

American Society of Mammalogists

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Sr. Prisciliano Melendrez Barrios
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Dear Sr. Melendrez Barrios:

Thank you very much for your response to our 25 May 2004 letter to President Fox on behalf of the American Society of Mammalogists. In that letter we commended actions taken by the government of Mexico to safeguard the future of the critically endangered vaquita (*Phocoena sinus*) in the northern Gulf of California. However, we also emphasized the need for continued vigilance to prevent further declines in the population of this critically endangered species, including eliminating the deaths from incidental mortality during net fisheries. These fisheries include shrimp trawlers; we pointed out that shrimp trawling also damages benthic communities and is an inappropriate activity in the Biosphere Reserve.

In your letter you suggested that reduction in nutrient availability because of lack of historic levels of flow in the Colorado River is likely a major cause of the decline of the vaquita. The best scientific analyses available do not support this suggestion; instead, they very clearly show that incidental mortality from fisheries have pushed the vaquita towards extinction. This source of mortality must be eliminated. We respectfully disagree with your position that prior criticisms of mortality from net fisheries have not been scientifically based. A joint analysis completed five years ago by scientists from the Instituto Nacional de Pesca of Mexico and the National Marine Fisheries Service of the U.S. carefully considered risk factors for this species, including reduction in flows and nutrient regimes in the Colorado River Delta. This analysis (published in 1999 in the peer reviewed journal *Marine Mammal Science*, 15(4): 974-989) provided strong evidence that incidental mortality in net fisheries was the primary and overwhelming threat to the vaquita. The analysis acknowledged that reduced flows could be harmful to the species in the distant future, but emphasized that such flows have not likely affected the vaquita in the past and have not contributed directly to the present precarious status of the population. You also

suggested that pollutants might also be adversely impacting the vaquita population. The concentrations of persistent environmental contaminants found in tissues of the vaquita are very low, particularly when compared with concentrations in tissues of the closely related harbor porpoise in many areas of the world (for a summary of such studies see pages 485-565 in *The Biology of Marine Mammals*, Smithsonian Institution Press, Washington, DC)

The above and similar, peer-reviewed scientific analyses regarding vaquita populations (e.g., *Conservation Biology* 14 (4):1110-1119) emphasize the need for Mexico to continue to strive to eliminate mortality of the vaquita in fisheries. Such actions should incorporate curtailment of fisheries, including elimination of shrimp trawls in the Biosphere Reserve, and promotion of alternative economic activities for people affected by changes to the fisheries industry in vaquita habitat. Mortality of the vaquita in fisheries is now attracting international attention (*Nature* 2004. 429:590). Some authorities are concerned that the vaquita may be the next marine mammal to become extinct. Only one other species of marine mammal in the world has become extinct in the past one hundred years. This was the Caribbean monk seal, *Monachus tropicalis* (*Journal of Mammalogy* 1977 (1):97-98), a species whose former distribution included marine waters off the eastern coast of Mexico. Mexico has many great natural resources, including its marine life. We encourage all relevant authorities in Mexico to continue to strengthen their efforts to prevent extinction of marine mammals under their jurisdiction.

Sincerely,

Bruce D. Patterson
(Past) President,
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