

Recent harbour seal (*Phoca vitulina richardsi*) pup sightings in Magdalena Bay, Baja California Sur, Mexico

Samuel Chávez-Rosales and Susan C. Gardner

The SFS Center for Coastal Studies, Puerto San Carlos, B.C.S., Mexico C.P. 23740

Harbour seals (*Phoca vitulina richardsi*, Linnaeus, 1758), are among the most widely distributed pin-nipeds, occurring from arctic to temperate waters

in the Atlantic and Pacific oceans (Bigg, 1981; Riedman, 1990). In the eastern North Pacific, their southern limit appears to be as far south as the area

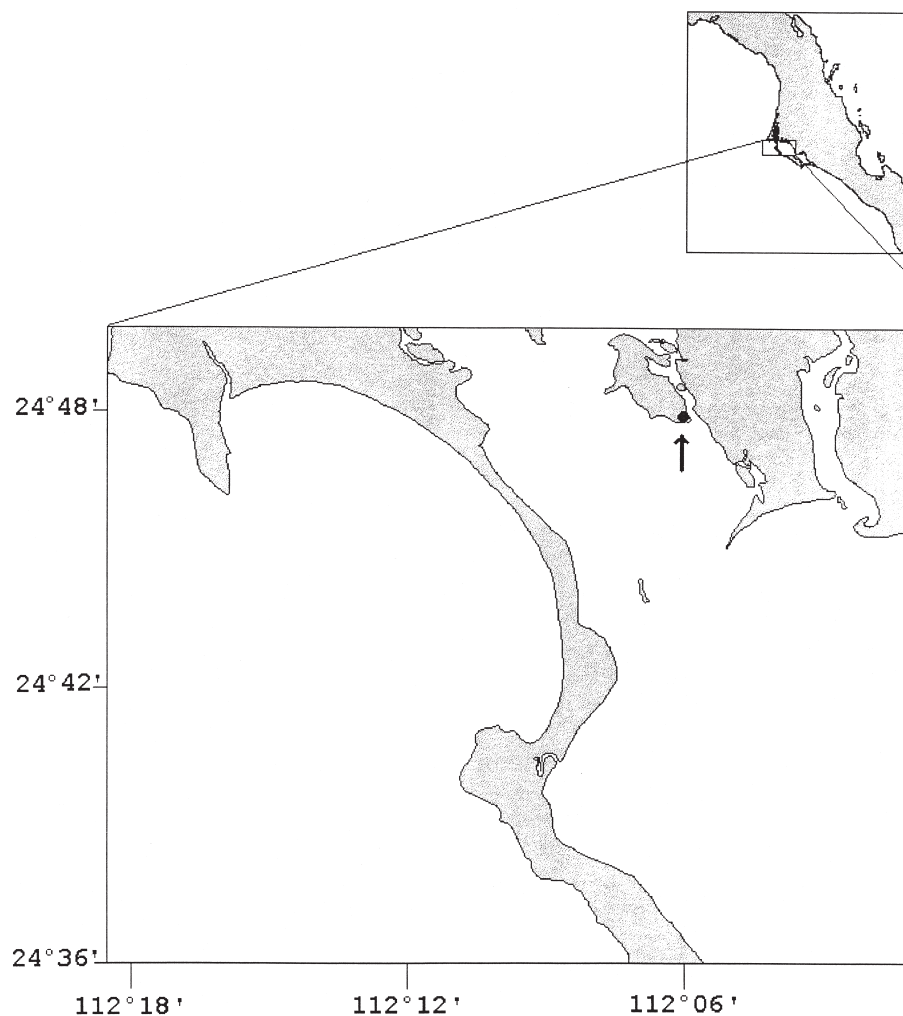


Figure 1. Map of the harbour seal (*Phoca vitulina richardsi*) sightings location in Magdalena Bay, Mexico on 3, 7, and 21 April, 1998.



Figure 2. Photographs of the pinnipeds sighted in Magdalena Bay showing the identification characteristics of harbour seals (*Phoca vitulina richardsi*). The first animal (a) was sighted on 3 and 7 April, and the second animal (b) was sighted on 21 April, 1998.

around Cedros Island, near 28°N (Bigg, 1981; King, 1983). In the Spring 1998, two harbour seal pups were observed near Puerto San Carlos, Magdalena Bay (N24°47'W112°06') (Fig. 1). We sighted one pup twice on 3 and 7 April, and the

other pup about 2 weeks after, on 21 April. Although a few other harbour seals have been reported, in the Sea of Cortez, (including an 84 cm pup which was found in poor condition at Islas Los Islots, B.C.S. near 25°N) (Gallo and Aurióles-

Gamboa, 1984) our observations would appear to extend the southern breeding range of this species considerably.

The birthing season of harbour seals varies widely. Within any particular area, the pupping season is about 1–2 months, beginning later as one moves north. In the area of Cedros Island, pups are born in early February (King, 1983; Bonner, 1990; Reidman, 1990). The lactation period ranges from 5–6 weeks, with a weight gain of 0.6 kg/day (Bigg, 1973). The animals in the present sightings were 79.1 cm and 71 cm (for the first and second pup, respectively). Although apparently thin, both pups appeared to be in good health and were alert and responsive (Fig. 2a and 2b). We think that these pups were recently weaned and perhaps about 1.5 to 2 months old when we observed them. Based on the reported length and breeding phenology of harbour seal pups (Bigg, 1973; Bigg, 1981; Gallo and Aurióles-Gamboa, 1984) it is unlikely that these pups wandered south 350 km from known rookeries in the north. Instead, we propose that there is a small breeding colony of harbour seals near Magdalena Bay.

The 1997/1998 El Niño event which was occurring during this time involved important changes in the ambient water temperature of this region. An average of 5°C increase in Magdalena Bay water temperature was observed over the historical March temperatures ($17 \pm 1^\circ\text{C}$) (Alvarez-Borrego *et al.*, 1974; and S. Gardner, Center for Coastal Studies, School for Field Studies, unpublished data). It seems unusual that such a broadly adapted species would be occurring south of its recorded range during a time when water temperatures are warmer than normal. However, a previous record for a harbour seal south of its distribution was also during an El Niño year (1982/83) (Gallo and Aurióles-Gamboa, 1993). Aurióles-Gamboa (1984).

In Mexico, the *P. vitulina richardsi* population has been estimated to be more than 1000 individuals, making up one of only 4 species of pinniped in the country (Aurióles-Gamboa, 1993). Aurióles-Gamboa believed that the initial sightings in the early 1980s were an indication of growing population levels. The present harbour seal sightings may support this hypothesis and contribute additional information to the general knowledge of this species in Mexico.

References

- Alvarez-Borrego, S., Galindo-Bect, L. A. & Chee-Barragan, A. (1975) *Características hidroquímicas de Bahía Magdalena B. C. S. Ciencias Marinas* 2: 94–110.
- Aurióles-Gamboa, D. (1993) Bioversidad y estado actual de los mamíferos marinos en México. *Revista de la Sociedad Mexicana de la Naturaleza Especial (XLIV)*: 397–412.
- Bigg, M. A. (1973) Adaptations in the breeding of the harbour seal *Phoca vitulina*. *Journal of Reproduction and Fertility Supplemental* 19: 131–142.
- Bigg, M. A. (1981) Harbour seal. In: S. H. Ridgeway, S. H. & R. J. Harrison (eds.) *Handbook of Marine Mammals*. Academic Press, New York, NY. pp. 1–27.
- Bonner, W. N. (1990) *The Natural History of Seals*. Facts on File, Inc. New York, NY.
- Gallo-Regrosso, R. J. P. & Aurióles-Gamboa, D. (1984) Distribución y estado actual de la población de foca común (*Phoca vitulina richardsi* Gray, 1864), en la Península de Baja California, México. *Anales del Instituto de Biología de la Universidad Nacional Autónoma de México* 55, *Series de Zoología* 2: 323–332.
- King, J. E. (1983) *Seals of the World*. 2nd edn. London: British Museum of Natural History; Cornell Press, Ithaca, NY.
- Riedman, M. (1990) *The pinnipeds. Seals, sea lions and walruses*. University of California Press, Los Angeles.

