



Seascope: the state of our oceans

'An invisible killer': how fishing gear became the deadliest marine plastic

Plastic in the depths of the sea / What you don't see is what you don't know

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What he finds most striking, however, are the metres of netting, ropes and line, luminous orange buoys, crab pots and fish traps: remnants of the global fishing industry, drifting around in what is known as the “great Pacific garbage patch”.

Typically, the finger of blame for marine plastic is pointed at terrestrial pollution from rapidly developing economies in south-east Asia and elsewhere, Lebreton says. But his fresh discoveries highlight the contribution of industrialised nations to this problem, too.

Plastic in the depths

An October survey of 150 fishers from seven big fishing nations estimated that 80% of fishing

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together fishers, conservation organisations, industry players and governments.



📷 A team from the Papahānaumoku-ākea Marine Debris Project drags fishing nets from the beach of Midway Atoll, off Hawaii. The abandoned gear threatens endangered Hawaiian monk seals and other marine animals. Photograph: Matthew Chauvin/AP

Ghost gear contributes **about 20%** of marine plastic - with most of the rest coming from land-based sources - but underwater, its effects are profoundly worse. “It continues to operate as something that catches marine wildlife,” says Christina Dixon, ocean campaign leader at the Environmental Investigation Agency. “It’s an invisible killer.”

The World Wide Fund for Nature calls fishing waste the **deadliest form of marine plastic**, finding that entanglement or entrapment by ghost gear affects 66% of marine animals, including all sea turtle species and 50% of seabirds.

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📷 A dead humpback whale washed up in East Lothian, on Scotland's east coast, after getting entangled in nets. Photograph: East Lothian Ranger Service/WDC/PA

All the while, ghost gear is costing millions of dollars to clean up, especially for small island nations that lie in the path of drifting gear that invades their reefs and beaches, Dixon says.

There are many reasons fishing gear ends up as marine waste - from [stormy weather](#) to poor storage and gear snagging on the seafloor. Fishers facing tough economic conditions may take more risks to catch fish, says Richardson, increasing the likelihood of damaging or losing gear.

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Where exactly ghost gear comes from is still under-researched. Lebreton's study traced the national origins of fishing waste in the great Pacific garbage patch (which pointed, logically, to countries with the greatest fishing presence in that ocean) - but it does not tell us much about the other regions, he says. "I'd be curious to know what we'd find in the other [four] gyres."

To plug these knowledge gaps, the Global Ghost Gear Initiative is drawing together data from government members and fisher surveys to create what Giskes expects will be the largest global dataset on ghost gear. In the next five or 10 years, they hope to have a comprehensive picture of the problem.

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📷 A researcher pulls apart a mass of ghost nets to trace fishing gear that washed ashore in Hawaii back to the manufacturers and fisheries where it originated. Photograph: Caleb Jones/AP

In the shorter term, there has been innovation aiming to tackle ghost gear. Designers have developed [biodegradable fishing gear](#) and [satellite-traceable buoys](#) that allow fishers to track and retrieve lost traps. Gear [recycling](#) is now commonplace in several ports, and a handful of these include [gear buy-back schemes](#) for old or damaged gear.

In the US, the National Oceanic and Atmospheric Administration’s [Marine Debris Program](#) funds dozens of prevention and retrieval projects: one of these has partnered with the New Jersey-based Stockton University with fishers including Unkert to [identify sunken crab pots](#) using sonar off the state’s shoreline. “We’ve gotten at least 5,000 or 6,000 off the bottom, from one small bay over the last 10 years,” Unkert says.

Canada has made it mandatory to [report gear loss](#), as well as to mark certain gear, which makes it possible to trace lost gear back to individual vessels and nations, and is thought to increase accountability. Some momentum is building on the industry side too: Thai Union, one of the

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to make measures to tackle ghost gear – such as gear-marking, buy-back schemes and designing recyclable gear – mandatory across all nations. Most solutions are “only really going to be effective if everybody is doing it”, Dixon says.

There is a way out of the tangled mess of ghost gear if governments are willing to come together, Giskes says. “This does feel like a solvable problem.”

The planet’s future hangs in the balance, and with the Cop27 climate summit taking place in Egypt, there is a small but real chance for meaningful change. With so much at stake, this is the most important summit of its kind. Will global leaders squander this moment, or can they come together, finally, to mobilise?

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