A 2nd garbage patch: Plastic soup seen in Atlantic

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In this Feb. 15, 2010 photo released by 5 Gyres, a coastal area of the Azores Islands in Portugal, is shown littered with plastic garbage. Researchers are warning of a new blight on the North Atlantic ocean: a swirl of confetti-like plastic bits, bottle caps and other refuse stretching for thousands of square miles. (AP Photo/5 Gyres)

(AP) -- Researchers are warning of a new blight at sea: a swirl of confetti-like plastic debris stretching over a remote expanse of the Atlantic Ocean.

The floating garbage - hard to spot from the surface and spun together by a vortex of currents - was documented by two groups of scientists who trawled the sea between scenic Bermuda and Portugal's mid-Atlantic Azores islands.

The studies describe a soup of micro-particles similar to the so-called Great Pacific Garbage Patch, a phenomenon discovered a decade ago between Hawaii and California that researchers say is likely to exist in other places around the globe.

"We found the great Atlantic garbage patch," said Anna Cummins, who collected plastic samples on a sailing voyage in February.

The debris is harmful for fish, sea mammals - and at the top of the food chain, potentially humans - even though much of the plastic has broken into such tiny pieces they are nearly invisible.

Since there is no realistic way of cleaning the oceans, advocates say the key is to keep more plastic out by raising awareness and, wherever possible, challenging a throwaway culture that uses non-biodegradable materials for disposable products.

"Our job now is to let people know that plastic ocean pollution is a global problem - it unfortunately is not confined to a single patch," Cummins said.

The research teams presented their findings in February at the 2010 Oceans Sciences Meeting in Portland, Oregon. While scientists have reported finding plastic in parts of the Atlantic since the 1970s, the researchers say they have taken important steps toward mapping the extent of the pollution.

Cummins and her husband, Marcus Eriksen, of Santa Monica, California, sailed across the Atlantic for their research project. They plan similar studies in the South Atlantic in November and the South Pacific next spring.

On the voyage from Bermuda to the Azores, they crossed the Sargasso

Sea, an area bounded by ocean currents including the Gulf Stream. They took samples every 100 miles (160 kilometers) with one interruption caused by a major storm. Each time they pulled up the trawl, it was full of plastic.

A separate study by undergraduates with the Woods Hole, Massachusetts-based Sea Education Association collected more than 6,000 samples on trips between Canada and the Caribbean over two decades. The lead investigator, Kara Lavendar Law, said they found the highest concentrations of plastics between 22 and 38 degrees north latitude, an offshore patch equivalent to the area between roughly Cuba and Washington, D.C.

Long trails of seaweed, mixed with bottles, crates and other flotsam, drift in the still waters of the area, known as the North Atlantic Subtropical Convergence Zone. Cummins' team even netted a Trigger fish trapped alive inside a plastic bucket.

But the most nettlesome trash is nearly invisible: countless specks of plastic, often smaller than pencil erasers, suspended near the surface of the deep blue Atlantic.

"It's shocking to see it firsthand," Cummins said. "Nothing compares to being out there. We've managed to leave our footprint really everywhere."

Still more data are needed to assess the dimensions of the North Atlantic patch.

Charles Moore, an ocean researcher credited with discovering the Pacific garbage patch in 1997, said the Atlantic undoubtedly has comparable amounts of plastic. The east coast of the United States has more people and more rivers to funnel garbage into the sea. But since the

Atlantic is stormier, debris there likely is more diffuse, he said.

Whatever the difference between the two regions, plastics are devastating the environment across the world, said Moore, whose Algalita Marine Research Foundation based in Long Beach, California, was among the sponsors for Cummins and Eriksen.

"Humanity's plastic footprint is probably more dangerous than its carbon footprint," he said.

Plastics have entangled birds and turned up in the bellies of fish: A paper cited by the U.S. National Oceanic and Atmospheric Administration says as many as 100,000 marine mammals could die trash-related deaths each year.

The plastic bits, which can be impossible for fish to distinguish from plankton, are dangerous in part because they sponge up potentially harmful chemicals that are also circulating in the ocean, said Jacqueline Savitz, a marine scientist at Oceana, an ocean conservation group based in Washington.

As much as 80 percent of marine debris comes from land, according to the United Nations Environmental Program.

The U.S. government is concerned the pollution could hurt its vital interests.

"That plastic has the potential to impact our resources and impact our economy," said Lisa DiPinto, acting director of NOAA's marine debris program. "It's great to raise awareness so the public can see the plastics we use can eventually land in the ocean."

DiPinto said the federal agency is co-sponsoring a new voyage this

summer by the Sea Education Association to measure plastic pollution southeast of Bermuda. NOAA is also involved in research on the Pacific patch.

"Unfortunately, the kinds of things we use plastic for are the kinds of things we don't dispose of carefully," Savitz said. "We've got to use less of it, and if we're going to use it, we have to make sure we dispose of it well."