

Entanglement Studies, Northern Fur Seals, St. Paul Island, AK (1967-1992)

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Meeting of the Pribilof Islands
Collaborative

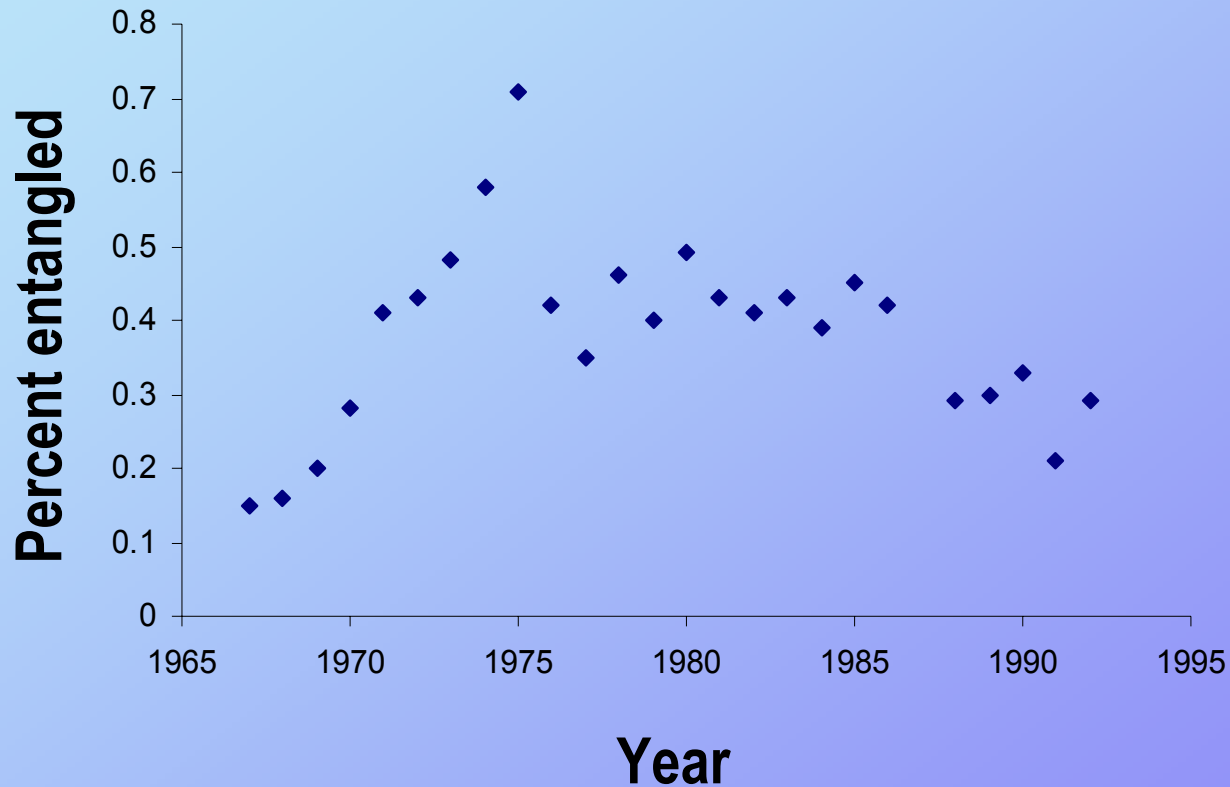
Anchorage, AK

Jan 28-30, 2005

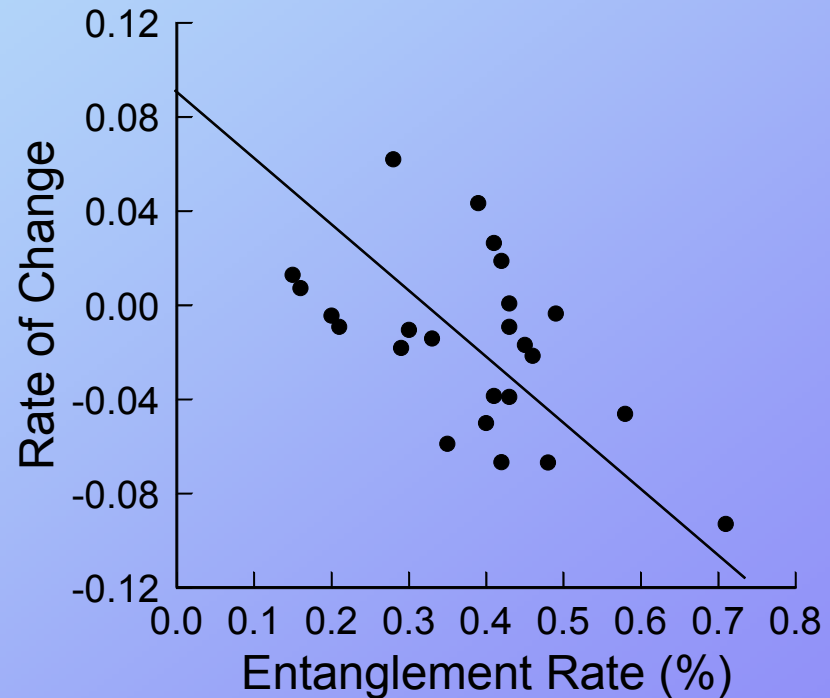


Entanglement Rate, St. Paul Island, 1967-1992

(juvenile male northern fur seals observed in research roundup)

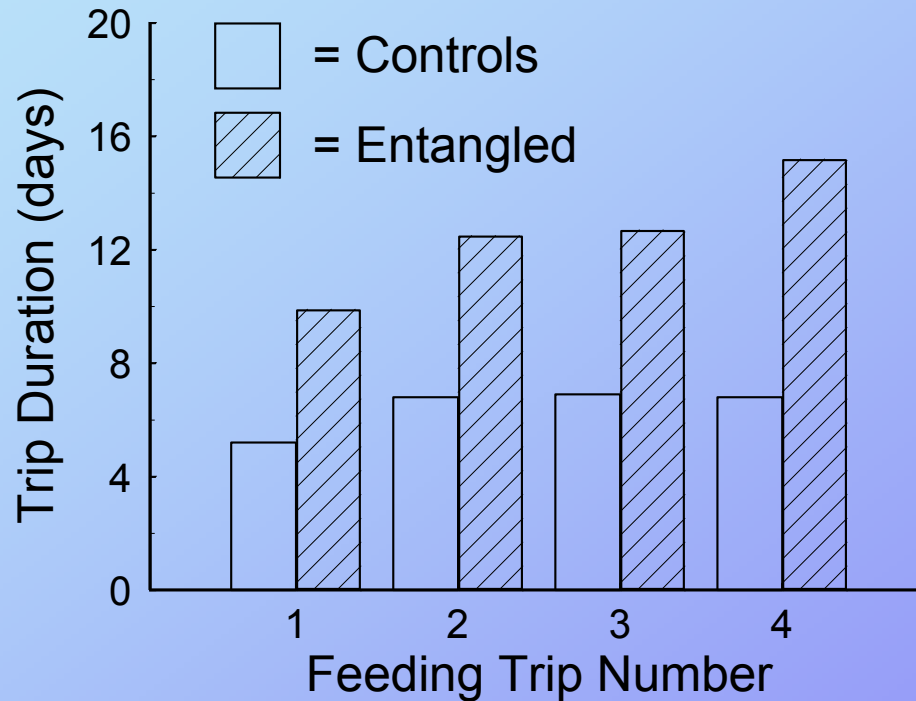


Change in Pup Numbers in Relation to Entanglement Rate (1967-1991)



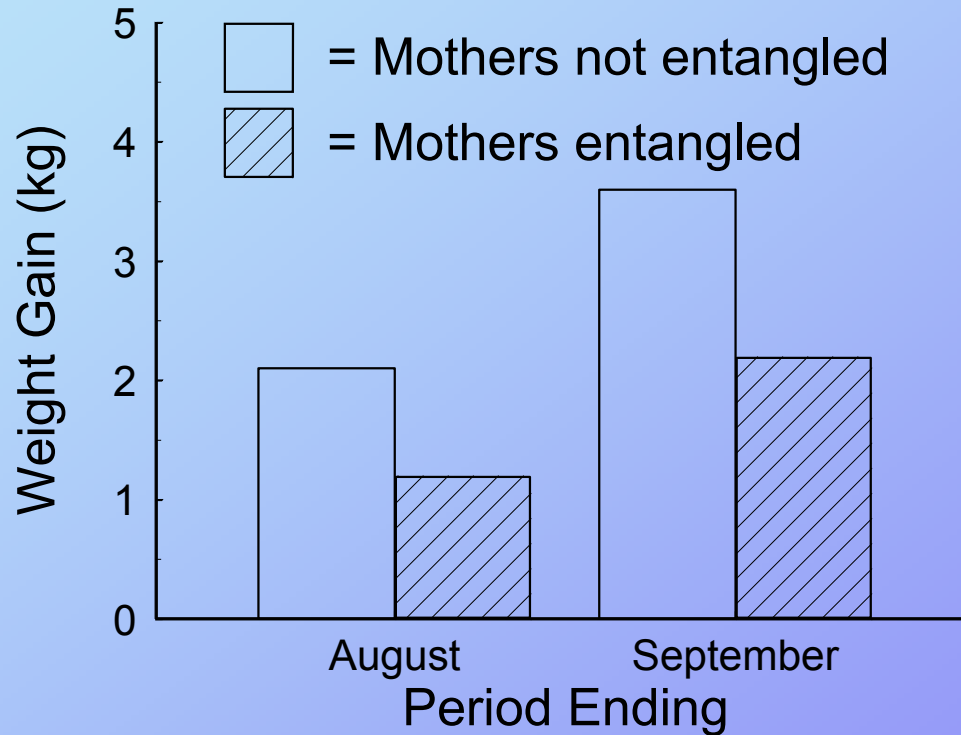
Correlation between the rate of change in numbers of pups born from 1972 to 1996 (based on a running mean of 3) and the entanglement rate observed among subadult male northern fur seals from 1967 to 1991 (i.e., with a lag of 5 years, based on data available at the National Marine Mammal Laboratory, Seattle, WA; see Fowler, 1987).

Length of Feeding Trips as Affected by Entanglement



A comparison of the mean length of feeding trips for entangled female northern fur seals fitted with radio transmitters and for seals fitted only with radio transmitters, for the first four feeding trips in the study (from DeLong et al., 1988).

The Effects of Entanglement on Pup Growth



Comparison of the gain in mass observed from July to August, and from August to September, for two groups of fur seal pups: 1) those whose mothers were entangled ($n = 12, 7$), and 2) those whose mothers were free of entangling debris ($n = 19, 14$, from DeLong et al., 1988).

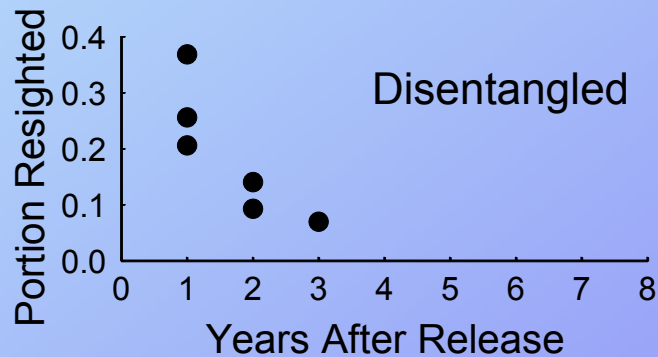
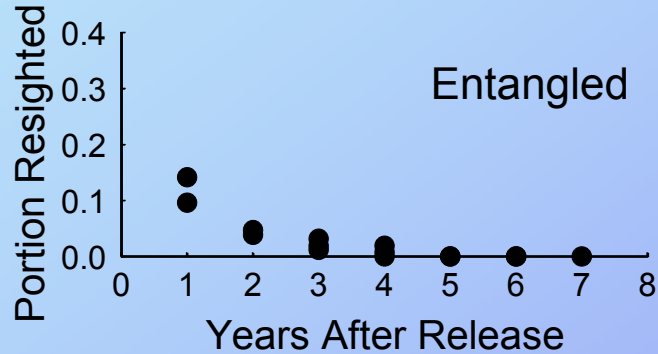
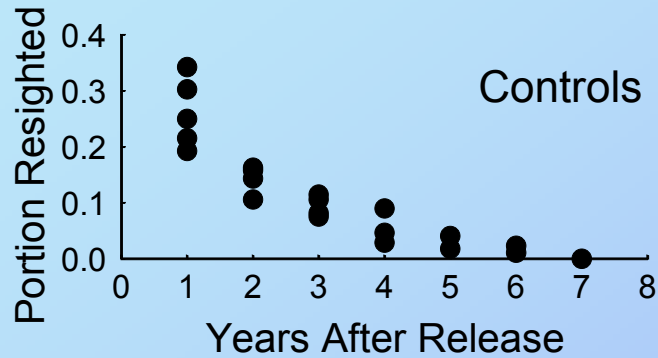


Entangled subadult males were captured and tagged along with two controls.

Later years involved tagging and removing debris.



Decay Functions for Cohorts of Control, Entangled and Disentangled Seals



The fraction of seals resighted subsequent to release in samples from St. Paul Island, Alaska, from 1986 through 1992, that were never entangled (top panel), entangled (middle panel), or had entangling debris removed (lower panel, updated from Fowler et al., 1999).