

Researchers have revealed just how many pollutants are released into the ocean when we wash our clothes

Extensive research is being carried out into how the Northumbria design principles of reducing microfibre release from loose knits and tighter weaves is being undertaken to reduce microfibre release from the textile industry.



It will all come out in the wash

In January 2018, the long-awaited ban on microbeads in cosmetics and washes came into force in the UK. These tiny bits of plastic were revealed to enter the ocean in their millions, where they could absorb toxins, be easily ingested by marine animals, and ultimately eaten by humans. The ban was a conservation victory, but scientists have always been aware that such beads are only the tip of the iceberg when it comes to tiny bits of marine pollution. Recent findings suggest that microfibres generated during the washing of textiles, which are then released into waste water, are likely to be a more significant contributor to pollution than the beads ever were.

A new study by scientists at Northumbria University has revealed that almost 13,000 tonnes of microfibres, equivalent to two rubbish trucks every day, are being released into European marine environments every year as they fall off clothing in washing machines. These microfibres are made up of a range of materials and in fact the vast majority are natural fibres, such as cotton, wool and viscose. Though significantly more biodegradable than synthetic fibres such as polyester, these fibres have still been found in significant quantities in European marine sediments.

cycle, in comparison to a standard 85-minute 40°C cycle. They concluded that if households changed to cooler, faster washes, they would potentially save 3,813 tonnes of microfibres from being released into marine ecosystems in Europe. Newer, high-efficiency machines were also found to release fewer microfibres than traditional top-loading machines most commonly used in the US.

The team acknowledge that the main barrier to consumers adopting colder and quicker washing cycles is concern that they will not achieve the desired level of cleaning. In their conclusion they call for further advances in cold water cleaning technology such as enzymes, to eliminate the performance gap between conventional warm cycles and colder and quicker alternatives. 'This is the first major study to examine real household wash loads and the reality of fibre release,' said John R Dean, who led the study. 'Finding an ultimate solution to the pollution of marine ecosystems by microfibres released during laundering will likely require significant interventions in both textiles manufacturing processes and washing machine appliance design.' ●

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Summarise what this article is about.