

THE STORAGE OF MICROPLASTICS IN CHANNEL SEDIMENTS

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This work aims to understand where microplastics (MPs) are stored within rivers. MPs are becoming prevalent in the news as studies are finding up to 14 million-tonnes of MPs on the ocean floor (Barrett et al., 2020). This is an issue as rivers drain directly into the ocean and there is a current lack of understanding of where and how MPs travel through and are stored within river systems. The work seeks to be 'proof of concept' for a river sediments sampling methodology along the river bed without disrupting bedforms. The work will use shallow rivers with stable flow rates.

The 'proof of concept' methodology involves developing a sediment sampler that can sit on the riverbed and allow for bedforms to travel over them. An estimation of the speed in which the sediment will travel over the sampler was worked out from flow rate data, to find the most appropriate place for the sampler. The second methodology was to collect core data along the levees of the rivers to capture how many MPs are sitting along the channel banks

To date, the sampler has yielded few results. The core data dominantly displays fibres that are black and between 1-6cm in length and pellets that are rounded and vary in colour.