

The University of La Laguna Detects Microplastics in the Anaga Rural Park

• This was determined by a study commissioned by the City Council of Santa Cruz de Tenerife in collaboration with Fundación Cepsa

The preliminary results of the study showed the presence of microplastics, mostly fragments, films, foams and fibers, in this Biosphere Reserve area since 2015. The University of La Laguna's Applied Analytical Chemistry research group (AChem) collected samples for this study in the soil and groundwater of the Anaga Rural Park over the past several months, as commissioned by the City Council of Santa Cruz de Tenerife in collaboration with Fundación Cepsa.

The mayor of Santa Cruz, José Manuel Bermúdez, explained that "microplastics are pollutants found in the air, water and soil, and because of their size they settle and contaminate natural areas, as is the case of the Anaga Rural Park, which must be protected because it is a gem of biodiversity." "We are concerned by the fact that their presence has been detected in this unique area of biodiversity. That is why it is necessary to raise awareness to prevent this problem from escalating," he added.

For the head of Fundación Cepsa in the Canary Islands, Belén Machado, "as biodiversity is a core value of Fundación Cepsa, this type of study on the presence of plastic particles in terrestrial and aquatic ecosystems shows it is important to protect them. They can even enter the food chain and consequently affect human health. So knowing the extent of their presence allows us to better understand these risks, in addition to helping to raise awareness and promote changes in behavior."

For his part, the councilman of Environmental Sustainability and vice president of the Sustainable Santa Cruz Foundation, Carlos Tarife, noted that "the presence of microplastics in different areas of the Anaga Massif is a sign that we must continue working to reduce pollution and to raise public awareness of the importance of caring for our environment." He added that "we must do everything possible to care for and maintain this natural treasure that has an immeasurable wealth."

The project, led by University of La Laguna professors Javier Hernández Borges and Francisco Javier Díaz Peña, has not yet concluded, but it has revealed that microplastics are found in areas with natural vegetation, agricultural areas and areas linked to population centers.

In each of the sampling points (a total of 32), three different sampling methodologies were used after establishing a study area of 0.5×0.5 meters at each point, consisting



of collecting leaf litter, the first two centimeters of soil, and the top 5 centimeters using metal cylinders.

Also, several water samples have been collected in different galleries and wells located within the boundaries of the Biosphere Reserve in order to evaluate the possibility of microplastics moving from surface soil layers to aquifers.

It should be noted that these residues may originate from dry or wet deposition from remote areas, caused by the movement of air masses, or from the breakdown of waste from park visitors. However, no definitive conclusions can yet be drawn from the preliminary data generated since all the samples need to be processed, which will take place in July.

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