



MASTER THESIS PROJECT

**ASSESSMENT OF MARINE LITTER AND MICROPLASTIC
POLLUTION AND ANALYSIS OF CITIZEN PERCEPTION IN
THE CIÉNAGA GRANDE DE SANTA MARTA, COLOMBIAN
CARIBBEAN**

MIREIA PULIDO ANTON

**Institute for Marine and Coastal Research (INVEMAR),
Santa Marta, Colombia**

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ABSTRACT

Marine litter pollution has become a major environmental matter of concern worldwide in recent years due to its high threat to ecosystem health, animal, and human life. The Ciénaga Grande de Santa Marta (CGSM), located in the department of Magdalena, Colombian Caribbean, has been negatively affected by marine litter caused principally by human activities carried out therein in its surroundings and the lack of basic sanitation and services on the population settled around this lagoon complex, causing its continuous deterioration. The aim of this study was to monitor marine litter and microplastic pollution and analyse information about citizen perception of plastic pollution. The abundance of marine litter in the mangrove soils of the CGSM ranged between 3,050 and 9,367 items/ha, and microplastic quantity oscillated between 48 and 200 items/m². Plastic waste was the most abundant type of marine litter found in soil, water bodies and mangroves, principally in zones near to the population areas. Interviewee responses showed that they are aware of the marine litter contamination in the CGSM, but it is necessary to involve and cooperate' between authorities, educators, and citizens to find strategies and solutions to reduce plastic pollution and prevent ecological and socio-economic impacts in the CGSM.

This research work has been carried out within the framework of the project "*Citizens Science as a marine litter management strategy in the Ciénaga Grande de Santa Marta biosphere reserve*" facilitated by the Gulf and Caribbean Fisheries Institute (GCFI) on behalf of GPML-Caribe.

Key words: Marine litter, microplastics, plastic pollution, public perception, Ciénaga Grande de Santa Marta.