upon completion of the harvest of the vessel's sablefish IFQ, and at the end of the season.
 - b. Requiring radar reflectors or other gear markers at both ends of a longline pot string.
 - c. Prohibiting "pot sharing" while pots are in the water.
 - d. Prohibiting the modification of sablefish pot tunnels.

General comments on regulatory compatibility

The above four potential enforcement actions raise a general issue related to the development of new or revised text that would be compatible (or require changes) among regulations of the IPHC, NMFS and State of Alaska (5 AAC 28.092 Limitations for halibut and 5 AAC 28.070 Groundfish possession and landing requirements). IPHC regulatory text could be adopted that implements that regulation contingent upon implementation of revised Federal regulations.

Note also that regulatory text that would affect pot fisheries (in State and Federal waters) are not specific to sablefish fisheries, but would apply to all groundfish fisheries. Sufficient rationale for amending regulations for all groundfish pot fisheries would need to be identified.

Specific comments on regulatory requirements under consideration

The following comments are provided in the context of whether the actions identified above (a – d) can be implemented and/or enforced by State and Federal agencies. Formal responses from the agencies can best be determined once the specific policy, as well as regulatory language, is identified.

During its December 2012 review of the previous discussion paper, the Enforcement Committee provided the following comments to the Council (emphasis added).

“Jane DiCosimo presented an overview of a proposal to allow fishermen with commercial IFQs for both halibut and sablefish to retain halibut in IPHC Regulatory Area 4A that were caught in sablefish pots. The Committee spent some time discussing the importance of this proposal in relation to halibut resource in area 4A. It was generally viewed by the Committee, that the continued high halibut usage and the potential to reduce halibut discards makes this proposal relevant.

From the Committee’s perspective, the intent of this proposal is not to permit increased directed fishing of halibut with pot gear, but rather better use of the halibut resource. The Committee noted that if the Council felt the need to reduce potential for increased directed effort toward halibut bycatch, a management tool such as a “MRA” could be considered. This would not present undue enforcement or compliance challenges. **It was noted that area 4A is subject to both halibut clearance requirements and a sablefish directed fishing requirement to operate VMS, so there are monitoring and enforcement tools already in use in the fishery.**

In summary, the Committee felt that proposal does not present any obvious compliance or enforcement issues. The Committee noted that the action could potentially be a vehicle to rectify conflicting “check-in” procedures required under halibut and sablefish requirements. The proposal indicates the need to redefine the area by latitude and longitude, but the Committee does not believe this is necessary, since the proposal would apply to those sablefish areas of the BSAI overlapped by area 4A. (Pot groundfish gear is not authorized in the portion of 4A contained within the WGOA). The Committee noted that authorizing retention of halibut IFQ in the sablefish fishery in IPHC Regulatory Area 4A necessitates the need for independent real-time positional reporting using VMS.”

Specific regulatory approaches were suggested by the Council for further discussion on their need. A panel² of Federal fishery experts was convened to provide the following comments on legal, enforcement, and implementation aspects. Staff of the ADF&G also provided comments, as changes to State regulations may be necessary to implement some of the potential requirements under consideration in this discussion paper.

a. Requiring the removal of sablefish pots from the fishing grounds upon completion of the harvest of the vessel's sablefish IFQ, and at the end of the season.

Public testimony in December 2012 raised an issue relating to potential pre-emption of fishing grounds, and monopolizing an area so that trawl vessels or other gears cannot effectively fish in an area. Federal regulations do not allow “wet storage” of pot gear in federal waters. NMFS staff identified significant limitations on enforceability of pot storage in Federal waters, as NMFS does not have the capability of pulling pots (or any gear) at sea.

The State of Alaska allows wet storage of groundfish pots in state waters of the BSAI and South Alaska Peninsula areas, so long as pots are unbaited, bait containers removed, doors secured open, and stored in water less than 25 fathoms (5 AAC 28.632 and 5 AAC 28.571). Implementation in State waters of the

² Ron Antaya (OLE), Susan Auer (GCAK), Jane DiCosimo (NPFMC), Heather Gilroy (IPHC), LT Tony Kenne (USCG), Michael Killary (OLE), Peggy Murphy (AKRO). Nicole Kimball and other ADF&G staff also contributed comments.

potential action to remove sablefish pots after fishing is completed would require changes to State regulations through the Alaska Board of Fisheries process.

b. Requiring radar reflectors or other gear markers at both ends of a longline pot string.

Public testimony in December 2012 raised consideration of a requirement to mark longline pot gear to assist in tracking of where the fishery was occurring and to determine whether vessels were fishing in more shallow waters than typical for targeting sablefish, although the IPHC plans to expand its Alaska's halibut survey stations by 30% as catches increase in deeper areas, particularly in Area 4, the Unalaska region, out through the Aleutians and on into the Bering Sea³.

NMFS and USCG staffs identified that such a requirement can be enforced if gear marking specifications are explicitly provided in Federal regulatory text. Specifications could include permit ID numbers and name of permit holder. "Radar Reflectors" would likely need to be defined in the regulations so that there is a clear standard for enforcement.

The State of Alaska does not require radar reflectors. All commercial longline or skate gear buoys, or kegs and buoys for groundfish pots, must be marked with the permanent ADF&G vessel license plate number of the vessel operating the gear (5 AAC 28.050(b). The State only allows the use of longlined sablefish pots in the Aleutian Islands District (consistent with the Federal fishery) and not in the Western District of the South Alaska Peninsula (5 AAC 28.640(c)). Implementation in State waters of requiring radar reflectors in the areas in which longlined pots are authorized for groundfish in State waters (i.e., the portion of the AI District that is within Area 4A) would necessitate changes to State regulations through the Alaska Board of Fisheries process.

c. Prohibiting "pot sharing" while pots are in the water.

Pot sharing addresses whether one boat may bring out pots for another vessel, or multiple vessels may share pots to be able to stake a claim and control a fishing area. This practice is legal in Federal waters as there is no prohibition on the practice in Federal regulations, however, any prohibition could not be enforced because NMFS cannot pull any gear at sea.

- The Magnuson-Stevens Fishery Conservation and Management Act prohibits actions:
“(K) to to [sic] steal or attempt to steal or to negligently and without authorization remove, damage, or tamper with—
 - (i) fishing gear owned by another person, which is located in the exclusive economic zone [or special areas]*, or
 - (ii) fish contained in such fishing gear;
- Federal regulations at Section 679.24 Gear limitations, state the following.
 - (1) All hook-and-line, longline pot, and pot-and-line marker buoys carried on board or used by any vessel regulated under this part shall be marked with the following:
 - (i) The vessel's name; and
 - (ii) The vessel's Federal fisheries permit number; or
 - (iii) The vessel's ADF&G vessel registration number.
 - (2) Markings shall be in characters at least 4 inches (10.16 cm) in height and 0.5 inch (1.27 cm) in width in a contrasting color visible above the water line and shall be maintained so the markings are clearly visible.

³ <http://www.iphc.int/publications/rara/2010/2010.201.DiscussionpaperonIPHCsetlinesurveyexpansion.pdf>

The State of Alaska prohibits pot sharing in State water groundfish fisheries, as State regulations specify that buoys for groundfish pots must be marked with the permanent ADF&G vessel license plate number of the vessel operating the gear (5 AAC 28.050(b)).

d. Prohibiting the modification of sablefish pot tunnels.

A prohibition to modify sablefish pot tunnels is status quo, as groundfish pot dimensions are set in Federal regulation. The intention behind such a prohibition would be to allow sablefish IFQ fishermen to retain incidentally caught halibut in a limited area, with no changes to the gear presently allowed.

Public testimony in December 2012 suggested that any modifications to Federal regulations that define legal gear for directed sablefish IFQ fishing could become a *de facto* directed halibut pot fishery by potentially allowing pot configurations more favorable for harvesting halibut. The public expressed concern that defining pot gear as legal gear for directed halibut fishing could destabilize the status quo in the affected management areas; whereas if the intent is only to permit joint sablefish and halibut IFQ holders to retain incidentally caught halibut if the permit holder also held halibut IFQ for the area fished, the fishermen may realize economic benefits in not having to discard the fish, and the resource may realize conservation benefits due to reduced mortality associated with regulatory discards, as those fish would be counted towards the halibut catch limit.

State regulations define groundfish pots by the size of the pot tunnel eye perimeter at 5 AAC 28.050(e). Section 679.2 (15)

(15) Pot gear means a portable structure designed and constructed to capture and retain fish alive in the water. This gear type includes longline pot and pot-and-line gear. Each groundfish pot must comply with the following:

- (i) Biodegradable panel. Each pot used to fish for groundfish must be equipped with a biodegradable panel at least 18 inches (45.72 cm) in length that is parallel to, and within 6 inches (15.24 cm) of, the bottom of the pot, and that is sewn up with untreated cotton thread of no larger size than No. 30.
- (ii) Tunnel opening. Each pot used to fish for groundfish must be equipped with rigid tunnel openings that are no wider than 9 inches (22.86 cm) and no higher than 9 inches (22.86 cm), or soft tunnel openings with dimensions that are no wider than 9 inches (22.86 cm).

(16) Pot-and-line gear means a stationary, buoyed line with a single pot attached, or the taking of fish by means of such a device.

(10) Longline pot means a stationary, buoyed, and anchored line with two or more pots attached, or the taking of fish by means of such a device.

3. Discuss the physical and market condition of halibut incidentally caught in sablefish pots.

Marketability

Pacific halibut retained in Canadian sablefish pots are reported to be in generally good condition unless the soak time of pots was extended (see more detailed comments under "Condition"). No specific length of days after which halibut meat condition is considered to be less than "good" was identified. An examination of Figure 1 (below) confirmed that the length of pot soak times in BSAI and British Columbia, Canada pot fisheries were similar.

Condition

Public testimony in December 2012 suggested that there are negative impacts on the quality and marketability of halibut which undergo physical interactions with the pot gear. Williams and Wilderbuer (1995) reported that, at that time, there was no information on the mortality (i.e., survival) of pot-captured halibut following release, of the type which had been studied and reported by Hoag (1975) for trawls. Williams and Wilderbuer (1995) reported the following qualitative descriptive information regarding halibut caught in pots. Groundfish pots, primarily for Pacific cod, demonstrated the best condition factors and lowest discard mortality rates (DMR) among all gear types. Groundfish pots were typically fished individually, although recently more are fished on longline pot strings to avoid marine mammal depredation on longline gear. Pots are retrieved at least once every 24 hours in an attempt to maintain high quality of catch. Unless a halibut injures itself in the pot, the halibut should be in excellent condition upon release. Injuries can occur however from abrasion when the halibut comes in contact with certain crab species which are also taken incidentally, and from friction against the mesh of the pot. Also pot soak times greater than 24 hours can worsen condition thereby increasing the DMR.

The triennial IPHC halibut discard mortality rate (DMR) report provides a more recent summary of the condition of halibut caught by the three primary gear types. The most recent report was prepared in 2012 on data through 2011 and attached to the Groundfish SAFE Reports ; the report contains IPHC staff recommendations for DMRs for the 2013-2015 groundfish fisheries. The following information is summarized from that report and Williams and Wilderbuer (1995).

A number of factors contribute to condition at capture and subsequent release viability of halibut, which vary by gear type. With trawl-caught halibut, condition upon capture is related to the size of the catch, tow duration, and halibut size. For longline halibut bycatch, injuries are most frequently caused by improper release methods used by vessel crews. Another significant factor is the length of the soak time, which can exacerbate the mortality caused by hooking injuries and also increase the potential for amphipod predation. The condition of halibut caught in pots is affected by soak time and the presence of other animals in the pot, especially crabs, whose spiny carapace has been observed to scratch and abrade the skin of the captive halibut.

The mortality rate "m" varies among gear types and represents the aggregate effects of external and internal injuries to the fish and the presence of predation by amphipods or marine mammals. Estimated halibut mortality rates by gear and condition/injury from the 2012 DMR report follow.

Gear (g)	m_{exc}	m_{poor}	m_{dead}	
Trawl	0.20	0.55	0.90	
Pot	0.00	1.00	1.00	
	m_{minor}	$m_{moderate}$	m_{severe}	m_{dead}
Longline	0.035	0.363	0.662	1.00

Mean fishery DMRs and associated standard errors were estimated by assuming that each vessel acts as a separate sampling unit, so that a DMR was calculated for each individual vessel in a target fishery. The DMR for a target fishery was then estimated as the mean of vessel DMRs, where the vessel's proportion of the total number of bycaught halibut was used as a weighting factor.

The analyses on halibut DMRs conducted by IPHC have generally excluded IFQ fisheries, which would also include the sablefish pot fishery, so data from this fishery have not been reported nor analyzed. In contrast, the pot fishery for Pacific cod is not an IFQ fishery, so it has been part of the triennial analysis, as have all CDQ fisheries. As described in the most recent report, the number of observed vessels which participated in the CDQ sablefish fishery during 2009-2011 was quite low, i.e., either two or three

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vessels observed annually. Very few halibut were examined by observers, but not many halibut were caught. The fishery DMR (0.50) was unchanged during 2009-2010, but dropped quite a bit (0.31) in 2011, more in line with the long term mean. As noted earlier, halibut mortality is positively correlated with longer pot soak time; long soaks increase the potential for amphipod predation of captured fish in the pot.

Use of sablefish pots in the sablefish fishery As described in the sablefish chapter in the GOA and BSAI Groundfish Stock Assessment and Fishery Evaluation (SAFE) reports, depredation by killer whales and sperm whales is common in the Alaska sablefish IFQ fishery. Killer whale depredation commonly occurs in the Bering Sea, Aleutian Islands, and Western Gulf of Alaska. Sperm whale depredation is common in the Central and Eastern Gulf of Alaska. Pot fishing for sablefish has increased in the Bering Sea and Aleutian Islands as a response to depredation of longline catches by killer whales. In 2000 the pot fishery accounted for less than ten percent of the fixed gear sablefish catch in the Bering Sea and Aleutian Islands. Since 2004, pot gear has accounted for over half of the Bering Sea fixed gear IFQ catch and up to 34% of the catch in the Aleutian Islands. Only a small amount of pot fishery data is available from observer and logbook data.

Sablefish pot fishing has increased dramatically in the Aleutian Islands and the Bering Sea since 1999. In 2007, pot gear accounted for 81% of the Bering Sea fixed gear IFQ catch and 56% of the catch in the Aleutians. Fishery catch and effort data for pot gear are available from observer data since 1999; however, these data cannot be presented due to low sample sizes (confidentiality). Pot fishery data are also available from logbooks since 2004; however, these data are also sparse. The number of observed sets and the number of pots fished increased dramatically in 2005 and remained high through 2007. The number of logbook pot sets has continued to increase in the Bering Sea and has stayed consistent in the Aleutian Islands. Over all years, the average number of pots used per set was 78.

The sablefish chapter also describes a pot fishery catch rate analysis. The authors reported few observed vessels during 1999-2004. From 2005-2007 the average catch of sablefish was 24 lbs/pot in the Aleutian Islands and the Bering Sea. Sablefish comprised most of the catch by weight (Bering Sea = 60%, Aleutian Islands = 69%) and the next most abundant fish by weight was arrowtooth flounder (Bering Sea = 13%, Aleutian Islands = 10%). Other species of fish (including halibut) and invertebrates contributed no more than 6% each to the total catch weight.

The following information reported by the SAFE Report authors for sablefish may be informative for application to halibut. Since depths are generally deep and mostly adults are caught there is less concern that pots will catch juveniles in nursery areas. The average length of sablefish in the Aleutian Islands and in the Bering Sea was smaller for sablefish caught by pot gear (63.8 cm) than longline gear (66.0 cm), but the distributions indicate that both fisheries focus primarily on adults. Pot and longline gear is set at similar depths in the Aleutians and Bering Sea and sex ratio of the catch is 1:1 in both gears. We do not believe that the difference in lengths is significant enough to affect population recruitment and did not see any indication that undersized fish were being selected by pots.

A Canadian study (Scarsbrook et al. 1988) showed that control traps had only 5% sablefish mortality up to 10 days. In 2006 the authors examined the soak times of the observed pot sets and found that 90% of the pot sets were soaked for 7 days or fewer. The soak times for Alaska sablefish are plotted below (Figure 1).

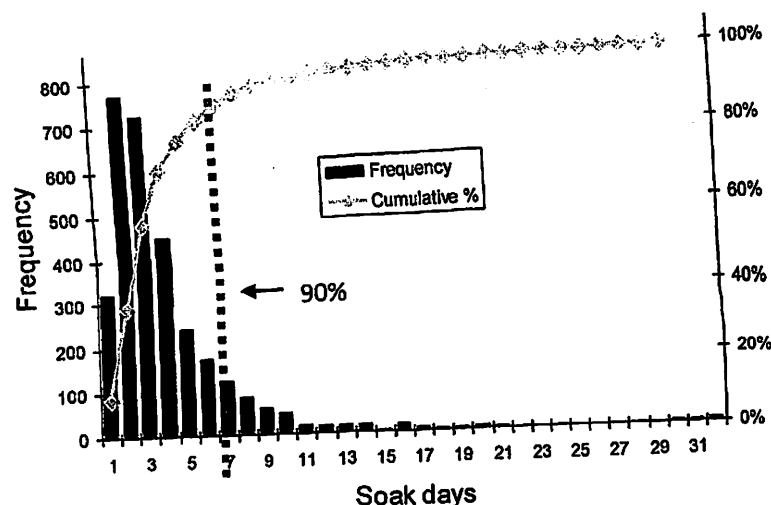


Figure 1. Number of soak days for 1999-2005 BSAI pot fishery (Source: SAFE Report)

Sources

Hoag, S. H. 1975. Survival of halibut released after capture by trawls. IPHC, Sci. Rep. No. 57, 18 p.

Scarsbrook, J. R., G. A. MacFarlane, and W. Shaw. 1988. Effectiveness of experimental escape mechanisms in sablefish traps. N. Am. J. Fish. Manag. 8:158-161.

Williams, G, and T. Wilderbuer. 1995. Discard mortality rates of Pacific halibut bycatch: fishery differences and trends during 1990-1993. Proc. Int. Symp. N. Pac. Flatfish, AK Sea Grant, 95-04: 611-622.

4. Provide a discussion of the experiences and lessons learned by the industry and managers in Areas 2A and 2B from allowing the retention of halibut incidentally caught in sablefish pots, including retention caps.⁴

Area 2A Retention of halibut incidentally caught in sablefish pots is not legal in Area 2A, nor has it been proposed for those waters.

Area 2B Fisheries and Oceans Canada (DFO) uses Integrated Fisheries Management Plans (IFMP s) to guide the conservation and sustainable use of marine resources. An IFMP was developed to manage the fishery of a particular species in a given region. IFMP s combine the best available science on a species with industry data on capacity and methods for harvesting that species. The IFMP identifies the main objectives and requirements for the groundfish fishery in waters off British Columbia, as well as the management measures that will be used to achieve these objectives. It provides a common understanding of the basic "rules" for the sustainable management of the fisheries resource. It is not a legally binding instrument which can form the basis of a legal challenge. It can be modified at any time and does not limit the Minister's discretionary powers set out under statutes. The Minister can, for reasons of conservation or for any other valid reasons, modify any provision of the IFMP in accordance with the powers granted him/her. The groundfish IFMP is a living document that will be subjected to a review every two years for updates, with input from interested parties. Any changes required within a given fishing season will continue to be made as needed.

In 2006, the Commercial Groundfish Integration Program was introduced and a single IFMP for groundfish was produced rather than a separate IFMP for each groundfish fishery. The impetus for the

⁴ Related information from the Canadian Individual Vessel Quota Programs is incorporated under Issue 3.

move to the integration of the commercial groundfish fisheries was primarily to account for all rockfish mortalities (retained and released at sea), as not much information on at-sea releases was available, as only partial at-sea monitoring was in place so there was unobserved fishing activity. The move to integrated fisheries management was to account for all catches, retained and released and minimize regulatory discards by providing opportunities to retain most of what is caught.

To retain halibut in sablefish; need sablefish license to fish for sablefish using certain gear types and allows other species of groundfish to be retained provided individual quota is acquired to cover non-directed catch, retained and released.

The total amount of halibut retained in traps may have increased, but poor information prior to integration leaves that unknown. Because the groundfish integration program was designed to address incidental harvest mortalities but did not want to increase directed fishing pressure on each species, the industry developed a sector cap on the amount of halibut quota that could be harvested by other groundfish fleets (this is true for all species; caps exist for sablefish caught by the other groundfish fleets, lingcod caught by the other groundfish fleets, dogfish caught by other groundfish fleets, etc.). The fleet wide cap on the amount of halibut quota that can enter the sablefish fishery is 192,726 lbs. There are also caps on the amount of halibut quota that a sablefish licence holder can hold. Since sablefish licences are vessel-based, this cap is per vessel. No vessel may hold quota holdings in excess of the annual ITQ cap (65,466 lbs of halibut). There are also trip limits for non-directed groundfish species that are caught while fishing sablefish (halibut landings may not exceed 15% of sablefish landed per trip).

There has not been a lot of halibut retained in traps, therefore no information is available on condition of trap caught halibut. A regulatory limit on the length of time that trap gear can soak (4 days) likely limits the degradation of halibut flesh. Although maintaining fleet autonomy was a goal of the groundfish integration program and sector caps are in place, temporary adjustments to either cap can be agreed upon by the industry to keep fleet fishing. While DFO can stop a fleet or vessel from fishing once the cap is exceeded, usually the industry meets to discuss the issue and responds with a temporary adjustment to avoid a closure.

Seven fisheries are involved in the IFMP. The following vessel counts are not unique to each fishery (i.e., some vessels that fish in more than one fishery) and may vary from year to year.

Fishery	Number of vessels
Lingcod	35-45
Dogfish	15-20
Sablefish	32 - 40
Rockfish (inside waters)	10-15
Rockfish (outside waters)	45-50
Halibut	135-160
Groundfish Trawl	60-65

Lessons Learned The general philosophy for the integrated management program in Canada was described by industry as, "you break it, you buy it." This philosophy describes the practice of landing (nearly) all fish caught through informal transferring of quota shares among fishing sectors in-season to

cover incidental harvests (retained or released) in target fisheries. A flexible management structure under DFO allows the industry to control the flow of QS, within a regulatory framework of catch limits.

Lessons learned include the following.

- Resource conservation is paramount reason for creating a co-management system to allow retention of (nearly) all incidentally caught fish;
- Harvests of almost all regulated fish are accounted for using quota shares (other, less commonly caught / targeted species are managed through other tools such as trip limits etc.);
- All released halibut are accounted for using DMRs (regulatory discards of undersized halibut and voluntary releases of halibut), except for closed seasons;
- Marginal vessel operating costs of retaining halibut already caught in pot gear are associated with acquisition of quota shares;
- Fleet will change fishing behavior to maximize economic benefits to trips;
- Use of pot gear for targeting sablefish is lower than in the past as whale depredation is not as prevalent in British Columbia compared with the North Pacific;
- Slightly more halibut are being landed (in fewer) pots but are not being targeted;
- 100% at-sea and dockside monitoring is critical for total catch accounting and conservation benefits;
- Trial programs may lead to improvements in management; the Canadian integrated management system was a pilot program for 4 years; it was evaluated after year 2 and then made permanent.
- Industry involvement and agency flexibility together manage the Canadian Integrated fisheries. Representatives meet monthly and amend the rules for retention each season. This prevents targeting of bycatch species while allowing all sectors to fish responsibly without being shut down.

5. Other

Maximum retainable allowances The Council is aware that incidental catch of halibut in sablefish pots likely would result in increased halibut retention, as fleet behavior adjusts to a new regulatory regime. Sablefish fishermen would no longer have a disincentive to move off of fishing grounds with higher halibut bycatch. The Council could create a regulatory disincentive such as a maximum retainable allowance (MRA) for this fishery in this area; however the MRA itself results in halibut regulatory discards (although fewer discards than without it) and then the complicated question of the level at which to set the MRA is created when so little information exists on the background level of incidental halibut bycatch in the sablefish pot fishery. Recall that some regulatory discards of undersized halibut would continue. Enforcement staff identified that MRAs are an enforceable management tool.

Discard mortality rates could be determined by the IPHC, recommended by the Council, and implemented by NMFS during the annual harvest specifications for IFQ and CDQ sablefish pot fisheries, under the status quo or proposed action.

Gear regulation	U32 halibut	O32 halibut
Status quo	Bycatch (0.32 DMR)	Bycatch (0.32 DMR)
Proposed Action	Bycatch (0.32 DMR)	Retained (1.00 DMR)

Observer Program The North Pacific Groundfish and Halibut Observer Program (Observer Program) has had a vital role in the management of North Pacific groundfish fisheries since the program started over 20 years ago. The information collected by observers provides scientific information for managing the

groundfish fisheries and minimizing bycatch. High caliber observer information is the cornerstone of Alaska groundfish fisheries management, however the quality and utility of the information was deficient because some boats were not being observed and the structure for deploying observers was flawed. Therefore, beginning in January 2013, the new Observer Program went into effect and makes important changes to how observers are deployed, how observer coverage is funded, and the vessels and processors that must have some or all of their operations observed. These changes will increase the statistical reliability of data collected by the program, address cost inequality among fishery participants, and expand observer coverage to previously unobserved fisheries.

All sectors of the groundfish fishery, including vessels less than 60 feet length overall (LOA) and the commercial halibut sector, will be included in the new Observer Program. Coverage levels will no longer be based on vessel length and processing volume; rather, NMFS will have the flexibility to decide when and where to deploy observers based on a scientifically defensible deployment plan. The new Observer Program places all vessels and processors in the groundfish and halibut fisheries off Alaska into one of two observer coverage categories: (1) a full coverage category, and (2) a partial coverage category. The partial observer coverage category includes:

- catcher vessel when fishing for halibut IFQ or CDQ
- catcher vessel when fishing for sablefish IFQ or fixed gear sablefish CDQ

Gear regulation	Status quo <i>(pot gear allowed for Area 4A halibut)</i>	Proposed Action <i>(pot gear allowed for Area 4A halibut)</i>
Past Observer plan (< 2013)	Fishery monitored under standard coverage requirements of the plan	If halibut were retained, then the boat is 'halibut fishing.' Since halibut fishery was not part of plan, no monitoring of that trip would have been required.
Current Observer plan (2013+)	Fishery monitored under standard coverage requirements of the plan	Fishery monitored under standard coverage requirements of the plan, since halibut is now part of plan.

Contributors

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ATTACHMENT. REGULATIONS

Department of Fisheries and Oceans

Gear:

Hook and line and trap gear.

By regulation, no person shall fish for Sablefish with a trap, unless the trap has in a side wall a section that has been laced, sewn or otherwise secured by a single length of untreated natural fibre not larger than two mm in diameter and that, on deterioration or parting, produces in the side wall an opening with four sides, each of which is at least 20 cm in length.

No person shall fish for Sablefish with a trap unless the trap has in the side walls at least two escape openings each having an inside diameter of not less than 8.89 cm (3.5 inches) which creates an unrestricted exit out of the trap.

No person shall set a trap and leave the trap in the water for more than four consecutive days without lifting the trap from the water and removing all of the catch.

International Pacific Halibut Commission

19. Fishing Gear

- (1) No person shall fish for halibut using any gear other than hook and line gear, except that vessels licensed to catch sablefish in Area 2B using sablefish trap gear as defined in the Condition of Sablefish Licence can retain halibut caught as bycatch under regulations promulgated by the Canadian Department of Fisheries and Oceans.**
- (2) No person shall possess halibut taken with any gear other than hook and line gear, except that vessels licensed to catch sablefish in Area 2B using sablefish trap gear as defined by the Condition of Sablefish Licence can retain halibut caught as bycatch under regulations promulgated by the Canadian Department of Fisheries and Oceans.**
- (3) No person shall possess halibut while on board a vessel carrying any trawl nets or fishing pots capable of catching halibut, except that in Areas 2C, 3A, 3B, 4A, 4B, 4C, 4D, or 4E, halibut heads, skin, entrails, bones or fins for use as bait may be possessed on board a vessel carrying pots capable of catching halibut, provided that a receipt documenting purchase or transfer of these halibut parts is on board the vessel.**
- (4) All setline or skate marker buoys carried on board or used by any United States vessel used for halibut fishing shall be marked with one of the following:**
 - (a) the vessel's State license number; or**
 - (b) the vessel's registration number.**
- (5) The markings specified in paragraph (4) shall be in characters at least four inches in height and one-half inch in width in a contrasting color visible above the water and shall be maintained in legible condition.**
- (6) All setline or skate marker buoys carried on board or used by a Canadian vessel used for halibut fishing shall be:**
 - (a) floating and visible on the surface of the water; and**

- (b) legibly marked with the identification plate number of the vessel engaged in commercial fishing from which that setline is being operated.
- (7) No person on board a vessel used to fish for any species of fish anywhere in Area 2A during the 72-hour period immediately before the fishing period for the directed commercial fishery shall catch or possess halibut anywhere in those waters during that halibut fishing period unless, prior to the start of the halibut fishing period, the vessel has removed its gear from the water and has either:
- (a) made a landing and completely offloaded its catch of other fish; or
 - (b) submitted to a hold inspection by an authorized officer.
- (8) No vessel used to fish for any species of fish anywhere in Area 2A during the 72-hour period immediately before the fishing period for the directed commercial fishery may be used to catch or possess halibut anywhere in those waters during that halibut fishing period unless, prior to the start of the halibut fishing period, the vessel has removed its gear from the water and has either:
- (a) made a landing and completely offloaded its catch of other fish; or
 - (b) submitted to a hold inspection by an authorized officer.
- (9) No person on board a vessel from which setline gear was used to fish for any species of fish anywhere in Areas 2B, 2C, 3A, 3B, 4A, 4B, 4C, 4D, or 4E during the 72-hour period immediately before the opening of the halibut fishing season shall catch or possess halibut anywhere in those areas until the vessel has removed all of its setline gear from the water and has either:
- (a) made a landing and completely offloaded its entire catch of other fish; or
 - (b) submitted to a hold inspection by an authorized officer.
- (10) No vessel from which setline gear was used to fish for any species of fish anywhere in Areas 2B, 2C, 3A, 3B, 4A, 4B, 4C, 4D, or 4E during the 72-hour period immediately before the opening of the halibut fishing season may be used to catch or possess halibut anywhere in those areas until the vessel has removed all of its setline gear from the water and has either:
- (a) made a landing and completely offloaded its entire catch of other fish; or
 - (b) submitted to a hold inspection by an authorized officer.
- (11) Notwithstanding any other provision in these Regulations, a person may retain, possess and dispose of halibut taken with trawl gear only as authorized by Prohibited Species Donation regulations of NMFS.

National Marine Fisheries Service⁵

Section 679.2 Definitions

Authorized fishing gear (see also § 679.24 for gear limitations and Table 15 to this part for gear codes) means trawl gear, fixed gear, longline gear, pot gear, and nontrawl gear as follows:

- (1) *Bottom contact gear* means nonpelagic trawl, dredge, dinglebar, pot, or hook-and-line gear.

⁵ These are the definitions in regulation that will likely need to be amended to allow the retention of Area 4A halibut in sablefish pots, if recommended by the NPFMC, IPHC and implemented by the Secretary of Commerce.

(2) *Dinglebar gear* means one or more lines retrieved and set with a troll gurdy or hand troll gurdy, with a terminally attached weight from which one or more leaders with one or more lures or baited hooks are pulled through the water while a vessel is making way.

(3) *Dredge* means a dredge-like device designed specifically for and capable of taking scallops by being towed along the ocean floor.

(4) *Fixed gear* means:

(i) For sablefish harvested from any GOA reporting area, all longline gear and, for purposes of determining initial IFQ allocation, all pot gear used to make a legal landing.

(ii) For sablefish harvested from any BSAI reporting area, all hook-and-line gear and all pot gear.

(iii) For halibut harvested from any IFQ regulatory area, all fishing gear comprised of lines with hooks attached, including one or more stationary, buoyed, and anchored lines with hooks attached.

IFQ halibut means any halibut that is harvested with setline or other hook and line gear while commercial fishing in any IFQ regulatory area defined in this section.

Appendix 1

Individual Fishing Quota Program Proposal to Allow IFQ halibut in Area 4A to be retained in IFQ sablefish pots Discussion Paper

Develop a discussion paper to allow the retention of Area 4A halibut incidentally caught while targeting sablefish in the Bering Sea and Aleutian Island regulatory areas. Included in the discussion paper is the premise that sablefish pot tunnel regulations will not change in the BS/AI regulatory area and that this action has the objective of not increasing halibut bycatch levels.

Summary A proposal to change fishery regulations that define legal gear for retaining commercial Individual Fishing Quota (IFQ) halibut originally was submitted to the International Pacific Halibut Commission (IPHC) for its consideration at its January 2009 Annual Meeting. While the proposed action to define legal gear for halibut is under the management authority of the IPHC, it chose to consult with the North Pacific Council before it considered the proposed action.

The Council included this proposal under its 2009 call for IFQ/CDQ proposals after the IPHC forwarded the proposal, along with its own comments, for consideration by the Council. During its September 30, 2009 meeting, the IFQ Implementation Committee reviewed and recommended that the Council consider the proposal. In February 2010 the Council recommended that staff prepare a discussion paper, but ranked it lower than several other proposals for which the Council has since taken action. Council staff prepared a briefing on the status of the remaining four IFQ proposals under consideration by the Council in October 2011. The timing in scheduling Council review of this paper has been due to higher priorities that the Council has placed on other actions to manage halibut and groundfish fisheries, including Gulf of Alaska halibut prohibited species catch (PSC) limit reductions and the Pacific Halibut Catch Sharing Plan.

At its March 26, 2012 meeting, the committee reviewed the staff briefing paper on the status of the remaining proposals and recommended that that all proposals proceed for Council consideration. The Council ranked this discussion paper as its highest priority of the four remaining papers, in order to provide the requested guidance, if any, to the IPHC in time for its January 2013 Annual Meeting. At its December 2012 meeting the Council may provide guidance to the IPHC on its own consideration of this proposal. Should the IPHC choose to amend its definition of legal gear for halibut, a likely result would be the need for regulatory action initiated through the Council for amending regulations to require retention of IFQ halibut when caught in IFQ sablefish pots in a defined area that overlaps the two sets of regulatory areas (i.e., Area 4A for halibut and the Bering Sea and Aleutian Islands regulatory areas for sablefish). The Council may not intend for an expansion of the use of pot gear in the sablefish fishery to occur as a result of allowing the retention of IFQ halibut, but it could result in that unintended consequence. However, the increased use of pot gear may result in a decrease of unaccounted mortality by whale depredation on the gear¹.

At its December meeting the Council will consider whether to provide comments to the IPHC on the latter's consideration of the proposed action that is under its management authority. IPHC adoption of the proposal may require additional action by the Council and rulemaking by NMFS for complementary changes to Federal regulations.

Proposal Mr. Jay Hebert submitted a proposal on October 22, 2008 to the IPHC (Attachment 1). The proposer requests an experimental fishery to determine the results of allowing the retention of halibut caught as bycatch in pots in the sablefish fishery by IFQ holders of both halibut and sablefish in the sablefish regulatory area(s) that overlap with IPHC Regulatory Area 4A. The proposer intended to allow similar action as had been recently allowed in Area 2B (British Columbia), which allows coincident harvest and retention of halibut and sablefish in pot gear. Three primary objectives of the proposal are:

¹ Halibut discards in the sablefish pot fishery are counted as removals.

- 1) Increase the area of harvest of halibut in Area 4A. The proposer reports that there is a large portion of Area 4A that is not fished due to whale predation using longline gear. Pots can be used to more successfully harvest halibut.
- 2) Reduce halibut mortality from killer whale predation and handling by eliminating mortality due to handling released halibut.
- 3) Reduce concentrated halibut harvest in traditional “whale-free” areas as a result of increased presence (time and space) of whales. The proposed action would reduce pressure on the halibut resource and competition between vessels in the current limited area of successful halibut fishing.

Fishery affected

The proposal intends that the use of pots for retaining halibut be restricted to the sablefish IFQ fishery in the sablefish regulatory areas that overlap with IPHC Regulatory Area 4A. The Council clarified its intent, should it recommend to move this proposal forward, would be to allow halibut to be retained that are caught incidentally in this fishery only, and not to expand the use of pots to retain IFQ halibut in the Pacific cod (or other) pot fisheries.

Potentially affected participation

Of 208 persons holding Area 4A halibut IFQ in 2012, 80 persons also hold BS, AI, or WG sablefish IFQ. Of 176 vessels that are owned by holders of Area 4A halibut IFQ, 97 vessel owners also hold Bering Sea, Aleutian Islands, or Western Gulf of Alaska sablefish quota shares (this is the vessel ownership relationship and not what vessel fished the IFQs). There is no halibut allocation to the Community Development Quota (CDQ) Program in Area 4A, so the proposal only would apply to the IFQ fishery in that area. The RAM Report to the Fleet² provides the following information on vessel landings, TAC, harvest and percent of TAC harvested for the halibut and sablefish IFQ fisheries.

Table 2.1 2011 IFQ halibut allocations and fixed-gear IFQ landings

Species/Area	Vessel Landings ^a	Area IFQ TAC ^b	Total Harvest	Percent Harvested ^{c,d}
Halibut 2C	1,292	2,330,000	2,292,926	98
3A	1,898	14,360,000	14,265,007	99
3B	758	7,510,000	7,336,170	98
4A	296	2,410,000	2,286,068	95
4B	120	1,744,000	1,595,524	91
4C	21	845,000	104,808	12
4D	68	1,183,000	1,742,965	147
Total	4,453	30,382,000	29,623,468	98

^a Vessel landings include the number of reported landings by participating vessels reported by IFQ regulatory area; each such landing may include harvests from multiple IFQ permitholders.

^b Halibut weights are in net (headed and gutted) pounds.

^c Due to over- or underharvest of TAC and rounding, percentages may not total 100 percent.

^d Permitholders may fish IFQ designated for Area 4C in either Areas 4C or 4D. This resulted in an apparent, but allowable, “excessive harvest” in Area 4D.

² <http://www.fakr.noaa.gov/ram/ifq/rtf11.pdf>

Table 2.2 2011 IFQ sablefish allocations and IFQ landings

Species/Area	Vessel Landings ^a	Area IFQ TAC ^b	Total Harvest	Percent Harvested ^c
Sablefish AI	124	2,738,113	1,684,207	62
BS	204	2,513,244	1,055,427	42
CG	575	8,359,843	8,274,128	99
SE	540	6,481,524	6,452,159	100
WG	179	2,857,162	2,748,249	96
WY	216	3,844,822	3,827,053	100
Total	1,838	26,794,708	24,041,223	90

^aVessel landings include the number of reported landings by participating vessels reported by IFQ regulatory area.

Each such landing may include harvests from multiple IFQ permit holders.

^bSablefish weights are in round pounds.

^cDue to over- or underharvest of TAC and rounding, percentages may not total 100 percent.

Area affected

The area that would be affected by the proposal is limited to Area 4A; the IPHC staff recommended, and the committee concurred, that the proposed action not be expanded beyond this area. This would allow sablefish IFQ holders in either the Bering Sea area, Aleutian Islands area, or Western Gulf of Alaska area who also hold [sufficient] Area 4A halibut IFQ to retain halibut when using pot (single or longline) gear.

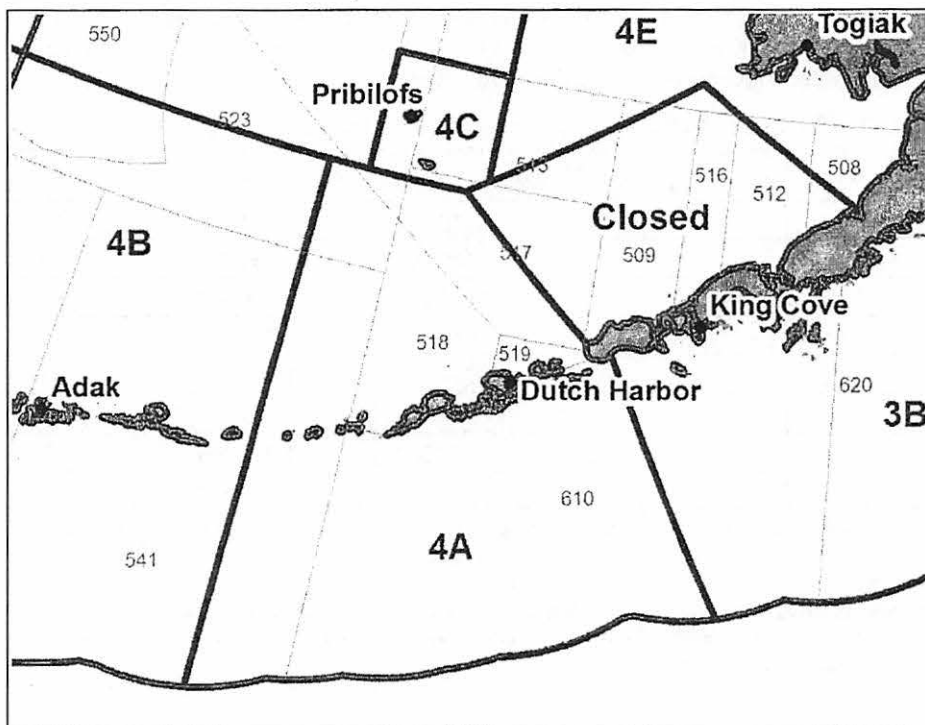


Figure 1 Overlap of IPHC halibut regulatory areas with BSAI groundfish (sablefish) regulatory areas (Source: NMFS). Area 4A overlays 630 (WG), 541 (AI) and multiple BS areas

Spatial distribution of halibut and sablefish harvest in affected area Figure 2 (percent) and Figure 3 (number) (in Attachment 2) show the distribution of IFQ sablefish pot landings (blocks) with halibut bycatch (vertical bars). The highest amounts in percent and numbers of both sablefish and halibut catch appears closest to the port of Dutch Harbor. Additional figures under Attachment 2 show the relationship between sablefish pot landings, and halibut bycatch, by month in the IFQ season.

IPHC staff comments The IPHC staff provided the following comments to the Council in a letter dated September 24, 2009 (Attachment 3), which accompanied transmittal of the proposal to the Council. The potential management issues identified in the comments still apply.

The IPHC staff is not opposed to allowing pot gear in Area 4A from a biological point of view. However, if the pot catch of halibut is sufficiently large enough, we would need to determine a pot gear selectivity curve for halibut for our stock assessment in order to account for that removal. Additionally, NMFS/RAM regulations would need to require full retention of halibut if the vessel has halibut IFQ and is using pot gear, similar to the regulation for longline gear. Also, IPHC regulations define legal gear by IPHC regulatory area but IPHC regulatory areas and NMFS sablefish areas are not concurrent. NOAA Enforcement would also need to provide feedback on location restrictions and may require that the vessel be transmitting with a Vessel Monitoring System transmitter.

The IPHC staff could not agree to allow pot gear coast-wide or an expansion to this proposal, without an understanding of the magnitude and impacts of catch in the pot fishery. The issues that the Council and Commission should consider include gear conflicts, creation of a new halibut fishery, redistribution of catch by gear, fish quality, and potential for future requests for expansion to winter cod fisheries.

Committee recommendations The IFQ Implementation Committee determined that this issue had a higher priority than most others, during its September 2009 review of IFQ/CDQ proposals³. It identified conservation and utilization issues in placing its priority. The committee noted that whale depredation has increased in the area due to discarded halibut bycatch in IFQ sablefish pot gear and expressed its concern that the bycatch mortality rate of halibut may be increasing due to whale depredation. Recognizing the potential for this provision to be misused (i.e., an increase of incidence of halibut bycatch in IFQ sablefish pots by strategic placement of pots or use of bait), the committee recommended that the paper explore mechanisms that would ensure that the halibut effects of the proposed action, without allowing for an increase in resultant halibut mortality. From the March 2012 IFQ Committee minutes⁴:

“The committee discussed the area for which the proposed action should be considered. While the proposal was specific to Area 4A because that is where the halibut predation occurred then, the committee noted that the same whale depredation problem also occurs in Area 4B. Heather Gilroy noted that the IPHC supported considering the proposed action in Area 4A, but not expanding the geographic range further. IPHC would need to collect new selectivity data if the area for the action was expanded. Heather reminded the committee that the proposed action is under IPHC authority to define legal gear for the retention of Pacific halibut, but that the IPHC wished to consult with the Council, as the proposed action would affect management of the sablefish IFQ fishery. Jane DiCosimo noted that the staff analysis would not be in the form of an RIR/IRFA because no regulatory action would be needed, so that minimized the distinction between a discussion paper and an analysis. Depending on other Council tasking priorities, she could bring back an analysis for the Council to consider recommending the proposed action in either October or December, so that the IPHC could take action at its next annual meeting in January 2013.

³ <http://www.alaskafisheries.noaa.gov/npfmc/PDFdocuments/halibut/Minutes30Sep09.pdf> and http://www.alaskafisheries.noaa.gov/npfmc/PDFdocuments/halibut/Motions9_30_09.pdf

⁴ http://www.alaskafisheries.noaa.gov/npfmc/PDFdocuments/halibut/Implementation/IFQImpCmte312_Minutes.pdf

The committee recommended moving forward with an analysis of the proposed action, but requested that staff identify the latitude and longitude for the geographic boundaries for which: 1) Area 4A only, and 2) Area 4A and 4B overlap the Bering Sea management area and the Aleutian Island management area for sablefish. [A committee member] noted similar concerns about pot configurations, pot storage, deadloss, etc. that are also identified under Proposal 2.”

The Advisory Panel took no action on this proposal.

Previous Council actions affecting the use of pots in IFQ sablefish fisheries⁵

Amendment 14 to the GOA Fishery Management Plan banned the use of pots for fishing for sablefish in the GOA, effective 18 November 1985, starting in the Eastern area in 1986, in the Central area in 1987, and in the Western area in 1989. An earlier regulatory amendment was approved in 1985 for 3 months (27 March - 25 June 1985) until Amendment 14 was effective. A later regulatory amendment in 1992 prohibited longline pot gear in the BS (57 FR 37906). The prohibition on sablefish longline pot gear use was removed for the BS effective 12 September 1996, except from 1 to 30 June to prevent gear conflicts with trawlers during that month. Sablefish longline pot gear is allowed in the AI.

Regulatory process/timing

The IPHC may redefine legal gear to include pot gear (single and longline since there is a single gear code for both configurations) for halibut in Area 4A at its January 2013 Annual Meeting, as part of its action to adopt annual measures for 2013. Current IPHC gear regulations are excerpted below. The language suggests that additional action by NMFS to amend Federal regulations may be necessary; staff plans to provide additional clarification on whether rulemaking would be required during consideration of this proposal. It is unlikely that the Council and NMFS could complete an analysis and rulemaking in time even for the 2014 fishing season, unless the Council explicitly made this action a higher priority than other rulemakings already in development. The Council may choose to direct staff to develop the required analyses and rulemakings independent of the Council process in order to expedite implementation (but it still would be unlikely to be implemented for 2014), if it feels it had sufficient information to recommend a preferred alternative. The Council has given this direction on other IFQ amendments.

19. Fishing Gear

- (1) *No person shall fish for halibut using any gear other than hook and line gear, except that vessels licensed to catch sablefish in Area 2B using sablefish trap gear as defined in the Condition of Sablefish Licence can retain halibut caught as bycatch under regulations promulgated by the Canadian Department of Fisheries and Oceans.*

Current fishery information⁵

Bycatch and discards in all gear types

Prohibited species catches (PSC) in the targeted sablefish fisheries are dominated by halibut (1,060 t/year) and golden king crab (134,000 individuals/year) for both the BSAI and GOA; more detailed analysis in the affected area of the proposed action follows later in the paper. Overall, halibut catches seem to be decreasing, while catches of golden king crab are highly variable from year to year, probably as a result of low sampling effort in BSAI sablefish pot fisheries (Table 3.6 in the 2012 Groundfish SAFE Reports).

⁵ http://www.afsc.noaa.gov/refm/stocks/plan_team/BSAISablefish.pdf; the original table numbers are retained to provide reference to the source document

Table 3.6. Prohibited Species Catch (PSC) estimates reported in tons for halibut and herring, thousands of animals for crab and salmon, by year, and fisheries management plan (BSAI or GOA) area for the sablefish fishery.

Source: NMFS AKRO Blend/Catch Accounting System PSCNQ via AKFIN, October 12, 2012.

	2008			2009			2010			2011			Average
	BSAI	GOA	Total	BSAI	GOA	Total	BSAI	GOA	Total	BSAI	GOA	Total	
Hook and Line													
Bairdi Crab	0.00	0.01	0.01	0.03	0.24	0.28	0.00	0.07	0.07	0.00	0.00	0.00	0.09
Golden K. Crab	0.17	0.08	0.25	0.32	0.03	0.35	0.97	0.00	0.97	0.50	0.13	0.63	0.55
Halibut	151	953	1,104	186	1,023	1,209	220	760	980	135	813	948	1,060
Other Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Opilio Crab	0.01	0.23	0.24	0.01	0.21	0.22	0.00	0.16	0.16	0.00	0.29	0.29	0.23
Red K. Crab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.02	0.00	0.02	0.02
Other													
Bairdi Crab	0.14	0.18	0.32	1.65	0.08	1.74	0.00	0.06	0.06	0.94	0.00	0.00	0.53
Golden K. Crab	182	0	182	139	0	139	26	0	26	191	0	191	134
Halibut	28	7	35	17	3	20	39	4	43	17	6	23	30
Herring	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Other Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00
Opilio Crab	0.25	0.00	0.25	0.01	0.10	0.11	2.15	0.03	2.18	0.33	0.00	0.33	0.72
Red K. Crab	0.42	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.41	0.21

The following is provided to place the halibut PSC data in context with other bycatch amounts. Table 3.4 in the 2012 Groundfish SAFE Reports shows groundfish bycatch in the sablefish target fishery. The largest bycatch is arrowtooth flounder (534 t/year, 456 t discarded). Arrowtooth is the only species that has substantial catch from non-longline gear. Shortspine thornyhead and shortraker rockfish are the 2nd and 3rd most caught species at 366 t/year and 207 t/year. The next three groups are "Other Species", GOA "Other Skate", and GOA longnose skate which total 415 t/year. Giant grenadiers, a non-target species that is not in either FMP, make up the bulk of the nontarget species bycatch, peaking at 9,315 t in 2007, but decreasing since with a 2011 catch of 6,652 t (Table 3.5 in the 2012 Groundfish SAFE Reports). Other nontarget catches that have totals over a ton per year are corals, snails, sponges, sea stars, and miscellaneous fishes and crabs.

Table 3.4. Bycatch (t) of FMP Groundfish species in the targeted sablefish fishery averaged from 2007-2011. Other = Pot and trawl combined because of confidentiality. Other Species is 2007-2010, and Sharks is only 2011. Source: NMFS AKRO Blend/Catch Accounting System via AKFIN, October 12, 2012.

Species	Hook and Line			Other Gear			All Gear		
	Discard	Retained	Total	Discard	Retained	Total	Discard	Retained	Total
Arrowtooth Flounder	320	66	385	137	12	148	456	78	534
Thornyhead rockfish	49	292	341	3	21	25	53	313	366
Shortraker Rockfish	81	93	173	7	26	34	89	119	207
Other Species	180	2	181	3	1	4	183	3	185
GOA Other Skate	135	4	139	1	0	1	137	4	141
GOA Longnose Skate	119	4	122	2	1	3	121	5	126
Other Rockfish	41	77	118	2	1	4	43	78	121
Greenland Turbot	37	54	91	16	2	18	53	56	109
Rougheye Rockfish	38	57	99	16	4	20	54	60	119
Pacific Cod	25	58	83	1	7	8	26	65	91
Shark	234	0	234	1	0	1	235	0	235
GOA Deep Water Flatfish	8	0	8	15	4	19	24	4	28
Pacific ocean perch	7	0	7	2	16	18	9	16	25
BSAI Skate	18	0	18	0	-	0	18	0	18
BSAI Shortraker Rockfish	8	8	15	0	0	0	8	8	16
GOA Demersal Shelf Rockfish	0	11	11	-	-	-	0	11	11
BSAI Other Flatfish	7	2	9	1	0	1	8	2	10
Pollock	0	0	1	5	3	9	5	4	9
GOA Shallow Water Flatfish	7	1	8	1	0	1	8	1	9
GOA Rex Sole	0	0	0	5	3	8	5	3	8
Total	1,315	728	2,046	220	102	322	1,535	830	2,369

Table 3.5. Bycatch of nontarget species and HAPC biota in the targeted sablefish fishery. Source: NMFS AKRO Blend/Catch Accounting System via AKFIN, October 12, 2012. Conf. = confidential.

Group Name	Estimated Catch (t)					
	2006	2007	2008	2009	2010	2011
Benthic urochordata	0.08	0.00	-	0.01	0.12	0.13
Birds	0.91	1.59	0.55	0.40	0.35	1.43
Bivalves	0	Conf.	-	0	0.00	0.06
Brittle star unidentified	0.05	0.10	0.06	0.33	0.10	0.38
Corals Bryozoans	1.57	0.16	1.56	1.62	2.45	4.90
Dark Rockfish	-	-	Conf.	0	Conf.	-
Eelpouts	1.30	2.26	9.04	1.76	1.34	0.54
Eulachon	-	0	Conf.	0	Conf.	-
Giant Grenadier	4,030	9,315	8,897	5,369	4,402	6,652
Greenlings	-	76	0.02	0.02	-	0
Grenadier	4,907	109	128	961	749	810
Hermit crab unidentified	0.05	0.05	0.07	0.09	0.19	0.21
Invertebrate unidentified	0.07	0.02	0.01	0.42	0.76	1.88
Misc crabs	0.47	1.12	0.94	3.20	1.90	1.16
Misc crustaceans	-	-	-	2	0.00	0.00
Misc deep fish	0	0.00	-	0	-	0
Misc fish	18.34	17.10	21.19	4.72	4.01	7.96
Misc inverts (worms etc)	0	Conf.	0	0.01	0.00	0.00
Other osmerids	-	-	Conf.	-	-	-
Pandalid shrimp	0	0.00	0.00	0.01	0.00	0.00
Polychaete unidentified	-	-	0	0.00	0.00	0.00
Scypho jellies	0.10	0.00	Conf.	0	0	1
Sea anemone unidentified	0.29	3.34	0.69	1.99	1.32	3.06
Sea pens whips	0.19	0.08	0.32	0.49	0.03	1.52
Sea star	5.23	35.29	1.56	2.45	2.53	3.24
Snails	9.41	8.09	6.43	11.22	11.56	19.70
Sponge unidentified	0.71	0.16	14.65	1.92	0.76	1.99
Urchins, dollars, cucumbers	0.15	0.14	0.48	1.03	0.55	0.24

Discard mortality rates A discard mortality rate (DMR) for the CDQ sablefish pot fishery has been specified, but not for the open access fishery (Table 8). The lack of a DMR suggests a lack of data. An examination of all 2011 observed pot hauls (n=768) were coded with a Pacific cod target. There were only 8 hauls made over 200 f in depth, and none had sablefish reported in them.

Table 8. Recommended Pacific halibut discard mortality rates (DMRs) for 2013-2015 CDQ and non-CDQ groundfish fisheries off Alaska.

I. Non-CDQ

Bering Sea/Aleutians			Gulf of Alaska		
Gear/Target	Used in 2010-2012	2013-2015 Recommendation	Gear/Target	Used in 2010-2012	2013-2015 Recommendation
<i>Trawl</i>			<i>Trawl</i>		
Atka mack	76	77	Bottom poll	59	60
Bottom poll	73	77	Pacific cod	62	62
Pacific cod	71	71	Dpwtr flats	48	43
Other Flats	72	71	Shallwtr flats	71	67
Rockfish	81	79	Rockfish	67	66
Flathead sole	74	73	Flathead sole	65	65
Midwtr poll	89	88	Midwtr poll	76	71
Rock sole	82	85	Sablefish	65	71
Sablefish	75	75	Arr. fldr	72	73
Turbot	67	64	Rex sole	64	69
Arr. fldr	76	76			
YF sole	81	83			
<i>Pot</i>			<i>Pot</i>		
Pacific cod	8	8	Pacific cod	17	17
<i>Longline</i>			<i>Longline</i>		
Pacific cod	10	9	Pacific cod	12	11
Rockfish	9	4	Rockfish	9	9
Turbot	11	13			

II. Bering Sea/Aleutians CDQ

Gear/Target	Used in 2010-2012	2013-2015 Recommendation
<i>Trawl</i>		
Atka mackerel	85	86
Bottom pollock	85	83
Pacific cod	90	90
Rockfish	84	80
Flathead sole	84	79
Midwtr pollock	90	90
Rock sole	87	88
Turbot	88	89
Yellowfin sole	85	86
<i>Pot</i>		
Sablefish	32	34
<i>Longline</i>		
Pacific cod	10	10
Turbot	4	4

Whale depredation on sablefish Killer whale depredation of the NMFS longline survey's sablefish catches has been a problem in the BS since the beginning of the survey. Killer whale depredation primarily occurs in the eastern BS, AI, and Western GOA and to a lesser extent in recent years in the Central GOA. Depredation is easily identified by reduced sablefish catch and the presence of lips or jaws and bent, straightened, or broken hooks. Since 1990, portions of the gear at stations affected by killer whale depredation during the domestic longline survey have been excluded from the analysis of catch rates, RPNs, and RPWs. Killer whale depredation has been fairly consistent since 1996, which corresponds to when the AI and the BS were added to the survey (Table 3.11 in the 2012 Groundfish SAFE Reports). A high of ten BS stations were depredated in 2009, which significantly impacted catch and biased the abundance index leading to using the 2007 BS RPN estimate to interpolate the 2009 and 2010 BS RPNs (Hanselman et al. 2009). In 2011, depredation levels in the BS were similar to previous years with catches at 7 of 16 stations affected. There was higher depredation in the AI in 2012 than most years (5 of 14 stations).

Table 3.11. Count of stations where sperm (S) or killer whale (K) depredation occurred in the six sablefish management areas. The number of stations sampled that are used for RPN calculations are in parentheses. Areas not surveyed in a given year are left blank. If there were no whale depredation data taken, it is denoted with an "n/a". Killer whale depredation did not always occur on all skates of gear, and only those skates with depredation were cut from calculations of RPNs and RPWs.

Year	BS (16)		AI (14)		WG (10)		CG (16)		WY (8)		EY/SE (17)	
	S	K	S	K	S	K	S	K	S	K	S	K
1996			n/a	1	n/a	0	n/a	0	n/a	0	n/a	0
1997	n/a	2			n/a	0	n/a	0	n/a	0	n/a	0
1998			0	1	0	0	0	0	4	0		0
1999	0	7			0	0	3	0	6	0	4	0
2000			0	1	0	1	0	0	4	0	2	0
2001	0	5			0	0	3	0	2	0	2	0
2002			0	1	0	4	3	0	4	0	2	0
2003	0	7			0	3	2	0	1	0	2	0
2004			0	0	0	4	3	0	4	0	6	0
2005	0	2			0	4	0	0	2	0	8	0
2006			0	1	0	3	2	1	4	0	2	0
2007	0	7			0	5	1	1	5	0	6	0
2008			0	3	0	2	2	0	8	0	9	0
2009	0	10			0	2	5	1	3	0	2	0
2010			0	3	0	1	2	1	2	0	6	0
2011	0	7			0	5	1	1	4	0	9	0
2012			1	5	1	5	2	0	4	0	3	0

Sperm whale depredation affects longline catches in the GOA, but evidence of depredation is not accompanied by obvious decreases in sablefish catch or common occurrence of lips and jaws or bent and broken hooks. Data on sperm whale depredation have been collected since the 1998 longline survey (Table 3.11). Sperm whales are often observed from the survey vessel during haulback but do not appear to be depredating on the catch. Sperm whale depredation during the longline survey is recorded at the station level and is defined as sperm whales being present during haulback with the occurrence of damaged sablefish in the catch. Sperm whales are most commonly observed in the Central and Eastern GOA, with the majority of depredation occurring in the West Yakutat and East Yakutat/Southeast areas. Depredation has been variable since 1998.

Multiple studies have attempted to quantify sperm whale depredation rates. An early study using data collected by fisheries observers in Alaskan waters found no significant effect on the commercial fishery catch. Another study using data collected from commercial vessels in southeast Alaska, found a small, significant effect comparing longline fishery catches between sets with sperm whales present and sets with sperm whales absent.

Previous investigations on the use of pots in the sablefish IFQ fishery In December 2005, the Council requested that the AFSC Auke Bay Laboratory scientists investigate a number of issues related to management of the sablefish pot fishery in the Bering Sea and Aleutian Islands that had been raised as part of a previous call for IFQ/CDQ proposals. These findings were first reported in the 2008 sablefish stock assessment⁶ and are incorporated into this paper as additional background information regarding the use of sablefish pot gear and its deployment.

Description of the sablefish IFQ pot fishery

Pot fishing in the IFQ fishery is not allowed in the GOA but is legal in the BSAI regions. In 2000, the pot fishery accounted for less than ten percent of the fixed gear sablefish catch in these areas but effort has increased substantially since, in response to killer whale depredation. Since 2004, pot gear has accounted for over 50% of the BS fixed gear IFQ catch and up to 34% of the catch in the AI. Pot fishing for sablefish has increased in the BS and AI as a response to depredation of longline catches by killer whales (Table 3.2). Pots are longlined with approximately 40-135 pots per set.

Table 3.2. Catch (t) in the Aleutian Islands and the Bering Sea by gear type. Both CDQ and non-CDQ catches are included. Catches in 1991-1999 are averages. 2012 catch as of September 29, 2012 (www.akfin.org).

Aleutian Islands				
Year	Pot	Trawl	Longline	Total
1991-1999	6	73	1,210	1,289
2000	103	33	913	1,049
2001	111	39	925	1,074
2002	105	39	975	1,119
2003	316	42	761	1,120
2004	384	32	539	955
2005	688	115	679	1,481
2006	458	60	614	1,132
2007	632	40	476	1,149
2008	177	76	647	900
2009	78	75	943	1,096
2010	59	74	943	1,076
2011	141	47	831	1019
2012	36	140	708	884
Bering Sea				
1991-1999	5	189	539	733
2000	40	284	418	742
2001	106	353	405	864
2002	382	295	467	1,144
2003	355	231	413	999
2004	432	293	312	1,038
2005	590	273	202	1,064
2006	584	84	368	1,037
2007	878	92	203	1,173
2008	754	183	199	1,135
2009	557	93	240	891
2010	452	30	272	754
2011	405	44	246	695
2012	295	87	177	559

⁶ <http://www.afsc.noaa.gov/refm/docs/2008/BSAISablefish.pdf>

Pot catch rates: There is more uncertainty in catch rates from 1999-2004 because there were few observed vessels during this period. From 2005-2007 the average catch rate was 23.8 lbs/pot in the Aleutian Islands and the Bering Sea. However, because there were still relatively few vessels observed in 2005-2007 there was high variability in the average catch rates. Because of the high variability, catch rates within areas were not significantly different between any years in both the observer and logbook data. For both the Bering Sea and Aleutian Islands, no trend in catch rates is discernible. The composition of species caught in pots in the Bering Sea and the Aleutian Islands was similar in 2005. Sablefish comprised most of the catch by weight (Bering Sea = 60%, Aleutian Islands = 69%) and the next most abundant fish by weight was arrowtooth flounder (Bering Sea = 13%, Aleutian Islands = 10%). Other species of fish and invertebrates contributed no more than 6% each to the total catch weight.

Pot spatial and temporal patterns: Seasonal changes in effort were examined in the 2007 SAFE Report, but no distinct trends were found.

Pot length frequencies: The authors compared the length frequencies recorded by observers from the 2006-2008 longline and pot fisheries. The average length of sablefish in the Aleutian Islands and in the Bering Sea was smaller for sablefish caught by pot gear (63.8 cm) than longline gear (66.0 cm), but the distributions indicate that both fisheries focus primarily on adults. Pot and longline gear is set at similar depths in the Aleutians and Bering Sea and sex ratio of the catch is 1:1 in both gears. The authors do not believe that the difference in lengths is significant enough to affect population recruitment and did not see any indication that undersized fish were being selected by pots.

Sablefish diets in pots: One concern was the possibility of cannibalism by larger sablefish while in pots. Because few small sablefish are found in pots, there was concern that small sablefish were entering the pots and being cannibalized by larger sablefish.

A total of 257 sablefish stomachs were examined during 2006 and 2007 at sea and in plants in Dutch Harbor, AK. Of these sablefish, 80% were females (attributed to selecting fish greater than 65 cm). A total of 72% of the stomachs sampled were empty. The prey item that occurred most commonly was squid (13%), followed by miscellaneous small prey <15 cm (10%), vertebrae and unidentified digested fish (3%), forage fish (2%), and crab (1%). Some of the squid in the stomachs were noted to be bait from the pots. Miscellaneous small prey included brittle stars and unidentified small prey. The frequency of prey occurrence (out of 257 stomachs) is detailed in the figure below.

No sablefish were found in the stomachs of large pot-caught sablefish. Several caveats exist to these results. The authors were not provided with the soak time of these pots, so it is possible some of the vertebrae were from digested sablefish. However, sablefish in a benthic environment would likely be at least 35 cm (age 2+) and would take some time to digest to the point of becoming unidentifiable vertebrae. In addition, some stomach contents may have been regurgitated when the pots were retrieved. However, because no sablefish were present in the stomach samples, cannibalism in pots either does not occur or is a rare event.

Pot soak times: In 2006, some questions were raised about storing pots at sea, escape rings and biodegradable panels. While the authors have not analyzed the consequences of these potential regulatory issues, in 2006 the authors examined the soak times of the observed pot sets. These plots are shown in the SAFE Report.

In an experiment examining escape mechanisms for Canadian sablefish, control traps had only 5% mortality up to 10 days; in the current fishing environment, 90% of the pot sets were soaked for 7 days or fewer.

Pot sample sizes: Sablefish pot fishing has increased dramatically in the Aleutian Islands and the Bering Sea since 1999. In 2007, pot gear accounted for 81% of the Bering Sea fixed gear IFQ catch and 56% of the catch in the Aleutians. Fishery catch and effort data for pot gear are available from observer data since 1999; however, due to confidentiality agreements, the authors cannot present these data due to low

sample sizes. Pot fishery data are also available from logbooks since 2004; however, these data are also sparse. The number of observed sets and the number of pots fished increased dramatically in 2005 and remained high through 2007. The number of logbook pot sets has continued to increase in the Bering Sea and has stayed consistent in the Aleutian Islands. Over all years, the average number of pots used per set was 78.

Contributors

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Attachment 1 Proposal

OCT 22 2008

I.P.H.C.

Proposal: Allowing the retention of coincidentally harvested Halibut during the Bering Sea Sablefish Pot Fishery

Year(s): Effective spring 2009, for a three year trial/evaluation period

Definition and Objective:

This proposal is to allow the retention of incidental by catch Halibut, specifically caught in the Bering Sea Sablefish fishery, by pot, by qualified harvesters that have 4A Halibut quota. This proposal is very much the same as the recently passed regulatory change in area 2B. There are 3 primary objectives to this proposal. 1) Increase the area of harvest in 4A, 2) reduce mortality from Killer whale predation and handling, and 3) Reduce concentrated harvest in traditional "whale-free" areas.

1) Currently there is a very large portion of 4A that is not reasonable to attempt harvesting Halibut from because of Killer whale predation. Pots have been successful in safely capturing these fish, with no mortality from predation.

2) Under the current regulations, all Halibut caught by Sablefish pots must be discarded. Because of where the majority of the Bering Sea Sablefish Pot fishery is conducted, there is a constant presence of Killer whales near harvesting vessels. There is no mechanism by which halibut can be safely returned, without extremely high mortality. Mortality from handling would be completely eliminated.

3) Because of the increased presence of Killer whales in 4A, harvesters have been forced into ever increasingly small areas of harvest, with limited windows of opportunity to harvest. Allowing these specified pot vessels to retain their by-catch reduces both pressure on the resource and direct competition between vessels, lessening focused impact on the resource, and significantly increasing the area of harvest.

Impacts:

All vessels fishing with hooks will see some small measure of relief from this proposal, simply because: a) some of the fish would, with this proposal, be harvested from regions that are not being currently exploited, b) Halibut caught by pot, landed and recorded, would directly increase the availability, by reducing competitive pressure, and direct and indirect mortality issues

Opinion:

We have had 7 years of Sablefish fishing, by pot, in the Bering Sea to witness changing events. The Killer whale predation problem is increasing. Cows are teaching their calves the "technique" of stripping fish and following in to snatch by catch as quickly as it is discarded. When we discard Halibut, we are destroying the fish. We can't change the whales feeding habits, but we can change their access to Halibut in particular. I believe all vessels engaged in Sablefish fishing in the Bering Sea should be required to have some Halibut quota for 4A, specifically to cover the inevitable by catch of Halibut.

For a significant portion of the year, Halibut and Sablefish share intermingled climes on the ocean bottom. Traditional halibut surveys do not get to these regions. To pursue Sablefish will forever take us through regions of Halibut as the two species compete for food. Recognizing this interrelationship, I am proposing that we retain both.

Attachment 2. Plots of halibut in sablefish pots,

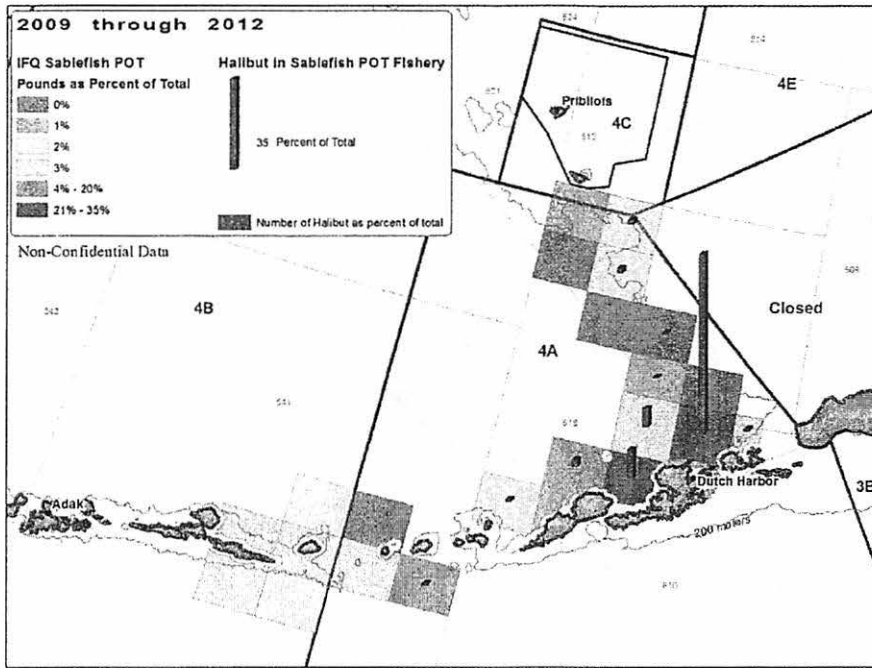


Figure 2 Number of halibut as a percent of total (summed over 2009-2012) halibut caught incidentally in IFQ sablefish fishery in pot gear.

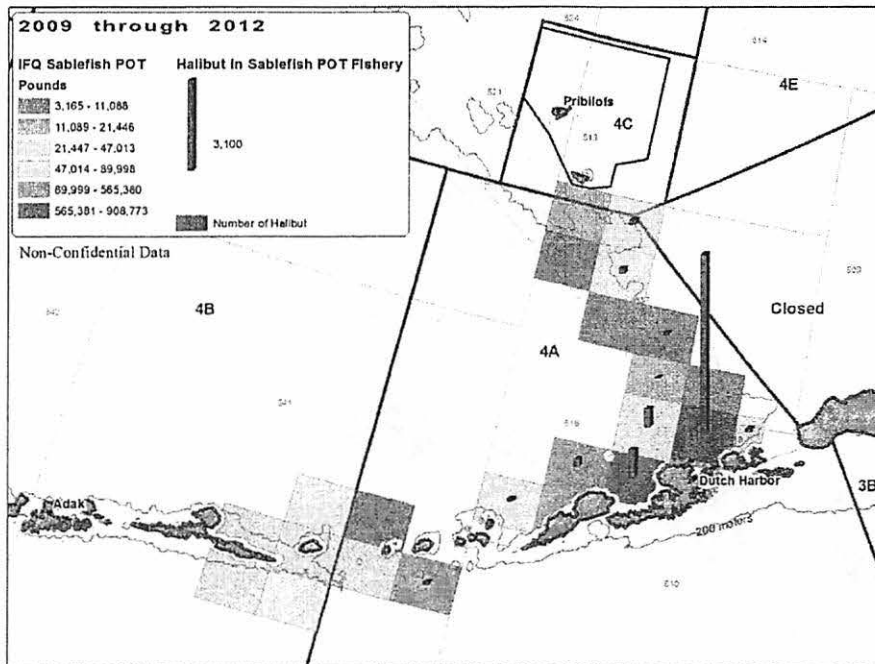


Figure 3 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear.

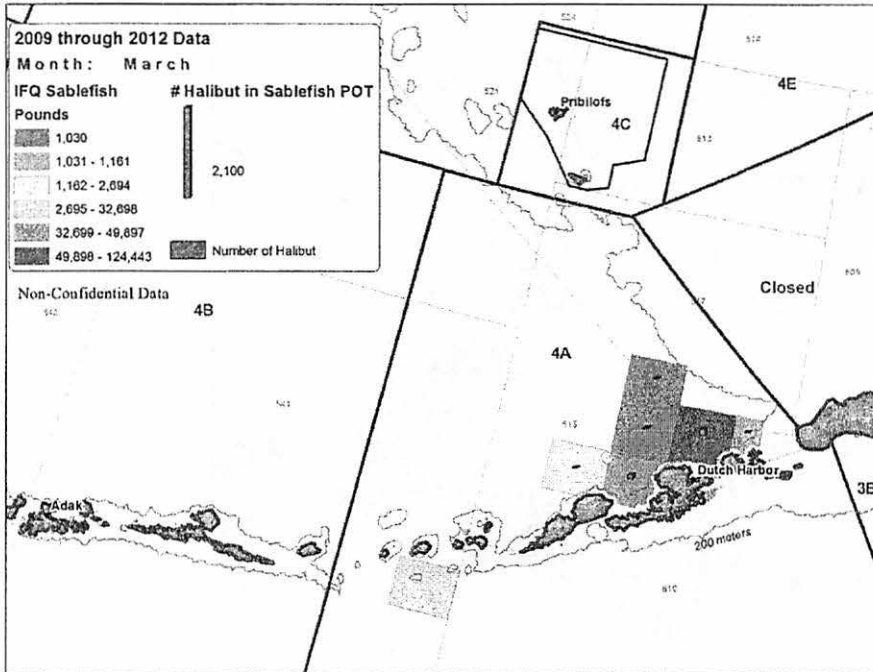


Figure 4 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

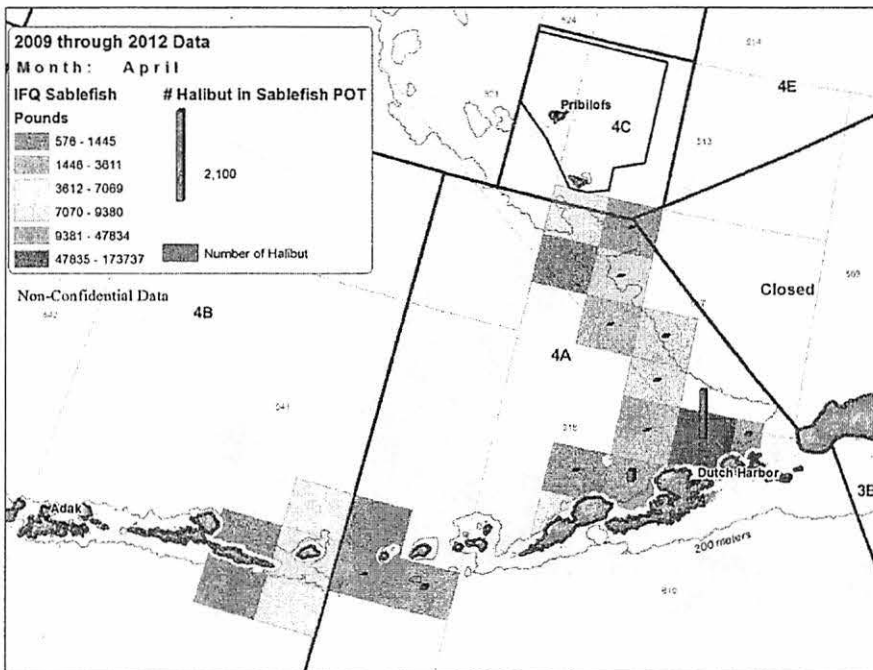


Figure 5 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

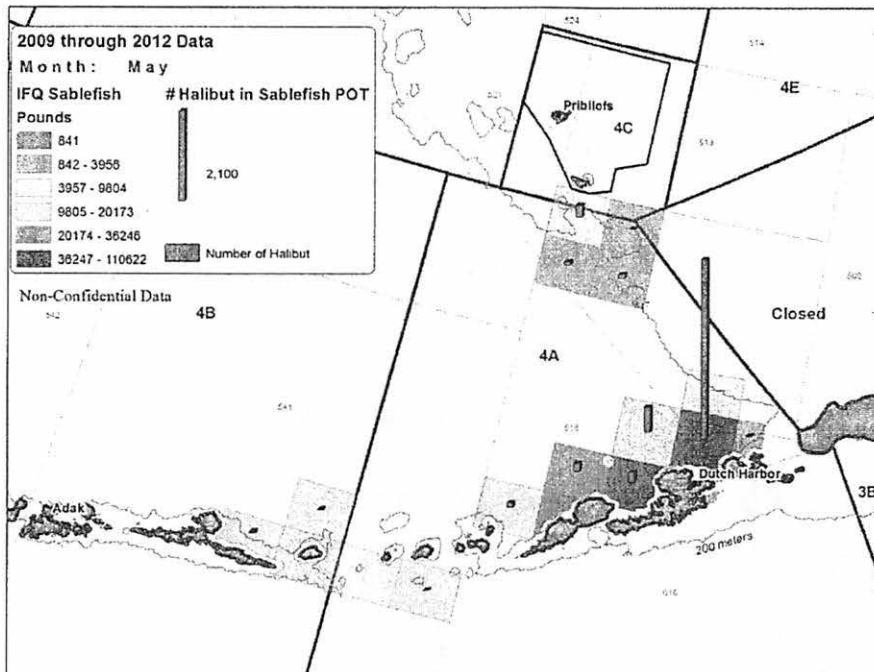


Figure 6 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

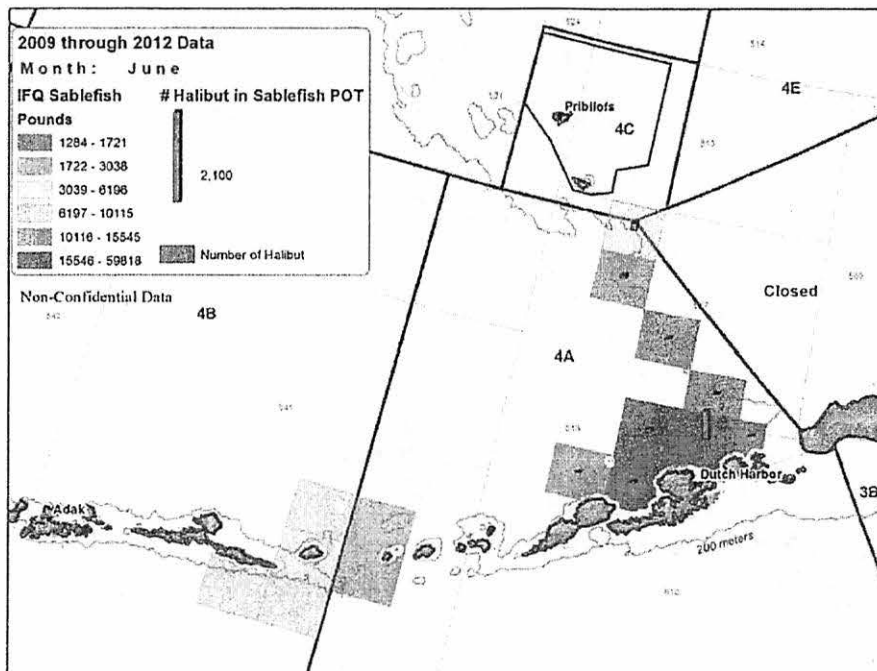


Figure 7 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

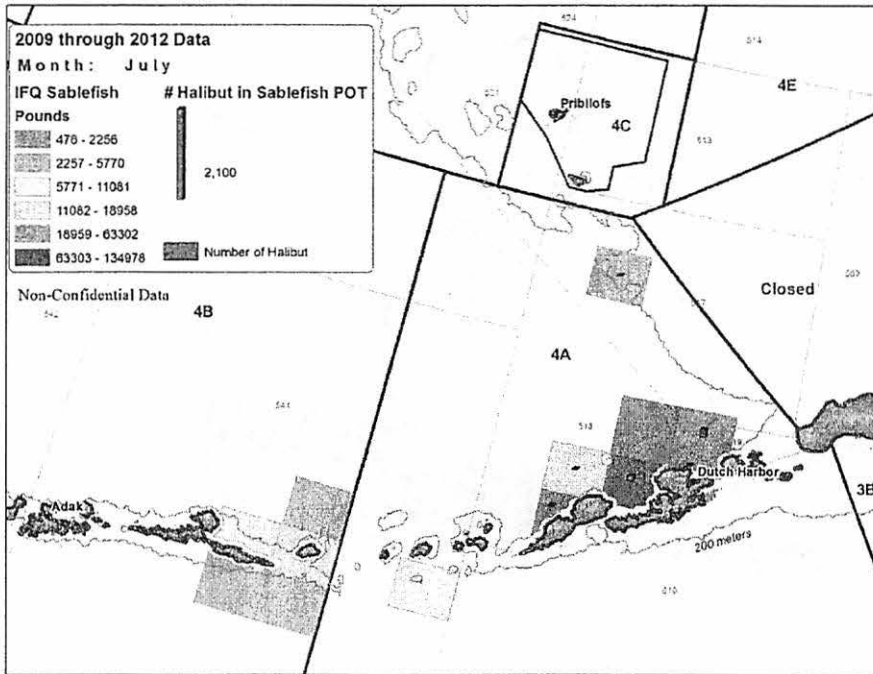


Figure 8 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

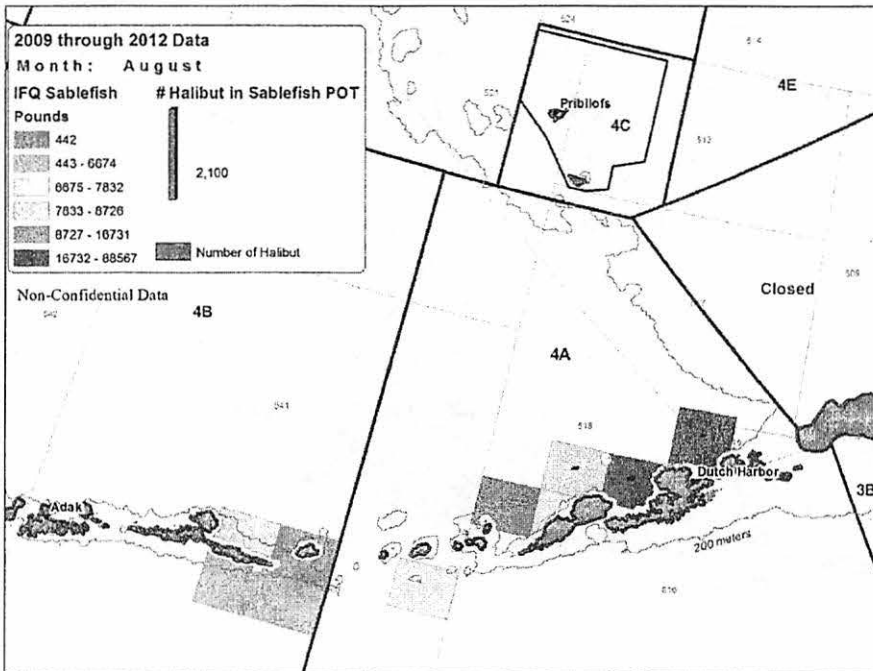


Figure 9 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

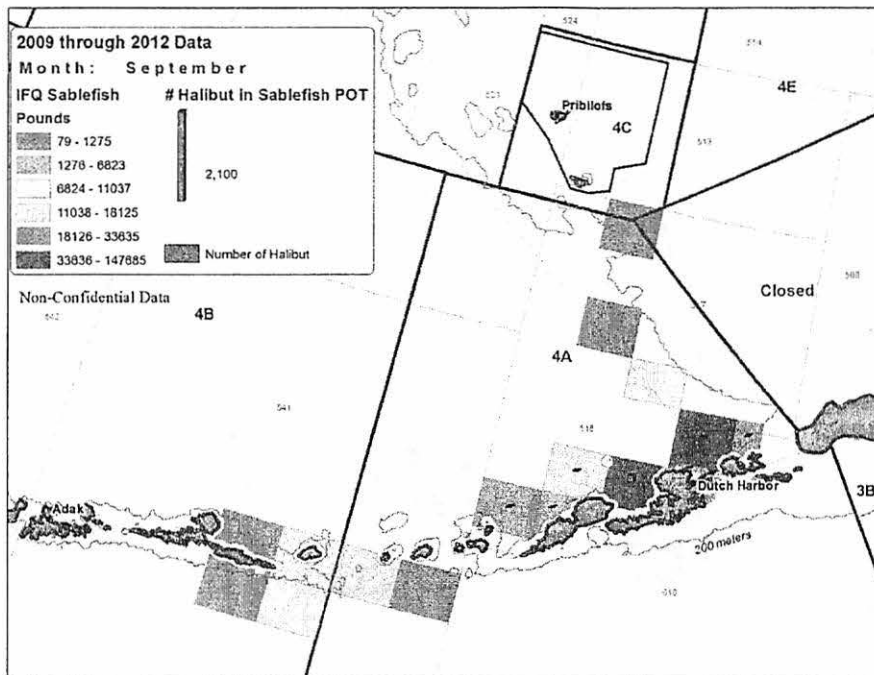


Figure 10 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

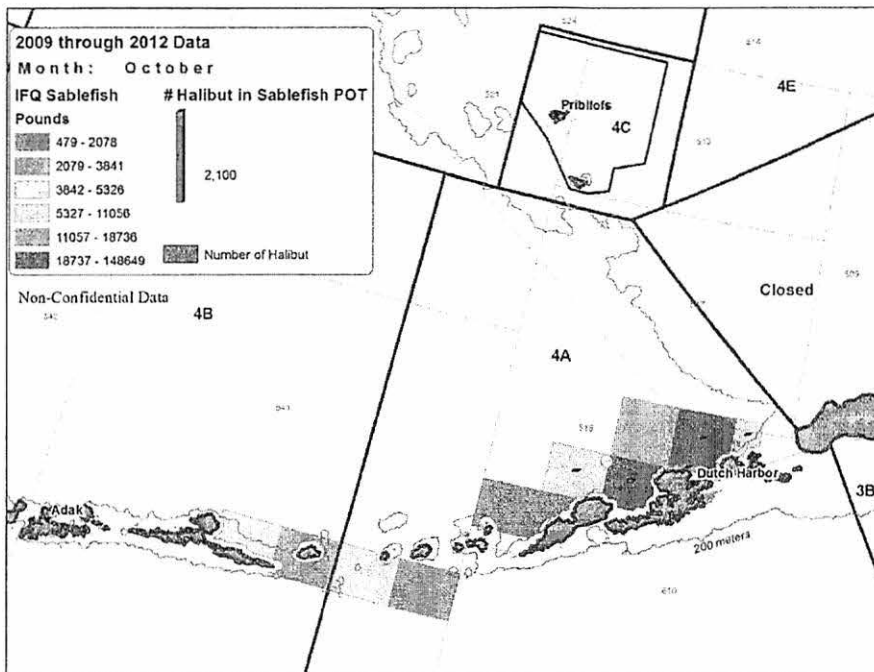


Figure 11 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

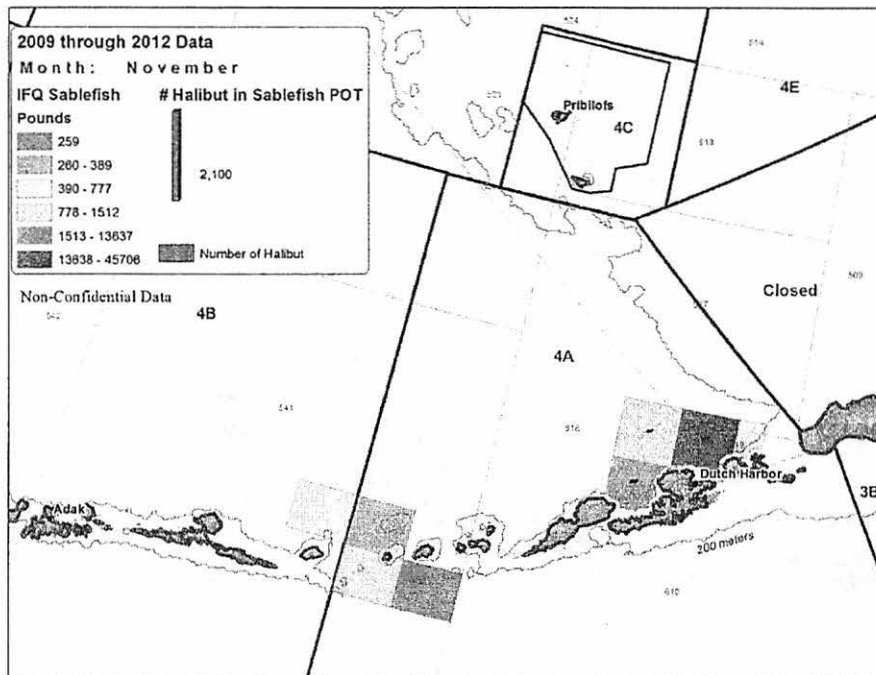


Figure 12 Number of total halibut (summed over 2009-2012) caught incidentally in IFQ sablefish fishery in pot gear by month.

Attachment 3 2009 IPHC letter to the Council

COMMISSIONERS:

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INTERNATIONAL PACIFIC HALIBUT COMMISSION

ESTABLISHED BY A CONVENTION BETWEEN CANADA

AND THE UNITED STATES OF AMERICA

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September 24, 2009

COPY

Mr. Eric Olsen, Executive Director
North Pacific Fishery Management Council
605 W 4th Avenue, Suite 306
Anchorage, AK 99501-2252

Dear Mr. ~~Olsen~~, *Eric*

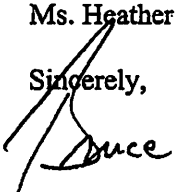
The North Pacific Fishery Management Council's IFQ Implementation Team is reviewing IFQ proposals at the October Council meeting. The Council has been asked by the IPHC to comment on the proposal to allow retention of IFQ halibut in pot gear during the Bering Sea sablefish fishery. Authority for definition of legal gear for the halibut fishery rests with the Commission; however, the Council's input for the next IPHC Annual Meeting in January 2010 would be beneficial.

The IPHC staff is not opposed to allowing pot gear in Area 4A from a biological point of view. However, if the pot catch of halibut is sufficiently large enough, we would need to determine a pot gear selectivity curve for halibut for our stock assessment in order to account for that removal. Additionally, NMFS/RAM regulations would need to require full retention of halibut if the vessel has halibut IFQ and is using pot gear, similar to the regulation for longline gear. Also, IPHC regulations define legal gear by IPHC regulatory area but IPHC regulatory areas and NMFS sablefish areas are not concurrent. NOAA Enforcement would also need to provide feedback on location restrictions and may require that the vessel be transmitting with a Vessel Monitoring System transmitter.

The IPHC staff could not agree to allow pot gear coast-wide or an expansion to this proposal, without an understanding of the magnitude and impacts of catch in the pot fishery. The issues that the Council and Commission should consider include gear conflicts, creation of a new halibut fishery, redistribution of catch by gear, fish quality, and potential for future requests for expansion to winter cod fisheries.

Ms. Heather Gilroy of our staff will be attending the IFQ Implementation Team meeting by teleconference.

Sincerely,


Bruce M. Leaman
Executive Director

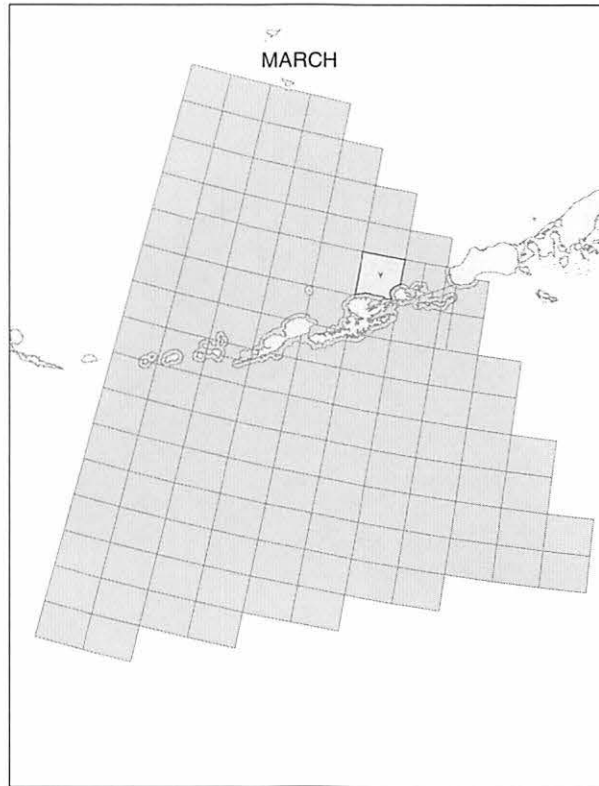
cc: Commissioners
Jeff Stephan, Chair, IFQ Implementation Team
Ron Antaya, NMFS

D-1(c) Supplemental

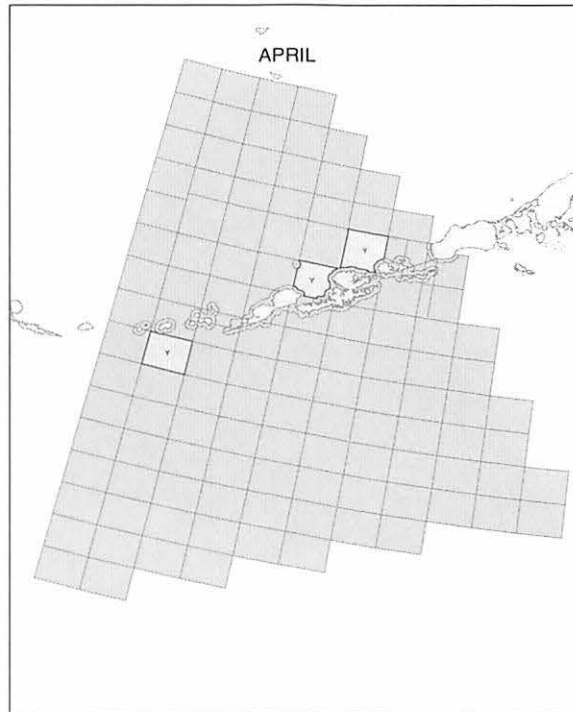
Corrected Table 1 Frequency and timing of Area 4A halibut IFQ incidental catch in the BS and AI sablefish pot IFQ fishery in 2012. * Source: AKFIN data

Landing Date	Number of halibut	Pounds of sablefish	Number of sablefish landings
Mar	322	281,844	53
Apr	1,626	517,396	194
May	8,609	568,199	269
Jun	1,135	348,169	161
Jul	1,110	388,681	165
Aug	74	292,879	116
Sep	527	861,411	335
Oct	196	540,956	274
Nov	71	174,151	64
Grand Total	13,670	3,973,686	1,631

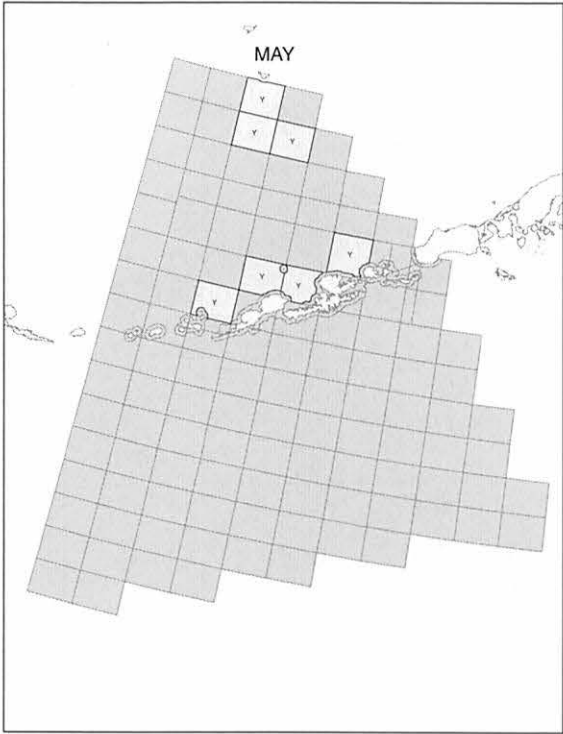
Supplemental Map 1a. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in March from 2009-2011.



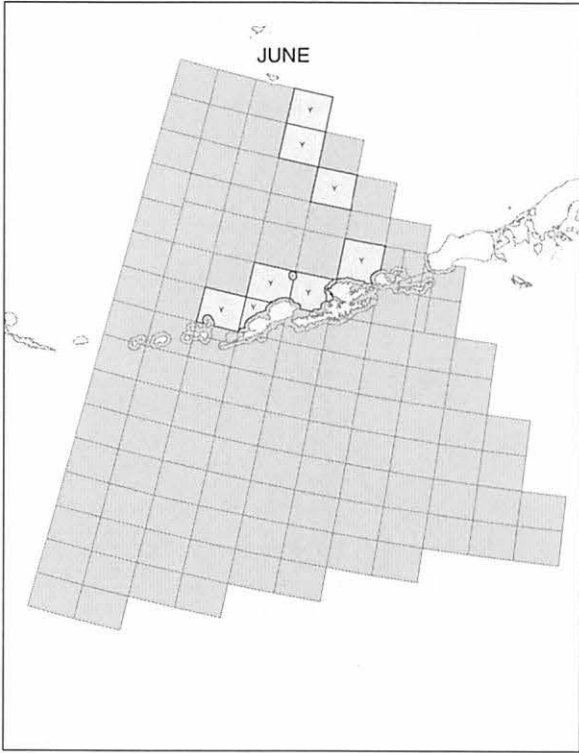
Supplemental Map 1b. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in April from 2009-2011



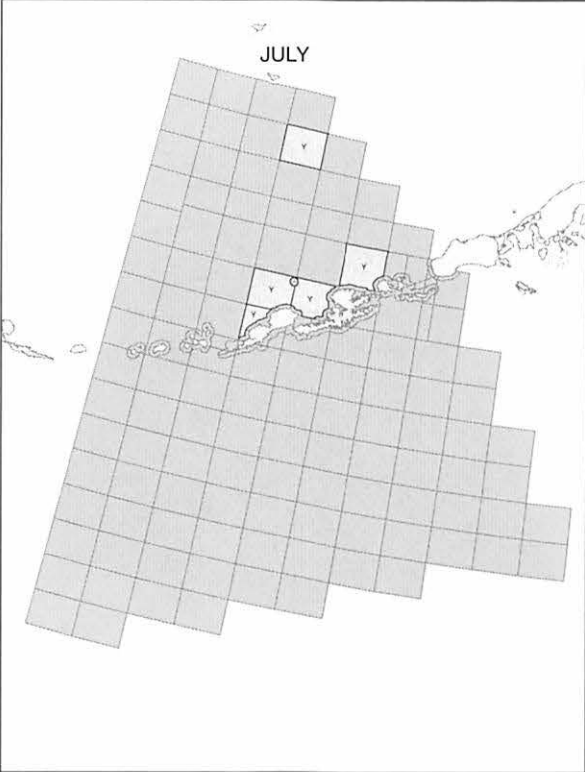
Supplemental Map 1c. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in May from 2009-2011



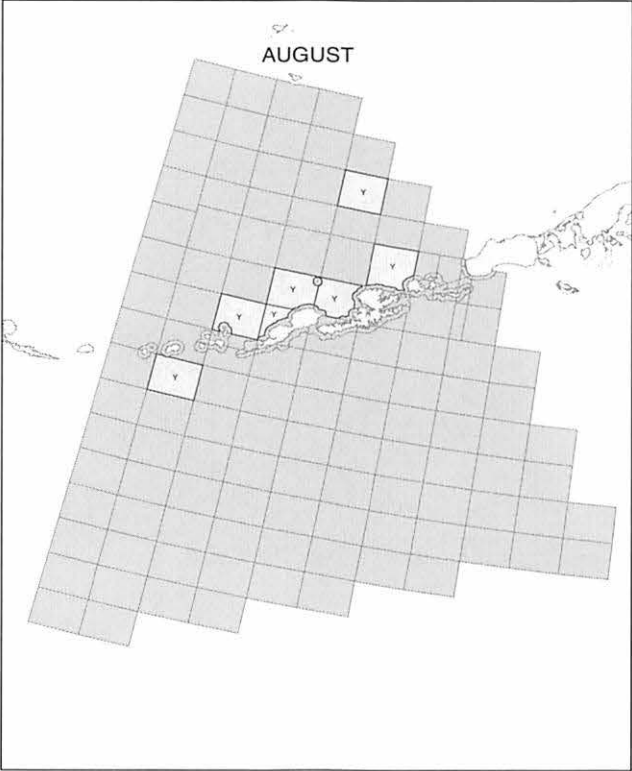
Supplemental Map 1d. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in June from 2009-2011



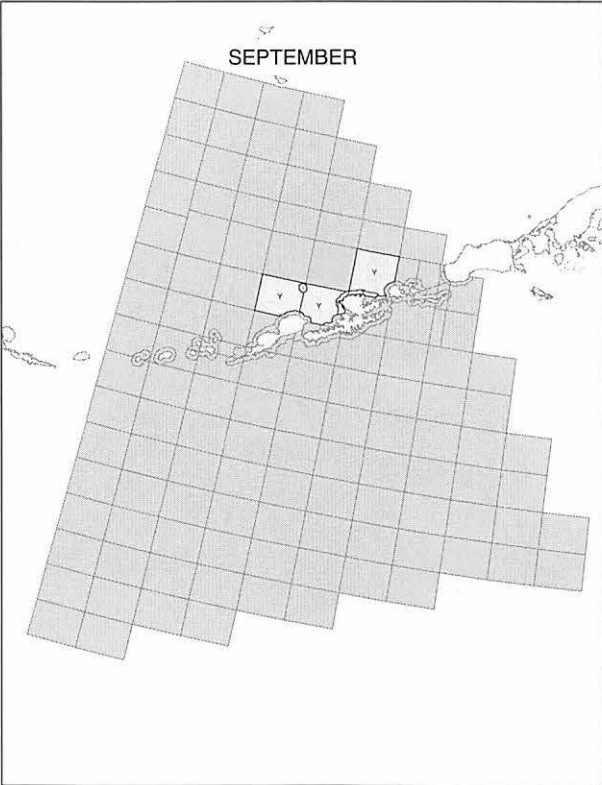
Supplemental Map 1e. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in July from 2009-2011



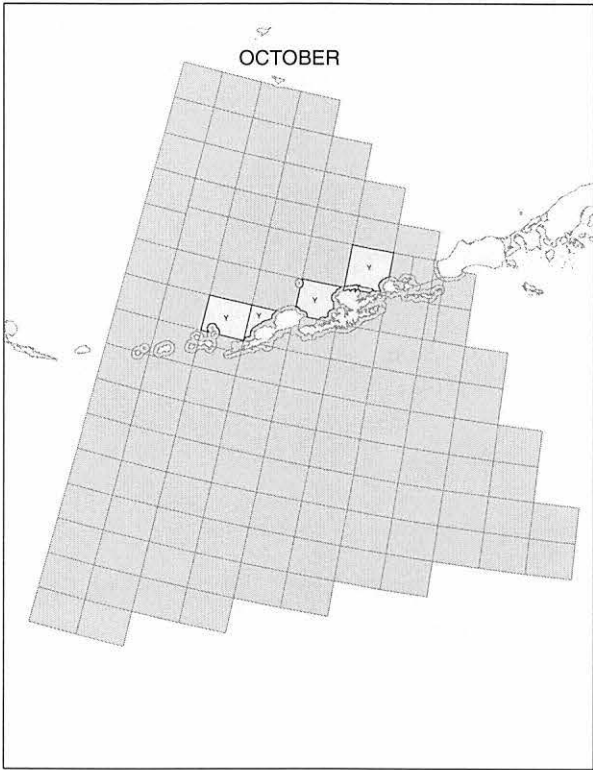
Supplemental Map 1f. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in August from 2009-2011



Supplemental Map 1g. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in September from 2009-2011



Supplemental Map 1h. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in October from 2009-2011



Supplemental Map 1i. Depicts 4a statistical areas with both IFQ Sablefish pot activity and IFQ halibut longline activity during the same week in November from 2009-2011

