

Re: Comments on Draft Pacific Stock Assessment Reports

September 23, 2009

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Dear David,

Thank you for the opportunity to review the Draft Pacific Stock Assessment Reports (SARs) for 2009.

In terms of the draft SAR for false killer whales (hereafter draft SAR) in Hawai‘i, the justification for a “not strategic” status designation for the Hawai‘i Insular stock is not supported by available evidence. The proposed provisional boundary between the Hawai‘i Insular Stock and the Hawai‘i Pelagic Stock is the Feb-Sep longline exclusion area boundary. The draft SAR notes that all observed false killer whale interactions with longline fisheries within the Hawaiian EEZ occurred more than 75 nmi from the Hawaiian Islands and are thus provisionally considered to have come from the Hawai‘i Pelagic Stock. However since 2003 there have been two cetaceans likely to be false killer whales that have been observed taken and considered “seriously injured” inside of the longline exclusion boundary and an additional two that were known to be false killer whales that were probably taken inside of the boundary. In 2003 there were two observed cases of false killer whales seriously injured within the Hawaiian EEZ (Table 1 in the draft SAR). The locations published in Table 2 of Forney and Kobayashi (2007) are inshore of the boundary. Data provided by the NMFS Pacific Islands Regional Office longline observer program regarding these cases actually indicates that the precise location and time that these two individual bycaught animals were documented were not recorded by the original observer, and the set start location was reported by Forney and Kobayashi (2007). In both cases the set end locations were outside the longline exclusion boundary thus there is uncertainty regarding their exact locations, but if even one of these two were inside the boundary the estimated bycatch would likely exceed PBR. In addition to these two cases, there are two other bycatch records recorded by Forney and Kobayashi (2007) inside of the Feb-Sep longline exclusion zone, both of which are considered to be either false killer whales or short-finned pilot whales, in November 2003 and October 2005. Both were classified as “serious injury” in Table 2 of Forney and Kobayashi (2007). Within the tuna (deep-set) component of the longline fishery, Forney and Kobayashi (2007) record five bycaught short-finned pilot whales and 18 bycaught false killer

whales. Given these ratios of the two species, it is most likely that at least one and possibly both of the individuals documented from November 2003 and October 2005 were false killer whales, rather than short-finned pilot whales. As such, the “not strategic” classification for the Insular Stock in the draft SAR is unwarranted. In addition, the deep-set fishery has approximately 20% observer coverage, thus there are likely considerable numbers of unobserved bycaught individuals.

There are several other reasons why bycatch rates of false killer whales may be underestimated based on the existing observer data. For the shallow-set (swordfish) fishery, there is 100% observer coverage, and thus the number of bycaught animals is considered to be equal to the number of observed takes. However, there are cases where parts of longlines are lost, and it is possible that lost gear may occur due to a hooked false killer whale (or other species) breaking the gear. The SAR should include information on how frequently portions of longline gear are lost both in the shallow-set and deep-set fishery, so that the likelihood that there are unobserved takes due to lost gear can be assessed.

Because of the seasonal change in the longline fishery boundary, from October through January each year and the known movements of satellite tagged false killer whales to greater than 80 km offshore, the likelihood of interactions between the Insular Stock of false killer whales and the offshore longline fishery increase dramatically. No information is presented in the draft SAR or any of the papers and reports on estimating bycatch on the observer coverage in the deep-set longline fishery during this four-month period, to assess whether observer coverage is sufficient within the range of the Insular Stock to robustly assess bycatch rates. In addition, there are unobserved short-line fisheries that occur nearshore in the Hawaiian Islands that are using the same gear as offshore long-line fisheries, and are thus likely to be taking false killer whales.

For the Hawai‘i Insular Stock, the draft SAR notes that no quantitative analysis of sightings data and population trend has been made. At the Western Pacific Regional Fishery Management Council Marine Mammal Advisory Committee meeting in April 2009 I presented the results of a statistical analysis of false killer whale sighting rates from survey data provided by J. Mobley of the University of Hawai‘i, based on surveys from around the main Hawaiian Islands undertaken from January through April each year in 1993, 1995, 1998, 2000, and 2003. A regression of the number of groups per 10 survey hours by year shows a significant decline ( $p = 0.028$ ,  $r^2 = 0.8429$ , see Figure 1, below). These results were not included in the presentation by Reeves et al. (2009), which provide several other lines of evidence for a population decline of the Insular Stock.

The draft SAR also notes that there are “no habitat issues of concern for this species”, but then goes on to note recent evidence of high levels of pollutants (see Ylitalo et al. in press) and reduced biomass of prey species. Elsewhere in the draft 2009 Stock Assessment Report these same issues are identified as “habitat issues” (see below), and thus should be explicitly stated as such here. In the draft SAR for Southern Resident killer whales in the section on Habitat Issues it notes that the “high trophic level and longevity of the animals has predisposed them to accumulate levels of contaminants that are high enough to cause potential health impacts”, and also identifies changes in salmon abundance as a possible influence on the population.

In terms of other species, as noted in the Federal Register (Vol. 74, No. 122:30527-30528), the MMPA requires NMFS to review “SARs at least annually for strategic stocks and stocks for which significant new information is available, and at least once every 3 years for non-strategic stocks”, and “revise a SAR if the status of the stock has been changed or can be more accurately determined”. Although there is a revised SAR for false killer whales in Hawaiian waters, I note that with the exception of three other species the SARs for other Hawaiian odontocetes have not been revised since the 2004 SARs (the Hawaiian bottlenose dolphin and short-finned pilot whale SARs were revised in 2006, pygmy killer whales were revised in 2005). For some of these species, there is significant new information available suggesting the existence of multiple stocks within the Hawaiian EEZ, where there is currently only a single stock recognized. These include the Hawaiian stocks of rough-toothed dolphins, bottlenose dolphins, pygmy killer whales, spinner dolphins, dwarf sperm whales, Cuvier’s beaked whales, and Blainville’s beaked whales (Baird et al. 2008, 2009; Martien et al. 2009; McSweeney et al. 2007, 2009; Mahaffy et al. 2009; Schorr et al. in press).

Thanks very much for considering these comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'RW Baird', with a decorative flourish at the end.

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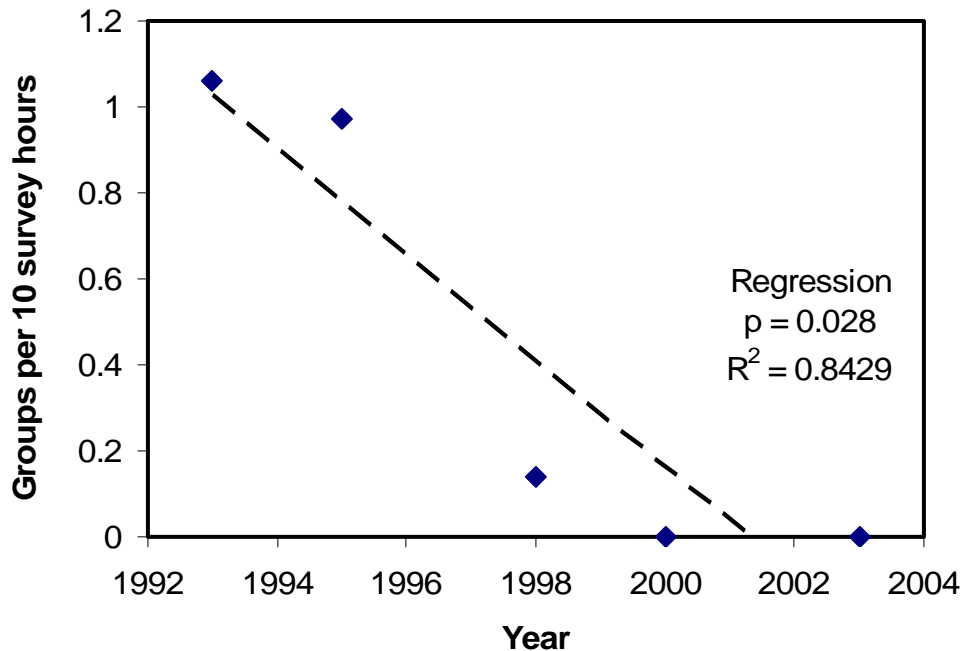


Figure 1. Sighting rates of false killer whales in aerial surveys around the main Hawaiian Islands undertaken by J. Mobley (see Mobley et al. 2000 for details), documenting a significant decline in sighting rates between 1993 and 2003. From Baird 2009.

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