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Marine pollutants of emerging concern

Parliamentary and Scientific Committee Event
Tackling Contaminants of Emerging Concern (CECs) in
Water Dec 3rd 2024

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Ecotoxicology research group

- How does pollution damage living things?
- What makes some species more vulnerable?
- How can we use this knowledge to protect the environment and human health?



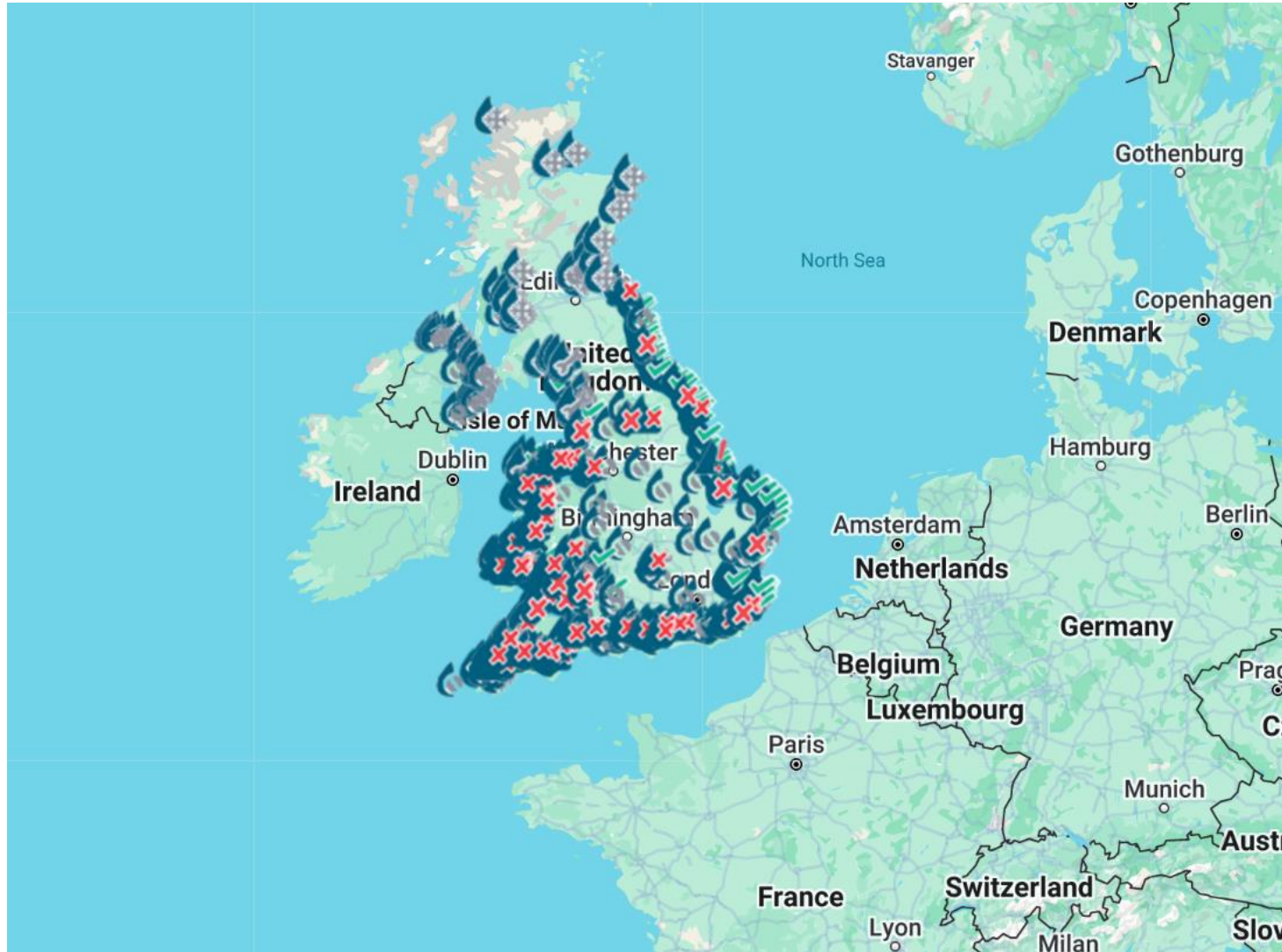


Torrey Canyon 1987 image Safety4Seas

UK sewage pollution alerts

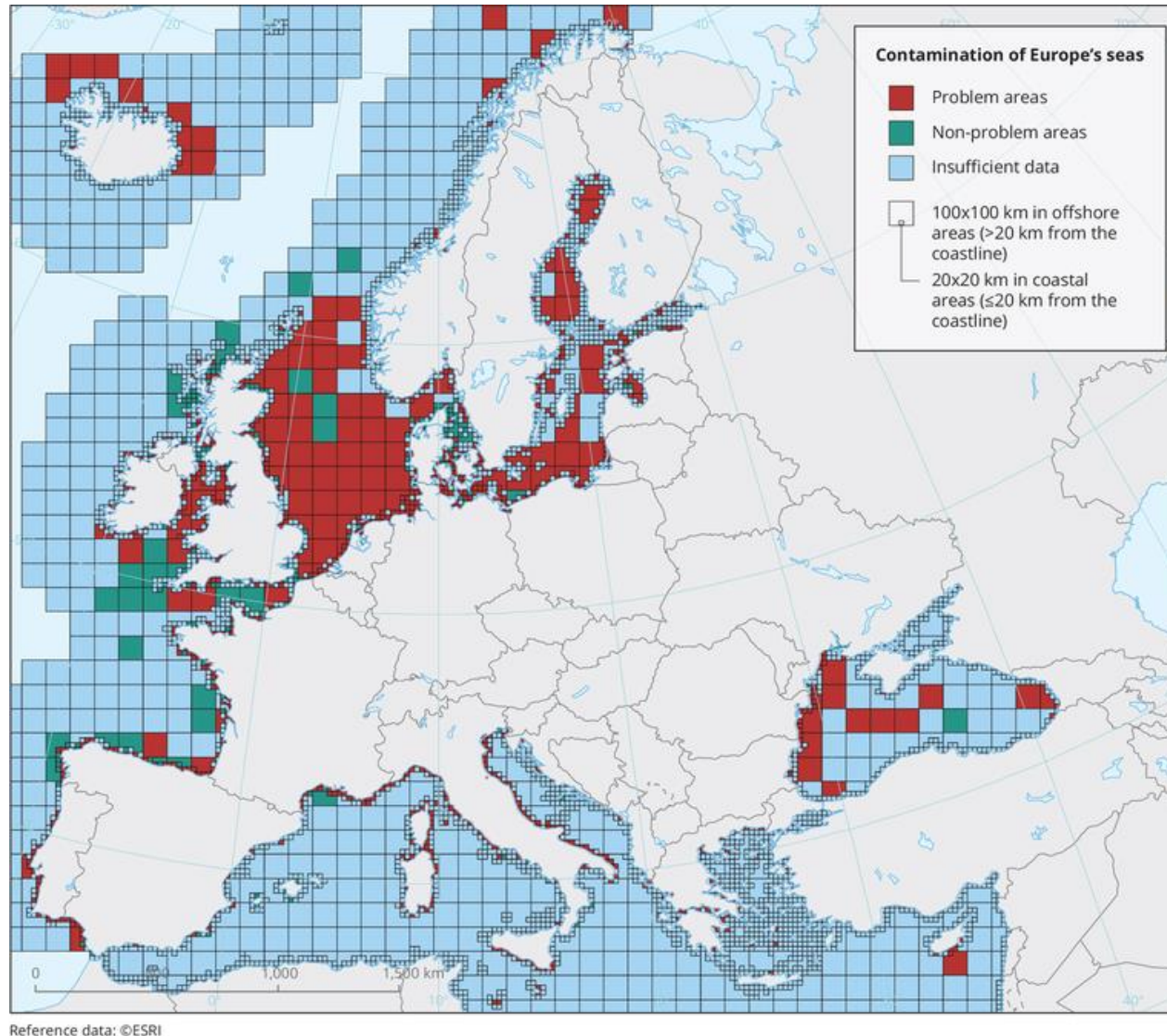


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<https://www.sas.org.uk/water-quality/sewage-pollution-alerts/>

The state of UK seas

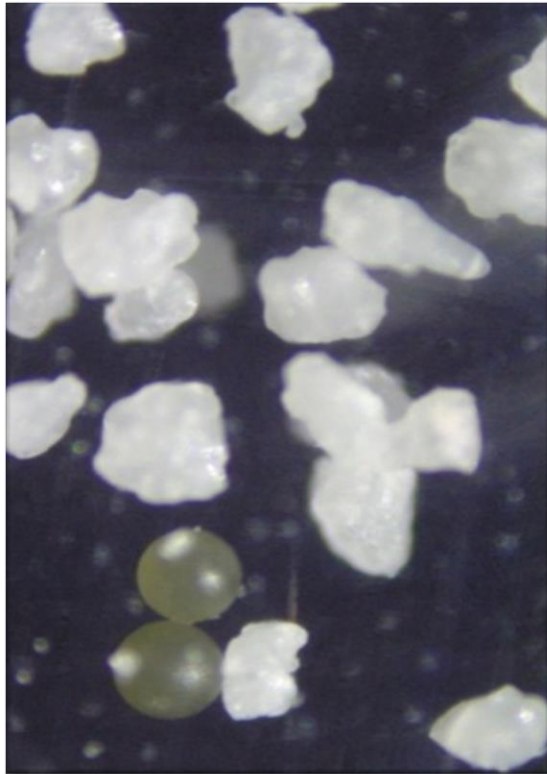


According to CHASE
tool and Water
Framework Directive
Feb 2023

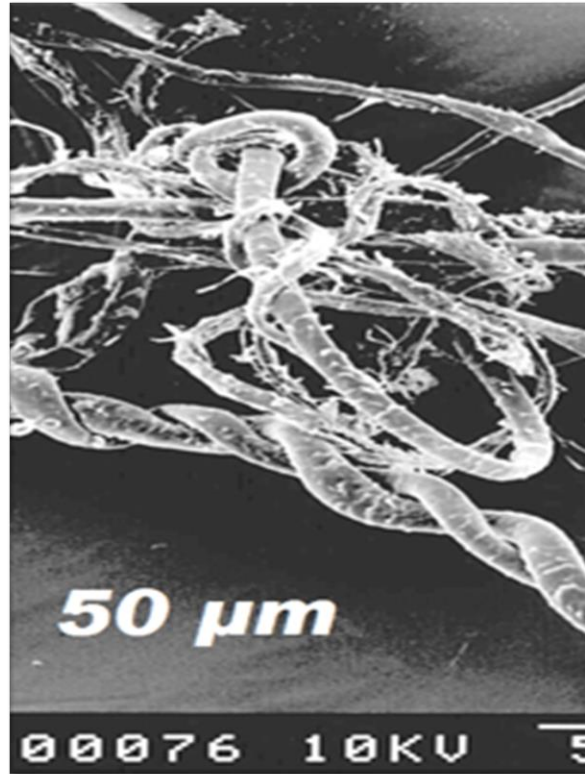


Micro and nanoplastics

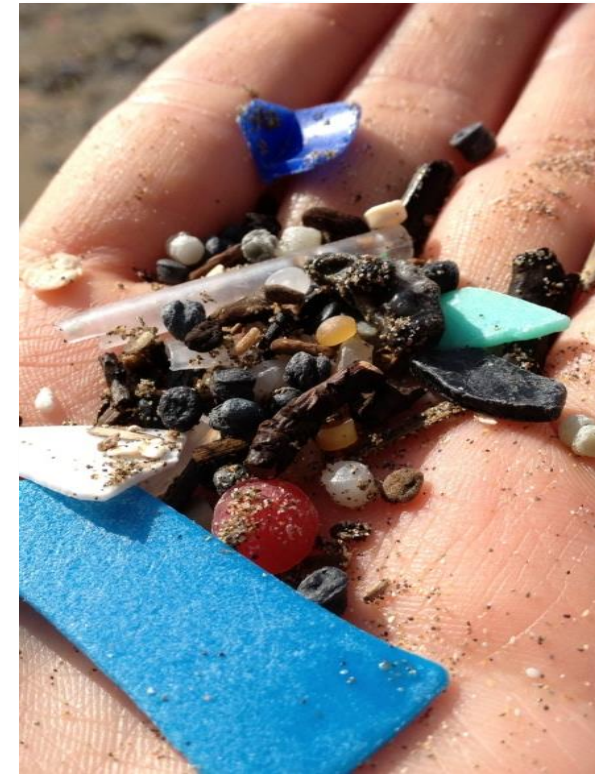
Microscopic plastic fragments, fibres and beads <5 mm in diameter



Cosmetic microbeads



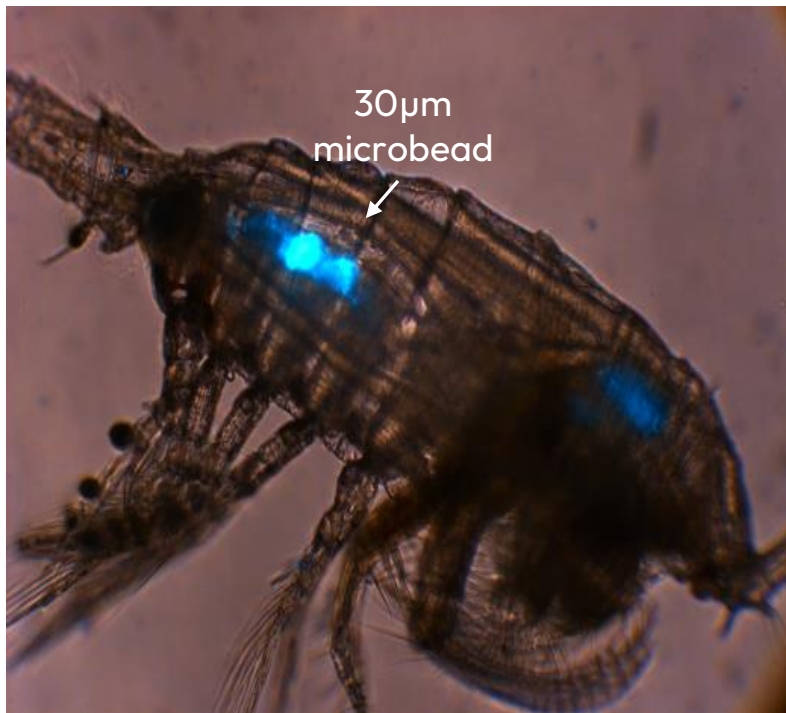
Clothing, rope, smoked
cigarette butts



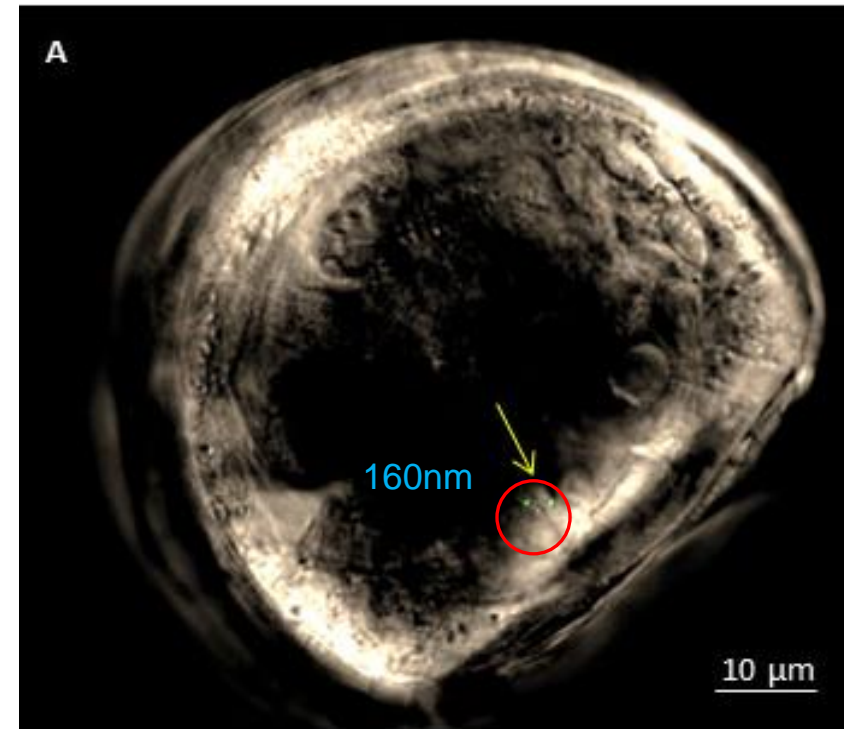
Fragments, films



Microplastics enter the food web

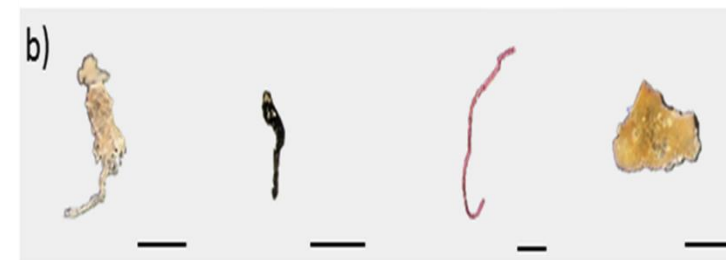


Centropages typicus:
marine copepod,

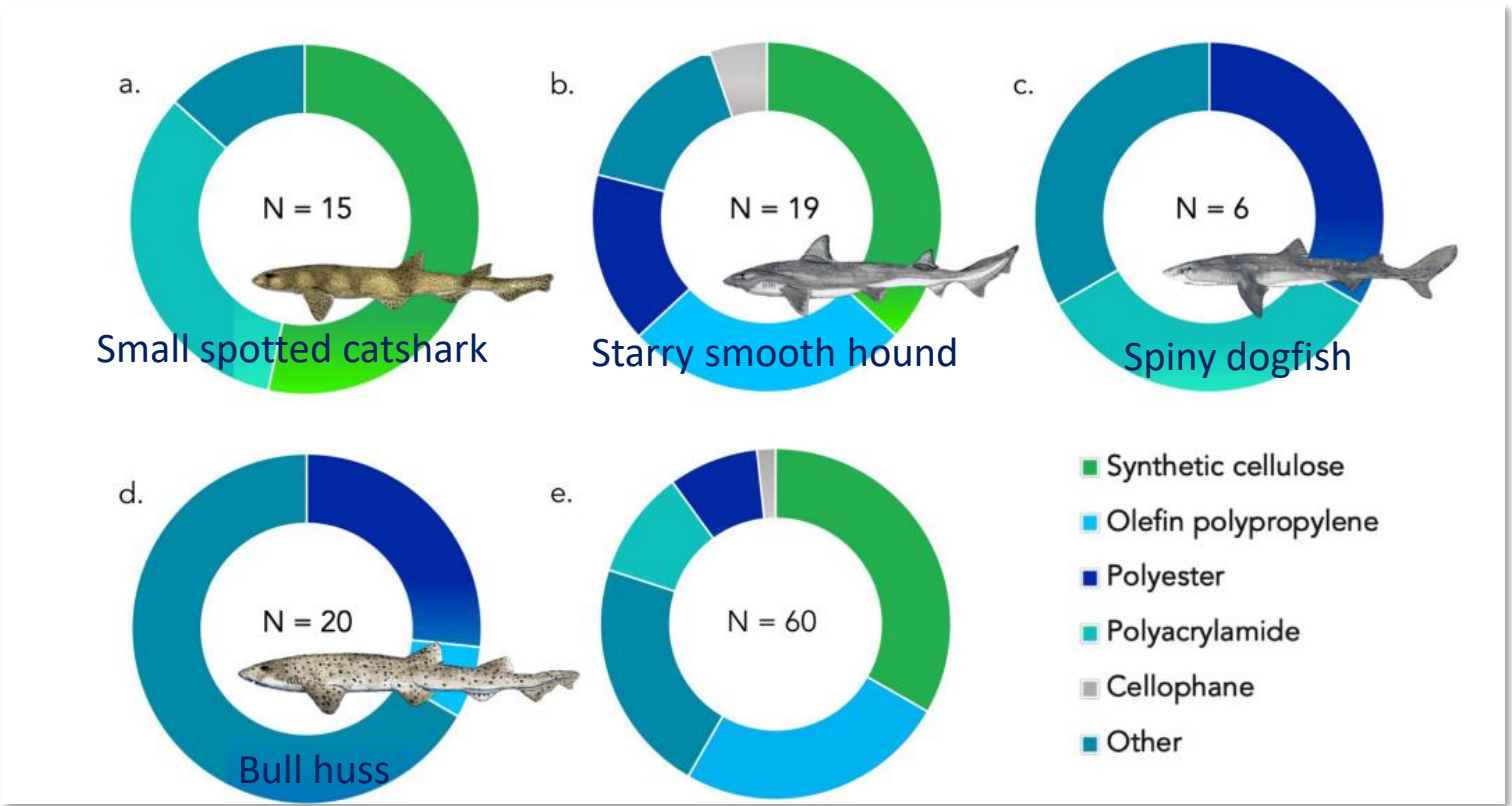
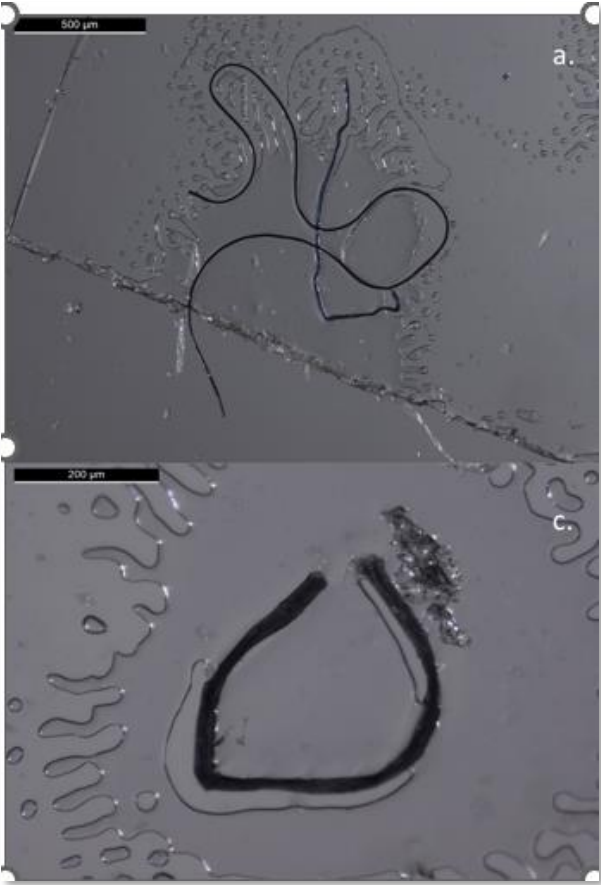


Crassostrea gigas:
edible oyster

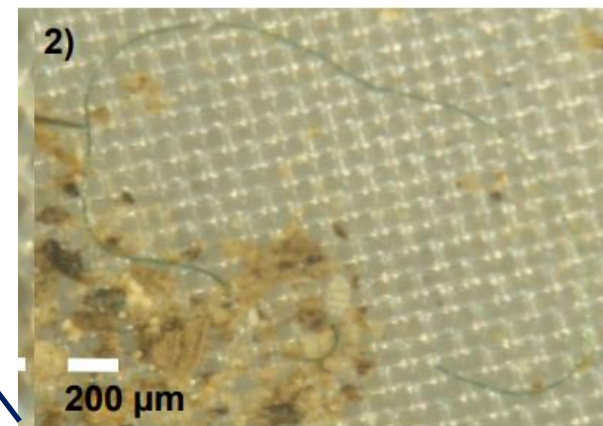
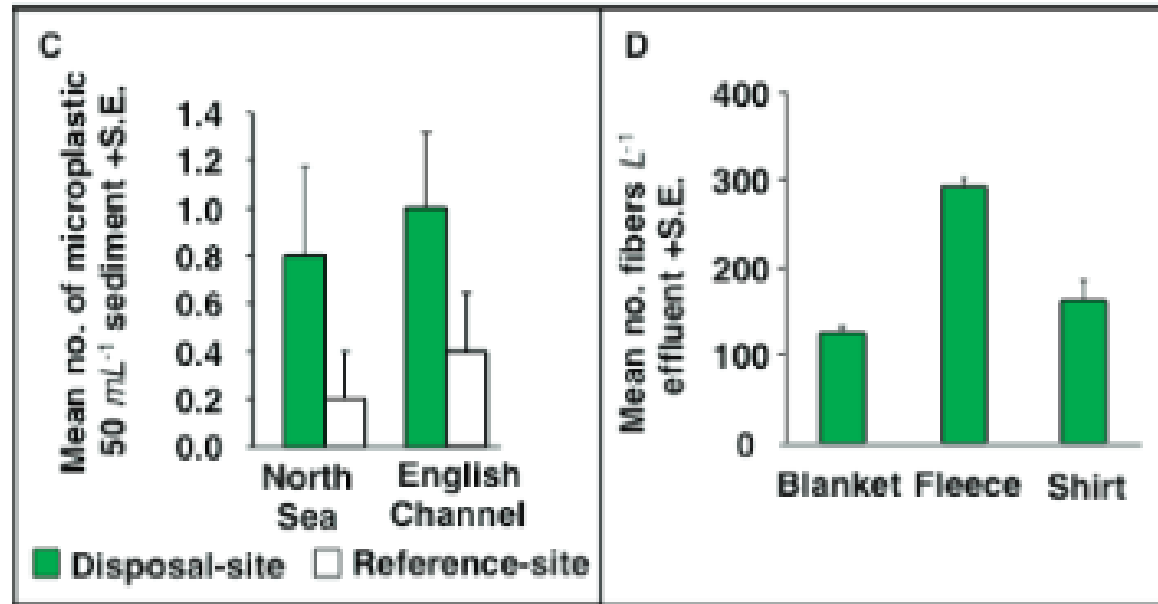
And reach higher trophic levels



Textile fibres ingested by UK sharks

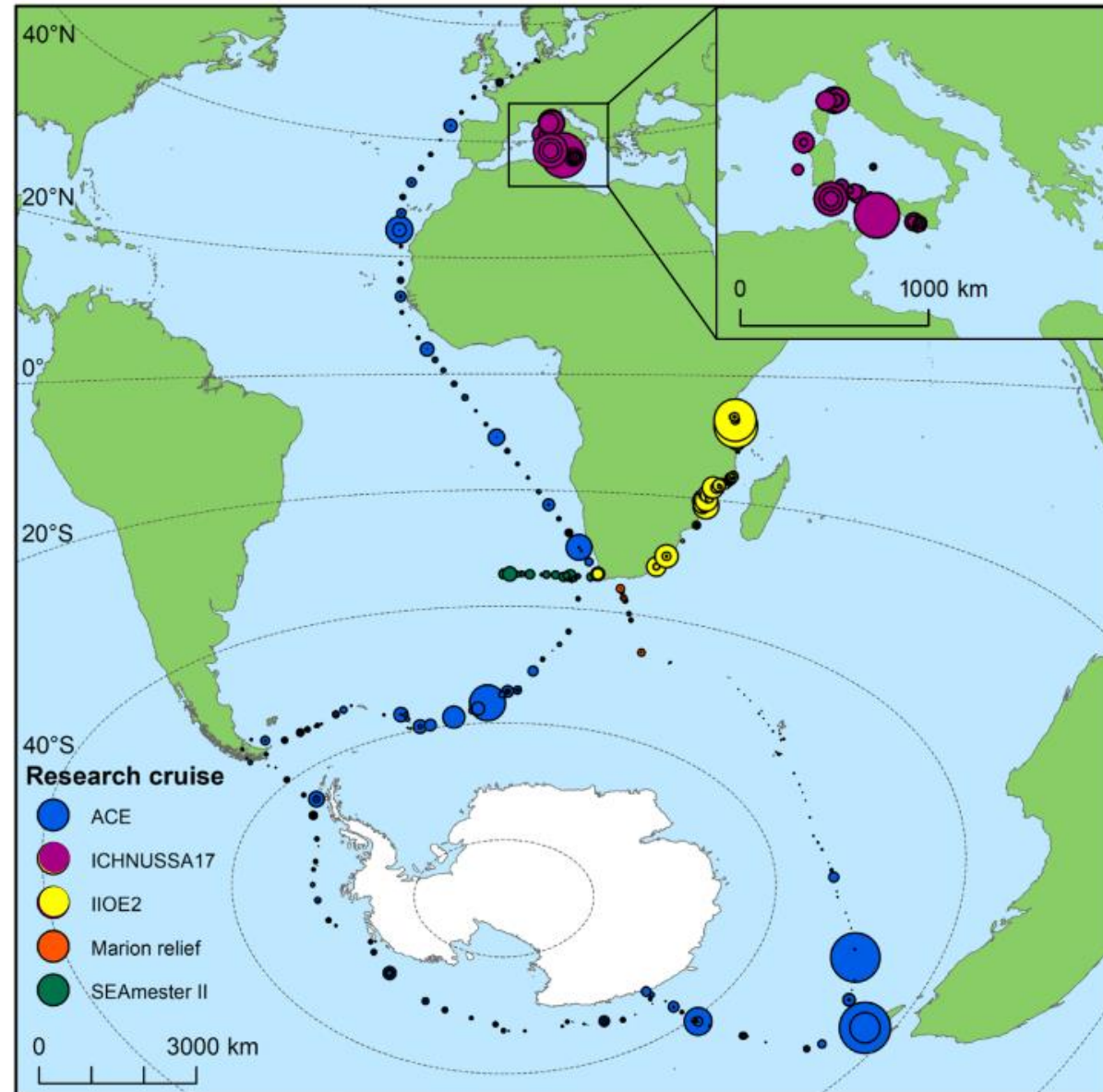


Textile microfibrils in sewage effluents



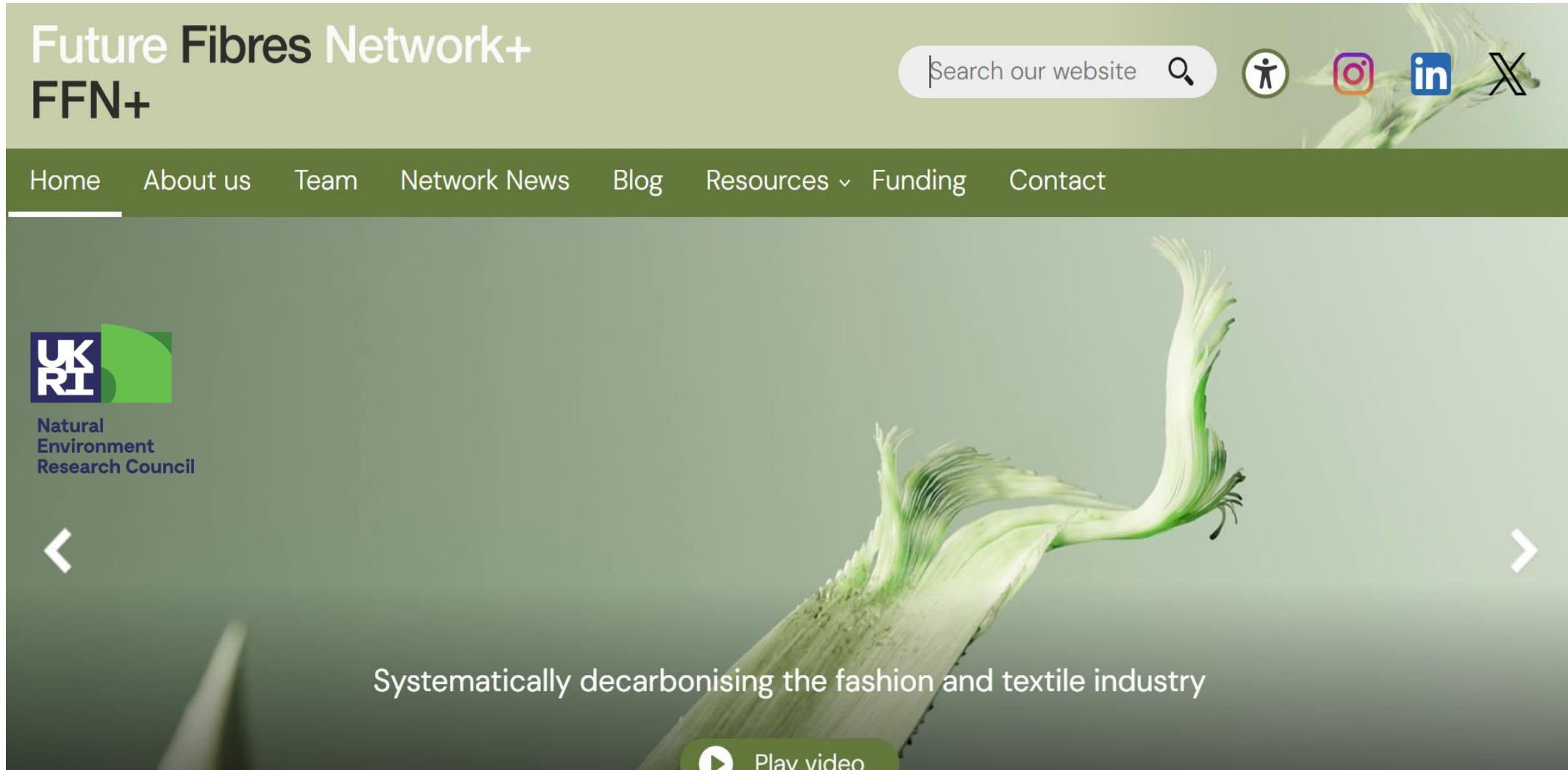
Microfibres collected on the ocean surface...

Synthetic clothing
makes up 14% of all
global plastic waste



Circle size scaled by fiber density: 0-25.8 fibers litre⁻¹

What can be done?




Future Fibres Network+
FFN+

Search our website 🔍

👤 📷 in ✕

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Natural
Environment
Research Council

Systematically decarbonising the fashion and textile industry

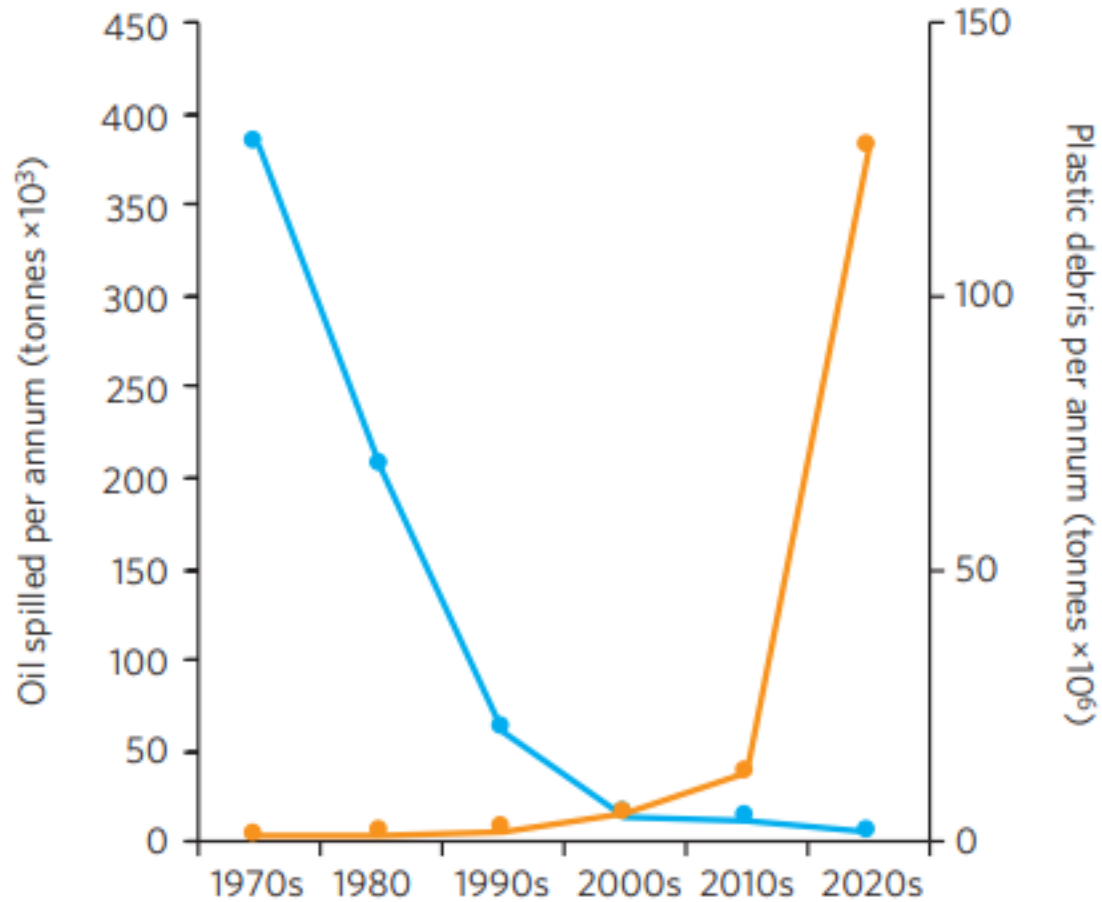
▶ Play video

The screenshot shows a website header with the title 'Future Fibres Network+ FFN+'. Below the title is a search bar and social media icons for a person, Instagram, LinkedIn, and X. A navigation menu includes 'Home', 'About us', 'Team', 'Network News', 'Blog', 'Resources', 'Funding', and 'Contact'. The main content area features a large image of a green plant stem with a video player overlay. The video player has a play button and the text 'Play video'. The text 'Systematically decarbonising the fashion and textile industry' is overlaid on the video. The UKRI logo and 'Natural Environment Research Council' text are visible on the left side of the video player.

We can make a difference!



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Thank you!
Any questions?

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