FINDING OF NO SIGNIFICANT IMPACT
For Testing of Experimental Deep-Set Buoy Gear to Capture Swordfish (*Xiphias gladius*)
off the West Coast of United States
April 5, 2018

Background:
The Environmental Assessment (EA) for testing of experimental deep-set buoy gear to capture swordfish off the West Coast of the United States analyzed the impacts of two alternatives.

1. Alternative 1 (Preferred Alternative): Approval of the testing of a combination of deep-set fishing gear techniques (deep-set linked buoy gear (DSLBG) and deep-set buoy gear (DSBG)) via appropriate permitting, such as exempted fishing permits (EFPs), and/or financial assistance awards. The fishing activities under this alternative are further subject to conservative terms and conditions and are not exempt from existing or future catch limits, harvest guidelines, and compliance with other management measures and authorities for conserving marine resources.
2. Alternative 2 (No Action): The National Marine Fisheries Service (NMFS) would not approve, via appropriate permitting or award of financial assistance programs, the testing of any DSBG or DSLBG gear configurations.

At this time, the proposed action discussed in this FONSI is the approval of a combination of deep-set fishing gear techniques via appropriate permitting or financial assistance awards, which was analyzed under Alternative 1 in the EA.

Conservation and Mitigation Measures to Reduce Impacts to Protected Species:

The following terms and conditions, applicable to protected species interactions mitigation, would apply to EFPs funded or issued under the proposed action:

1. For EFPs authorizing use of DSBG and DSLBG each vessel must have 100 percent observer coverage for its first 10 fishing sets, and then a minimum of 30 percent observer coverage for the remainder of fishing activities under the EFP.
2. All EFP fishing trips by the permitted vessel(s) must be conducted in accordance with the permit and associated terms and conditions, and are limited to federal waters only.
3. The EFP holder is responsible for ensuring placement of NMFS-trained observers on board participating vessels.
4. Requirements for observers found at 50 CFR 660.719 apply to fishing under the EFP.
5. Fishing with DSBG is limited to daytime. All vessels must initiate haul-back procedures prior to sunset, and all gear must be aboard the vessel no later than three hours after local sunset. DSBG may not be modified in any way to fish shallow at night.
6. A single piece of DSBG may contain no more than three hooks.
7. A full complement of 10 pieces of DSBG may contain a maximum of 30 hooks.
8. All hooks must be deployed below 90 meters depth to target swordfish and other highly migratory species (HMS). Each piece of gear will use 16/0 or 18/0 circle hooks with squid, mackerel-type bait, or artificial baits.
9. DSBG must use a minimum of a 3.6 kilogram lead weights to minimize slack in the line and maintain the gear in a vertical orientation. Strike indicator floats will be used to detect 'hook-up'

and allow for the immediate gear servicing upon a 'strike'. A 'strike' is when a fish or other animal has taken the baited hook, and a 'hook-up' is when the fish or animal is attached to the line via the hook.

10. DSBG must be deployed as quickly as practicable and the vessel must be proximal to the gear at all times (<3 nautical miles (nm)) to meet "active tending" requirements for the purpose of minimizing impacts to any non-target species.
11. The operator of the fishing vessel operating under an EFP must actively tend all gear at all times, and must maintain the gear within sight (<3 nm from any one piece of gear) of the fishing vessel.
12. All vessel operators shall attend a safe handling and release workshop conducted by the NMFS West Coast Region (WCR) Protected Resources Division (PRD) prior to beginning fishing under the EFP.
13. For entanglement or hooking of any species listed as endangered or threatened under the Endangered Species Act (ESA), the EFP permit holder will report the species and its release condition to the NMFS point of contact via email or phone within 24 hours of the interaction.
14. If a single ESA-listed species is taken while fishing under an EFP, then fishing will cease by all vessels operating under that EFP until granted authorization to resume fishing from NMFS WCR. Authorization to resume fishing will not be granted before NMFS completes an ESA Section 7 consultation on continued operation of the EFP. NMFS will notify all DSBG EFP holders as immediately as practicable by phone, text, or email that a take has occurred and that the ESA consultation has been re-opened.

Related Consultations:

In a memorandum dated March 15, 2018, NMFS WCR PRD concurred with the determination under Section 7 of the ESA that the proposed action will not likely adversely affect ESA-listed species nor destroy or adversely modify critical habitat in the action area.

Significance Criteria Review:

The Council on Environmental Quality (CEQ) regulations state that the determination of significance using an analysis of effects requires examination of both context and intensity, and lists ten criteria for intensity (40 CFR 1508.27). In addition, the Companion Manual for National Oceanic and Atmospheric Administration Administrative Order 216-6A provides sixteen criteria, the same ten as the CEQ Regulations and six additional criteria, for determining whether the impacts of a proposed action are significant. Each criterion is discussed below with respect to the proposed action and considered individually as well as in combination with the others.

1. Can the proposed action reasonably be expected to cause both beneficial and adverse impacts that overall may result in a significant effect; even if the effect will be beneficial?

The proposed action is not expected to result in any significant adverse impacts based on gear trials to date and inclusion of several mitigation conservation measures developed to specifically reduce non-target species interactions. Further, the proposed action is intended to promote the development and testing of new gear technology that minimizes bycatch and efficiently harvests target species. The purpose of the proposed action is to test and gather data on the selectivity of DSBG to promote the development of sustainable HMS fishing opportunities for U.S. West Coast fishing communities: a potential beneficial action.

2. Can the proposed action reasonably be expected to significantly affect public health or safety?

No negative impacts to public health or safety are associated with these activities.

3. Can the proposed action reasonably be expected to result in significant impacts to unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

The proposed action will occur in pelagic waters off the U.S. West Coast Exclusive Economic Zone from the California-Mexico border in the south to the Oregon-Washington border in the north, excluding state waters. The action will not take place within a historic or cultural areas, park lands, prime farmlands, wetlands, wild and scenic rivers

4. Are the proposed action's effects on the quality of the human environment likely to be highly controversial?

None of the proposed action's effects are likely to be controversial. Trials using this gear or similar gear have been conducted since 2011 and the impacts are known and not controversial.

5. Are the proposed action's effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The proposed action's effects are very unlikely to involve unique or unknown risks. Trials using this gear or similar gear have been conducted since 2011 and the impacts are known and do not involve unique or unknown risks.

6. Can the proposed action reasonably be expected to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

The proposed action will not establish a precedent for future actions with significant effects. Subsequent permit and financial assistance award applications made to the NMFS are considered individually on a case-by-case basis with consideration to overall cumulative impacts.

7. Is the proposed action related to other actions that when considered together will have individually insignificant but cumulatively significant impacts?

No. The proposed action will neither have any significant impacts nor cause cumulatively significant impacts when considered together with other projects. The proposed action is not expected to result in adverse effects to the physical or natural environment, and therefore, will not contribute to cumulatively significant impacts in concert with other actions.

8. Can the proposed action reasonably be expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?

No. The proposed action will not take place in any of these areas and is not expected to adversely affect any of the aforementioned areas. The proposed action will not cause loss or destruction of any scientific, cultural, or historic resources.

9. Can the proposed action reasonably be expected to have a significant impact on endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973?

The proposed action will occur in areas in which several ESA-listed species are expected to be present. However, in consultation with NMFS WCR PRD, it has been determined that the proposed activities are not likely to adversely affect these species. Due to the required conservation measures to decrease the likelihood of marine mammal and sea turtle interactions, the proposed action is not expected to result in interactions with marine mammals or sea turtles. In a memorandum dated March 15, 2018, NMFS WCR PRD concurred with the determination that the proposed action will not likely adversely affect these ESA-listed species in the action area.

The proposed action may occur in designated leatherback sea turtle Leatherback Critical Habitat waters. The critical habitat designation emphasizes that the preferred prey of leatherback sea turtles off the California coast is jellyfish, with other gelatinous prey, such as salps (a pelagic tunicate), considered of lesser importance (77 FR 4170, 26 January, 2012). During DSBG and DSLBG research and EFP trials to date, no interactions with jellyfish or other invertebrates have been observed and it is unlikely that these species would become hooked or entangled during DSBG or DSLBG EFP activities. Therefore, the proposed action is not likely to affect leatherback sea turtle critical habitat.

10. Can the proposed action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection?

No. The proposed action will require issuance of permits from NMFS and the California Department of Fish and Wildlife. If issued, the EFPs will include detailed terms and conditions applicable to the proposed activities. Each agency will monitor activities to ensure that no federal, state, or local laws will be violated.

11. Can the proposed action reasonably be expected to adversely affect stocks of marine mammals as defined in the Marine Mammal Protection Act?

The proposed action will occur in areas in which several marine mammal species are expected to be present. To date there have been two interactions between northern elephant seals and the proposed DSBG. Both were hooked in the mouth after taking the bait. Following strike detection, both elephant seals were retrieved alive and alert prior to release alongside the vessel. Within the proposed action area, fishing with the proposed DSBG is expected to have a negligible impact on the northern elephant seal population.

In consultation with NMFS WCR PRD, it has been determined that the proposed activities are not likely to adversely affect marine mammal species. Due to the required conservation measures to decrease the likelihood of marine mammal interactions, the proposed action is not expected to result in interactions with marine mammals. In a memorandum dated March

15, 2018, NMFS WCR PRD concurred with the determination that the proposed action will not likely adversely affect these marine mammal species in the action area.

12. Can the proposed action reasonably be expected to adversely affect managed fish species?

Swordfish catch is the primary target of the proposed action. Based on the gear trials to date, it is not expected that the action would result in a significant increase in the annual swordfish catch rate. The harvest rate would not exceed harvest maximum sustainable yield (MSY), and the maximum catch would be a very small percentage of MSY for the stock. The target swordfish stock is not subject to overfishing, and this action would not result in the stock becoming overfished. There would be no significant adverse effects to swordfish, and significant adverse effects to other HMS are not expected based on the catch composition results of research and EFP trials since 2011. The Western and Central North Pacific stock of swordfish is neither overfished nor is it subject to overfishing.

13. Can the proposed action reasonably be expected to adversely affect essential fish habitat as defined under the Magnuson-Stevens Fishery Conservation and Management Act?

The proposed action is not expected to cause damage to ocean and coastal habitats and/or essential fish habitat (EFH). The proposed action will be prosecuted in pelagic habitats and is not associated with adverse impacts to benthic ocean and coastal habitats. Thus, the proposed action will not adversely affect any (essential fish habitat).

14. Can the proposed action reasonably be expected to adversely affect vulnerable marine or coastal ecosystems, including but not limited to, deep coral ecosystems?

The proposed action is not expected to adversely affect vulnerable marine or coastal ecosystems, including but not limited to, deep coral ecosystems as the proposed action is not occurring in these areas.

15. Can the proposed action reasonably be expected to adversely affect biodiversity or ecosystem functioning (e.g., benthic productivity, predator-prey relationships, etc.)?

The proposed action would not adversely affect biodiversity or ecosystem functioning, benthic productivity, or predator-prey relationships. The catch composition results of research and EFP trials since 2011 has demonstrated that the gear is highly selective for swordfish.

16. Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

The proposed action would not result in the introduction or spread of a nonindigenous species. Bait may consist of dead and frozen finfish (e.g., mackerel), squid, or artificial lures.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared for Testing of Experimental Deep-set Buoy Gear to Capture Swordfish (*Xiphias gladius*) off the West Coast of United States, it is hereby determined that the issuance of permits or awards of financial assistance will not significantly impact the quality of the human environment as described above and in the supporting Environmental Assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an environmental impact statement for this action is not necessary.

Barry A. Thom
Regional Administrator

Date 4/5/2018