

## IMPACTS OF MARINE DEBRIS ON SEA TURTLES IN SOUTHERN BRAZIL

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Every year, many species of marine animals die after ingesting plastic debris or getting entangled in it. Sea turtles are particularly susceptible to this threat, especially *Chelonia mydas*, as it feeds in nearshore waters, where large amounts of marine debris are found. Recent work has evidenced that floating debris tend to accumulate in five main oceanic gyres, occurring predominantly in subtropical regions. The South Atlantic gyre sits off the Brazilian coast, and it directly influences the total amount of garbage in the area. This study aims to analyze the influence of marine debris on the health of 115 green turtles necropsied at Projeto Tamar-Florianópolis, from September 2015 to March 2018. All individuals were considered juveniles based on their curved carapace length (mean=36.7cm±6.7). Marine debris was found in 73,04% (n=84) of the turtles, mainly in the esophagus and large bowel. However, only in 17.39% (n=20), anthropogenic debris was characterized as the primary cause of death. Marine debris may block the digestive tract, altering normal peristalsis. When feces with foreign bodies remain in the large intestine for extended periods, too much water is absorbed, resulting in impaction and fecaloma formation, which may cause internal compression of the bowel wall and vessels, leading to ischemic necrosis and bacterial infection. Concerning microscopic findings, most turtles with blocked GI tract presented thinning of the mucosa, inflammation, edema, heterophilic inflammatory infiltration, ulceration and suppurative material accumulation. Marine debris is a growing problem for marine animals. Appropriate waste management measures are urgently required to reduce the amount of garbage entering the oceans.

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