

Fears over plastic-eating coral in Australia's Barrier Reef

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Fish swim through the coral of Australia's Great Barrier Reef, as seen on September 22, 2014

Corals in the Great Barrier Reef are eating small plastic debris in the ocean, Australian researchers said on Tuesday, raising fears about the impact the indigestible fragments have on their health and other marine life.

The scientists found that when they placed corals from the reef into plastic-contaminated water, the marine life "ate plastic at rates only

slightly lower than their normal rate of feeding on marine plankton", the study published in the journal *Marine Biology* said.

"If microplastic pollution increases on the Great Barrier Reef, corals could be negatively affected as their tiny stomach cavities become full of indigestible plastic," Mia Hoogenboom of Queensland state's James Cook University said.

Microplastic is defined as particles smaller than half a centimetre (a fifth of an inch).

The scientists found the plastic "deep inside the coral polyp wrapped in digestive tissue" and expressed concerns the substance could then hurt the creature's ability to digest normal food.

They also sampled waters near inshore coral reefs in the World Heritage-listed site and found microplastics including polystyrene and polyethylene in small amounts, study co-author Kathryn Berry said.

The health of the reef, along the Queensland coast, is already under close scrutiny from the United Nations Educational, Scientific and Cultural Organisation.

Climate change, poor water quality from land-based run-offs, coastal developments and fishing all threaten the biodiverse site.

As much as 88 percent of the open ocean's surface contains plastic debris, findings published in the *Proceedings of the National Academy of Sciences* last year found.

The small pieces—from mass-produced plastics such as toys, bags, food containers and utensils—make their way into the sea through storm water run-off, raising concerns about the effect on marine life and the

food chain.

The United Nations Environment Programme estimated in 2012 that around 13,000 pieces of microplastic litter were found in every square kilometre of sea, with the North Pacific most badly affected.

Despite the prevalence of microplastics, scientists say it is not well-known what effects they have on the world's marine life.

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