

July 28, 2011

Howard Braham
Chief, Marine Mammal and Sea Turtle Conservation Division
Attn: List of Fisheries
Office of Protected Resources, NMFS
1315 East-West Highway
Silver Spring, MD 20910

Dear Howard,

I am writing to comment on the proposed List of Fisheries for 2012. In the list NMFS proposes elevating the Hawai'i charter vessel and Hawai'i trolling, rod and reel fisheries from Category III to Category II based on fishing techniques and anecdotal hooking of pantropical spotted dolphins. In addition to the evidence cited in the proposed rule, evidence outlined below suggests that the elevation of these fisheries from Category III to Category II is warranted.

Since 2000 I have been undertaking research on cetaceans in Hawaiian waters and from January 2000 through May 2011 our research program has documented pantropical spotted dolphins on 317 occasions. On a number of occasions prior to November 2006 I observed various types of fishing vessels (charter vessels, private recreational vessels and small commercial vessels) trolling lines repeatedly through groups of pantropical spotted dolphins or otherwise fishing in the middle of a group of spotted dolphins. Information on vessels fishing with dolphins was not systematically recorded until November 2006, when we began recording whether any fishing vessels were fishing in or through groups of dolphins. Since that time we have had 148 encounters with spotted dolphins, ranging from 1 minute to over 5 hours in duration (mean duration = 12 minutes). Despite the short duration of our encounters with this species, of these 148 encounters, fishing vessels were documented fishing among the group of dolphins in 43 different encounters (29%). For dolphin groups with fishing vessels present, there was a range of 1-8 (mean = 2.43) fishing vessels per group. Off the island of Hawai'i, where most of our work is undertaken, because the presence of fishing vessels clustered in an area or repeatedly circling appears to be a good indicator of groups of pantropical spotted dolphins, in 2008 we began avoiding clusters of fishing vessels in our surveys. This was done in order to reduce the likelihood of encountering spotted dolphin groups at rates higher than would be expected given their presence in the area, since spotted dolphins are not a high priority species in our research. As such, in the last three years we have been more likely to encounter groups that do not have fishing vessels present, and our estimate of the proportion of groups that have fishing vessels present is negatively biased, i.e., likely more than 29% of groups of spotted dolphins have fishing vessels actively fishing through or in the middle of groups.

Although much of their feeding occurs at night (Baird et al. 2001), I have observed spotted dolphins in Hawai'i feeding on flying fish and other small fish near the surface during the day, thus there is the potential for them to be actively feeding when fishermen are fishing among groups of dolphins. During our work we have documented individuals with injuries on

the dorsal fin suggesting they are involved in interactions with line fisheries (see e.g., www.cascadiaresearch.org/hawaii/pantropicalspotteddolphin.htm). Given the perception of negative regulatory consequences associated with hooking dolphins, it is unlikely that fishermen that hook dolphins will regularly voluntarily report such hooking. However, I have spoken with four fishermen that we have chartered vessels from or otherwise thought were likely they would be candid regarding noting whether they had hooked dolphins. Two of those four had noted they had hooked dolphins; in 2003 the captain of a vessel we chartered for research purposes told me that he had hooked spotted dolphins on two different occasions, and another fishing vessel captain operating out of Kona told me he had hooked a dolphin on one occasion.

The abundance from which PBR is estimated for pantropical spotted dolphins is based on a 2002 survey of the entire U.S. EEZ surrounding the Hawaiian Islands (Barlow 2006). The 2002 survey had high density of survey effort around the main Hawaiian Islands, where spotted dolphins overlap with the above-noted fisheries, but the abundance estimate includes spotted dolphins found both around the main Hawaiian Islands and in offshore waters within the U.S. EEZ surrounding all of the Hawaiian Islands, including off the northwestern Hawaiian Islands. Barlow (2006) estimated that approximately half the spotted dolphins within the U.S. EEZ surrounding the Hawaiian Islands were found around the main Hawaiian Islands, and half were found elsewhere in the EEZ. The CV of the estimate (0.48) is the fifth lowest of the 18 species for which abundance was estimated and reflects the overall low density of this species within Hawaiian waters, similar to other species of delphinids. Recent genetic evidence (Courbis et al. 2009, 2010) suggests that there are in fact multiple demographically-isolated populations of pantropical spotted dolphins in Hawaiian waters, including separate populations off the island of Hawai‘i, in the four-island area, and off O‘ahu. The level of genetic differentiation for spotted dolphins from these three areas (Courbis et al. 2010) is similar to what has been reported for common bottlenose dolphins and spinner dolphins in Hawai‘i, which were recently split into multiple populations (see 2010 SARs). While only a single population of pantropical spotted dolphins within the U.S. EEZ surrounding the Hawaiian Islands is currently recognized, based on the genetic evidence it is likely that multiple populations will be recognized in the future. As such, the PBR for populations around the main Hawaiian Islands, and in particular for a population off the island of Hawai‘i, where the largest share of charter vessel fishing takes place, are likely to be much smaller than the current PBR for a single Hawaiian population.

Thank you for the opportunity to provide comments on this proposed List of Fisheries.

Best regards,



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Baird, R.W., A.D. Ligon, S.K. Hooker, and A.M. Gorgone. 2001. Sub-surface and night-time behaviour of pantropical spotted dolphins in Hawai‘i. *Canadian Journal of Zoology* 79: 988-996.

Courbis, S., R.W. Baird, F. Cipriano, and D. Duffield. 2010. Population structure of pantropical spotted dolphins near the main Hawaiian Islands: evidence of multiple genetic stocks for management. Report PSRG-2010-19 to the Pacific Scientific Review Group.