



North Pacific Fishery Management Council

Simon Kinneen, Chair | David Witherell, Executive Director
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October 12, 2018

Wendy Morrison
NOAA Fisheries
Office of Sustainable Fisheries
1315 East-West Highway
Silver Spring, MD 20910
VIA email to: NMFS.bycatch@noaa.gov

Dear Ms. Morrison:

Thank you for the opportunity to provide feedback on the fish and invertebrate species bycatch portions of the National Bycatch Report. Specifically, you requested feedback on the following questions:

1. How have you or your organization used the fish or invertebrate estimates of bycatch in the National Bycatch Report and/or its updates?
2. How have you or your organization used other sections of the National Bycatch Report that pertain to fish or invertebrates (e.g., bycatch estimation improvement plans, performance metrics, Tier Classification System)?
3. Have you or your organization used fish or invertebrate bycatch estimates from other sources? If yes, how do these other estimates relate to or differ from the estimates in the National Bycatch Report? How have you used those estimates, and why have you chosen that source instead of the National Bycatch Report?
4. Do you have suggestions for improving how the National Bycatch Report can better depict fish and invertebrate bycatch trends or help set fishery monitoring priorities?
5. Do you have suggestions for improving the estimates of fish and invertebrate bycatch in the National Bycatch Report?
6. What is the most useful way to disseminate bycatch information (e.g., paper report, website, data query tool, etc.)?

On behalf of the North Pacific Fishery Management Council, I am providing answers to these questions in the order they were posed.

1. Use of the bycatch estimates

The North Pacific Council does not use the report, or estimates contained in the report, for analysis, policy, management decision-making. Many of the comments we made in May 2011 (see **attached** letter), have not been addressed. At that time, we noted that the report contains inaccurate information, or information wholly out of context, and provides misleading conclusions about a very high visibility and contentious issue.

The Bycatch Report, while very interesting relative to understanding the array of species caught, is not used by the Council for decision-making because the information is out of date (latest data is 2013) and we have relatively easy access to more recent data; the report has a number of data issues (e.g. GOA deepwater flatfish trawl bycatch is only grenadiers); it does not categorize many target fisheries in a way

that would be useful for management purposes (e.g. GOA sablefish trawl); and fails to include critical information needed for management action (e.g., retention data are not reported).

We use bycatch estimates generated by the NMFS Alaska region and the PSMC/Alaska Fisheries Information Network. Although the procedures for estimating bycatch may be the same as used in the Bycatch Report, the data provided by using the local database allows the analysis: 1) to be focused on the specific fisheries being evaluated, 2) use current up-to-date data, 3) utilize only the essential elements of the data, 4) include critically important information on the retained catch, and 5) report the number of observations or trips from which the bycatch was estimated to understand uncertainty in the estimates.

2. Use of other sections

As noted in our 2011 comment letter, the other sections provide misleading information (except for the section on sea turtle bycatch in Alaska, for which the report accurately describes as none). Thus, these sections of the report are not used for analysis, policy, management decision-making.

3. Use of data from other sources

We use data from the NMFS Alaska Region's Catch Accounting System (CAS) to quantify total catch in the groundfish and halibut fisheries to allow the inseason monitoring and management of the groundfish fishery. The CAS uses information collected on ADF&G Fish Tickets and through the Observer Program to assess the amount of catch and bycatch occurring in the fishery and provides an integrated data source for fisheries monitoring and inseason decision making using near real-time data.

4. Suggestions to improve how trends are reported

I am not sure what is being requested relative to bycatch trends. The report and its updates provide tables for single years, without attempting to show changes in estimated bycatch over time in a single figure or table.

The North Pacific Council frequently evaluates changes in bycatch amounts and retention rates as part of ongoing FMP and regulatory amendment analyses. Trends are shown within specific analyses as an overall amount in a specified area (e.g., halibut bycatch mortality in the BSAI), by fishing sector in an area (overall retention rates in the BSAI by the Amendment 80 sector), by fishing sector in an area for a group of species (flatfish retention rates in the BSAI by the Amendment 80 sector), by fishing sector in an area for a single species (halibut bycatch mortality in the BSAI by the Freezer Longline sector), or even by the regulatory area (bycatch of blue king crab by the Amendment 80 sector fishing for flatfish in Bering Sea subareas 521 and 524).

5. Suggestions to improve estimates of bycatch

As we stated in our prior comments, it would be more informative to roll up some of the fisheries, because breaking the fisheries out into targets may not make sense in many instances. For example, all of the Gulf of Alaska flatfish targets (flathead sole, rex sole, arrowtooth flounder, shallow water flatfish, and deepwater flatfish) could be rolled up and presented as a single GOA flatfish trawl fishery, in the same way the GOA rockfish trawl fishery is a rollup of data from several different target rockfish complexes. We would suggest that the data from the sablefish trawl fishery could be combined with the rockfish trawl fishery because most trawl caught sablefish occurs in the rockfish trawl fisheries. We also strongly recommend the following:

- Include retention information. Without information on how much catch is retained, data on the amount of discards is not very valuable for fisheries management decision-making. Reducing discard rates is a better management objective than simply reducing the overall amount of discards.
- Break out important marketable fish from unmarketable fish, invertebrates and ecosystem component species. To understand the issue of bycatch, fishery managers and the public need to understand the causes of discarding (bycatch). In the vast majority of cases, fish and invertebrates are discarded because they are unmarketable. For example, jellies accounted for nearly half of the bycatch in the pollock fishery (11 million lbs in 2013) according to the report, but jellies are not commercially marketable from this fishery.
- Of the marketable species that are discarded, it is also important to break out the data into economic and regulatory discards. Some fish are discarded because they generate no marginal profit (fish that are too small, limits on hold or processing capacity) or because they are required to be discarded due to regulation (amount of fish exceeding the maximum retainable allowance, on prohibited status, not fit for human consumption, or a prohibited species like halibut or crab).
- Lastly, it would be better to report estimated bycatch amounts using significant digits. At a minimum, I would suggest rounding the reported bycatch estimates to the nearest pound. I can't imagine a commercial fishery where the sampling is so precise that bycatch can be known to the hundredths of a pound (.016 oz, or ~4 grams) with any certainty.

6. Useful ways to disseminate bycatch information

The best way to disseminate the information will likely depend on your target audience, and the intended use of the information.

In sum, the North Pacific Council does not use the Bycatch Report, or estimates contained in the report, for analysis or policy and management decision-making. The report continues to contain inaccurate information, or information wholly out of context, and provides misleading conclusions about a very high visibility and contentious issue.

Sincerely,



David Witherell
Executive Director

Enclosure (1)

cc: Ned Cyr

North Pacific Fishery Management Council

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May 24, 2011

Mr. Eric Schwaab, Assistant Administrator
NOAA Fisheries
1315 East-West Highway
Silver Spring, MD 20910

Dear Mr. Schwaab:

Thank you for the opportunity to review select sections of the draft NOAA Fisheries National Bycatch Report. We appreciate that assembling information from the different regions into a standardized format is a huge undertaking, and we understand that NMFS is working to provide the public with the best available information about an issue of concern. We also understand that the agency wants to make this report available as soon as possible, hence your directions to the Council that "major changes to data and content cannot be made at this stage but minor edits or requests for clarification may be accommodated." However, given the high visibility this report will have, and the likely potential for it to be used or misused in the national debate over bycatch, we cannot support its release without significant revisions. **The report contains fundamental flaws in the data analysis, and serious omissions (as discussed below), which in turn lead to a series of misleading conclusions. Therefore, we cannot support its release at this time, and recommend that the agency hold back this report until these problems are fixed and the concerns we raise are addressed.**

Major Data Presentation Problems: There are several cases where the data as presented make no sense (many of which have to do with various GOA flatfish fisheries), suggesting there are serious flaws in the data organization and analysis. I will highlight a few of the most egregious examples:

- The data would indicate that the GOA sablefish trawl fishery is the cleanest trawl fishery in the U.S. by having the lowest bycatch rate (see executive summary Figure 4). The table shows that amazingly, the fishery caught 108,527 lbs with the only bycatch being 26 lbs of sculpins and 147 lbs of miscellaneous fish. In 2005, there was not a specific trawl fishery for sablefish – it was only caught incidentally in other fisheries. It would appear that the data presented for this 'fishery' are based on a couple of unobserved trips, due to the low catch amount and the absence of any bycatch of rockfish, halibut, or grenadiers. The data are thus very misleading, so the fishery should be removed or rolled up with other fisheries.
- The GOA deepwater flatfish fishery (mislabeled the GOA flatfish fishery in the Figure 4) is listed as the second lowest bycatch rates. The table shows that the fishery caught 1,059,172 lbs, (480 mt) of which only 7,488 lbs were discarded, consisting of deepwater flatfish, large sculpins, and seastars. Again, the data presented for this 'fishery' appears to represent a couple of unobserved trips, as the catch amounts were small, and there was not a single pound of halibut, rex sole, or flathead sole discarded. This fishery should be removed or rolled up with other fisheries.
- The report figure shows that the GOA flathead sole trawl fishery is ranked as the worst fishery in the nation for bycatch by having the highest bycatch rate (0.61). What the report fails to note is that this data as presented is due to the nature of the algorithm used to define a target in the mixed

flatfish trawl fishery, whereby the target is defined by the catch accounting system as the most abundant RETAINED species in the catch. So, what is defined as a flathead sole fishery actually catches mostly arrowtooth flounder, much of which were likely discarded due to its very limited edibility/marketability. Hence, while it appears that the flathead sole fishery has a high bycatch rate, it is simply a byproduct of the catch accounting system used for a different purpose – to track catch against TACs relative to fishery openings/closings.

To resolve the above mentioned data problems, we would suggest rolling up the data for the GOA flatfish targets (flathead sole, rex sole, arrowtooth flounder, shallow water flatfish, and deepwater flatfish) and presenting this information as a single GOA flatfish trawl fishery, in the same way the GOA rockfish trawl fishery is a rollup of data from several different target rockfish complexes. We would suggest that the data from the sablefish trawl fishery could be combined with the rockfish trawl fishery because most trawl caught sablefish occurs in the rockfish trawl fisheries.

Data from Tier 1: We would recommend removing fisheries estimated to be in Tier 1 from the bycatch estimation and calculations. As defined, data for Tier 1 fisheries are deemed UNRELIABLE. So why report the data throughout the report, and use it in the calculations of national discard ratio? This is a clear case of garbage in – garbage out. For example, the data in the report include the BSAI and GOA jig fisheries, but the data reported are clearly unreliable (vessels in the fleet didn't carry observers in 2005). According to the report, these jig fisheries have no bycatch of rockfish, pollock, halibut, or other fish except octopus. This is a function of what is landed by the vessels, not what is actually caught and discarded at sea.

Corals (Bryozoans) category: The incidental catch of deepsea corals in Alaska fisheries continues to get mis-represented by environmental advocacy groups, due to the fact that corals have been lumped together with bryozoans, hydroids, gersemia, and other invertebrates groups in the catch accounting system. Unless revised to reflect this fact, it should come as no surprise when some group has a news release stating "NMFS report finds Alaska bottom trawl fisheries destroy 119,259 pounds of corals!" Yet true corals may only represent 1/100th of this category. The category should be renamed, and the components listed in a footnote.

Data Expansion to State Fisheries: Expanding the bycatch ratio to unobserved fisheries provides additional sources of error, and as such should not be included in the report. The data for observed fisheries included in the bycatch report generated a bycatch ratio for each region. These ratios were then applied to all unobserved fisheries in each region then summed to generate total bycatch estimate for US fisheries. This expansion makes a very imprecise estimate of bycatch within each region even worse by introducing new assumptions. In the case of Alaska fisheries for example, the overall bycatch ratio of 0.07 from the fisheries data in the report (groundfish fisheries) is applied to all other fisheries in the region, including state fisheries such as the herring fisheries and salmon fisheries – fisheries with virtually zero bycatch. This is totally unsupportable and unnecessary.

We question even the inclusion of salmon in this report in the first place, as it is a fishery managed by the State of Alaska, and virtually all of the harvest occurs inside State waters. This inclusion presents an additional, and significant, misleading aspect to the report – by including these fisheries, one of the 'Fast Facts' for the Alaska Region (likely to be widely quoted) is that "observer programs are currently in place for 27 of the 77 fisheries". Practically speaking this is a seriously misleading 'fact', because in fact, even in 2005, observer programs were in place for virtually every federally managed fishery off Alaska. **The fact that we have the most comprehensive observer program in the U.S. is obscured by this misleading statement, which implies that only a third of our federally managed fisheries are observed.**

Key Stocks: The concept of key stocks needs to be reconsidered, and the fish species listed for Alaska region must be revised. The Councils were not provided Section 3 of the report to review, so we cannot provide comments on methodology and logic. However, the fish species chosen for key stocks seem to be inappropriate given the three listed criteria mentioned: high bycatch levels, special importance to management, and stock status concerns. Based on these criteria, it makes absolutely no sense to include demersal shelf rockfish as key stocks. The bycatch is extremely low (160 lbs in 2005 equating to a 0.0004 bycatch/catch ratio), these stocks have no species management concern (2005 catch of 187 mt from a TAC of 410 mt), and the stocks are neither overfished or undergoing overfishing. The same points could be made for red king crab and golden king crab as key stocks. We recommend that demersal shelf rockfish, red king crab, and golden king crab be deleted from the list of key stocks.

Bycatch definition: Without the rest of the report to review, we can only assume that the definition of bycatch used in the report was what was provided at the Council Chairs Committee meeting. "Bycatch: discarded catch of any living marine resource plus unobserved mortality due to a direct encounter with fishing gear. Discards: Living marine resources returned *unprocessed* to sea or elsewhere, including those release alive." As you are well aware, this is not the definition contained in the Magnuson Act, and thus raises a number of issues regarding what is included as bycatch in the report. For example, in Alaska, trawl catcher vessels deliver unsorted codends to motherships or shoreside processors. Most of the larger processors have plants that take the unmarketable fish and process them as fish meal (which is a component of chicken, fish, and livestock feed). So the fish are not returned to the sea and are clearly processed, even if not for human consumption. Hence, these fish are not discarded due to the report definition, and should not be included in the report tables. This should drop the estimates of discard to close to zero for many groundfish fisheries.

Causes of Discarding: The Alaska section only briefly mentions the reasons why fish are discarded. Most of the discards are economic discards. For example, table after table shows millions of pounds of arrowtooth flounder discarded. But the report fails to mention: 1) that this species has been generally unmarketable for human consumption, 2) that arrowtooth stocks comprise a very high proportion of the groundfish biomass, 3) that arrowtooth biomass is estimated to be at 3-times the B_{msy} level, and 4) that the arrowtooth stocks continue to increase in abundance. Without that information, an uninformed person may be aghast at the apparent lack of conservation of edible resources. Please add some context to help people understand this issue, rather than providing just data tables that are ripe for misuse and misperception.

Species included as bycatch: We recommend that commercially important fish bycatch be reported separately from the completely non-marketable invertebrate bycatch such as jellyfish, polychaetes, brittle stars, etc. The public has a very hard time distinguishing between bycatch, discard, and waste, and this report does not help in that regard.

Tables: To be useful, the tables need to show retention/landings of each species/stock in addition to discard amounts. Both parts of the equation need to be presented. Otherwise, the public gets misinformed about what is being discarded as bycatch and what is being retained for processing. We recommend revising the tables to include amounts of each species that are retained.

Executive Summary Alaska Section Edits:

- The 'Fast Facts' should be revised to say "species groups" instead of just species. There are substantially more than 91 species as listed. For example, the BSAI sculpin complex alone consists of 48 different sculpin species.

- The figure showing Alaska Region fish bycatch and landings by fishery needs revision as it includes a strange mix of fisheries that do not match the fisheries evaluated in section 4.3. What is the BSAI Flatfish Trawl Group fishery? Is it an aggregate of the various flatfish target fisheries, and if so, why would the fishery bycatch ratios be higher than all the component flatfish fisheries? Again, this is reflective of the major data problems and misaggregations contained in the report.
- Many of the 'Bycatch reduction success stories' reflect actions which have been taken since 2005. That should be clearly noted in the text tables.
- In the key fish and invertebrate stocks section, 'undertermined stock' and 'undetermined species' should be revised to say 'multiple stocks'. The species and stocks are clearly not undetermined.

In conclusion, the report contains inaccurate information, or information wholly out of context, and provides misleading conclusions about a very high visibility and contentious issue. The report requires substantial revision before it should be released to the public. We recommend that the Councils be given an additional opportunity to review the revised report in its entirety, rather than just the executive summary and regional sections.

We look forward to working with you to improve the bycatch report over time, and encourage the agency to publish more recent bycatch information. Also, should the agency release a revised report this year, the Council would be very interested in receiving a presentation on the report at an upcoming Council meeting.

Sincerely,



Chris Oliver
Executive Director

cc: Samantha Brooke
David Detlor
Ned Cyr
Bill Karp
Jim Balsiger
Regional Fishery Management Councils