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SOCIETY FOR MARINE MAMMALOGY

5TH BIENNIAL CONFERENCE
BIOLOGY OF MARINE MAMMALS

A B S T R A C T S¹

NEW ENGLAND AQUARIUM
BOSTON, MASSACHUSETTS 02110

John H. Prescott
Conference Chairman

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Lawrence-Labrador-Newfoundland-Grand Bank; western Greenland; and Iceland. No interchange of individuals between those feeding areas has yet been found but all four feeding populations winter or calve in the West Indies. Mark recapture statistics yield an ocean wide estimate for the humpback whale population of 7,948, 10,464 and 6,777 for the years 1980, 1981 and 1982. Further work in the eastern Atlantic will be necessary to see whether additional feeding populations exist and to document their wintering grounds.

ECOLOGY OF HUMPB WHALES IN AMERICAN

Greg Kaufman, Pacific Whale Foundation, P.O. Box 1038, Kihei, Maui, HI 96753

Four years (1979, 1980, 1982, 1983) of vessel and aerial surveys were conducted in the waters surrounding American Samoa (14°S, 170°W), revealing the presence of a previously undescribed population of humpback whales (Megaptera nuvaeangliae). Humpbacks were observed inhabiting the near-shore waters of primarily 100 fathans or less from June 26 to Nov. 15 with peak concentrations occurring from Sept. 15 to Oct. 1. Animals were observed as far east as Rose Island (14°30'S, 170°35'W). Interchange between two wintering grounds, one previously studied and one not, and American Samoa was observed: Nine animals were tracked from American Samoa (14°18'S, 170°35'W) to Vava'u Island (19°S, 174°10'W), Kingdom of Tonga, and two animals from American Samoa (14°20'S, 170°50'W) to Western Samoa (13°40'S, 172°W).

The presence of calves and singing whales is a strong indicator that reproduction is occurring in this area. Partial songs recorded in American Samoa were found to be similar to songs recorded in Tonga, but dissimilar to songs obtained earlier the same year in Hawaii, indicating that there is no interchange between North and South Pacific stocks.

The historical ecology of the humpback whale in American Samoa is discussed. Evidence points to a fairly new change in residence to American Samoan waters. This may have been precipitated by the whaling industries in Tonga and other parts of the South Pacific which were active until recently.

DEMOGRAPHICS OF HUMPBACK WHALES OFF SOUTHWEST MAUI, HAWAII

Greg Kaufman¹ and Kevin Wood². ¹Pacific Whale Foundation, P.O. Box 1038, Kihei, Maui, HI 96753; ²Naval Postgraduate School, Monterey, CA 93943

Observations of humpback whales (Megaptera nuvaeangliae) off the southwest coast of Maui were made from 1980 through 1983 to determine general demographics of the animals utilizing this previously unstudied portion of the Hawaiian breeding habitat. A total of 1218 hours of observation found, excluding single sightings, 1634 pods including 3215 animals of which 188 were calves. Peak densities reached .056 animals/km² with a mean of .012 animals/km². Mean pod sizes ranged from 1.77 in 1983 to 1.07 in 1982. Mean speeds ranged from 1.57 km/hr for mothers and calves to as much as 5.52 km/hr for pods with six animals. Other detailed statistics recorded were direction, changes in direction and speed, behaviors, affiliations and disaffiliations.

A lack of net northward movement does not support other researcher conjectures that this area is a major entrance into the sheltered four island area; no "parade" of animals was seen.