Plastic nanoparticles affect behavior and fat metabolism in fish

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Nanoparticles have many useful applications, but also raise some potential health and ecological concerns.

Now, new research shows that plastic nanoparticles are transported through the aquatic food chain and affect fish metabolism and behavior.

The full report is published Feb. 22 in the open access journal PLoS ONE.

Exposing fish to nanoparticles slowed their feeding behavior, and also affected metabolic parameters including weight loss and cholesterol levels and distribution.

The authors, led by Tommy Cedervall, Lars-Anders Hansson and Sara Linse of Lund University in Sweden, suggest that their results could be useful for developing assays to test for nanoparticles and investigate potential biological risks associated with them.

More information: Cedervall T, Hansson L-A, Lard M, Frohm B, Linse S (2012) Food Chain Transport of Nanoparticles Affects Behaviour and Fat Metabolism in Fish. PLoS ONE 7(12): e32254. doi:10.1371/journal.pone.0032254