Performance Criteria for Alternative Gear Research

In March 2014, the Pacific Fishery Management Council "took several actions toward a goal of developing a comprehensive plan to transition the current drift gillnet fishery to a fishery utilizing a suite of more environmentally and economically sustainable gear types that can effectively target the healthy West Coast swordfish stock operating under MSA authority." In addition to maintaining current regulations on the drift gillnet fishery during the transition period, the council tasked the Highly Migratory Species Management Team with developing research protocols for conducting and evaluating research into the use of alternative fishing gears and methods.

Among the alternatives under consideration are deep-set buoy-gear and longlines. *Wild Oceans* has strongly promoted experiments with buoy-gear off the California coast, because this gear has proven environmentally and economically sustainable in other regions. As for pelagic longlines, our position - dating back to when the council banned longlining in 2004 and re-stated before the Council numerous times, most recently in March - has been to prohibit the gear within the west coast EEZ by indefinite moratorium, *with the potential for re-evaluation after completion of a bona fide bycatch minimization research program with pre-established protocols*. Because of the history of high bycatch, waste and regulatory costs associated with conventional longlining, we believe such an approach is absolutely necessary to maximize protection for numerous species of fish and other wildlife. That is, to avoid replacing one problem gear with another. The council's ban would be lifted or modified only if research demonstrates alternative gears, configurations or fishing methods result in minimal impact on non-target, protected and vulnerable species.

A research plan designed to determine the feasibility of targeting swordfish using buoy gear, harpoons, deep-set longlines or other modifications/alternatives to shallow-set or surface longlines, should feature criteria for judging the performance of the gears in minimizing bycatch. Without such criteria, agreed upon in advance, assessing the results and making management decisions based on those results will be open to interpretation and likely lead to conflict among stakeholders with varying interests and priorities. In order for the public to have confidence in management decisions based on the research, the precise aims and objectives against which those results will be assessed must be developed through a transparent process and then clearly spelled out.

For this reason, these criteria need to go beyond the economic viability of catching swordfish and the avoidance of endangered species (i.e., reduced numbers of turtle-

takes as compared with drift nets). Fishing that typically results in the incidental capture of a wide range of species, such as pelagic longlining, causes multiple management problems, among them the difficulty of regulating the catch of incidentally-caught fish – whether through quotas, size limits or prohibitions – without simply creating dead discards.[1] That's why the most effective means of avoiding bycatch or minimizing dead discards by pelagic longlines has been time-area closures.

<u>If the council is to obtain a full and lasting benefit from alternative gear research, it should test a number of options while considering impacts on a broad range of vulnerable species</u>. The research plan or protocol should:

- *Foster Transparency and Stakeholder Involvement*. Establish an *ad hoc* panel of stakeholders, from the commercial, recreational and environmental sectors (not the HMS ASP), to obtain public investment in the research ahead of time and to review the results against the agreed-upon performance criteria afterward.

- *Prioritize Bycatch Minimization*. Describe how the proposed gear changes being tested (e.g., deep-set instead of shallow-set longlining, currently being studied by NMFS, and buoy-gear, by PIER) are anticipated to avoid bycatch and/or bycatch mortality of vulnerable fish species, such as billfish and sharks, as well as endangered turtles and marine mammals.

- *Test Ability of Gear to Target Select Species.* What is the ratio of target to non-target catch? Can the proposed gear/gear changes avoid non-target, marketable species (mako shark, opah) that may be subject to future management? If the non-target species are subject to future fishing regulation through quota, size limits, or prohibition, can the gear minimize catch without creating dead discards?

- *Test a Range of Alternatives*. Include testing of added alternatives concurrent with ongoing experiments; for instance, shorter sets and soak-times and how they might enhance survival of incidentally-caught fish and undersize target fish.[2] If the research is too narrowly constructed, NMFS and the council will miss an opportunity to test and compare alternative solutions.

- *Test Feasibility of Expanding the Swordfish Harpoon Fishery.* Review new research and include testing of new technology available to improve swordfish catch using harpoon, including, but not limited to use of drone technology to

[1] Over 130,000 square miles of fishing grounds off the Florida, Georgia and South Carolina coasts were closed to pelagic longlining in 2001, not to reduce sea turtle bycatch but to minimize longline bycatch of juvenile swordfish, marlin and sailfish, dolphin-fish and oceanic sharks, each the object of federal conservation measures.

[2] The original West Coast HMS FMP (2004) stated that NMFS considered reducing the soak time in the longline fisheries (as an alternative to prohibiting the gear), however, more research was needed.

replace spotter planes.

- *Consider Trade-Offs*. Describe the process for addressing trade-offs among alternatives. For example, if deep-set longlining decreases bycatch of some species, relative to surface longlining, but increases bycatch of others, how will these trade-offs be weighed?[3]

- *Weigh Costs and Benefits*. If the economic feasibility of alternative gears is to be considered relevant to assessing research results, so should the management and regulatory costs associated with the gears. For instance, if catching a variety of marketable species because of the non-selective nature of a gear-type is considered a positive, then the difficulty and cost of managing the fishery to avoid, regulate and/or conserve a variety of species, marketable as well as non-marketable, should be considered a negative. The flipside would be "small-scale," narrowly-targeted fisheries such as buoy-gear and harpoons that carry comparatively minimal regulatory costs.

As we told the Council in March, bycatch minimization research should not be limited to looking for a short-term solution to problems in the drift net fishery, but instead it should explore the full complement of alternatives for creating a sustainable swordfish fishery, with minimal bycatch of all fully-exploited, over-exploited, depleted or protected species, for the long-term.

As fishermen, we believe that "best fishing practices" for offshore fisheries can support smaller-scale, high-yield, locally-supplied fisheries, commercial as well as recreational, using the latest technological developments in sustainable fishing. It is part of a progressive shift away from so-called modern, "efficient" methods of fishing that have proven wasteful and ultimately unmanageable.

*This briefing paper was prepared by **Wild Oceans**, an independent non-profit group of anglers dedicated to protecting the ocean's top predators – the billfish, tunas, swordfish, and sharks – while preserving healthy ocean food webs and critical habitats essential to the survival of all fish, marine mammals, sea turtles and seabirds.*

For more information visit WildOceans.org or call (541) 490-2411.

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[3] Use of circle hooks, required in Atlantic longline fisheries since 2005, reduced bycatch of sea turtles and incidental mortality of marlins, but bycatch of pelagic sharks, sailfish and bluefin tuna has actually increased.