

JOURNEY OF THE **PACIFIC STORM**:

From commercial fishing to marine research

By Ben Davis



f I were to describe the *Pacific Storm* in one word, it would definitely be 'resilient'," said Lisa Ballance, director of OSU's Marine Mammal Institute (MMI). "She was built as a commercial fishing vessel, and later gifted to MMI. Now her future is with marine mammal research and broader research pertaining to marine ecosystems."

Back in 2003, a federal boat buyout resulted in dozens of commercial fishing vessels being retired from operation. The buyout was meant to stabilize fisheries and help rebound struggling fish populations, but for whale researcher Bruce Mate, it also meant opportunity.

As the founding director of OSU's Marine Mammal Institute in 2006, Mate was looking for a vessel that would allow him to conduct whale research in remote areas. When marine Extension agents identified a trawling vessel named the *Pacific Storm* as a top candidate, Mate reached out to its owners, Scotty and Janet Hockema, and invited them to breakfast.

Over coffee at the Basin Café in Charleston, Mate told the Hockemas about the research goals of MMI, and his hope for the immense value that a vessel like the *Pacific Storm* could bring to his program. After the meal, they went to look at the vessel, and, although this was the first time they had ever met, the Hockemas surprised him with an act of overwhelming generosity—they handed him the keys.

"I'm still emotional about it, as you can tell," Mate said, his eyes welling at the memory of that fateful moment. "Because it made a difference that was immediate. It took more investment for sure, but gifts like that from the heart always make a difference."

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After the donation, the vessel was brought to MMI headquarters in Newport and outfitted for research. The initial renovation included replacing the fish holds with berthing areas for seven scientists and five crew. Later, a new A-frame articulating gantry with a 10-ton lifting capacity was added to the stern. Most recently, a new mast has been retrofitted up top that can comfortably hold up to five, providing a bird's-eye view for wildlife spotting and behavioral observations. Nearly all vessel upgrades and maintenance were undertaken in Newport by local businesses.

In its nearly two decades at OSU, the *Pacific Storm* has performed countless missions including blue whale research featured in National Geographic's TV movie *Kingdom of the Blue Whale* (2009). The one-hour documentary follows Mate and his team to the groundbreaking discovery of **Above Left:** The R/V *Pacific Storm* underway and heading west toward the Pacific Ocean from Yaquina Bay in Newport.

Top: Tail fluke of a sperm whale (*Physeter macrocephalus*), the largest toothed whale and toothed predator.

Above: Bruce Mate is a Professor Emeritus at Oregon State University and former director of the Marine Mammal Institute (2006-2009) who was instrumental in securing the *Pacific Storm* for OSU.



Above: Lisa Ballance, director of the Marine Mammal Institute, aboard the R/V *Pacific Storm* in Newport.

Right: The R/V *Pacific Storm* is an 84-foot OA steel-hulled research vessel with a 24-foot beam that is outfitted for year-round coastal service. The vessel can accommodate up to seven people (beyond the crew) in three cabins for overnight and extended science missions up to 30 days duration.

blue whale calving grounds, where the largest animals ever to have lived on Earth give birth.

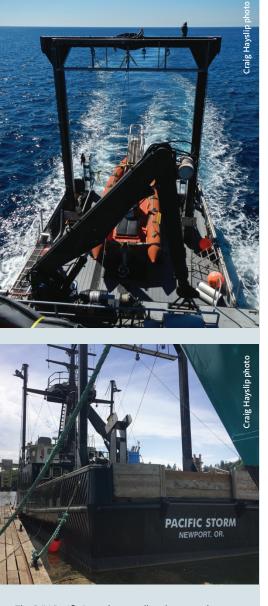
Barb Lagerquist is a researcher at MMI who has spent extensive time at sea. "The *Pacific Storm* allows us to do research in remote areas with endangered whales in a very safe, effective, and fully supported way," she said. "We can put all of our equipment aboard the *Storm*, spend all day out on our tagging vessel—a 22-foot rigid hull inflatable and then at night we can come onboard, process our samples in a dry lab, have a hot meal, go to bed, and wake up where the whales are."

The Storm has also been used for Bering Sea surveys, seafloor mapping off the Pacific coast, and core drilling off the Columbia River. But perhaps some of its most significant missions have been those that inspired students. "We've used this boat many times to take groups of students out to sea—high school students, community college students, and of course our OSU undergrads," said Sarah Henkel, a marine ecologist at OSU's Hatfield Marine Science Center in Newport. "One of the unique things about our programs is that real scientists with real science objectives always lead the cruises, so students get to contribute to an actual research project."

Tracy Crews is the marine education program manager at Oregon Sea Grant. "It's a great







The R/V *Pacific Storm* has excellent low-speed handling and positioning. A new 10-ton lifting capacity articulating A-frame on the stern can launch and recover small boats, moorings, and sampling equipment. Features include a dry-lab, knuckle boom with a 5-ton lifting capacity, and 30-foot reach mounted slightly starboard of mid-ship that can service the entire back deck for loading/unloading supplies, boats, equipment, and other provisions.

The aft deck area measures 27 feet long by 23 feet wide and can carry an inboard 22-foot Zodiac Hurricane RHIB (rigid-hull inflatable boat). Additional boats or other equipment can be located behind the wheelhouse on top of the lab area. A series of 1500-watt lights illuminating both the deck and the waters in front of the vessel allow for around-theclock work.



Above: Researchers from many institutions make use of the *R/V Pacific Storm's* versatility to advance scientific inquiry of marine ecosystems.

opportunity for students to really see what research is about, and to understand why math is important," Crews said with a smile. "We use a lot of math in our data analysis, and it really brings science to life for them."

When Lisa Ballance took over as director of the Marine Mammal Institute in 2019, she felt an immediate connection to the *Pacific Storm*. "The *Storm* has an interesting history, and is going to such a different place than it comes from, which parallels my own journey. I've been a marine biologist my entire career, but have always concentrated on research and conservation in isolation in the past."

Before joining OSU, Ballance was director of the Marine Mammal and Turtle Research Division within the National Oceanic and Atmospheric Administration (NOAA), where she developed an international reputation for her research on marine ecosystems and leadership of large science teams.

"The future is exciting here for me, because moving forward I want to blend research and conservation with sustainable use of marine resources by humans," Ballance said. "I think OSU and MMI are very well-placed to do that, and to make a difference in a way that no other university has done in the past. The *Pacific Storm* will play a large role in that work, and will have a very deep and broad legacy."

Watch a video and learn more about the *Pacific Storm* at: **mmi.oregonstate.edu/research-vessels**