

**Finding of No Significant Impact for
Research on Elasmobranch Bycatch Reduction in Domestic and International
Fisheries, Pacific Islands Fisheries Science Center, Bycatch Reduction
Program, Honolulu, Hawaii**

National Marine Fisheries Service

National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 C.F.R. 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant in making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to jeopardize the sustainability of any target species that may be affected by the action?

Response: No. The proposed activities are not expected to result in any significant effects to the elasmobranch species that are the focus of the research. Specifically, the proposed research involves small-scale, short-term experiments with bait in open waters and with captive animals. Catch rates are low relative to the (robust) population sizes of the species. To ensure survival of hooked sharks, soak times in the field trials will be short, and measures will be taken to prevent deep hooking of sharks and to dehook animals prior to release. The goal of the proposed research activities is to generate new data and information on strategies that have the potential to reduce the incidental capture of sharks in fisheries, thereby maintaining healthy population sizes of shark species worldwide.

2) Can the proposed action reasonably be expected to jeopardize the sustainability of any non-target species?

Response: No. Catch rates of non-elasmobranch fish species will be low and, given short soak times, post-hooking mortality after release also can be expected to be low. No significant effects on protected species are anticipated (see Question 5, below). No ecosystem-level effects due to this research are anticipated given that the project affects a small sample size of individuals in a localized region and/or in captivity, therefore minimizing potential effects on a greater geographic scale.

3) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans (FMPs)?

Response: No. As noted, the proposed research involves small-scale, short-term experiments with bait in open waters and with captive animals, neither of which has substantial damaging effects on ocean or coastal habitats or essential fish habitat.

4) Can the proposed action be reasonably expected to have a substantial adverse impact on public health or safety?

Response: No. The proposed actions are not expected to have any impacts on public health or safety. This is largely due to the fact that the field trials will be conducted in the open ocean and therefore there will be a dissolution effect that would render any chemical or metal effects insignificant. With regards to work proposed with captive animals, all would be conducted in a controlled, non-public facility setting and therefore there are no public health concerns.

5) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?

Response: No. The proposed research activities are not expected to adversely affect endangered or threatened species or critical habitat, as defined under the Endangered Species Act of 1973. Research will be performed on species that have robust population sizes, and the impacts are very specific to individual animals and not likely to significantly affect species that are incidentally exposed to any of the modifications to the environment as posed by the research.

6) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: No. As noted above, the research has minor effects on existing (robust) shark populations in the geographic areas affected. There are no significant effects anticipated to non-target populations. As noted below, no non-indigenous species will be introduced that would affect ecosystem function in the affected area. As a result, no substantial impact on biodiversity or ecosystem function is anticipated.

7) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: No. The experiments are short-term field activities or in-lab experiments that would have no impact on social or economic activities in the affected areas.

8) Are the effects on the quality of the human environment likely to be highly controversial?

Response: No. As noted, the proposed research involves small-scale, short-term experiments with bait in open waters and with captive animals, neither of which has significant or controversial effects on the human environment.

9) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas?

Response: No. The proposed research activities will not be conducted in the near environment of any unique geographic or cultural features, and therefore the proposed actions will not result in any significant impacts to these areas.

10) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: No. The procedures, methods and mitigation measures that are proposed in this document have been extensively used, tested, and are accepted worldwide in recent elasmobranch literature.

11) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: No. As noted in responses to questions above, these experiments involve short-term field activities, minimally affecting existing robust populations of elasmobranches in the affected geographic areas. Non-target species, including both protected species and other non-target marine organisms, are not anticipated to be affected significantly. The goal of the proposed actions is to generate new data and gather information on strategies that may be used to benefit conservation efforts for elasmobranches.

12) Is the proposed action likely 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?

Response: No. The proposed research activities would not take place within many miles of any districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. Similarly, the proposed research activities are not likely to cause loss or destruction of scientific, cultural or historical resources, and any involvement of scientific resources.

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

Response: No. The proposed research activities are not expected to result in the introduction or spread of a nonindigenous species. The species involved in the proposed research activities are native to the study regions, and any equipment used is either disposable or sanitized between uses.

14) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

Response: No. The purpose of this research is to gather information that may be used to benefit conservation efforts for elasmobranches. The proposed action consists of several primary research activities, the basic methods and procedures for which are widely accepted in the scientific research community and have already been published in peer-reviewed scientific

literature. Any new methods to be used in the proposed studies build upon existing techniques or information in an attempt to further improve data collection and analysis and results obtained from the proposed research will be subject to further review and potential modification, which is an integral part of the scientific research process. To the extent that these methods establish a precedent for future studies, the precedent will be based on the quality of the data obtained, and will consider the minimization of the adverse impacts to the resources being studied.

15) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: No. The proposed research activities comply with applicable Federal and state environmental regulations, including applicable permit requirements. For example, permits have been obtained through the University of Hawaii via the Institutional Animal Care and Use Committee (IACUC). Therefore, this research is not expected to violate such laws and requirements.

16) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: No. As noted in responses to questions above, these experiments involve short-term field activities, minimally affecting existing robust populations of elasmobranchs in the affected geographic areas. Non-target species, including both protected species and other non-target marine organisms, are not anticipated to be affected significantly. The goal of the proposed actions is to generate new data and gather information on strategies that may be used to benefit conservation efforts for elasmobranchs.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared for research on Elasmobranch Bycatch Reduction in Domestic and International Fisheries, conducted by Pacific Islands Fisheries Science Center, Bycatch Reduction Program, Honolulu, Hawaii, it is hereby determined that such research 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 EIS for this action is not necessary.



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3/25/09
Date