

EVOS ANNUAL PROJECT REPORT

Project Number: 03012

Project Title: Photographic Monitoring of Killer Whales in Prince William Sound and Kenai Fjords, Alaska

PI Name: Craig O. Matkin

Time Period Covered by Report: October 2002-August 2003

Date of Report: 29 August 2003

1. **Work Performed:** A total of eight of the proposed twelve field days dedicated to photoidentification of AB pod and the AT1 transient group have been completed. The AB17 subpod had been thoroughly photographed and it appears that there are two new calves and no new mortalities. The AB25 subpod, however, has not been photographed and was not travelling with AJ pod during our repeated encounters with that pod. The AB25 subpod is the part of AB pod that has travelled with AJ pod since the spill, although they have maintained their AB pod vocal dialect. Last year the AB25 subgroup was not thoroughly photographed, although it appeared that two of that group were missing. We are concerned about the status of the AB25 subpod and hope that we will encounter them during our remaining field time. Until that time we cannot determine the total number of whales in AB pod

The AT1 transient population continues to decline with the stranding and death of an adult male this spring on Latouche Island. We could not determine specific identity from visual appearance due to the decomposed nature of the carcass, however, mtDNA confirmed it was an AT1 population whale and nuclear DNA work will be able to determine exact the identity when we have previously biopsied and completed nuclear DNA analysis on the all the AT1 whales not photographed this year. We have identified 7 AT1 whales from photographs this year including AT2,3,4,6,9,10, and 18. AT13, 14, and 17 are all males that have not yet been photographed and one of these is the stranded whale found on Latouche Island (Fig 2).

Fig. 1. The number of resident killer whales in AB pod, in seven other Prince William Sound pods, and in three Southeastern Alaska pods. 1984-2002

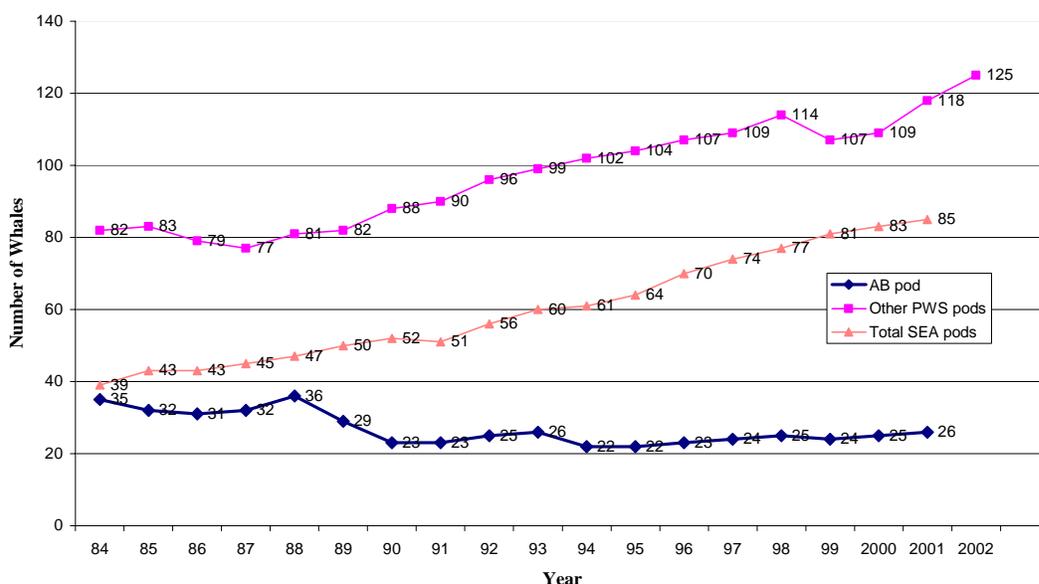
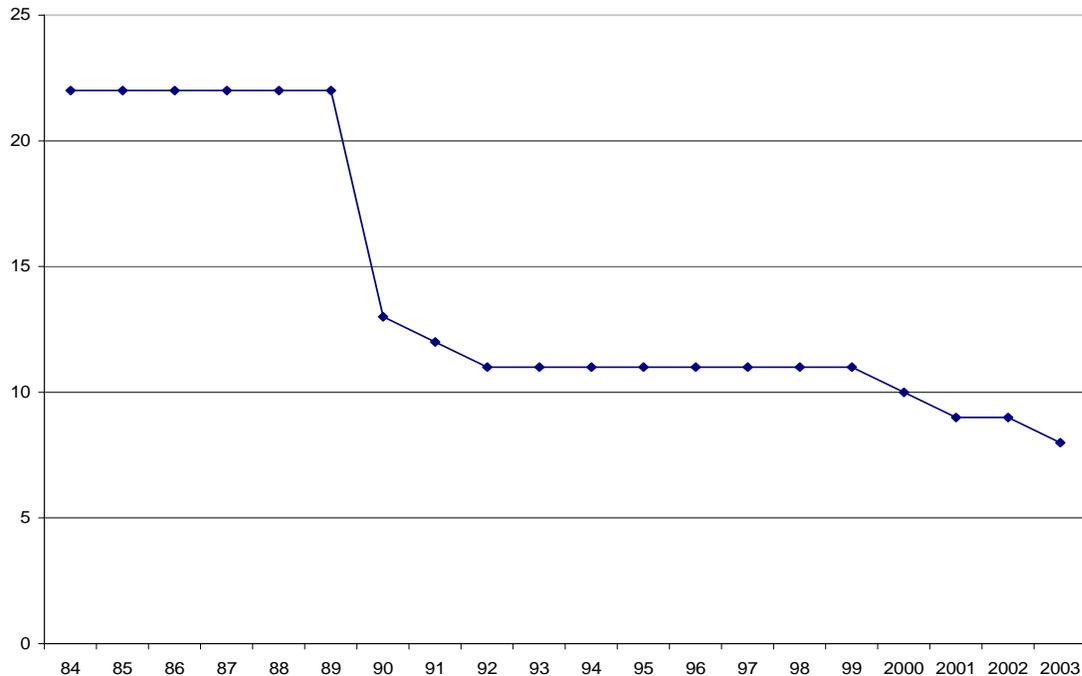


Figure 2. Number of Whales in the AT1 Transient Group 1984-2003



2. Future Work:

The field season will be completed as scheduled in late September. Photographic analysis will begin in late October and data will be summarized and reported upon in early 2004. The annual workshop will be attended in January 2004

3. Coordination/Collaboration:

Our focus at the moment is on finishing the field season. We are collaborating with Steller sea lion research projects (examining predation by killer whales) as well as with killer whale projects extending into Kodiak and the Aleutian Islands to assess the killer whale populations and aid in interpretation of genetic data. We are also collaborating with Jim Bodkin (sea otter program) to assess any potential changes in predatory behaviour of killer whales toward sea otters.

4. Community Involvement/TEK & Resource Management Applications:

We participated in Youth Area Watch Program in May 2003 taking young students to participate in field work. We held workshops in Seward in May 2003 for tourboat operators and others detailing the latest research findings and providing guidelines for behaviour when observing marine mammals. Residents of Chenega Village participated in the necropsy of an AT1 whale stranded on Latouche Island in April 2003. Popular presentations were made in Anchorage and Cordova, and Kodiak during winter and spring 2003 and will be given in Sitka in November 2004.

5. Information Transfer:

a. Publications produced

K.Heise, L.G. Barrett-Lennard, E. Saulitis, D. Bain, C.O. Matkin. In press Examining evidence for killer whale predation on Steller sea lions. Marine Mammal Science.

Matkin, C.O. Olesiuk, P. , G. Ellis, and E. Saulitis. Population dynamics of resident killer whales in southern Alaska. In prep. Marine Mammal Science.

A paper using GIS techniques to examine important killer whale habitat in Kenai Fjords is also in preparation.

b. Conferences attended

Paper presented at the Symposium on the Biology of Killer Whales at CENR/CEBR in France in October 2002. Presented two papers at the joint EVOS/SSLRI symposium in Anchorage, Alaska in January 2003.

c. Data/information products

Updates to our website are made on a regular basis. Popular public presentations are given at regular intervals in various towns in Alaska

6. Budget:

Budget is on schedule and project total costs will fall within budget

Report Prepared By: Craig O. Matkin

Project Web Site Address: <http://www.whalesalaska.org>