

Melting Greenland ice sheet could release pollution—and beneficial microbes evolved to ‘chow down’ toxins

As the [Greenland ice sheet](#) melts due to [climate change](#), a new study in journal [Environmental Letters](#) suggests, pollution trapped inside could ooze back into the environment. But microbes that have evolved to chow down on such toxins could help us out.

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Researchers took samples of cryoconite, a powdery windblown dust made up of microbes, soot, and small bits of rock that builds up on snow glaciers or ice caps, at five different locations on the [Greenland] ice sheet. They ran genetic analysis on the microbes found in the cryoconite, looking for signs that the microbes could resist or even degrade known Arctic contaminants. At least some of the microbes they found had the ability to break down some of the contaminants. When they compared the DNA of microbes in more contaminated areas versus those in less contaminated areas, they found that both sets contained the genetic profiles they'd need to fight off pollutants.

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This isn't, however, a carte blanche to pollute as much as we want with the expectation that Arctic microbes will clean up the mess. Because microbes generally develop resistance to a pollutant because of close proximity to that pollutant, the fact that microbes far from contaminated habitats had the same genetic resistance as those flourishing in the midst of toxins suggests that from a microbiological perspective, that the contaminants are everywhere.

It's good news that some microbes are adapting to survive—and fight—our pollutants. But that doesn't mean we should continue to create a world where they need to do so.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Greenland's ice sheet is full of toxins waiting to break free – and microbes that eat them](#)