Microplastics present in the seawater surface of Los Gigantes in the southwest of Tenerife, Canary Island

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Abstract

Microplastics smaller than 5 millimeters have become an important ecological problem due to the large amount of plastic waste that ends up in the sea. The main impact is the ingestion of microplastics by marine species, the particles enter the tropic chain causing unpredictable effects on humans (Alicia Herrera, 2017).

This paper presents a method for automatic counting and classification of microstopic pasticles. Use of artificial vision techniques to analyze the acquired images of the samples.

They have been determined in the area of Los Gigantes, southwest of Tenerife, Canary Islands, in October 2018, MP / Km^2 in the seawater surface taking into account the position of four submarine emissares along the coast. The highest value obtained during the collection of samples with plankton net was 36429 MP / / Km^2, the remains found mainly were synthetic fibers (13) and fragments (9). However, in the other sampling points an average of 24646 MP / Km^2 was obtained being the most abundant fragments (average 13) followed by synthetic fibers (average 3).

The highest value obtained coincides with the situation of the main submarine emissary of the town of Puerto Santiago, Santa Cruz de Tenerife, Canary Islands.

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References

Alicia Herrera, Ana Liria, P.O.y.M.G., 2017. Los Microplásticos: amenaza de los ecosistemas marinos. OKEANOS Nº5, 12–17.