IMPACT OF MICROPLASTICS IN *CRONIUS RUBER* SPECIES

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Abstract:
Microplastic pollution in the ocean is a growing problem. It affects the entire ecosystem and, therefore, the species that inhabit it. Plastics can be filtered or ingested by organisms, entering, and negatively affecting individuals. One of the populations affected are crustaceans. In previous studies, fibers have been found mainly in the stomach contents of these animals (Brennecke et al., 2015; Villagran et al., 2020; Waite et al., 2018), although other types such as pellets have also been found. In this study we determined the amount of microplastics found in the stomach contents of *Cronius ruber* (Lamarck,1818), an invasive species, of the family Portunidae, which has recently appeared in the Canary Islands with a great capacity for predation and expansion (González et al., 2017). This is the first study focused on microplastic contamination in this specie. Sixty-three samples from different points of the island of Gran Canaria (Agaete, Anfi del Mar, El Puertillo and La Laja), were studied. Of all the samples, 52% (n=63) were found to be contaminated. This contamination produced mostly by plastic fibers, has been more noticeable in El Puertillo, where high prevalence of plastic ingestion was detected detected (58% of the samples, n=33). In contrast to the samples taken from Agaete, where 40% of the individuals had plastic in their stomachs (n=22), the lowest percentage found, being from these two points where most of the samples were obtained. These data corroborate the negative impact of microplastic ingestion caused by pollution on the Cronius ruber species.

Key words: Microplastics, *Cronius ruber*, fibers, ingestion, contamination.

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