

MARINE LITTER INGESTION IN STRANDED CETACEANS, CANARY ISLANDS (2000-2020)

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Abstract:

The consequences of litter in marine ecosystems are a global concern. In the last decades, interaction with marine fauna has been reported widely (Provencher et al., 2017), especially interactions with plastics, the most prevalent and widespread element (Cózar et al., 2014). Stranded cetaceans represent a significant opportunity to study the interaction of marine megafauna with plastic debris (Montoto et al., 2021). In the Canary Islands, the major hotspot for cetacean biodiversity in European waters, 7.7% of stranded cetaceans ingest foreign bodies (FB), and almost 3% of studied cases die due to this lethal interaction (Puig-Lozano et al. 2018). Eisfeld-Pierantoni et al. (2022) warned about the environmental consequences of the COVID-19 pandemic to marine plastic pollution, which is expected to produce serious consequences for marine life, including cetaceans. In this study, we update the data on FB ingestion in stranded cetaceans from 2000 to 2020. We found a slightly lower prevalence of FB ingestion (6.7%;46/682) and deaths due to lesions produced by FB (2.05%;14/683). One more affected species was described (a total of 16 cetacean species), being deep divers more affected. Plastics were the most prevalent item found (91.3%; 42/46), being classified as plastic bags and other domestic plastic debris (69%; 29/42), ropes (19%;8/42), nylon fishing line (9.5%; 4/42), packing (2.4%; 1/42) and net remains (2.4%; 1/42). Lesions varies due to severe ulcerative gastritis (28.3%; 13/46), gastric impactions (26%; 12/46), gastrointestinal perforations (0.04%; 2/46), stomatitis (0.04%; 2/46), glossitis (0.02%;1/46), cicatrized ulcers in stomach (0.02%;1/46), and absence of lesions or not possible to evaluate due to the advance decomposition of the carcasses (32.6%; 15/456). Also, metal filaments (4.3%; 2/46), clothes (2,2%; 1/46), and glass fragment (2,2%; 1/46) has been found. Ongoing studies on FB ingestion in stranded cetaceans are crucial to monitoring ocean health and future environmental conservation policies in this archipelago.

Keywords: marine litter, plastic debris, cetacean, foreign body, Canary Islands

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