

Scientists become detectives to identify ‘ghost nets’

Abandoned fishing nets that kill fish and other marine life often have no markings. Researchers try to find where they came from.

By Associated Press

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‘Ghost nets’ drift among the Pacific Ocean’s currents, threatening sea creatures and littering shorelines with the entangled remains of what they kill.

Lost or discarded at sea, sometimes decades ago, the fishing gear continues to harm marine life and coral reefs in Hawaii. Now researchers are doing detective work to trace the debris back to fisheries and manufacturers, which takes in-depth analysis of tons of ghost nets.

The biggest concern is that the discarded gear kills fish and other wildlife such as endangered Hawaiian monk seals, seabirds and turtles long after it’s gone adrift, said Drew McWhirter. McWhirter is a graduate student at Hawaii Pacific University and one of the study’s lead researchers.

“These nets bulldoze over our reefs before they hit shore,” McWhirter added. “They leave a path of destruction, pulling coral heads out, and can cause a lot of ecological damage.”

Ghost nets foul oceans throughout the world, but the Hawaiian Islands are a central point for marine waste.

Efforts to identify origins of nets have been difficult because debris comes from many countries and nets have few, if any, unique identifying features.

Experts say that many nets are lost accidentally, but boaters occasionally ditch nets to avoid prosecution when fishing illegally.

The ghost net study is supervised by Jennifer Lynch, co-director of Hawaii Pacific University’s Center for Marine Debris Research.

“We’re going to have a very challenging time . . . trying to identify it back to its source,” she said. “And if we fail, . . . that’s going to be increased evidence for policymakers to see the importance of gear-marking and potentially bring those kinds of regulations to the front.”

Lynch hopes the study will help find new ways to prevent damage to the ocean environment.

The crew gets ghost nets from three sources around Hawaii. One is the shores of the uninhabited Northwestern Hawaiian Islands, which are part of Papahānaumokuākea National Marine Monument. An April cleanup expedition to Papahānaumokuākea brought back nearly 50 tons of nets and other lost gear.

In a shed on the university’s campus, researchers pull apart bundles of fishing gear. Then samples are taken to a lab for

analysis. Researchers look at about 70 aspects of each piece of net.

“We look at how it’s twisted. Is it twisted versus braided? We are trying to look at how many strands does it have, its twine-diameter, mesh-stretch size,” said Raquel Corniuk, a research technician at the university.

The information is entered into a database, which will help scientists find patterns that could lead to manufacturers and then fisheries or nations.

The researchers have spent about a year collecting data and hope to publish it this year.

They have found debris from all regions of the Pacific Ocean, including Asian countries and the U.S. West Coast.

Much of the ghost-net problem lies with nations that have few fishing regulations and sometimes buy or manufacture low-quality nets, according to a longtime fisherman who works for a net-maker in Washington state.

“Their products tend to be weaker,” said Brian Fujimoto, of NET Systems.

Fujimoto said his company uses technology, colors and other construction techniques that make their products easily identifiable.

Making that an industry standard, he said, is “only going to happen with the more industrialized nations, say for example, the U.S., Canada, Japan.”

Clamping down on those whose ghost nets harm marine life is important, said Daniel Pauly, a marine biologist and professor at the University of British Columbia’s Institute for the Oceans and Fisheries. “We kill fish for fishing and for consumption, but these fish that are killed by lost gear are killed for no reason, not to mention the marine mammal and turtles and other animals that we like.”

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