

EXPEDICIÓN INTERNACIONAL

DEC 3

VAQUITA MARINA 2015



ESTIMATING ABUNDANCE OF MEXICO'S CRITICALLY ENDANGERED PORPOISE

Today marks the conclusion of a vaquita survey bound for the conservation history books as either a major contributor to turning the tides and saving vaquita or to further document their steep decline to extinction. Looking back at the last report from the 2008 vaquita survey is sobering. On that 2008 survey, vaquitas were the most common marine mammal sighted and the research done on the survey looked promising to develop an acoustic monitoring program. Subsequently, this acoustic monitoring program revealed a shocking decline of vaquitas between 2011 and 2015, a result of accidental kills from legal fisheries coupled with the boom in illegal fishing for totoaba. Now, in 2015, we are relieved to have seen vaquitas on this survey, but data indicate that between our 2008 survey and now, we have likely lost 7 out of every 10 vaquitas from an already critically endangered species. Rebuilding the population to 2008 levels will require 40 years at vaquita's maximum population growth rate.

But the 2015 survey has brought some positive results. In 2008, the waters outside the Vaquita Refuge were filled with gillnets. The initiation of the 2-year ban on these nets earlier in 2015, and the subsequent enforcement of the ban by the Navy have resulted in gillnet-free waters. We are reminded on a daily basis that vaquitas and humans enjoy a healthy, productive habitat in one of the most beautiful places on earth. We hope you can enjoy and be inspired by this beauty with photos contributed by our science team. We were also incredibly lucky to have high officials, top media and fishermen see vaquitas with their own eyes. The vaquitas came through even if the weather did not!

The fishermen in the communities affected by vaquita conservation actions deserve special mention and thanks. We were pleased to host 13 representatives of these communities on the ship during our survey. The day was chosen to give the best opportunity possible to have them see our work, and, with luck, vaquitas themselves. We were successful on both counts. Only a few fishermen actually got to see vaquitas, but there were none in the group denying the existence of vaquitas by day's end. As was the case in 2008, the exchange of information with leadership of the fishing cooperatives was a positive experience. We look forward to the research focus next year being on alternative vaquita-friendly fishing gear so the fishermen can return to work while vaquitas recover.

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HONORARY VAQUITA

OBSERVER:

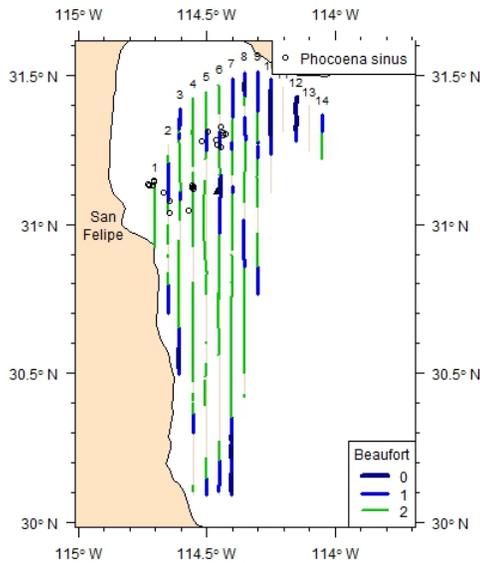
SECRETARY RAFAEL

PACCHIANO ALAMÁN

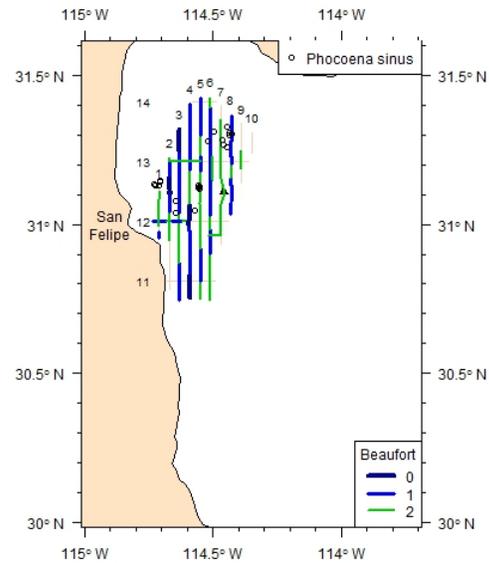


R/V OCEAN STARR
STABBERT
MARITIME

The survey successfully completed Primary and Core tracklines in the calm conditions (less than Beaufort 3) needed to see vaquitas. We knew we needed on the order of 40



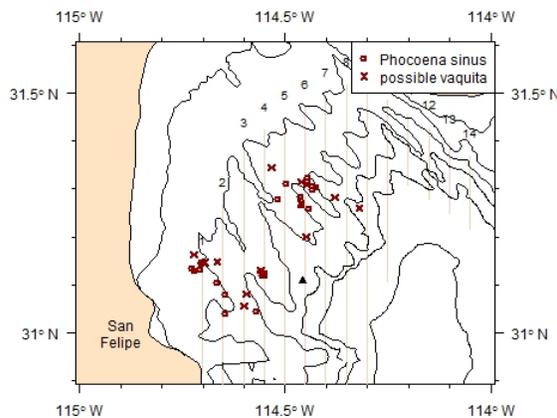
PRIMARY TRACKLINES WITH EFFORT COMPLETED IN 'VAQUITA-FRIENDLY' (CALM) CONDITIONS.



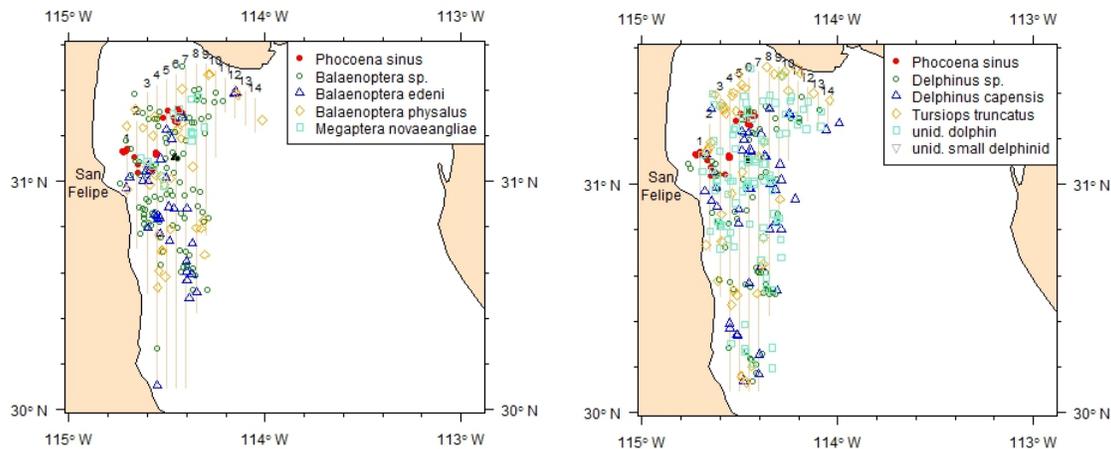
TRACKLINES COMPLETED IN THE CORE RANGE OF VAQUITAS. ALL VAQUITA SIGHTINGS WERE MADE IN THE 1993, 1997, 2008 AND THIS SURVEY WITHIN THIS AREA.

vaquita sightings to estimate what population biologists call the “detection function” (essentially an estimate of how far away from the ship vaquitas can be detected visually), and we knew the number of vaquitas had decreased since 2008. So, we planned for a longer survey (64 days, compared to 39 days in 2008), we added more survey lines, and we conducted our 2015 survey on the same ship we have used for decades to keep conditions of the viewing platform unchanged from past surveys. Our planning paid off. At the end of the 2015 survey, we have covered 900 nautical miles of trackline but made

only 28 vaquita sightings. Sightings will be turned into numbers of vaquitas by a group of experts over the coming months so it is important to note that the sightings are not a census (there are more than 28 vaquitas) but contribute to a density estimate. As was typical of past surveys, vaquitas were found along ridges in the far northwestern portion of the Gulf. Acoustic data confirmed visual results in the areas where both methods were used. Few vaquitas were detected in the shallower waters where the ship could not survey, however the waters near El Golfo de Santa Clara were visited regularly by vaquitas.



The total number of sightings for the 2015 survey was 515 (from two separate and independent survey locations on the ship). Of these, 264 were dolphins (bottlenose and common), and 214 were whales (Bryde's, fin, and humpback). Many sightings were not identified to species because the focus on vaquitas meant that effort on non-vaquita sightings was minimized. The greatest difference between the previous survey in 2008, and the one we have just concluded is that vaquita was the most common species sighted in the former survey, and one of the rarest now.



ACKNOWLEDGEMENTS

Making the longest ever vaquita survey happen would not have been possible without an enormous international team effort. The Chief Scientists (Lorenzo Rojas-Bracho and Barbara Taylor) extend our sincere thanks to this entire team of professionals dedicated to vaquita conservation.

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