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The Vaquita: Can It Survive?

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The vaquita (Spanish for "little cow"), or Gulf of California harbor porpoise (*Phocoena sinus*), has the most limited range of any marine cetacean and is probably the rarest. It has been caught incidentally in gill nets set commercially for totoaba (*Totoaba macdonaldi*), large fish that were over-exploited in the upper Gulf of California until they, too, were endangered. In 1975, the Mexican Government announced a total indefinite closure on fishing for totoaba. Between the time this porpoise was described as new to science (1958) and its listing by the U.S. Fish and Wildlife Service as Endangered (early 1985), the vaquita was known from only 26 confirmed records (partial remains found on beaches) and a few sightings of live animals. (Note: the vernacular name "cochito" was cited when this animal was listed, but biologists have since learned that "vaquita" is the term used by most local fishermen.) The *Endangered Species Technical Bulletin* story about its listing (see BULLETIN Vol. X No. 2) said the species was on the brink of extinction "if it still exists."

In the spring of 1985, the Mexican Government conducted experimental fishing operations to assess the population status of totoaba in the upper Gulf of California. During these fishing operations and some illegal gill-net sets for totoaba by regional fishermen, at least 13 vaquitas were captured and killed accidentally in the gill nets. Because these specimens were collected when fresh, scientists were able to examine the external appearance of this species for the first time (Brownell, et al., 1987). They found that the most striking features of the coloration are the large black eye patches and the upper and lower lip patches. The most striking morphological feature distinguishing vaquitas from the other two species of *Phocoena* is the proportionately higher dorsal fin. Total lengths of these 13 vaquitas ranged from 70.3 centimeters (a neonate) to 143 cm (an adult female).

During the spring of 1986, Silber (In press) conducted an extensive survey in the northern Gulf of California in an attempt to find live vaquitas and better understand their distribution. He was successful in finding these animals on only 12 occasions. These sightings are thought to represent approximately 31 individuals. Also during the spring of 1986, some additional (and continued illegal) experimental gill net fishing for totoaba was conducted and at least a few porpoises were again taken (Findley, pers. comm.). Illegal and limited experimental fishing continued in the spring of 1987 but it is unknown whether or not any more vaquitas were taken. Silber (pers.

comm.) also returned to the upper Gulf of California to search for the vaquita and again he found small numbers of them in the same general area as in 1986. What does the future hold for these porpoises?

Several threats to the species, such as habitat degradation and destruction, effects of organochlorine pollutants, and reduction of its food supply from overfishing, were discussed when it was listed as Endangered. However, the major problem faced by the vaquita is still the continuation of experimental, illegal, or commercial fishing for totoaba and its sale on the

black market. Any other fishing operations (e.g., shark and manta ray) that involve gill nets also may affect the recovery of these porpoises.

Barlow (1987) reviewed the factors affecting the possible recovery of *P. sinus* and concluded that, given the available data and the inadequacy of current survey techniques for accurately determining the population size of this species, it will be many years before scientists will be able to determine whether the population is increasing or decreasing. It is quite possi-

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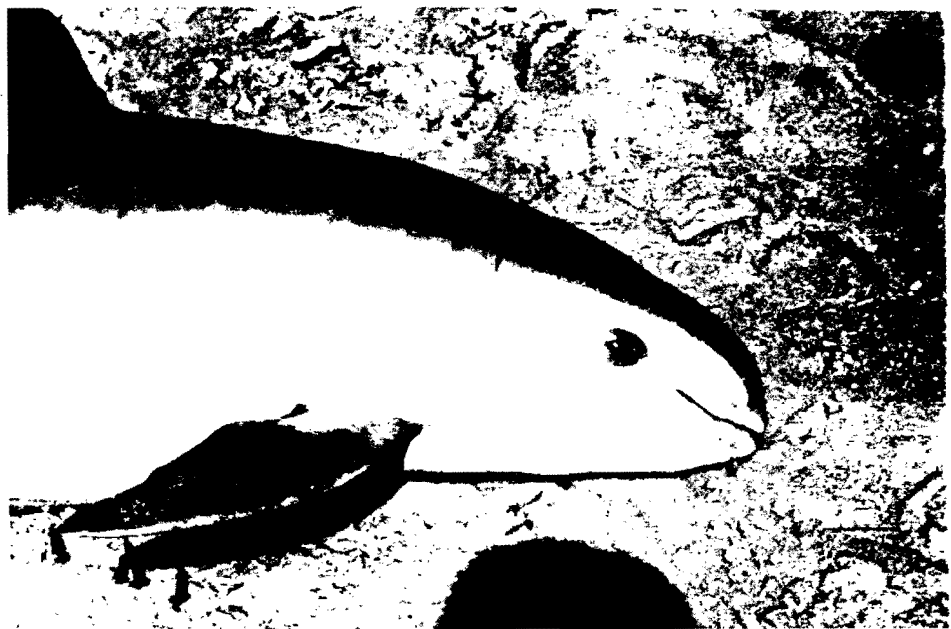


photo by Alejandro Robles

The vaquita's most distinctive markings are the black eye patch and the upper and lower lip patches. Pseudo-stalked barnacles (*Xenobalanus globicipitis*) can be seen attached to the flipper of this specimen.

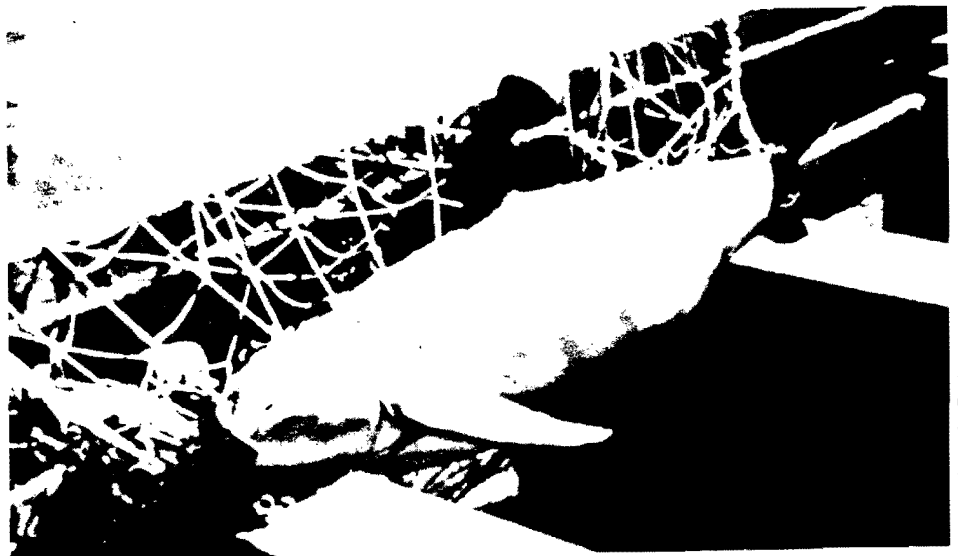


photo by Alejandro Robles

This vaquita was captured in a gill net that was set for totoaba.

Vaquita

(continued from page 7)

ble, therefore, that the vaquita could become extinct before scientists have clearly documented a decline in its population or learned much more about its natural history.

References

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- Brownell, Robert L., Jr., Lloyd T. Findley, Omar Vidal, Alejandro Robles, and Silvia Manzanilla N. 1987. External morphology and pigmentation of the Vaquita *Phocoena sinus* (Cetacea: Mammalia). Mar. Mamm. Sci., 3(1):22-30.
- Silber, Gregory K. (In press) Recent sightings of the Gulf of California harbor porpoise, *Phocoena sinus*. J. Mamm.

Pesticide Labeling Program Delayed

The Environmental Protection Agency announced in early January that it is deferring implementation of its pesticide labeling program (which was intended to protect Endangered and Threatened species) until 1989. Although the program had been scheduled for implementation on February 1, 1988, the Agency determined that more time is needed to improve the accuracy and public awareness of the program.

The main purpose of the program is to preclude the exposure of certain sensitive listed species to a group of toxic pesticides registered for use on corn, cotton, soybeans, sorghum, small grains, rangeland, forestland, and mosquito larvae. Deferring the implementation will give affected Federal and State agencies, user groups, and conservation organizations time to improve the program's accuracy and lessen its impacts on pesticide users.

Listing Proposal Withdrawn

A proposal to list a Utah plant, the spreading wild buckwheat (*Eriogonum humivagans*), as an Endangered species has been withdrawn (F.R. 1/25/88). New information received since the April 7, 1986, proposal led the Service to conclude that the plant is not taxonomically distinct from *Eriogonum lonchophyllum*, which is not in danger of extinction. As a plant population rather than a distinct taxon, it is not legally eligible for Endangered Species Act protection.

Peregrine Falcon Exhibit Tours Region 5

Ron Joseph
Concord, New Hampshire, Field Office

One of the tasks identified in the revised Eastern Peregrine Falcon Recovery Plan is to attain greater public support for, and understanding of, peregrine falcons (*Falco peregrinus*) through information and education. As a means of contributing to the plan's public education objective, the Service's Concord, New Hampshire, Field Office developed a "Take Pride in Peregrines" exhibit. The exhibit has been on loan to libraries, museums, and other educational centers almost every month since August 1986. An estimated 35,000 to 45,000 people have viewed the exhibit in such places as

Atlantic and southern States. In short, the species has come a long way since 1965 when Dr. Joseph Hickey convened the first international conference to investigate the reasons for the extirpation of the eastern "rock" peregrine and seriously depleted races worldwide.

Exhibit visitors of all ages learn of the combined work of many agencies, organizations, and individuals in restoring this magnificent and noble bird to the eastern United States. Foremost among them is The Peregrine Fund, Inc., which celebrated the release of its 2,000th peregrine last summer. The exhibit also portrays the



photo by Ron Joseph

Public education is important for the recovery of the peregrine falcon, as well as for other listed animals and plants.

the Boston Museum of Science, Forsyth National Wildlife Refuge, and Acadia National Park. The theme of the exhibit is the gradual recovery of the species in the Northeast where, prior to the mid-1940's, over 100 pairs of falcons nested in the States of Pennsylvania, New York, Vermont, Massachusetts, New Hampshire, and Maine.

The peregrine is gradually recovering to reoccupy former breeding sites in the East. Over 850 young peregrines have been released by The Peregrine Fund, Inc., in conjunction with many private, State, and Federal agencies. Since the celebrated arrival of the first wild cliff-nesting peregrines at Franconia Notch, New Hampshire, in 1981, the recovering population now numbers a minimum of 18 nesting pairs in the Northeast. An additional 38 breeding pairs occur in the mid-

new challenge facing peregrines in the east, particularly the potential threat rock climbers pose to nesting birds.

Individuals or organizations interested in borrowing the exhibit for a month should contact Ron Joseph of the Fish and Wildlife Service, 22 Bridge Street, Concord, New Hampshire 03301; (603) 225-1411.

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