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Expert reaction to atmospheric transport of microplastics

Research published in *Nature Geoscience* suggests that microplastics can reach and affect remote areas through atmospheric transport.

Dr Ben Williams, Research Fellow at the Air Quality Management Resource Centre, University of the West of England, said:

“This research helps build a picture of microplastic presence within a specific environment. The conclusions are backed up by solid data using the most up to date analytical tools for the characterisation of microplastics. It would be interesting to measure the daily deposition rate of microplastics at the same location, in order to further define the key transport routes and whether certain types of microplastics are deposited during specific periods.

DA QUI >>>> “It is unsurprising that microplastics travel through the atmosphere. There is still very little evidence of airborne microplastics, not because they’re not in the air, but it hasn’t been studied extensively. We only have to lift our head from the paper and look around us to see plastic everywhere. We wear it, we drink from it, we make furniture from it, it is everywhere. We need to understand our contribution to the environment, whether that’s understanding the sources of microplastics we find in the oceans or microplastics we find in our air, soil and water.

“Microplastics in the environment will be present in many forms. For example, they’ll likely be different sizes, shapes, age, have been exposed to different weathering patterns and chemical additives. As a consequence it’s very difficult to determine the effect of microplastics on a particular ecosystem without first understanding what the properties of the microplastic in question are. We need to develop robust characterisation approaches to identify the specific sources of airborne microplastics, find the most appropriate means of managing them and in doing so we can help reduce any potential impact on our environment.”

~~Dr Stephanie Wright, Research Fellow, MRC-PHE Centre for Environment and Health, King’s College London, said:~~

“We know microplastics deposit out of the atmosphere in megacities. This has not previously been shown for a pristine environment, however, it is unsurprising given their low density and diffuse nature. The back-trajectory findings (where the material has come from) should, however, be inferred with caution due to the small sample size. Moreover, since we know very little of the source emissions of microplastics to the atmosphere, it is difficult to conclude exactly how far they have travelled.

<https://www.nature.com/articles/s41598-017-11079-2>