

DRAFT TEXT - UNIFIED COUNCILS RESPONSE TO OCEANA REPORT "WASTED CATCH"

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Dear Gib:

The Regional Fishery Management Councils recently became aware of Oceana's *Wasted Catch* report ("the report" hereafter - [http://oceana.org/sites/default/files/reports/Bycatch\\_Report\\_FINAL.pdf](http://oceana.org/sites/default/files/reports/Bycatch_Report_FINAL.pdf)). Through actions such as time/area closures, gear modifications, bycatch caps, participation in take-reduction groups, and modifications to rules that result in regulatory bycatch, the Councils have been leaders in promoting (and requiring) bycatch reduction. At any given time there are often multiple efforts of some type at each Council tied to bycatch reduction, and non-governmental organizations (NGOs) play an essential role in the Council process as environmental advocates.

However, after comparing the report to core reference documents, the Councils are concerned that a variety of substantial errors, omissions, and organizational approaches in your *Wasted Catch* report may seriously miscommunicate bycatch information. Accordingly, we recommend that you retract the report until you have the time and/or resources to develop a better understanding of the data summarized in the report. Misinformation in reports like *Wasted Catch* undermine those productive relationships between industry, management, and NGOs that have been effective in reducing bycatch. If your goal is to accurately communicate information, and to avoid such glaring errors in the future, we strongly recommend that you subject this and similar future reports to peer review prior to publication (or at least request a collegial review from the sources you attempt to summarize).

To illustrate the kinds of issues we identified based on a quick review, some examples are provided below.

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## General

The report states that “*Bycatch is the capture of non-target fish and ocean wildlife, including what is brought to port and what is discarded at sea, dead or dying*” (p6). It would be more helpful and less confusing to have aligned your definition with the Magnuson Stevens Act, which would be all discarded fish, regardless of condition (dead or surviving discarding).

The statement that Fishery Management Plans (FMPs) are documents prepared by the National Marine Fisheries Service with advice from regional Councils (p8) is incorrect. Almost all FMPs are actually prepared by Councils with advice from NMFS and the public, and approved/implemented by NMFS. Stating that FMPs are prepared by NMFS discounts the public process that goes into an FMP, including input from stakeholders such as Oceana and highlights a lack of familiarity with the Council process. The Council process is critical to facilitate stakeholder input and this failure to accurately portray the Councils’ involvement suggests a fundamental lack of understanding about basic U.S. fishery management processes.

The report states that “Bycatch exceeds mortality limits established by law for 20 percent of the marine mammal populations in the U.S.” (p13). Bycatch and mortality of marine mammals are two different things, and this is a mismatched comparison. The correct concept is actually potential biological removal (PBR), defined under the Marine Mammal Protection Act as “the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.” Calling PBR a “mortality limit” is incorrect and misleading. The report also conflates catch and mortality when discussing turtles, even counting turtles that escape through turtle excluder devices as mortalities (see discussion in Mid-Atlantic section below). Also, as highlighted with ocean sunfish below in the Pacific Section, citing data from the National Bycatch Report without the additional information that can be found in Council/NMFS documents like Stock Assessment and Fishery Evaluation (SAFE) reports and other environmental analyses does not provide the complete picture of bycatch information (e.g. assuming all bycatch dies).

The report also states that conservation of habitat for juvenile fish would minimize bycatch (p32). This assumes that protecting habitat affects the number of discards. While this may be true, the reader is left to guess at how conserving habitat would minimize bycatch and its level of effectiveness. When such statements are made, convincing supporting evidence/references should be provided.

The mixing of international and U.S. data could create confusion given the subtitle of the report as some countries efforts towards reducing bycatch, such as the US, cannot be compared to other nation’s fisheries.

Time series data would be much more informative than even an accurate snapshot. While section titles in the report suggest some “Notable Progress,” the lack of time series information means that readers cannot interpret the snapshot data provided in terms of whether or not (or to what extent) progress has been made in reducing bycatch.

## Mid-Atlantic

The report said the Mid-Atlantic Bottom Trawl Fishery consisted of vessels catching "summer flounder, scup and black sea bass as well as dogfish and skates." (p34) Depending on the kind of bycatch numbers the report referenced (fish, turtles, or marine mammals), this broad gear type actually represents many other fisheries or parts of fisheries including but not limited to scallops, croaker, squids, mackerel, bluefish, and monkfish. This issue leads to readers being very misinformed about what fishery is responsible for what bycatch (and to what degree), and also means that the listed "Yearly Numbers" of vessels and fishery values do not at all match the fleets from which the report describes bycatch numbers.

A reader would conclude that 95 vessels primarily targeting summer flounder, scup, and black sea bass (as well as dogfish and skates) cause 350 turtle deaths (there is no page number to reference but it is the page on "Mid-Atlantic Bottom Trawl Fishery"). However, even a casual reading of the primary literature leads to a different conclusion. The National Bycatch Report Update does state the average turtle interaction rate for Mid-Atlantic bottom trawl (fish and scallop) fisheries to be 353 (2005-2008 based on Warden 2011 - page 22 of [http://www.st.nmfs.noaa.gov/Assets/Observer-Program/bycatch-report/NBR\\_FirstEditionUpdate1.pdf](http://www.st.nmfs.noaa.gov/Assets/Observer-Program/bycatch-report/NBR_FirstEditionUpdate1.pdf)). However, only 110 of those are in the summer flounder, scup, and black sea bass fisheries (scallops and croaker account for most of the rest), and that 110 is composed of 60 turtles estimated caught and 50 turtles that were estimated to have interacted/escaped with turtle excluder devices (Warden 2011 - <http://nefsc.noaa.gov/publications/crd/crd1104/crd1104.pdf>). In addition, in the 2012 summer flounder, scup, and black sea bass specifications environmental assessment, it notes that for 2008-2010 there were 12 actual (versus extrapolated) observed sea turtle takes (all loggerhead) and that 10 of those were released alive (83%) and 2 (17%) were dead (<http://www.nero.noaa.gov/nero/regs/frdoc/11/11SFBSB2012SpecsEA.pdf>). Thus a more accurate (but less sensationalistic) description of the fishery would have been that turtle excluder devices appear to be reducing turtle catches in this fishery by about 45%, and of the remaining 60 turtles estimated to be caught by the fishery, most are likely released alive (83% on observed trips).

Similar fishery mischaracterizations appear to have occurred with both the marine mammal and fish bycatch parts of the "Mid-Atlantic Bottom Trawl Fishery" section, in both cases leaving readers seriously misinformed compared to the actual information in the cited reference documents.

## Pacific

The report advises to replace gillnets with cleaner gears such as harpoons. Unlike documents developed by Councils that analyze biological and socio-economic impacts, the report does not reveal that harpoon gear is comparatively inefficient, and the method is considered artisanal rather than commercially viable. In other words, a harpoon fleet could not sustain the fishing community.

Unfortunately, the National Bycatch Report Update, which is extensively used in the report, lacks sufficient detail and this distorts the summaries in the report. For example, the national report uses observed individuals expanded for sampling rate, while the SAFE document for the California drift gillnet fishery also notes that 98% of the ocean sunfish (molasses) are returned alive and undamaged. The ocean sunfish catch represents 91% of the total bycatch in the California drift gillnet fishery (in individuals;

mola are large fish and probably represent an approximately similar proportion of fish bycatch by weight). The National Bycatch Report does not provide that level of detail, and the report made little effort to incorporate readily available and more detailed information on many of the fisheries and species described.

The report states that in 2010, an estimated 49 dolphins and 16 endangered sperm whales were seriously injured and killed in this (California drift net - p31) fishery and that these numbers could be underestimates because observers cover less than 20 percent of the total fishing effort and almost half the boats are never observed at all. As mentioned above, the estimates from the National Bycatch Report are expanded for sample rate, and therefore may be underestimates or overestimates. Secondly, based on the unexpanded SAFE data, one sperm whale was killed and one was released alive; none were classified as unknown or damaged. The report appears to have expanded both sperm whale encounters by the sampling rate to arrive at 16, but to classify them all as dead or seriously injured is erroneous. Further, while the report cited the SAFE document as its source for sampling rate, it overlooked the more detailed data in the SAFE document that could have more accurately characterized the fishery.

### Western Pacific

The report omits U.S. purse seine fisheries operating primarily in the Western and Central Pacific, which make a considerable number of sets on fish aggregating devices (FADs). FAD sets are known to have significant bycatch of juvenile bigeye tuna, and a range of other non-target pelagic species, most of which are all discarded. Some of the discarded species are valuable food fishes caught in Pacific Islands troll fisheries. The issue of purse seine bycatch and its impact on the food security of the Pacific Islands has been raised as a research topic at the Western and Central Pacific Fisheries Commission (WCPFC) Science Committee.

The tacit assumption that bycatch leads to depletion of stocks is naïve and uninformed, and should not be applied uniformly to all species in a stock complex. For example, some bycatch species in the Hawaii longline fishery are showing marked increases in abundance (e.g., lancetfish, sickle pomfret, escolar and snake mackerel). Such changes may result from the complex interaction of fisheries across different trophic levels and climate variability impacts on the sub-tropical ocean ecosystem.

The report identifies longline fisheries as one of the three “harmful” gear types. However, longline fisheries, with sufficient gear modification and monitoring can be a ‘clean’ gear, as demonstrated by the Hawaii longline fishery. The Hawaii longline fishery has shown how seabird and sea turtle interactions can be reduced by over 90% with relatively simple gear and fishing technology modifications. Green sea turtle interactions have also been significantly reduced in the American Samoa longline fishery simply by positioning all hooks to fish at depths greater than 100 m. Furthermore, not all longline fisheries pose a threat to sharks. The American Samoa longline fishery has a small shark bycatch of less than 5%, while the shark bycatch in the Hawaii longline fishery has been reduced by approximately 50% and approximately 98% of sharks are released alive.

The Hawaii fishery is now recognized globally as the benchmark for environmentally responsible pelagic longline fisheries. Its turtle and seabird technologies have been adopted by two Pacific tuna regional

fishery management organizations (WCPFC & Inter-American Tropical Tuna Commission). Further, WCPFC has adopted the swordfish sea turtle interaction rate from the Hawaiian fishery as the minimum standard against which other shallow set long fisheries are evaluated.

The comments in the report regarding the increased loggerhead take limit in the Hawaii longline swordfish fishery are completely erroneous. The report argues that turtle take limits were increased despite “compelling evidence of continued decline”, and NMFS should act according to the best and most recent scientific evidence. In reality, the North Pacific loggerhead nesting population has shown a dramatic sustained recovery of the population since the late 1990s with over 14,000 nests laid annually in Japan in recent years. Furthermore, the increased take limits have been evaluated using a new climate-forcing model, which concluded that the interactions are unlikely to have significant impacts on the long-term population trend. Such conclusion should not come as a surprise given that the fishery has only had on average less than eight loggerhead interactions per year since 2004 (with 100% observer coverage), all of which released alive and most of them being juveniles. NMFS acted on the best available science when it increased the number of sea turtles allowed to be taken by the Hawaii swordfish fishery, as opposed to the outdated references cited by the authors of the report.

### New England

The summary of discards for the Northeast bottom trawl fishery (page 32) and the New England and Mid-Atlantic gillnet fishery (page 36) contains a number of statements that are misleading to the reader. The placement of halibut as the first target species for the bottom trawl fishery is a misrepresentation as current regulations allow vessels to only land one halibut per trip.

The reference provided for bottom trawl observer coverage level of 22% is incorrect; it can only be assumed that the authors meant to reference the “Summary of Analyses conducted to determine At-Sea Monitoring Requirements for Multispecies Sectors FY2013” ([http://www.nero.noaa.gov/ro/fso/reports/Sectors/ASM/FY2013\\_Multispecies\\_Sector\\_ASM\\_Requirements\\_Summary.pdf](http://www.nero.noaa.gov/ro/fso/reports/Sectors/ASM/FY2013_Multispecies_Sector_ASM_Requirements_Summary.pdf)), which refers to an at-sea monitoring coverage of 22% providing reliable estimation of catch based on a coefficient of variation precision standard of 30%. If this is indeed the appropriate source, it is important to note that this report refers only to the New England multispecies fisheries and not the Northeast bottom trawl fishery as implied in the report.

The report references the U.S. National Bycatch Report and provides an estimate of 350 sea turtle mortalities in the New England and Mid-Atlantic gillnet fisheries. This is a misrepresentation of the data as it implies 100% of the turtles are killed; the legend for the referenced table indicates that the bycatch estimate includes both mortalities and individuals released alive and does not distinguish between the two.

In the "Problems" sidebar in the northeast bottom trawl fishery (p32), too many sea turtle mortalities are said to occur. According to the Endangered Species Act Section 7 Consultation for 2013, there was one interaction with a sea turtle within the Gulf of Maine/Georges Bank region for trawl gear (zero for gillnet) in the provided analyses. As noted in the Consultation, interactions with sea turtles in this region are

unlikely because sea temperatures are colder than those preferred by sea turtles. It is unclear why this is included as one of the problems for the northeast bottom trawl fishery.

The report states that shrinking quotas encourage discarding (p32); the logic used to construct this statement is not intuitive and should be further explained. If available quotas, and subsequently fishing opportunities, are reduced it is unclear how this could increase bycatch. In a recent management action (Framework 48 to the Multispecies Fishery Management Plan), the minimum fish size of a number of groundfish species was reduced in order to reduce regulatory discards; this was done at a time of decreasing groundfish quotas. In addition, the alternative (not reducing quotas when science suggests we should) would seem untenable.

The report states that the discarding of millions of skates in the bottom trawl fishery will likely cause a change to the population and the ecosystem, however, no supporting reference is provided. Recent research, incorporated into management by NEFMC (Framework 2 to the Northeast Skate Complex), indicated that discard mortality rates for 3 of the 7 skate species in the Northeast Skate Complex was lower than the assumed 50% for trawl gear; smooth skate increased to 60%. Winter and little skates are the most abundant skate species in the Northeast region. Discard mortality rate estimates for winter and little skates were determined to be 9% and 22% respectively (Mandelman et al. 2013).

### Gulf of Mexico

Estimates that shrimp bycatch is 10 pounds for every pound caught (page 23 and page 24) neglect to include the efforts to reduce bycatch since the 1990's (when this ratio was estimated). Since the implementation of many management measures, bycatch estimates have been reduced to somewhere between 4:1 and 6.5:1, and, just as importantly, reduction efforts are still ongoing ([http://www.st.nmfs.noaa.gov/Assets/Observer-Program/bycatch-report/Table\\_4.1.pdf](http://www.st.nmfs.noaa.gov/Assets/Observer-Program/bycatch-report/Table_4.1.pdf); Oceana, 2014 page 24).

Turtle Excluder Devices (TEDs) are required in all shrimp otter trawls in the Gulf of Mexico (with the exception for royal red shrimp trawls in depths exceeding 100 meters). The statement "fisherman who are required to use Turtle Excluder Devices frequently install them incorrectly or intentionally tie them shut, leading the government to underestimate the number of sea turtles killed each year" (p30) lacks a citation and misleads the reader. The only report cited regarding compliance is an Oceana-produced report (Oceana, 2011, with a dead link provided). In direct contradiction, NMFS found that 75% of inspected vessels were fully compliant with TEDs and that those that were non-compliant were because of the angle of the TED. None of the vessels had its TED sewn shut ([http://sero.nmfs.noaa.gov/protected\\_resources/sea\\_turtles/documents/shrimp\\_biological\\_opinion\\_2014.pdf](http://sero.nmfs.noaa.gov/protected_resources/sea_turtles/documents/shrimp_biological_opinion_2014.pdf)). The NMFS 2014 biological opinion also concluded that the continued implementation of the sea turtle conservation regulations applicable to shrimp trawling was not likely to jeopardize the continued existence of listed sea turtles, sturgeon, or sawfish.

Using the NMFS bycatch report, there were an estimated 6,199 turtle mortalities in 2010, an order of magnitude (10 times) lower than described in the report, which also fails to include the latest permit numbers, which have declined in recent years. In the Gulf of Mexico, federally permitted shrimp vessels

are fewer than 1,500 and approximately one third of the fleet have electronic logbook monitors so that effort can be more accurately estimated.

On page 19, there is no delineation that the bycatch estimates of dusky sharks is based on bycatch values spanning 4 years from the NMFS bycatch report.

The statement that the southeast snapper-grouper longline fishery “likely” causes “significant mortalities” to sea turtles (p28) is false; sea turtles were not listed as heavily affected by the southeast snapper-grouper bottom longline fishery.

The report also fails to recognize that the NMFS southeast region has been conducting an independent statistical review of the Gulf of Mexico Reef Fish Observer program and has increased at sea observer coverage. The claim of a 66% discard rate in the bottom longline fishery is not validated by the NMFS 2014 national bycatch report, which does not present a bycatch ratio or percentage; these values could not be estimated because landings are reported as pounds, and bycatch are reported as individuals.

### Conclusion

As monitoring and technology improves, almost every fishery will have opportunities to examine and/or reduce bycatch in the future. The Councils in no way suggest otherwise, and look forward to working with fishery participants and interested parties to reduce bycatch. However, misinformation will only distract from actual conservation needs and efforts. While we acknowledge that there are no laws requiring Oceana reports to accurately represent the best available scientific information or to undergo peer review, to do so would be in the best interest of all involved parties. This is why we suggest that you retract the report until it is reviewed and improved.