



Heartbreak

BY KATIE MORELL

With Efforts to Save the
Endangered Vaquita in
Peril, Hope Remains

Off the Coast of Mexico



When

a small fleet of boats left the harbor at San Felipe, Mexico, in early November 2017, the tension was just as thick as the hope. Standing onboard were nearly 60 of the world's foremost experts in marine mammal conservation, who had traveled from as close as San Diego—a four-hour drive north—and as far away as Denmark and Greenland.

On land—the northwestern-most shore of Mexico's Gulf of California—were another 30 scientists, waiting with hearts racing, all wanting the same thing: to save the vaquita porpoise.

The mission was one straight out of a blockbuster film, complete with real life Leonardo DiCaprio making a conservation plea to the Mexican government a few months prior, but with an ending getting more unclear by the day. The vaquita, a 5-foot-long animal, is notoriously elusive, having only been discovered in the late 1950s, only living in the upper Gulf of California, and having never been brought into managed care. Until that day in early November, there

were very few photos of the animal alive. Most photographic proof of its existence lived in pictures of drowned carcasses entangled in illegal gillnets.

As of last count in 2016, there were 30 Vaquita left on the planet. Official estimates quoted losses of 50 percent year over year since the late 1990s, so that meant that by the time the scientific fleet went out on the water, numbers could have been in the teens.

The project was risky, especially with such scant population numbers. Two weeks prior, the group had caught a six-month-old vaquita and let it go hours later upon showing signs of distress. On that day in November, the group found the exact specimen they were after: a mature female, not lactating or pregnant.

This was their chance.

"She didn't do well," remembers Dr. Barbara Taylor, lead of the Marine Mammal Genetics Program at the Southwest Fisheries Science Center in La Jolla, Calif. "We tried to release her and she swam away, but then turned around, came back and had a heart attack. We tried to revive her for three hours and she didn't make it."

Not wanting to harm another vaquita, they packed up the operation and went home, utterly devastated.

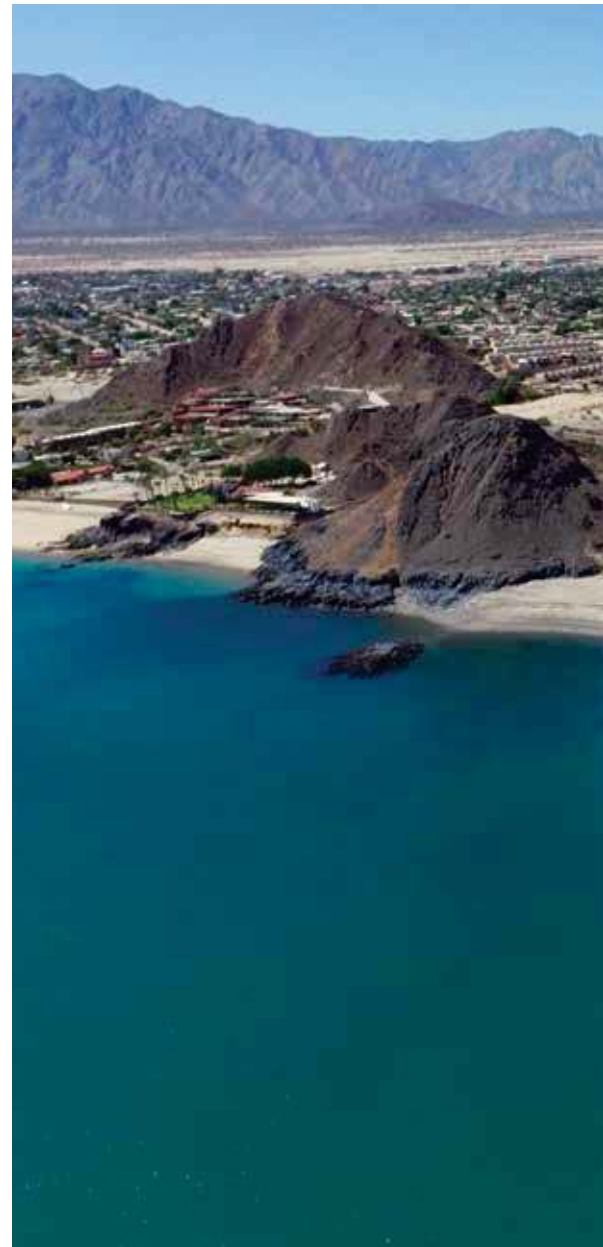
"Like many of us involved in the leadership of the project, this wasn't our first time in a difficult situation," said Dr. Cynthia Smith, executive director of the National Marine Mammal Foundation in San Diego and the mission's logistical lead. "But I underestimated how invested I was, we all were, in this option. As a professional, you try not to get too emotionally involved, but in this case it was just impossible."

Conservation and the Black Market

The near-cinematic plight of the vaquita is a story that dates back hundreds of years to China. As long ago as the late 1800s, Chinese elite used swim bladders from inside bahaba, a local fish, for medicinal

purposes. This practice got so popular that overfishing became a problem and, in the early 1900s, explorers looked for an alternative. They found it in a similar-sized fish called the totoaba, located in the upper Gulf of California, off the coast of Mexico.

For the first half of the 20th century, totoaba were exported to China at alarming rates, so much so that in the early 1970s, the Mexican government outlawed the practice because of sustainability issues. This left the Chinese without sought-after swim bladders and a black market was born. Around roughly



the same time, gillnets were replacing hook-and-line methods, thereby helping to catch large amounts of totoaba, as well as the accidental catch of unintended species (i.e. by-catch).

Vaquita were one of those unintended species.

By the mid-70s, scientists were waking up to the decreasing numbers of the vaquita and trying to alert government authorities and the wider wildlife community. The problem, though, was that no one could agree on the reasons for species decline.



© VaquitaCPR



© VaquitaCPR

"... a group of scientists decided the best idea was to go to the Gulf of California, save as many as they could and raise them in managed care with the thought of releasing them when numbers grew and threats had been mitigated."



© VaquitaCPR

Dr. Lorenzo Rojas-Bracho, head of the International Committee for the Recovery of the Vaquita (or CIRVA), remembers starting his work on the species in the early 90s. "Back then, everyone was blaming the population decline of the vaquita on a lack of water flow from the Colorado River," he said.

Around the same time, Taylor was looking into possible genetic diversity issues as a reason. But after much research, she, like Rojas-Bracho, found the truth.

"Vaquitas have one single threat: gillnets," she said. "People can make excuses for not making fisheries sustainable and point fingers at genetics or other things, but it just delays them from doing what needs to be done."

By 2008, the truth was undeniable. Official counts claimed there were just less than 600 vaquita in 1997; by 2008 that number had fallen to just over 200. The

reason was simple: the economic collapse of 2008 came at the same time as a boom in China's middle class and therefore an influx of disposable income for things like swim bladders.

"When a wildlife product is as valuable as cocaine, the black market explodes," said Dave Bader, director of education for Aquarium of the Pacific in Long Beach, Calif. "And enforcement becomes the issue. In Mexico especially, we are dealing with lower wages and drug cartels drawn to the wildlife product. If you are trying to arrest someone for a wildlife crime, not take a bribe, get to prosecution and nothing happens, the person could be back on the water the next day."

Herculean Rescue Efforts

Since 2008, the scientific community has initiated a variety of measures to try to save the vaquita, including developing a

sophisticated acoustic monitoring system, lobbying the Mexican government for more enforcement and spreading the word about the demise of the species. But by 2016, experts knew they needed to do something drastic if the porpoise was to be saved. That year, official numbers reported just 30 left.

That's when a group of scientists decided the best idea was to go to the Gulf of California, save as many as they could and raise them in managed care with the thought of releasing them when numbers grew and threats had been mitigated.

"VaquitaCPR, which includes a variety of experts including CIRVA, decided to bring the porpoises to a sanctuary," said Dr. Randy Wells, director of the Chicago Zoological Society's Sarasota Dolphin Research Program and co-manager of VaquitaCPR. "We got approval for our plan in early December 2016 but still needed money to carry it out."

The price tag was \$5 million, so the group lobbied everyone they knew. In early 2017, 100 plus AZA-accredited members and AZA raised more than \$1 million through SAFE: Saving Animals From Extinction. In May 2017, the Mexican government gave more than \$3 million.

"Other organizations and private individuals gave about \$600,000, which meant we had \$4.6 million," said Smith. "But we decided to go for it anyway. Then we had to build facilities and secure platforms by October. It was an extremely aggressive timeline, but we did it."

October 2017 was deemed the go-date because of the weather on the upper Gulf. As 90 scientists descended upon San Felipe, Bader remembers his thoughts.

"No one wanted to do it," he said. "We live for protecting species' in the wild. We don't live for collecting animals and putting them in care. Zoos and aquariums are conduits for wild, natural habitats. But the gillnet issue proved impossibly challenging"





Hope

Fast forward several months after the ill-fated rescue mission in San Felipe and attitudes have changed. Enforcement efforts are the only hope left on the table. After the initial sting of the mission's outcome, those with a deep love for the vaquita are back at work. Rojas-Bracho, who is based in Mexico, is constantly meeting with local NGOs, military officials and members of the government to see what can be done.

"The government has agreed to help pay for an increase in boats to start recovering nets," he said over the phone in January. "We are asking for a ban on all fishing in the upper Gulf from January through May 2018 to help protect the vaquita. As for me, I was threatened and asked by authorities not to go to San Felipe right now because it is too big of a risk."

Hope, it seems, is still alive within VaquitaCPR and the larger scientific community.

"There is hope," said Taylor, "but I also think it is possible the vaquita will go extinct this year. It depends on two things: what groups like the Mexican government and Sea Shepherd [conservation organization] do to bring nets out of the water and how we can help communities that benefit from totoaba fishing.

"Some fishermen are being paid not to fish, but eventually they will want to go back. We need alternate fishing gear that won't catch species like the vaquita."

Lessons

The heartbreaking saga of the vaquita offers one big lesson for the wider conservation and zoo and aquarium community: don't wait until there are so few of a species to launch lifesaving efforts.

"There's no room for learning, for trying different protocols when you are at numbers too low," said Smith. "You can't really save a species that way; you need to learn how a species will react to being in captivity when numbers are in the hundreds, not the dozens."

Another lesson: get the word out.

"The marine mammal community can be better at partnering with the zoo and aquarium community to get out messages about overfishing and animals going extinct," she said. "They are the ones with the megaphones. Let's make sure they know what is happening so they can use their platform to spread the word."

Katie Morell is a writer based in Sausalito, Calif.

