

## Report peer review documentation for:

*Becker, B. H., D. T. Press, and S. G. Allen. 2010. Spatial use of Drakes Estero, California, by harbor seals correlated to anthropogenic disturbance and natural variation during 1982-2009. National Park Service Report, Point Reyes National Seashore. 48 p.*

Project Manager: Don Neubacher, Superintendent, Point Reyes National Seashore.

Primary Peer Review Manager: Ray Sauvajot, Chief of Natural Resources Programs, Pacific West Region, National Park Service.

Secondary Peer Review Manager: Ben Becker, Marine Ecologist, Point Reyes National Seashore with oversight of incorporation of review comments by the Project Manager (Neubacher) and Primary Peer Review Manager (Sauvajot).

Report Classification: "Informative Scientific or Scholarly Information": One or more peer reviews required.

### Summary of Peer review:

Reviewer #1: USGS Scientist – Completed: comments and suggestions incorporated.

Reviewer #2: NOAA scientist /Statistician– Completed: comments and suggestions incorporated.

Reviewer #3: Academic Statistician – Not completed after 2+ months.

Reviewer #4: USGS Scientist/Statistician – Completed: Comments and suggestions incorporated.

Park review and ensure incorporation of peer review comments: D. Neubacher, Park Superintendent – Completed.

Regional review and ensure incorporation of peer review comments: R. Sauvajot, Regional Chief of Natural Resource Programs – Completed.

Regional Chief Scientist Review: D. Graber – Completed.

Level of Peer review required: Following the NPS "Interim guidance document governing code of Conduct, Peer review, and information quality for natural park service cultural and natural resource disciplines" dated January 31, 2008, we determined that this report under review did not meet the "influential" level of scientific or scholarly information (see p. 11 in the NPS interim guidance) because it would not be the principal basis for a decision that affects significant numbers of private sector entities outside parks. Additionally, reports from the National Research Council (NRC 2009) and the Marine Mammal Commission (in progress) will serve as additional scholarly information, thus rendering this report not a "principal basis" for a decision. Therefore, this report for review was deemed to be "Informative Scientific or Scholarly Information"

Peer Review Process: This review will have the Project Manager (Neubacher) and the Primary Peer Review Manager (Sauvajot) ensure that peer review comments are adequately addressed by the Secondary Peer Review Manager (Becker) by approving the reviews and responses. Then two regional NPS scientists (Graber and Sauvajot) would provide a final review. We determined that peer reviews by Reviewers #1, #2, and #3, would provide an appropriate level of peer review. All are Ph.D.'s with extensive vertebrate ecology and/or statistical expertise. Reviewer #1 is an ecologist with USGS; Reviewer #2 is an associate editor at an academic journal, a marine mammal ecologist and statistician; and Reviewer #3 is a biostatistician, program director at a prominent

marine science institution, and affiliated with the National Research Council. When the latter (#3) did not return a review in a timely manner (~2 mos.), we contacted Reviewer #4 (USGS – Ecologist/Statistician) to complete an additional statistical review. Additionally, David Graber, Chief Scientist for the Pacific West Region of the NPS also reviewed the paper. Regional review was performed by the Primary Peer Review Manager (Ray Sauvajot).

#### Peer review timelines organized by reviewer

##### NPS Peer review request

11/09/09 - Sent to Jay Goldsmith (NPS – Pacific West Regional Office) to send out to subject matter experts for blind peer review.

Mid-November 2009 – All potential peer reviewers approached by Jay Goldsmith declined due to time constraints or potential conflicts of interest as they might be on the MMC panel reviewing the Drakes Estero harbor seal data at a later date.

STATUS: Ray Sauvajot (PWR) indicates that we can manage our own peer review with Neubacher as Project Manager, Ray as the Primary Peer Review Manager and Becker as Secondary Peer Review Manager. Neubacher and Sauvajot will ensure that the peer reviewer comments are addressed and then two regional reviewers will perform a final review. We proceed.

##### Reviewer #1

11/05/09: Sent for peer review.

11/13/09: Returns comments. Finds no logical errors, indicates that we need to reduce repetition and caveats in discussion, cite more literature in the discussion, and reduce the figures and tables. All comments are incorporated. Text significantly reduced and repetition removed. Figures reduced. Updated draft sent to Reviewers #2 and #3 on 11/15/09.

STATUS: COMPLETED

##### Reviewer#2

11/03/09 – Agrees to take a look, but can't promise in-depth review.

11/05/09 – Sent the 11-04-09 draft.

11/15/09 – Sent the 11-15-09 draft that incorporated Reviewer #1's Comments.

11/16/09 – Indicates he/she hopes to do comments week of Thanksgiving.

12/03/09 – Sent "ModelDetails" that was prepared for Reviewer #3 (see below).

12/03/09 – Indicates that he/she still hasn't had a chance to look at the paper

01/05/2010 –Delivers review with several minor suggestions (asking for clarification, adding citations, discusses use of P-values in correlations, which we keep following Zuur 2009). Indicates that he/she does not see any major flaws and that GEE modeling structure seems appropriate. All suggestions are addressed.

STATUS: COMPLETED

##### Reviewer #3

10/28/09 –Agrees to review.

11/05/09 – 11-04-09 draft sent.

11/15/09 – Sent the 11-15-09 draft that incorporated Reviewer # 1's comments.

11/30/09 – reviewer #3 requests additional statistical model details.

12/01/09 – Additional 2-page "ModelDetails" file sent.

12/01/09 – reviewer #3 indicates will have comments in a "day or two".

12/16/2009 – Additional status inquiry emails (also 12/07/09 and 12/10/09) get no response.

01/04/2010 – Becker sends another status inquiry email. No response.

01/15/2010 – After thorough statistical review received from Reviewer # 4 (see below), Becker left phone message for reviewer #3 indicating that we now had three other reviews and we were proceeding without his review. Also thanked him/her for their time.

STATUS: CLOSED WITHOUT COMPLETION

REGIONAL REVIEW: David Graber (NPS)

11/24/09 – 11-24-09 draft sent to Dave Graber for review.

12/01/09 – Graber email comments – Suggests submitting to journal and need for documented peer reviews prior to any public release. This includes final review by superintendent and region.

STATUS: After reviews by Reviewers #2 and/or #3 (#1 already done) are completed and comments addressed, Neubacher and the Region should review the document before public release.

### Update 01/04/2010:

Still no review from Reviewers #2 or #3. So contacted Reviewer #4 and he/she agrees to do a peer review. Reviewer #2 review comes in the next day 01/05/2010.

Reviewer #4

01/04/2009 – Sent the 01-05-10 draft (only minor changes since the 12/10/09 draft) and supplementary figures. Agreed to review within a “week or two”.

01/14/2010 – Received a very thorough statistical review. We implemented or addressed all of his/her suggestions and comments. Reviewer approved of GLMM models, GEE models, and GLMs for the 3 scales. Included a reanalysis of the subsite disturbance data within the estero which changed the interpretation when using a random slope and intercept model. We implemented suggestion to rank subsite models by AIC and use likelihood ratio tests. Explained that we cannot model sandbar changes though time (although it would be nice to), and that we felt binomial models were appropriate based on feedback from others and previous use of direct counts in Becker et al. 2009. Also, since the regional sites are pooled, transition probabilities among those sites are not important so we feel we meet the assumptions of the binomial model. In response to comments about binomial vs. count models to deal with density dependence, we included regional population size in both the colony and regional analyses which we consider a great improvement. This combination of binomial (proportional models) with density dependence should address the reviewers concerns.

STATUS: COMPLETED

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### FINAL CHECKLIST

01/22/2010 – Sent to Don Neubacher and Ray Sauvajot for final park and regional reviews and to ensure that all peer review comments addressed.

01/25/2010 - Project Manager Approval for Release Pending Regional Review

Final regional review and approval by: Ray Sauvajot, Regional Chief of Natural Resources on 02/03/2010. He OK's release of paper, approves the incorporation of peer review comments, and provides several minor language suggestions that are addressed.

Can release after final read by Becker and Allen. Completed 02/05/2010

Final version Sent to MMC and Interested Parties by Graber on 02/06/2010.