



Microplastic may increase uptake and bioaccumulation of organic pollutants in aquatic crustaceans

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MO078 Microplastic may increase uptake and bioaccumulation of organic pollutants in aquatic crustaceans C.K. Frydkjær^N.

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Microplastic is causing an increasing environmental problem in aquatic environments where it has been shown to enter into the food chain.

Maybe even more important, microplastic may act as a contaminant trap and carrier of organic pollutants that could enhance bioaccumulation of these compounds in aquatic food chains. The uptake of microplastic in *Moina salina* was investigated using different concentrations and size fractions of microplastic particles. The amount of plastic taken up by the animals was determined by microscopy and the sublethal effects of microplastic on *Moina salina* were determined using video tracking and enzymatic assays. *Moina salina* ingested microplastic particles at various rates in these experiments. Microplastic particles similar to the ones used for the feeding experiments were allowed to adsorb ¹⁴C-phenanthrene, before these were fed to *Moina salina*. The radioactivity of the animals and of the microplastic particles was measured by liquid scintillation counting. The data obtained from these experiments were used to determine to which extent microplastic might act as a carrier of organic pollutants in aquatic environments.