

Russian Scientists Find Microplastics in Wasp Intestines

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Russian biologists have discovered microplastics in the intestines of common wasps, with its concentration increasing since 2019, Tomsk State University [said](#) Wednesday.

“In contrast to well-studied marine and freshwater ecosystems, the occurrence of microplastics in terrestrial ecosystems remains virtually unchecked,” said Anastasia Simakova, head of the invertebrate department at Tomsk State University’s Biological Institute.

“Preliminary estimates show that the amount of microplastics in terrestrial environments may be several times greater than in freshwater reservoirs and oceans.”

Researchers said they chose the common wasp for their study due to its widespread presence across nearly every continent, rapid reproduction rate, high biomass productivity and varied diet.

The study's authors collected 167 wasps around the village of Kireevsk in western Siberia's Tomsk region from 2012 to 2021.

Related article: [Russian Scientists Find Microplastics Along 'Entire' Arctic Sea Route](#)

They found that microplastics — including fragments and fibers of various colors and sizes — were present in all individuals examined throughout the study, with an increase in concentrations measured since 2019.

Researchers linked the increase in microplastics in wasp organisms in recent years to the rising production and consumption of synthetic textiles.

A growing share of fragments smaller than 0.05 millimeters may indicate that microplastics gradually degrade into even smaller components called nanoplastics, they added.

The accumulation of microplastics in living organisms poses risks of long-term toxic effects, the study authors warned.

These particles may also serve as a breeding ground for potentially pathogenic microorganisms or antibiotic-resistant bacteria, raising concerns about their adverse impacts on biodiversity and ecosystems.

The biologists' research was [published](#) in the Russian Entomological Journal.

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