

MARINE MAMMAL STUDY NUMBER 1

Study Title: Effects of the Exxon Valdez Oil Spill on the Distribution and Abundance of Humpback Whales in Prince William Sound, Southeast Alaska, and the Kodiak Archipelago

Lead Agency: NOAA

PROJECT JUSTIFICATION

During 1989 and 1990, photographs of individual humpback whales occurring in Prince William Sound and Southeast Alaska were collected from May to September to assess the impact of the Exxon Valdez oil spill on humpback whale life history and ecology. In Prince William Sound, 547 days were spent traversing approximately 20,000 nautical miles in search of whales or while photographing whales. In Southeast Alaska, 230 days were spent conducting field research during the 1989 season to determine if Prince William Sound humpback whales were relocating to other areas.

In 1989, photographic analysis of Prince William Sound humpbacks revealed 59 identifiable whales in 119 encounters. In Southeast Alaska, 516 whales were identified in 1989, based on 2,448 encounters. During the 1990 season, photographic analysis of Prince William Sound humpbacks revealed 66 identifiable whales in 201 encounters. The total count represents the largest number of individual humpback whales ever photographed in Prince William Sound. A decline in the number of Prince William Sound humpback whales was not identified.

The distribution of humpback whales in Prince William Sound during the 1989 season was compared to their distribution in 1988. In 1988, more humpback whales used Lower Knight Island Passage area. The effect of increased vessel and aircraft traffic may be responsible for the whale distribution pattern observed in 1989. The distribution of whales in Prince William Sound during the 1990 season was compared to previous data. No apparent shift in distribution was noted in 1990. No observations were made of humpback whales swimming through oil. Despite considerable effort, Prince William Sound humpback whales were not observed during concurrent photographic studies in Southeast Alaska.

Synthesis of these data and the review of available scientific literature will allow the preparation of a final report which provides an interpretation of the results. This information may be useful to help manage the recovery of the North Pacific's endangered humpback whale population. Accordingly, preparation of a final report is warranted.

BUDGET (\$K)

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| Salaries | \$ 15.0 |
| Travel | 0.0 |
| Contracts | 0.0 |
| Supplies | 0.0 |
| Equipment | 0.0 |
| Subtotal | <u>\$ 15.0</u> |
| General Administration | 2.3 |
| Total | <u>\$ 17.3</u> |