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Estimating the haul-out population size of a colony of northern elephant seals *Mirouga angustirostris* in Mexico, base on mark-recapture data

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We have estimated the haul-out population size (total number of females) of the northern elephant seal *Mirounga angustirostris* from Isla San Benito del Oeste, Mexico, during the 2001/2002 breeding season. We used mark-recapture data and a method of maximum likelihood supported in a binomial probability density function. Because the number of females on land is not constant during the breeding season, we used 3 different estimations: 1 before the peak of female abundance, another near the peak, and 1 after the peak. An additional estimation was computed using the 3 samples within a joint binomial distribution. The haul-out population size estimated with the joint binomial distribution was 761 females, with a confidence interval from 712 to 818 females (p *<* 0.05). The proximity of the 3 Islas San Benito have caused almost all censuses reported in the literature to show the total counts of all categories of sex and class for all 3 islands together. This study provides the first estimate of the total haul-out population size of *M. angustirostris* from one of the Islas San Benito. From the historical trends of abundance for this species, we can assume an increase at the Isla San Benito del Oeste between 1950 and 1980, but cannot detect any change in abundante between 1980 and 2001.

Palabras clave: Mark-recapture, Northern elephant seal, Haul-out population size