

Age at First Birth and Alternate Mating Strategies

How old are elephant seals when they first give birth? How do they become pregnant the first time? This research will help you answer both questions. The age of a mother as used below is her age on her nearest birthday.

The elephant seal colony at the South Farallon Islands (30 miles west of San Francisco) was established in 1972. From then until 1986 four researchers observed it. During all years except one, 90 to 100% of the pups were tagged. Because of this, researchers had an ever-increasing number of seals of known age to observe. During the birthing, molting and fall haul outs they observed the beaches daily. Their primary interest was in a birthing record of each animal that they could identify by age. 233 seals were used in the study, including some originally tagged at other rookeries. Many females were observed over several years. Along with the tags, they also used hair dye to mark animals of interest during the breeding season and to mark mature females that came in for the fall haul out so they could easily identify them during the breeding season.

The researchers observed that less than 15% of the females gave birth for the first time at age 3; by age 4, 75% had given birth at least once, and 99% had given birth at least once by age 5.

Le Boeuf says primiparity is from 2 to 6 years, but does not say if primiparity refers to first pregnancy or first birth. He is specific when he reports 36% of seals with a first birth at age 3 and 54% at age 4. He lists nothing for age 2.

In any given year, between 79% and 93% of the females older than 5 gave birth. The lowest years were 1984 and 1985 following the 1982-83 El Nino season.

From this it seems that it would be most accurate to say elephants seals may give birth at ages 3 and later and most commonly the first birth is at age 4.

A paragraph from the authors report, quoted below, throws a light on mating behavior. Note: “nulliparous” means never having given birth.

“Mature, nonpregnant females that hauled out during the breeding season usually were on land only 1-2 days, some for as little as a few hours. Most of these mated, usually with a subordinate male, sometimes in the water. A few mature, nonpregnant females remained on land 10-12 days during the breeding season and, although we did not always see them mate, they gave birth the following breeding season. Nulliparous but ovulating females that hauled out during the breeding season remained ashore for about 3- 5 days, and usually mated with subordinate males.”

While the behavior mentioned above is not part of a statistical study it could make our observations better informed.

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Huber, Harriet R., et. al. *Age Specific Natality at the South Farallon Islands*. *Journal of Mammalogy*, Vol. 72, No. 3 (Aug. 1991).

Deutsch, Charles J., et al., *Sex- and Age-related Variation in Reproductive Effort of Northern Elephant Seals*. In *Elephant Seals Population Ecology, Behavior, and Physiology*. Burney J. Le Boeuf and Richard M. Laws, Eds. 1994. P. 171.