
Vaquita: A Victim of Bycatch

Exploring Problems and Solutions



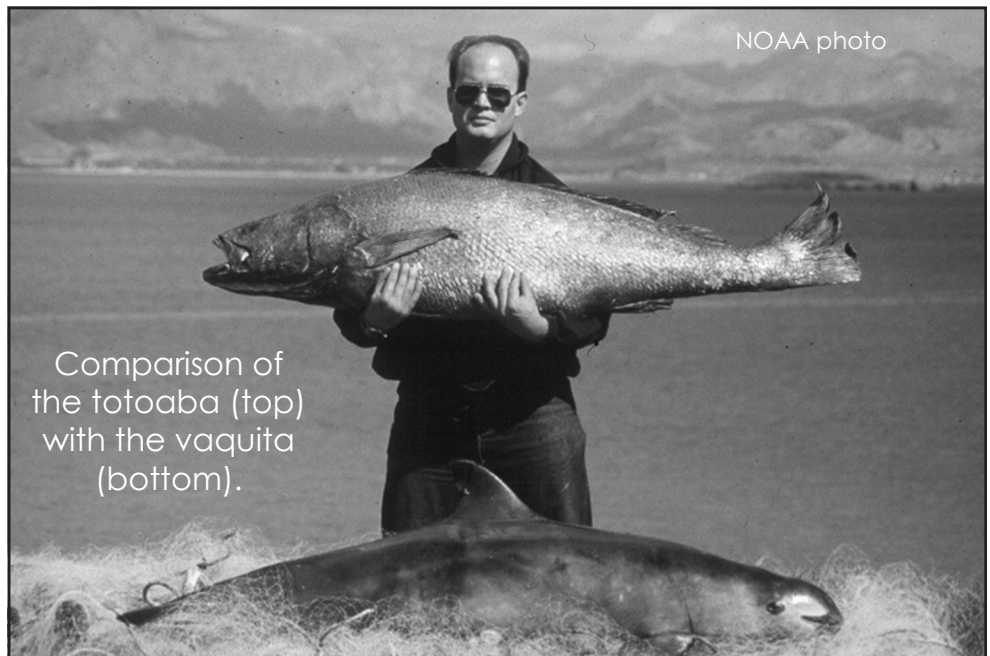
The vaquita has never been intentionally hunted by people and there has never been a commercial market for the species. Despite this, the vaquita's population has been decimated by the fishing industry in the upper Gulf of California. They are accidentally killed in nets intended for other species, a phenomenon known as "bycatch."

Bycatch is not a problem just for the vaquita. Worldwide, thousands of species are impacted by indiscriminate fishing practices or become accidentally ensnared in discarded fishing gear. The World Wildlife Fund estimates that approximately 300,000 cetaceans (whales, dolphins and porpoises) are killed as a result of bycatch every year. Combined with other marine mammals, birds, reptiles and fish, the number of animals killed annually numbers in the millions.

Why the vaquita?

The vaquita exists in one of the most diverse marine habitats in the world. The Gulf of California is home to many commercially fished species including the gulf croaker, sharpnose anchovy and various types of squid. Because these species are eaten by the vaquita, the porpoise often swims near them and may become entangled in fishermen's nets, causing them to drown. This has caused an astounding 92% decline

in the vaquita population since 1997. As of late 2016, fewer than 30 individuals were estimated to survive, making it the most critically endangered of the world's 128 marine mammal species.



Comparison of the totoaba (top) with the vaquita (bottom).

The vaquita and the totoaba

An especially detrimental relationship exists between the vaquita and a type of fish called totoaba, another endangered species living in the same habitat. A lucrative black market exists for the totoaba's enormous swim bladder which is used in a traditional Chinese soup. Although fishing for the totoaba has been illegal since the 1970s, about 2 pounds (1 kg) of

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totoaba swim bladder can be worth up to \$8,000 — the equivalent of an entire year's income from legal fishing. Thus, poaching is common and the totoaba's population has continued to decline along with the vaquita which are often accidentally caught at the same time.

A search for solutions

Because the vaquita is native to the waters of Mexico, most conservation efforts have focused on local government regulations; providing fishermen with improved nets which limit bycatch; and better enforcement of fishing bans. But for those residing outside the Gulf of California area, there's still much you can do to help this animal and other endangered marine species.

For example, making sustainable seafood choices when you purchase seafood in a restaurant or for home can address the broader problem of bycatch. By avoiding species which are not sustainably harvested, you help remove the financial incentive for poaching. Several websites and smart device apps can assist you with identifying and avoiding products which result in excessive bycatch.

Supporting legislation which protects vulnerable species and their ecosystems is also very important. This might include laws which require the fishing industry to use safer nets and lower bycatch numbers; or prevent the importation, sale or use of products harvested from endangered and threatened species.

Looking for solutions to help the vaquita, totoaba and similar species will require change and innovation. The oceans are imperiled for a variety of reasons. Over-harvesting is removing too many of the native species to feed the world's human population and not allowing them to replenish naturally. Pollution, including plastic waste, is choking our waterways and killing animals of all kinds. Climate change and ocean acidification are altering both the temperature and chemistry of the oceans with potentially catastrophic effect. Although these challenges are huge, we do have the ability to solve them through education, science, invention and personal responsibility.

To explore additional ways that you can become an ocean steward, visit the Oceanscape Network at oceanscape.aquarium.org.

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