

Whale Safe – an AI-enabled system to prevent ship collisions with whales – to launch off the San Francisco coastline

On the heels of a ship strike killing Fran, the most photographed whale in California, Whale Safe will be deployed in collaboration with The Marine Mammal Center to help detect endangered whale presence and track ship speeds to provide data to the shipping industry, public, and government to reduce preventable whale deaths

SAN FRANCISCO, CA (September 21, 2022): The Marine Mammal Center and The Benioff Ocean Science Laboratory have announced a collaboration to bring Whale Safe, a technology-based mapping and analysis system to help prevent whale-ship collisions, to the San Francisco Bay Area Region. This extension of the Whale Safe platform, from its start in southern California, is being launched through the generous support of Marc and Lynne Benioff.

"Whale Safe is on a mission to help save the incredible mammals who have ruled the oceans for tens of millions of years," said Marc Benioff, Chair & Co-CEO of Salesforce. "Whale-ship collisions continue to be a leading cause of death for endangered whales, but with these new kinds of monitoring technology and alert systems, fatalities have begun to decline. This is a triple win for the planet – we save the whales, fight climate change, and promote community health by cutting air pollution. We need more solutions like this coming out of alliances between science and business."

Last month's tragic death of Fran, the most photographed whale in California, is the latest example of why Whale Safe is needed off the Northern California coast. Whale Safe technology will allow the public, media, government officials, and shipping companies and their vessel captains to go online and in near-real time, monitor ship speeds and whale presence in Northern California's coastal waters. In addition to providing an immediate benefit for monitoring ship speeds, the data will also be saved and analyzed by the Benioff Ocean Science Laboratory and The Marine Mammal Center to help inform additional preventative safety recommendations.

"Whale-vessel collisions are a global concern, so when addressing the problem and building the Whale Safe system we wanted it to be a blueprint to allow for replication and expansion into other regions. We are excited to expand the technology and expertise to the San Francisco Bay region where ship collisions are of high concern for endangered whales," said Callie Steffen, Whale Safe project lead at the Benioff Ocean Science Laboratory.

Today, more than 50% of all container ship traffic coming to and from the United States passes through West Coast ports. Blue, fin, humpback, and gray whales are vulnerable to ship strikes as they migrate and feed in areas that overlap shipping lanes and routes. Scientists estimate that over 80 endangered whales are killed by ship strikes off the U.S. West Coast each year.

"Whale Safe utilizes best-in-class technology with best-practice conservation strategies to create a solution to reduce risk to whales. This is where tech meets Mother Nature for the benefit of marine life. I am incredibly grateful to Marc and Lynne Benioff. Whales and ships must coexist in an increasingly busy ocean. Whale Safe San Francisco provides data insights to empower

decisions that protect whales while supporting efficient maritime commerce,” said Dr. Jeff Boehm, Chief External Relations Officer of The Marine Mammal Center.

The number of known whale deaths from ship strikes on the West Coast has been growing over the last decade and the ones we see are only a fraction of the total number that die each year. In fact, scientists estimate the carcass detection rate is only 5-17%, so the actual number of dead whales is much higher than the number observed and recorded.

Whale Safe utilizes an AI-enabled acoustic monitoring system, big data models and direct whale sightings recorded by trained observers and citizen scientists. The three data streams are validated, compiled and disseminated in an easily interpreted “Whale Presence Rating” ranging from low to very high whale activity. Additionally, shipping report cards are created to display a ship or company’s cooperation with voluntary vessel speed reduction zones implemented by NOAA, EPA, and the U.S. Coast Guard. This gives the captains of large vessels the data they need to know when to slow down, which is the most effective measure to drastically reduce the number of deadly ship strikes.

Whale Safe has been deployed in the Santa Barbara channel since 2020. In creating a “school zone for whales” where vessel speeds have been reduced, major shipping companies have started implementing the data and slowing down while in transit. When ships slow down, the risk of collision and fatality decreases dramatically. Whale Safe Santa Barbara and the new San Francisco expansion will show the efficacy of this tool for other locations where whales are at risk of collision with ships such as in San Diego, key ports along the Eastern Seaboard of the United States, and international sites such as Sri Lanka, Chile, Greece and the Canary Islands, to name a few.

“We look forward to the day that ‘whale safe’ becomes as ubiquitous as ‘fair trade.’ We believe consumers care about having retailers transport their products with shipping companies who achieve our shared conservation goal of ensuring whale safe waters,” said Dr. Boehm.

“Whales are animals of such great beauty, ecological importance, and antiquity. They do not deserve to become roadkill at sea. This is an avoidable problem. We can’t any longer be passive observers of endangered whales washing ashore along San Francisco’s beaches. Whale Safe is an exciting coming together of marine scientists, technologists, conservation organizations, business leaders and government partners to do something about this issue,” said Dr. Douglas McCauley, Director of the Benioff Ocean Science Laboratory.

Whale Safe San Francisco will be led by the Benioff Ocean Science Laboratory and The Marine Mammal Center, along with leading scientists from Cascadia Research Collective and Point Blue Conservation Science. The tool was developed in collaboration with leading scientists from Woods Hole Oceanographic Institution, Norwegian University of Science and Technology, the University of California Santa Cruz, University of Washington, Conserve. iO, and NOAA’s Southwest Fisheries Science Center.

For assets including photos, videos and graphs, please reach out to media@tmmc.org.

About The Marine Mammal Center

The Marine Mammal Center is a global leader in marine mammal health, science and conservation, and is the largest marine mammal hospital in the world. The Center's teaching hospital and training programs operate globally, with its headquarters in the Golden Gate National Recreation Area, part of the National Park Service. Expert teams from the Center travel around the world to work with emerging first responders and has itself rescued more than 24,000 marine mammals from 600 miles of its authorized rescue area of California coastline and the Big Island of Hawai'i. The Center's mission is to advance global ocean conservation through marine mammal rescue and rehabilitation, scientific research, and education.

For more information, please visit MarineMammalCenter.org. Follow us on [Facebook](#), [Instagram](#) and [Twitter](#).

About The Benioff Ocean Science Laboratory

The Benioff Ocean Science Laboratory (previously The Benioff Ocean Initiative), based at the Marine Science Institute at University of California Santa Barbara, is an applied research center that leverages the power of science and technology to create scalable and replicable solutions to pressing ocean health challenges. The Benioff Ocean Science Laboratory collaborates with scientists around the world to address issues such as plastic pollution, endangered species, and climate change. UC Santa Barbara is a leading center of marine research that is committed to using science to promote effective ocean stewardship.

For more information, please visit <https://bosl.ucsb.edu/>. Follow us on [Twitter](#).

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