

March 25, 2011

Michael D. Tosatto
Regional Director, Pacific Islands Regional Office
NOAA Fisheries Service
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96814-4700

Re: Comments on special permit

Dear Michael,

I am writing to comment on the proposed special permit for operating a drifting aquaculture operation off the west side of the island of Hawai‘i. In particular, I have two main points to make: 1) the Draft Environment Assessment’s (DEA) consideration of information on populations of protected marine mammals that utilize the area west of the island of Hawai‘i (and thus have the potential for interactions with the operation) is incomplete and inadequate; and 2) if such a permit is issued, recording and reporting requirements to document and understand interactions with protected species of marine mammals must include more than just the operators’ anecdotal reporting of sightings, if the impacts of this operation and any potential expansion of such operations on marine mammal populations are to be accurately determined.

The DEA’s assessment of protected species of marine mammals relies primarily on two sources of information, HOT (2009) and WPRFMC (2009). For ESA listed species of whales other than humpback whales the DEA states simply that “there are not sufficient data to speculate on abundance of the other whale species in Hawaiian waters and sightings are rare (WPFMC, 2009c)”. For the ESA-listed sperm whale, it is not in fact necessary to speculate on abundance in Hawaiian waters, as there is a published abundance estimate available (Barlow 2006). In addition, there is information on the distribution of sperm whales within much of the area proposed for operations of the aquaculture operation. We have been undertaking surveys for odontocete cetaceans off the west side of the island of Hawai‘i since 2002, and have documented sperm whales in this area on 30 occasions (CRC unpublished data), despite the fact that approximately 50% of our survey effort is in water <1000 m depth, shallower than sperm whales are found in the area. In addition, we have location data from three satellite tags we have deployed on sperm whales off the west side of the island documenting use of the proposed area of operations in the DEA. Basic information on sperm whales in this area, noting that they have been documented year-round, and mentioning that we have deployed satellite tags and collect

sighting information, has been available on our web site since 2009¹. This information should be utilized in assessing the potential interactions and impacts of the proposed operation on sperm whales in the area, in particular as sperm whales have been known to become entangled in undersea cables and will investigate floating debris (Heezen 1958; Jacobsen et al. 2010).

Although the Hawaiian insular population of false killer whales is not currently listed under the Endangered Species Act, NMFS proposed listing this population as Endangered in November 2010, and a final listing rule is expected in November 2011. The proposed special permit for this operation is for a 10-month period. If issued, this operation will still be ongoing after the expected ESA listing of Hawaiian insular false killer whales in November 2011, thus information relevant to potential interactions and impacts on this population should be considered. This population utilizes the area of the proposed activities on a regular basis; information on use of this area has been published by Baird et al. (2010, 2011). False killer whales have been documented taking fish off lines (Baird 2009) and taking fish around Fish Aggregating Devices (FADs) in Hawai‘i². The slowly drifting net pens are likely to act as large FADs, attracting false killer whales, and other species of odontocetes, to approach. While it may seem that providing a large FAD that false killer whales can utilize to find fish may be beneficial to individual false killer whales, increasing opportunities for access to fish through operations such as this have the potential to result in changes in behavior or movement patterns of the animals (see Chilvers et al. 2003). Interactions between false killer whales and the operation are likely to occur.

For most MMPA listed species of odontocetes the DEA simply states “data on population numbers and distribution of these species are sparse”. Other than noting that two species, bottlenose dolphins and spinner dolphins, are year-round residents of the Hawaiian Islands, the DEA does not take into account considerable published information on the use of the area by 13 different species of odontocetes³. As such, the DEAs assessment of potential interactions and impacts with these species is inadequate.

The DEA repeatedly states that issuance of this permit is necessary to determine whether the approach of open-ocean drifting net pens could lead to larger scale operations. As such, if a permit is issued, it should require a system to determine what potential impacts beyond immediate serious injury or mortality of protected species of marine mammals may occur. The DEA states that any sightings of marine mammals will be recorded, although does not present details on whether any particular monitoring scheme will be in place. Recording of anecdotal observations of marine mammals will not allow for a robust assessment of potential impacts on populations. There are 18 species of odontocetes and five species of baleen whales that may utilize the area where this operation will be undertaken, and being able to discriminate between these species will require either very experienced marine mammal observers or a mechanism to

¹ www.cascadiaresearch.org/hawaii/spermwhale.htm and www.cascadiaresearch.org/hawaii/April2010.htm

² coolwaterphoto.photoshelter.com/image?&_bqG=4&_bqH=eJyr8kw2K3f2SQvzdDWO8ArIMXBJNnU1NAsNCyi3MjKyMjQwAGEg6RnvEuxsm5aYU5yqnZ2Zk5NapF2ekZiTqgaWiHf0c7EtAbJDg12D4j1dbENBmkLdfCwrzfl1NPDNM1OIdnUNsi1MTi5IzAOwGIwg-&GI_ID=

³ www.cascadiaresearch.org/hawaii/publications.htm

document species such that species identifications can be confirmed (i.e., high resolution photography). Rigorous observation and recording protocols will need to be in place prior to initiation of activities if any sort of change (e.g., increase) in marine mammal visitation of the operation occurs over time. Such protocols need to specify a minimum number of hours of observations required each day and detailed recording of factors that would influence sighting rates such as sea state.

The DEA also notes that while there are nine species of oceanic sharks found in the open ocean environment off the west side of the island of Hawai‘i, all are “rarely encountered” and that the constant movement of the array and removal of dead fish are expected to limit encounters and thus adverse effects on sharks. Based on our research efforts off the west coast of the island, oceanic whitetip sharks are regularly observed in the deep waters where operations will be allowed and are often associated with FADs and with slowly moving groups of pilot whales. As such it is likely that such sharks will also associate with the net pens and thus there will be the potential for interactions. Such interactions are not addressed in the DEA.

Thank you very much for considering these comments,

Sincerely,

A handwritten signature in black ink, appearing to read 'RW Baird', enclosed within a large, loopy oval shape.

Robin W. Baird, Ph.D.
Research Biologist
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Literature Cited

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