

Microplastics are Everywhere, Including the Rain

Microplastics have been a problem for quite some time. These little particles of plastic are in everything. They come off of your clothes in the washing machine. They come off cigarette filters, plastic bottle fragments, and are common in beauty products around the world. These are only a few of the sources of microplastics, but they are everywhere, including the rain and the air.

Image: Avada Environmental

Microplastics are plastic fragments less than five millimeters long that get caught up in Earth's atmospheric systems and ocean ecosystems. After collecting data for 14 months, researchers calculated that more than 1,000 metric tons of microplastics are falling into protected areas of the western U.S every year, the equivalent of 120 million water bottles. Protected areas of the U.S, where samples were collected, only make up 6% of the U.S.

In the series of unfortunate events that is plastic pollution, researchers have come across a new problem that rivals that of acid rain; plastic rain. Because of the way microplastics move through our atmosphere they are now quite literally falling out of the sky, in the rain. As they fall into the oceans, and onto protected land, there is no way to get rid of them, and the problem is only expected to get worse. Plastic waste is expected to increase from 260 million tons a year to 460 million tons a year by 2030 as more developing countries join the middle class. More consumerism equals more plastic.

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More troubling still, microplastics eventually break into nanoplastics, bits so small that researchers may not be

able to detect them without the right equipment. "I couldn't see anything smaller than four microns, but that doesn't mean it wasn't there," says Brahney. "Just because we can't see them in front of us, doesn't mean we're not breathing them in."

Plastic rain is the new acid rain

Of the wind and rain samples collected, 98% contain microplastics. Microfibers make up around 70% of the microplastics collected while around 30% were microbeads, commonly found in beauty products. Microbeads have been banned from beauty products in the U.S since 2015.

The rate at which humans consume is causing irreversible, unprecedented damage to our Earth. Plastic rain is just one of the many problems created in recent years of constant consumerism.