

Tires dumped in the ocean are killing hermit crabs

November 4 2021, by Bob Yirka

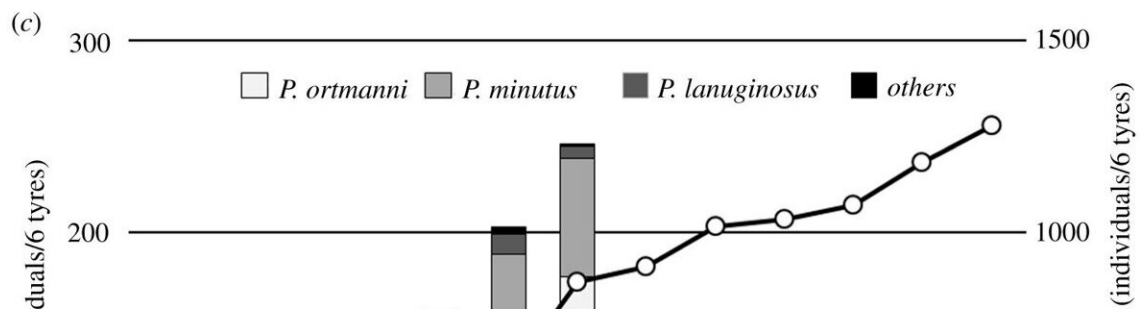
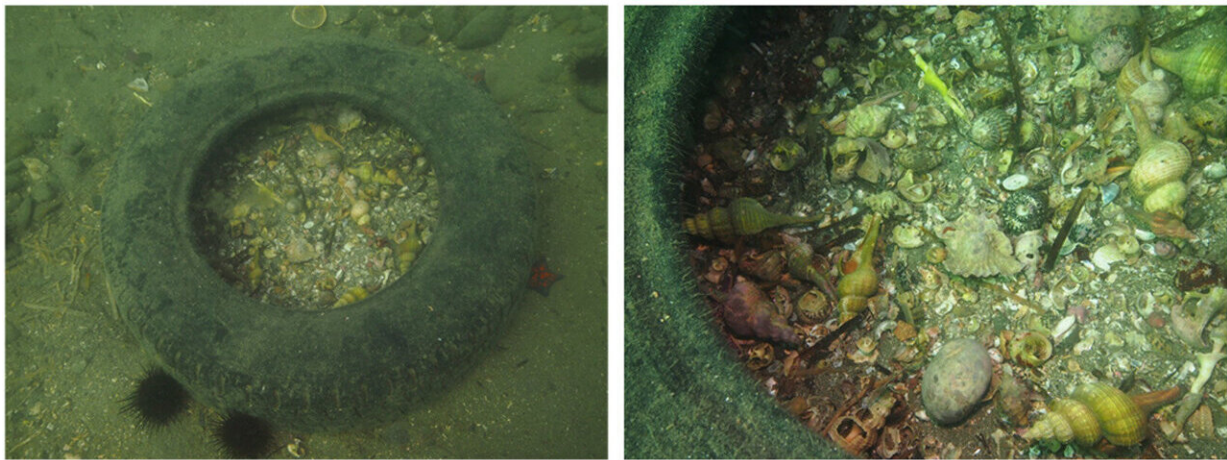


Figure 1. (a,b) Tire on the seabed at 8 m depth, Mutsu Bay, June 2012, with numerous empty gastropod shells, some with hermit crabs. (c) Monthly catch of hermit crab species (bars) and cumulative catch (line) from October 2015 to September 2016. Credit: DOI: 10.1098/rsos.210166

A pair of researchers at Hirosaki University, has found that tires

discarded in the ocean trap and kill hermit crabs. Atsushi Sogabe and Kiichi Takatsuji have published their study in *Royal Society Open Science*.

Prior research has shown that a wide variety of human activities and products harm [sea creatures](#). From overfishing and [global warming](#) to washing machine detergents, fertilizers and plastics dumped into the sea, the world's oceans are becoming a more difficult place for many marine animals to survive. In this new effort, Sogabe and Takatsuji found another threat—discarded car and truck tires. They found that hermit [crabs](#) are able to climb into the open circular center of a tire, but because of the way tires are shaped, they are unable to climb out again.

As the researchers note, tires make their way into the ocean in three main ways: falling off of docks or boats that use them as fenders, disassociation from poorly built artificial reefs, and illegal dumping. In any case, they pose a hazard to creatures that can become trapped in them.

The researchers searched for and found six tires on the bottom of the sea near enough to shore to observe. They then visited each of the tires multiple times over the course of a year and counted how many hermit crabs were trapped in them—in all, they counted 1,278. The captured crabs did not die, however, because the researchers freed them. To learn more about what happens to hermit crabs that become trapped in tires, the researchers conducted experiments in a lab aquarium. They found that the hermit crabs could easily get into the tires but could not get out. At times, the crabs resorted to cannibalism to stave off starvation. They also found that trapped [hermit crabs](#) often became easy targets for predators. They suggest that tires in the [ocean](#) pose a similar threat to marine life as discarded fishing gear.

More information: Atsushi Sogabe et al, Marine-dumped waste tyres

cause the ghost fishing of hermit crabs, *Royal Society Open Science* (2021). [DOI: 10.1098/rsos.210166](https://doi.org/10.1098/rsos.210166)

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