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December 27, 2021

Kevin Brindock
Deputy Assistant Regional Administrator
Protected Resources Division
National Marine Fisheries Service
Pacific Islands Regional Office
Honolulu, HI

Re: Proposed time-area closures for spinner dolphins

Dear Kevin,

I am writing to comment on the proposed rule to establish time-area closures of parts of five bays in Hawai'i for the protection of spinner dolphins[1]. NMFS has identified five traditional resting areas for spinner dolphins (four off Hawai'i Island (Kealakekua Bay, Hōnaunau Bay, Kauhakō Bay, and Makako Bay), and one off Maui (La Perouse Bay)) as the subject areas of the proposed rule. The proposed rule would implement mandatory time-area closures from 6 AM to 3 PM HST for parts of each of these bays to any vessel or in-water activities. While I am generally in favor of increased protective measures for spinner dolphins in Hawai'i, I have several comments regarding the proposed rule.

Spinner dolphins off the island of Hawai'i use a number of other bays for resting beyond those identified in the proposed rule[2]. While the identified bays may be among the most heavily used by humans for watching and/or swimming with spinner dolphins, mandatory time-area closures of those bays may unintentionally result in a shift in human activities to other bays that are not subject to closures. As such, NMFS should include a mechanism in the final rule to periodically review the inclusion of other bays for time-area closures.

While Makako Bay (also known as Hoona Bay) has been long recognized as an important spinner dolphin resting area[3], in the last two years spinner dolphins appear to have abandoned the

[1]Although the proposed rule refers to them as "Hawaiian spinner dolphins", that is not a recognized taxonomic entity – spinner dolphins in Hawaiian waters are part of the broadly ranging subspecies *Stenella longirostris longirostris*, generally referred to as Gray's spinner dolphins.
[2] Norris, K.S., B. Würsig, R.S. Wells, and M. Würsig. 1994. The Hawaiian spinner dolphin. University of California Press.
[3] Thorne, L.H., D.W. Johnston, D.L. Urban, J. Tyne, L. Bejder, R.W. Baird, S. Yin, S.H. Rickards, M.H. Deakos, J.R. Mobley, A.A. Pack and M.C. Hill. 2012. Predictive modeling of spinner dolphin (*Stenella longirostris*) resting habitat in the main Hawaiian Islands. PLoS ONE 7:e43167. Tyne, J.A., F. Christiansen, H.L. Heenehan, D.W.

bay, possibly due to repeated harassment from bottlenose dolphins that have long been attracted to the fish farm located off Makako Bay[4]. For regulations to be effective, there either has to be extensive monitoring and enforcement, or wide-spread agreement among the affected groups about the need for protective regulations. Given that spinner dolphins no longer appear to be using Makako Bay as a daytime resting area, imposing a mandatory time-area closure of the bay will impact other user groups (e.g., commercial and recreational divers, spearfishermen) with no benefit to spinner dolphin populations, and will lessen support and agreement for the value of the time-area closures. I would encourage NMFS to reconsider including Makako Bay in the final rule, or at least include a mechanism to remove the time-area closure if spinner dolphins do not begin using the bay again within a set period (e.g., three months) after a closure is put into effect.

The proposed rule has the potential to unintentionally result in increased harassment of other species of marine mammals in Hawaiian waters, with potential population-level effects. Given there is considerable commercial and reactional interest focused on spinner dolphins using at least some of these nearshore bays, imposing a rule that will further limit[5] viewing of spinner dolphins is likely to result in increased commercial and recreational viewing of other species of dolphins and whales. As you know, there are 10 other species of odontocete cetaceans in Hawaiian waters with resident populations, many of which are relatively small (i.e., in the low hundreds of individuals), some of which also primarily rest during day-time hours (e.g., pygmy killer whales, Kohala resident melon-headed whales), and some of which are easily disturbed by human activities[6]. As well as increasing the likelihood of harassment of individuals in these populations, there is also an increased risk to humans associated with swimming with some offshore species[7]. Given these foreseeable but unintended consequences, NMFS should support increased monitoring of human interactions with other species of cetaceans in Hawaiian waters and consider protective measures (e.g., no swim-with rules) for these species.

Thank you for your consideration of these comments.

Sincerely,

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Johnston, and L. Bejder. 2018. Chronic exposure of Hawaii Island spinner dolphins (*Stenella longirostris*) to human activities. Royal Society Open Science 5: 171506.

[4] Cascadia Research Collective, unpublished survey data; C. Hankins, pers. comm.; E. Sepeta, pers. comm.; Harnish, A.E., R.W. Baird, E. Corsi, A.M. Gorgone, D. Perrine, A. Ward, and E. Sepeta. 2021. Common bottlenose dolphin associations with a fish farm in Hawai‘i: long-term associations and impacts on other delphinids. Document PSRG-2021-09 submitted to the Pacific Scientific Review Group, February 2021.

[5] beyond the 50-yard approach rule that went into effect in October 2021. See Baird, R.W. 2016. The lives of Hawai‘i's dolphins and whales: natural history and conservation. University of Hawai‘i Press, Honolulu, Hawai‘i for a discussion of shifting of directed dolphin and whale watching activities to other species when protective spinner dolphin regulations were first proposed.

[6] See Baird (2016) and Baird, R.W., S.D. Mahaffy, and J.K. Lerma. 2021. Site fidelity, spatial use, and behavior of dwarf sperm whales in Hawaiian waters: using small-boat surveys, photo-identification, and unmanned aerial surveys to study a difficult-to-study species. Marine Mammal Science. doi:10.111/mms.12861.

[7] Oceanic whitetip sharks, which may be aggressive towards swimmers, regularly associate with short-finned pilot whales and some other odontocetes in Hawaiian waters, and life-threatening interactions between pilot whales and swimmers have been documented in Hawai‘i (Baird 2016).