



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
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IN REPLY REFER TO:  
08EVEN00-2018-CPA-0063

March 29, 2018

Phil Anderson, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, #101  
Portland, Oregon 97220

Subject: Agenda Items C.3—Acoustic Trawl Survey Methodology Review - Final Approval—  
and C.4—Process for Review of Reference Points for Monitored Stocks

Dear Mr. Anderson and Council Members:

The U.S. Fish and Wildlife Service (USFWS) appreciates the continuing focus of the Pacific Fishery Management Council (Council) on improved assessment and management of northern anchovy (*Engraulis mordax*). As we noted in our September 2017 letter to the Council (USFWS 2017), we consider updated assessment and management of the central subpopulation of northern anchovy (CSNA) to be necessary not only to fulfill the objectives of the Magnuson-Stevens Fishery Management and Conservation Act but also to ensure that the goal of the Coastal Pelagic Species Fishery Management Plan to “provide adequate forage for dependent species” (Council 2016) is being met.

We have reported our concerns regarding the availability of northern anchovy to California brown pelicans (*Pelecanus occidentalis californicus*) and other marine predators in the California Current Ecosystem on several previous occasions (USFWS 2015a, USFWS 2015b, USFWS 2016a, USFWS 2016b, USFWS 2017). Brown pelican breeding success within the Southern California Bight is closely tied to the availability of northern anchovy within foraging distance of colonies (Anderson et al. 1982), and improvements in brown pelican breeding success in 2016 and 2017 relative to 2015 and several previous years appear to reflect local increases in the abundance of prey near the southern California colonies. Preliminary numbers for the 2016 breeding season presented in our September 2017 letter to the Council (USFWS 2017) have now been finalized, resulting in minimum estimates of chicks fledged at Anacapa Island and Santa Barbara Island of 1,265 and 462, respectively (Larramendy et al. 2018).<sup>1</sup> These numbers, taken together, represent a significant improvement over 2015 (for which minimum estimates of chicks fledged at Anacapa Island and Santa Barbara Island were 978 and 116,

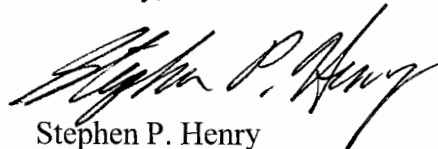
<sup>1</sup> Larramendy et al. (2018) present a range of values, but we cite the minimum estimate here because the authors believe the minimum estimate to be most appropriate for comparisons with past data. The numbers presented in USFWS (2017) are the same as or similar to the maximum estimates given in Larramendy et al. (2018).

respectively) but are only approximately half the long-term (1983-2003) mean.<sup>2</sup> Preliminary numbers for the 2017 breeding season reflect continued improvement overall (despite poorer chick production at Santa Barbara Island), with minimum estimates of chicks fledged at Anacapa Island and Santa Barbara Island of 3,066 and 250, respectively (M. Parker, pers. comm. 2018).<sup>3</sup> Overall breeding success in 2017 appears to be similar to the long-term (1983-2003) mean.

Continuing improvement in breeding success at the southern California brown pelican colonies, while encouraging, does not decrease the need for assessment and management that is responsive to extreme fluctuations in northern anchovy biomass and accounts for the spatial needs of place-based foragers. Completion of the acoustic trawl survey methodology review in January 2018 represents a significant step toward improved assessment and management of CSNA. We recommend that the Council approve the acoustic trawl survey methodology for use in future assessments. We further recommend that the Council task the Scientific and Statistical Committee with developing an interim updated overfishing limit and acceptable biological catch for the CSNA prior to the start of the 2019 fishing season and prioritize development and review of an integrated stock assessment. Over the longer term, we ask the Council to develop an appropriate cutoff to preserve northern anchovy for marine predators when biomass is low and to consider time/area closures to ensure adequate forage for place-based predators.

We thank the Council for its commitment to ecosystem-based management of fisheries. If you have questions regarding this letter, please feel free to contact Lilian Carswell, of my staff, at (805) 677-3325, or by electronic mail at Lilian\_Carswell@fws.gov.

Sincerely,



Stephen P. Henry  
Field Supervisor

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<sup>2</sup> The long-term average for Anacapa Island (2,717) is derived from data reported in Table 7 of Harvey and Gress (2008). The long-term average for Santa Barbara Island (597) is derived from data reported in Table 1 of Burkett et al. (2007). No fledging data are available for 1994-1995, so the average given here excludes those years.

<sup>3</sup> The 2017 numbers remain preliminary and should not be used or cited without the permission of M. Parker, California Institute of Environmental Studies.

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