



McChesney, Gerry &lt;gerry\_mcchesney@fws.gov&gt;

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## Re: Request peer review of Western Gull PVA report

1 message

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**Shaffer, Mark** <mark\_shaffer@fws.gov>

Wed, Apr 3, 2013 at 6:50 AM

To: "McChesney, Gerry" <gerry\_mcchesney@fws.gov>

Cc: Dan Shively <dan\_shively@fws.gov>, Gabriela Chavarria <gabriela\_chavarria@fws.gov>, John Schmerfeld <john\_schmerfeld@fws.gov>

Gerry,

Thanks for the opportunity to review the PRBO report: *Population Viability Analysis of Western Gulls on the Farallon Islands in Relation to Potential Mortality due to Proposed House Mouse Eradication*.

Overall, I thought the report was well done. With regard to your specific questions listed below:

1. the analyses used were appropriate
2. assumptions used in the models seemed reasonable (see below)
3. the interpretation of results also seemed reasonable.

I have two concerns with the work, and they are less about it's quality than about its thoroughness in explaining things.

First, based on the data in Figure 1 there has clearly been a long-term decline in the breeding population of Western Gulls on the Farallon's since counts began in about 1985, yet for this study the authors focused on modelling the population as observed during the most recent time period, which they define as 1999-2011 (p.6, last paragraph). Why did they choose to do this? Since the largest increment of decline in the population was prior to 1999, this choice means that the Leslie matrix elements used in this analysis may be unrealistically favorable. Perhaps there are sound reasons for partitioning the long-term data set into pre- and post-1999 periods, but I did not find any explanation of this point. I think such an explanation is necessary.

The study did use 3 different scenarios to explore possible impacts (i.e., "optimistic, realistic, and pessimistic") which I think is appropriate and their "pessimistic scenario included assuming a repeat of the near-total breeding failures seen on 2009-2011. I think there has been some discussion that these failures were brought on by the effects of climate change on ocean conditions that, in-turn, affected forage fish availability, but I saw no discussion of this in the report. If this is, in fact, related to climate change the long-term trend may be for more frequent reproductive failures, not just a repeat of the current observed frequency. This possibility should at least be discussed in the report.

I hope these comments prove useful.

mark

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On Wed, Mar 20, 2013 at 7:18 PM, McChesney, Gerry <gerry\_mcchesney@fws.gov> wrote:

Mark,

A few guidelines for your review. While I would appreciate comments on any aspect of the report, we particularly need comments on:

- 1) Were the analyses used appropriate;