MARINE CONSERVATION SOCIETY

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Marine Conservation Society Policy Paper on: Microplastic fibre pollution (Microfibres)

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Geographical Context: UK

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The Marine Conservation Society view:

Our clothes are made of millions of tiny fibres, the majority of which are plastic. These small plastic fragments, measuring 5mm or smaller, are called microplastic fibres and are shed from synthetic clothes when produced, washed and worn. Globally, more than 840 million domestic washing machines are used[1] and with every wash, these microfibres are shed and released into the water. They then make their way into the environment, with many ending up in the ocean and on our beaches. Research has estimated that between 700,000[2] and 7 million[3] microfibres are released with every wash.

Due to their size, microplastic fibres are too small to be caught by standard washing machine filters. They therefore end up in the sewerage system, where they are either removed during the sewage treatment process or released into watercourses and potentially the sea. Researchers found that up to 650 million microplastic particles entered one wastewater treatment plant in Wales every day with all of these ending up in sewage sludge[4].

However, even the microplastics that are removed during the treatment process can still end up in the ocean. They are caught in the sewage sludge, which is usually used as a fertiliser on agricultural land, meaning the

microplastics are released into the soil.[5] Once in the terrestrial environment, they too can make their way into our seas.

The advent of technological solutions, in particular the fitting of filters within washing machines, can stop microfibres entering our wastewater and ultimately the ocean. Of the estimated 12.2 million tonnes of plastic entering the ocean globally every year, 0.95 million tonnes are primary microplastics[6].

Primary microplastics are those which are produced as 5mm or less, unlike secondary microplastics which are the result of larger items breaking down. Models have estimated that 15-31% of all microplastics in the ocean are primary, with the laundering of textiles accounting for up to 35%[7]. This is likely to be a severe underestimation, however, as fibres have been found to account for 70-100% of all microplastics in deep sea sediments[8].

In the North Sea, 63% of shrimp have been found to contain synthetic fibres[9]. The ingestion of microplastics by organisms such as shrimps is shown to negatively impact feeding behaviour, growth, development, reproduction and lifespan[10].

In early 2020, France passed legislation that required all new domestic and commercial machines to be fitted with a microfibre filter by January 2025, although this is yet to be implemented.

What has the Marine Conservation Society been doing?

On 6th July 2020, we launched the Stop Ocean Threads campaign, calling on the UK Government to help stop the flow of plastic fibres entering the ocean. On 21st November 2023, we handed in our Stop Ocean Threads petition with over 44,000 signatures, calling for the introduction of mandatory microfibre filters for washing machines by 2024 .

We worked closely with Alberto Costa, MP for South Leicester, who has proposed a bill requiring manufacturers to fit microplastic-catching filters in new domestic and commercial washing machines.

We are members of the All Party Parliamentary Group (APPG) for Microplastics and continue to support the work of the group through policy discussions and sharing research.

We are also working with First Sentier Group to influence washing machine manufacturers across the globe to commit to developing and installing factory fitted filters.

The Marine Conservation Society asks:

We are calling on governments across the UK to:

1. Introduce legislative mechanisms to require washing machine manufacturers to fit microfibre filters in all new domestic and commercial machines as soon as possible (our previous deadline of January 2025 has passed)

2. Support the development of a BSI PAS standard or equivalent for microfibre filters, which includes the requirement that they capture at least 80% of all microplastic fibres shed during washes to provide certainty and a level-playing field for washing machine companies and washing machine filter manufacturers.

3. Work with textile and fashion industries to produce a roadmap for the reduction of microfibre shedding from garments and production. This should include a publicly available standardised test to determine microfibre loss from clothes, so that they can be rated and designed to reduce shedding.

4. To initiate and fund research into minimising microfibre loss from fishing gear and from aquaculture.

5. To establish a national monitoring programme for microplastics to provide an accurate picture of environmental status in the whole environment and to assess effectiveness of source control measures.

References:

1. https://www.sciencedirect.com/science/article/abs/pii/S0048969717310161?via%3Dihub
2. https://www.sciencedirect.com/science/article/abs/pii/S0025326X16307639
3. https://www.researchgate.net/publication/353151768_Domestic_laundry_and_microfiber_pollution_Exploring_fiber_shedding_from_consumer_apparel_textiles
4. https://www.cardiff.ac.uk/news/view/2692907-recycling-sewage-sludge-plastic-pollution-reservoirs
5. https://sciencesearch.defra.gov.uk/ProjectDetails?ProjectId=21802
6. https://eunomia.eco/reports/plastics-in-the-marine-environment/
7. https://portals.iucn.org/library/sites/library/files/documents/2017-002-En.pdf
8. https://www.science.org/doi/10.1126/science.aba5899
9. https://www.sciencedirect.com/science/article/abs/pii/S0025326X1500418X?via%3Dihub
10. https://www.sciencedirect.com/science/article/pii/S0269749118333190