

INVISIBLE MICROPLASTICS FOUND 400 FEET UNDERGROUND IN UK UNDERWATER STREAMS

Submitted by: WE SWIM WILD C.I.C.

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The largest UK-wide, microplastic citizen science campaign to date, has revealed microplastics present in every UK waterway tested. Plastics were also found almost 400 feet underground in a natural cavern near Castleton in the Derbyshire Peak District.

Led by national non-profit organisation We Swim Wild, the project was completed after Covid travel restrictions threatened to stop founder Laura Owen Sanderson's campaign to swim and monitor every UK National Park for microplastics, from Source To Sea.

Over 100 Wild swimmers across the U.K. lent their support as 'Waterloggers' to collect water data using empty glass wine bottles. Each four- litre sample was tested in the laboratories at Bangor University by PHD scientist Luke Fears, which confirmed microplastics present in every sample.

Calling for the UK Government to take urgent action on the results, We Swim Wild Founder Laura said: "We now know that microplastics are infiltrating every aspect of our lives. We breathe in, drink and eat plastic particles every day; and little research has been done to establish what risk that poses to human health. This campaign provides a large and unique grassroots dataset for the UK government, as clear evidence that urgent action is needed now.

Scientists believe the microplastics - anything less than 5mm in size - and nano-plastics that are only visible under a microscope are now present in the air and rainfall. UK waterways are one of the most polluted in Europe, with only 14% passing stringent water quality tests.

We Swim Wild Director and Head of Natural Sciences at Bangor University, Dr Christian Dunn says "This type of citizen engagement on scientific research is essential, as there is no way we could sample this amount of sites by ourselves. The fact we found such high levels of microplastics highlights again the importance for a national monitoring scheme of our rivers and waterways to look at plastic pollution,'

Waterlogger and caver, Rebecca Price, who collected the samples deep underground, said, "The cave sample was taken from an underground waterfall which filters through natural rock. I'm shocked to find that nano and micro fibres were found that deep underground'.

Rebecca also collected the samples with the highest number of microplastics at 156 pieces per litre in the River Nene, Northamptonshire, where she regularly swims. Rebecca says 'The Nene has had very bad reports about its water quality in recent years. These results focus on microplastics and highlight another toxic silent contaminant choking our beautiful river."

South Wales Waterlogger, Aimee Owen, who collected samples in the River Usk says "We get so much enjoyment from these wild places for our health and wellbeing, that we naturally want to protect what we love, and do what we can to look after these waters."

UK waterways have historically been underinvested in and poorly governed. We Swim Wild hopes to put the scientific power for change in the hands of the water users, collectively gathering the scientific data we need to hold the government and big businesses accountable.

The Waterloggers will now participate in a 12 month study to test for various invisible contaminants in UK waterways. The next phase of the project will allow citizen science to study the overall health of our waterways and biodiversity, including testing for sewage, chemicals and microplastic pollution.

To learn more and support our work, head to www.weswimwild.org.

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