Baird comments on swordfish DSEIS

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Submitted by e-mail to HIswordfish@noaa.gov

Dear Mr. Robinson,

I am writing to provide comments on the Draft Supplemental Environmental Impact Statement (DSEIS) included in Amendment 18 to the Fishery Management Plan (FMP) for Pelagic Fisheries of the Western Pacific Region, as part of the public comment period. The purpose of these comments is to address whether this amendment to the FMP may put the Hawai‘i insular population of false killer whales at risk.

The preferred alternative (1E) of this Amendment proposes removing the effort set limit for the shallow-set swordfish fishery, and instead implements new loggerhead and leatherback sea turtle interaction “hard caps”. Under this alternative, the DSEIS states that “anticipated fishing effort is expected to gradually increase to historic levels between 4,000 and 5,000 sets per year” (page 187), rather than the current limit of 2,120 sets per year. The DSEIS states that “the Hawaii shallow-set fishery rarely fishes within the Hawaiian EEZ, but rather, targets swordfish in the central North Pacific approximately 600-1,000 nm north of Hawaii” (page 123), and bases its conclusions that “the impact of Alternative 1E on marine mammals is not likely to cause a significantly adverse effect on the marine mammal populations” (page 188) in part on this premise. The DSEIS notes that the Hawai‘i-based longline fishery (both deep-set and shallow-set) is listed as a Category I fishery primarily due to interactions between the deep-set fishery and false killer whales within the Hawaiian EEZ, and states that “the shallow-set fishery has not been observed to interact with false killer whales” (page 231).

The basis for the conclusion that there is not likely to be a significantly adverse effect on marine mammal populations, particularly false killer whales in the Hawai‘i EEZ, is incorrect. Forney and Kobayashi (2007) illustrate considerable fishing effort with sets targeting swordfish or using swordfish-style (shallow-set) effort within the Hawaiian EEZ (their Figures 4 and 5), and also document two cases where false killer whales within the Hawaiian EEZ were hooked and considered to be seriously injured in either swordfish sets or swordfish-style (shallow) sets (their Table 2). These cases were documented in 1997 and 1998, when observer coverage for swordfish sets was estimated to only be 22.7% and 15.2%, respectively, of all swordfish sets (their Table 1), with only 7.2% and 8.2% observer coverage of the swordfish sets within the Hawaiian EEZ. In addition, Forney and Kobayashi (2007) note that the observer program does not always positively identify hooked individuals to species, and two additional possible false killer whales were recorded hooked in swordfish sets outside of the Hawai‘i EEZ (their Table 2). While no cases of false killer whale bycatch in the swordfish fishery has been documented since 1998, swordfish fishing effort since 2001 has been extremely limited (see Figure 26 in the DSEIS).

A single stock of false killer whales within the Hawaiian EEZ is currently recognized by NMFS, although the draft stock assessment report (SAR) for false killer whales for the Pacific Islands Region Stock Complex (Federal Register 73(135):40299-40300) divides the single Hawaiian EEZ stock of false killer whales into two stocks, a Hawai‘i insular stock and a Hawai‘i pelagic stock, as well as adding a new stock for Palmyra Atoll. The primary justification for the division of the Hawaiian EEZ stock into an insular and pelagic stock is the availability of genetic data from biopsy samples collected from around the main Hawaiian Islands and from larger areas of the central and eastern tropical Pacific (Chivers et al. 2007).

While the draft SAR sets the boundary between the insular and pelagic stocks to equal the long-line exclusion zone (noted as a 25-75 nm boundary in the draft SAR), there is evidence that insular false killer whales do move far enough offshore to interact with the long-line fishery. At the January 2008 Pacific Scientific Review Group (PSRG) meeting at which the draft SAR was originally reviewed by the PSRG, I presented information on movements of a false killer whale (known from photo-identification to be part of the insular population, see Baird et al. 2008a) that was satellite tagged in August 2007 that traveled as far as 96 km (~51 nm) from the main Hawaiian Islands (Baird et al. 2008b). In September 2008 a different false killer whale (also known based on photo-identification to be from the insular population) satellite tagged in July 2008 traveled as far as 83 km from the main Hawaiian Islands (Baird et al. unpublished). A GIS analysis of the long-line boundary indicates that between October 1 and January 31 approximately 25% of the long-line fishery boundary falls between 45-50 km from shore, and thus individuals from the insular population may overlap with the long-line fishery. Photographic evidence of scarring and dorsal fin disfigurement of individuals from the insular population supports that such interactions occur (Baird and Gorgone 2005).

The population estimate for the insular stock noted in the draft SAR is 123 individuals (CV = 0.72), based on a mark-recapture estimate by Baird et al. (2005). The potential biological removal (PBR) level for the insular population is less than one individual per year (draft SAR). There is evidence of a large population decline for the insular population (Reeves et al. in press). While the PBR level for the pelagic population is greater (2.2 individuals per year in the draft SAR), current estimates of bycatch for that stock is greater than PBR (5.7 animals/year). Given the small population size of the insular stock and the evidence of a decline, any bycatch in the swordfish longline fishery has the potential to jeopardize this population, contrary to the conclusion of the DSEIS. The DSEIS preferred alternative removing the effort limits could more than double the amount of sets compared to the average over the last seven years, greatly increasing the potential for bycatch with both the insular and pelagic populations of false killer whales within the Hawai‘i EEZ.

Sincerely,

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