

Barlow Jay; Gerrodette Tim; Silber Greg. 1997. First estimates of vaquita abundance. *Marine Mammal Science* 13(1):44-58.

Abstract:

The abundance of the only population of vaquitas, Gulf of California harbor porpoise (*Phocoena sinus*), is estimated from four surveys conducted in Mexico between 1986 and 1993, using a variety of methods. A line-transect approach was applied, using some parameters estimated from a related species, the harbor porpoise (*Phocoena phocoena*). Vaquita abundance is estimated as 503 (CV = 0.63) from 1986-1988 boat surveys, 885 (CV = 0.50) from 1988-1989 aerial surveys, 572 (CV = 1.43) from a 1991 aerial survey, and 224 (CV = 0.39) from a 1993 ship survey. A weighted log-linear regression indicates a rate of population change (decline) of -17.7% per year (95% CI = -43.2% to +19.3%) between 1986 and 1993. All of these estimates of vaquita abundance indicate that the species is at a critically low level.