

Australian Marine Mammal Centre
Final Report
(subclause 9 and Schedule Item 5 of the Funding Agreement)

- **Project No.** – 0809/17
- **Title** - Improving analysis of marine mammal populations using natural marks and capture-recapture analysis
- **Chief Investigator/s** – Prof Kenneth Pollock
Dr Lyndon Brooks
A/Prof Peter Harrison
- **Organisation** – Southern Cross University

Activity Period – 31 March 2009 – 28 August 2009

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1. Activity Summary

A clear summary of approximately 500 words outlining the work undertaken and any significant findings (for publication on the Department's web site)

Twenty nine marine mammal researchers from several Australian universities and the University of Auckland, and other organisations, participated in the 5-day workshop.

Their interests covered a wide variety of species from widely distributed environments.

We found the participants enthusiastic and well engaged with the material.

We had a third person request feedback by email following the workshop to ensure confidentiality. Twenty six of the 29 participants responded. We asked for ratings on a five-point scale (1 = very poor ... 5 = excellent) to 5 items and for general comments.

The sample descriptive statistics for the rated items are presented in the table below.

Table of descriptive statistics for responses to 5 items on the scale 1 = very poor, 2, 3, 4, 5 = excellent

Item	N	Min.	Max.	Mean	SD
How well chosen was the content of the lectures?	26	4	5	4.38	0.50
How clearly were the ideas presented in the lectures?	26	3	5	4.29	0.60
How clearly were the example analyses demonstrated?	26	2	5	4.04	0.87
How well balanced was the mix of lectures and demonstrations?	26	3	5	4.50	0.58
How well did the workshop meet your needs?	26	3	5	4.35	0.74

These data represent a very positive evaluation of the workshop with none of the items receiving a mean rating of less than 4 and an overall mean response of 4.3 on the 5-point scale.

The set of free responses is included in Appendix A, "Evaluation Results".

Briefly, these responses were very positive. There are many references to the relevance of the material and the value of the workshop. Our approach to discussing each participant's particular research and attempting to relate it to the workshop content as we moved around the room during the exercise sessions was particularly valued. While a few participants found the material challenging, most found it pitched at the appropriate level. Several participants expressed an interest in a second, more advanced workshop building on the material presented in this one. We are preparing a more advanced workshop to deal with environmental and individual covariates, transience, movements between sites and states, and temporary emigration.

We were gratified by the enthusiasm and appreciation of the participants and very much enjoyed presenting the workshop. We've subsequently received several requests for advice which we were pleased to respond to.

2. The Outcomes/Objectives

The degree to which the Activity has achieved the objectives

The feedback we received both during the workshop and subsequently give us confidence that we've successfully contributed to building expertise among Australian marine mammal researchers in sound research design and analysis of capture-recapture data. We know of no formal courses in Australian universities on capture-recapture models. Without access to this kind of resource, the potential complexity of these models can present a formidable barrier to non statistics specialists.

The workshop was well attended and we observed considerable interaction and cooperation among the cohort. While we don't know if collaborative research has resulted from this, we believe the workshop provided a valuable opportunity for

formerly disparate groups of researchers to become acquainted.

3. Appropriateness

The appropriateness of the approaches used in the development and implementation of the Activity

We believe that the alternating mix of lectures, demonstrations and assisted exercises was appropriate to the purpose. Our personal style and interest in each participant's research was highly valued and appeared to encourage interaction and collaboration.
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4. Effectiveness

The degree to which the Activity has effectively met its stated objectives

We believe the workshop met an evident need for increased knowledge and greater expertise in the design and analysis of capture-recapture studies among Australian marine mammal researchers.
