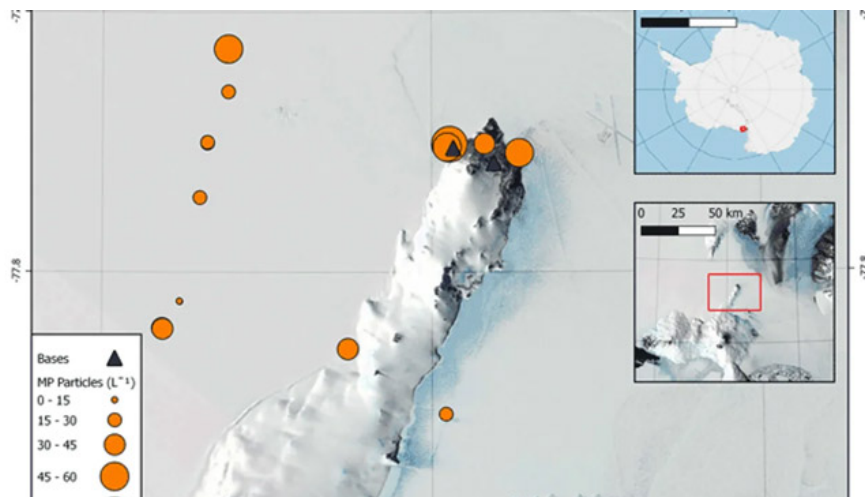


Microplastic particles found in Antarctic snow for the first time.

The impact of microplastics on remote areas like Antarctica is enormous. Organisms in Antarctica have adapted to harsh environmental conditions over millions of years, and to rapid environmental changes.

According to a study published last week, microplastic particles have been found for the first time in Antarctic snow. The findings suggest that microplastics, formed when plastic breaks down, are causing ecological damage to the marine environment, climate, and organisms.

Previously, data on Antarctic snow showed virtually no trace of microplastics, although they have been found in deep-sea sediments, marine sediments, the sea, and the region's surface waters.



The study, published in *The Cryosphere*, a journal of the European Geosciences Union, states: "The impact of microplastics on remote areas like Antarctica is enormous. Antarctic organisms have adapted to harsh environmental conditions for millions of years, and rapid environmental changes are threatening the unique ecosystems there."

Researchers collected 19 samples between November 30 and December 2, 2019, across locations on Ross Island, Antarctica. Six samples came from locations near research stations, and 13 from "remote, less human-inhabited sites."

The suspected microplastic particles were chemically identified at a laboratory in New Zealand. Microplastics were found in all samples, with a total of 109 particles confirmed across 19 field samples.



The study states: "Microplastics can accelerate the melting of permafrost when they appear on ice and snow in high-altitude or polar regions." "They can also further impact the climate by acting as ice nuclei in the atmosphere."

High-altitude predators including gentoo penguins, adélie penguins, chinstrap penguins, and king penguins have also been found to have microplastics in their food. The impact of pollution also puts emperor penguins at risk, with current models predicting their populations will decline by 81% by 2100.

For most samples, the most likely short-term source of microplastic particles is from northerly winds blowing over local bases. But the wind trajectories don't pass over any manned research stations, so the microplastics could be blown from nearby seas into the snow.

The study also stated: 'Specifically, the average concentrations of microplastic particles found in this study were higher than those in the surrounding Ross Sea and the concentrations reported in the ice of the East Antarctic Sea.'

You finished reading the article "**Microplastic particles found in Antarctic snow for the first time.**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.