

ID: W2524918914

TITLE: Plastic microfibre ingestion by deep-sea organisms

AUTHOR: ['Michelle L. Taylor', 'Claire Gwinnett', 'Laura F. Robinson', 'Lucy C. Woodall']

ABSTRACT:

Abstract Plastic waste is a distinctive indicator of the world-wide impact of anthropogenic activities. Both macro- and micro-plastics are found in the ocean, but as yet little is known about their ultimate fate and their impact on marine ecosystems. In this study we present the first evidence that microplastics are already becoming integrated into deep-water organisms. By examining organisms that live on the deep-sea floor we show that plastic microfibrils are ingested and internalised by members of at least three major phyla with different feeding mechanisms. These results demonstrate that, despite its remote location, the deep sea and its fragile habitats are already being exposed to human waste to the extent that diverse organisms are ingesting microplastics.

SOURCE: Scientific reports

PDF URL: <https://www.nature.com/articles/srep33997.pdf>

CITED BY COUNT: 371

PUBLICATION YEAR: 2016

TYPE: article

CONCEPTS: ['Microplastics', 'Deep sea', 'Marine habitats', 'Marine species', 'Plastic waste', 'Environmental science', 'Marine ecosystem', 'Deep water', 'Plastic pollution', 'Ecosystem', 'Phylum', 'Marine debris', 'Habitat', 'Ecology', 'Biology', 'Oceanography', 'Fishery', 'Geology', 'Debris', 'Genetics', 'Bacteria', 'Engineering', 'Waste management']