

## Alaska Bycatch Review Task Force (ABRT) GOA Salmon and Halibut Subcommittee July 28, 2022, 1:00 p.m. (AST)

Committee members: Brian Gabriel, Kevin Delaney, Mike Flores, Raymond May, Duncan Fields, Linda

Kozak

1. Call to order at 1:00 p.m.

- 2. Roll call: introduction of committee and ABRT members. Committee Brian Gabriel, Kevin Delaney, Mike Flores, Linda Kozak. ABRT John Jensen, Tommy Sheridan, Stephanie Madsen.
- 3. Approve agenda: July 28, 2022. M Flores motion to approve, seconded by L Kozak
- 4. Approve minutes: May 24, 2022. Postpone to next meeting.
- 5. Old business: none

## 6. New business:

a. Presentation from Dr. Ian Stewart and Dr. Allan Hicks, International Pacific Halibut Commission, on halibut discards, discard mortality rates, and scientific work related to the 32" minimum size regulation for the commercial fishery.

Ian Stewart presentation: Discard mortality in the directed fishery comes from three sources: lost gear, quota attainment on the last trip of season, and halibut smaller than the 32-inch minimum size limit. The largest source of discard mortality are halibut less than 32-inches which is primarily estimated from the survey catch rates of sublegal fish scaled to the total landings in each IPHC regulatory area. Total coastwide discard mortality has declined since 2010. From 2017-2021, total annual discard mortality in the directed commercial halibut fisheries is ~1 million net pounds and represents 3.0% - 3.6% of the total commercial fishery mortality.

In 2021, the IPHC investigated the effects on fishery yield (how much halibut could be taken in the current year) of removing the 32-inch minimum size limit. The evaluation showed that there was a potential 7% increase in yield if the minimum size limit was removed, but there may be an economic loss if the price for halibut under 32-inches was less than 63% of the over 32-inch price. Overall fishery efficiency would likely increase 18% given less bait, less handing of fish, and less time on the water to bring in the same amount of fish.

Discard mortality rates are estimated based on the proportion of fish in a given condition and the probability of a fish in that condition dying. Fish with minor injuries caught with longline

gear have a 3.5% chance of dying whereas those with severe injuries have a 66.2% mortality rate. Recent experiments to estimate discard mortality rates in trawl fisheries and directed longline fisheries using newer technology are consistent with the rates calculated through historic tagging experiments.

Presentation from Allen Hicks on management strategy evaluation. Management strategy evaluation (MSE) is used to look at long-term effects of management measures such as changing the minimum size limit. We have currently been asked to evaluate the status quo size limit, a 26-inch minimum limit, and no minimum size to see how they affect future coastwide stock, yield, and fishery distribution. Results will be presented at the January 2023 IPHC meeting and will be considered by the MSE Advisory Board in October 18 – 20, 2022.

## **Ouestions:**

B Gabriel – Were other minimum size limits considered in the 2021 analysis such as a 26-inch limit? Answer: no, but the commercial fishery catches very few halibut less than 26-inches so a 26-inch minimum size limit would functionally be the same as no size limit.

S Madsen – Is the estimated 7% increase in yield across all IPHC regulatory areas or are there differential impacts by area? Answer: Yes, that estimate is across all areas. The question of where it would be distributed is open ended as to where the Commission would allocate that additional yield. Halibut are highly migratory, particularly young fish, so that yield could be realized across many areas. The 7% benefit comes from several factors; the first is the additional yield gained by retaining fish that would have otherwise died due to discard mortality and the second is a slight increase in the fraction of male fish that are harvested so there would be a lower impact on the reproductive potential of the stock (fewer female fish harvested). We would expect to see the largest fishery effects in the Western Gulf of Alaska which has the highest encounter rates of smaller fish.

M Flores – What is the total commercial discard mortality in the Gulf of Alaska? Answer: Don't have that broken out just for the Gulf, but the figure on slide 4 shows that Area 3A has the largest proportion of the total discard mortality (approximately 1/3) and area 3B is a close second, so together it's about half of the total discards or roughly 500,000 pounds.

B Gabriel – What affect does moving the minimum size limit have on future recruitment? Answer: Removing the minimum size limit would allow the fish to enter the commercial fishery at a younger age. Right now the average age of a male halibut may be ~11 years before it reaches the 32-inch minimum size, so they would enter the fishery at a younger age.

S Madsen - What is the discard mortality rate used for the directed fishery, is it 15%? Answer: We apply a 16% discard mortality rate, which is an average across different conditions of fish and the mortality of fish with each of those conditions. Follow up question about the sex ratio of the commercial catch. Answer: Sex ratio has been estimated through genetic sampling since 2017. Starting in 2019 we began analyzing those samples and incorporating those data into the stock assessment. Roughly 80% of the commercial harvest is female fish. We update this dataset each year and now have a more accurate picture of the effect of fishing on the halibut stock. This is important information for this discussion because there are a large number of male halibut that spend a good fraction of their life below the 32-inch size limit; in the Central

GOA there are some male halibut that are 25 years old that are still below the minimum size limit. The confounding factor is that by allowing the harvest of smaller fish, you are also harvesting smaller females and at some point, there are diminished returns from harvesting more males vs. lowering the average age of females harvested.

B Gabriel – Discard mortality in the pot fishery, the table showed either poor or excellent, are there more conditions that are evaluated? Answer: We have very little information on the condition of halibut captured in pot fisheries. Overall, it's a very small component of total halibut mortality.

K Delaney – What piece of information is missing that can make a definitive difference for halibut? Answer: That's a tough question, it would make the most sense to look at the fisheries that encounter proportionally large amounts of halibut but have lower monitoring rates. The non-pelagic trawl vessels in the Western GOA have historically had higher encounter rates with halibut.

B Gabriel – What recommendations would you like to see included by this committee? Answer: The Commission has undertaken several evaluations of it's minimum size limit and are now looking at the affects in the long-term. We don't know yet if it will be a net positive or a net negative for the stock. It's not just about yield, it's also about the value of the fishery. Carefully evaluating the information is the best path forward.

K Delaney – Can you complete the following sentence for me: "The bycatch of halibut in the GOA is a problem because..." Answer: There's no easy answer, if forced to finish I would say it's because we don't know exactly how much there is, and we don't know the demographics of that bycatch. In the scheme of the larger question of how that might affect the halibut stock it's hard to say whether it's a biological or management priority.

Julie Bonney – Alaska Groundfish Data Bank. Question about monitoring in the directed fisheries in British Colombia, is it 100% or some other level? Answer: not sure, it has changed over the past couple of years during COVID. Electronic monitoring has been more broadly used in recent years and they are not using human observers to the same degree. We have voiced concerns regarding the need to maintain an uninterrupted data source on the amount of halibut that are being handled and the size distribution of those fish.

b. Committee discussion regarding industry recommendations: L Kozak: It would be helpful to request recommendations from industry to be brought to the committee in August. K Delaney: I support hearing from industry and from the sport fishery too who wants more access to halibut. I am still having difficulty determining how much of the issue is a biological concern, or a lack of research, or whether it's purely allocative.

B Gabriel: It would be helpful to hear suggestions for how we can incentivize bycatch avoidance instead of developing penalties.

M Flores – any halibut savings is likely to be allocated to other groups, so we should be careful to consider that in making our recommendations.

- L Kozak I agree with Mike and think if we stay within the guidelines outlined in the AO, we should be okay.
- c. Discussion of committee work to meet ABRT report timeline. L Kozak, suggest we take up research recommendations first since those need to be forwarded to the Science, Technology, and Innovation committee for organization first.
- 7. Public comment: three-minute (3) limit to individual comments

Bob Alverson – Fishing vessel owner association. We recommend that vessels in the partial coverage observer program in the Gulf of Alaska be allowed to contract directly with the observer providers which we believe will lower costs. We also think that more observer coverage should be targeted for vessels in the Western Gulf of Alaska that deliver to tenders.

Julie Bonney – For some of the issues that Mr. Alverson described, the Council is working on those issues, just not in the same way that his group would like them addressed. My sector still supports rationalizing the trawl fisheries in the GOA which would increase observer coverage to 100% and allow for individual vessel accountability.

- 8. Committee comments: none
- 9. Next Meeting Date: August 10 at 9am and August 23 at 9am.
- 10. Adjournment by 2:50pm.