

Solid waste in sector W of a beach at Ajuruteua

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ABSTRACT

The text addresses the problem of marine litter on Ajuruteua beach, located in Pará, highlighting its diverse origins, including contributions from commercial shipping, fishing and recreational activities. The field research carried out aimed to characterize the waste present on the beach, showing everything from plastic bags to shards of glass in the intertidal zone. The significant presence of tourists, despite the available garbage cans, contributes to environmental pollution. The study aims to quantify the waste found, identify its sources and assess the risks associated with human health and the environment, with a view to promoting sustainable tourism practices and effective waste management in the region.

Keywords: Marine litter, Ajuruteua Beach, Environmental impact, Sustainable tourism, Waste management.

INTRODUCTION

Marine litter is any solid material discarded, persistent, manufactured or processed, disposed of, abandoned, or lost in the marine and coastal environment, including materials transported from land by rivers, drainage systems, or wastewater or wind treatment systems (APA, 2021). Taking this information into account, a field research was carried out with the objective of observing and analyzing the impact of garbage on the coast, characterizing the garbage present on Ajuruteua beach, which is located 36 km from the city of Bragança, in the state of Pará. Along the way, we can see its mangrove vegetation, guarás and herons, one of its economic activities is fishing and crabbing, a beach full of natural resources and immeasurable beauty. It is a surprising place, very frequented, because it is cozy and has a hospitable community (Expedição Pará, 2015). As it is a tourist spot, the presence of marine litter is remarkable, both brought by sea currents and produced by human beings.

The main sources of debris/litter originating in the seas/oceans are: commercial shipping, the fishing industry, recreational craft and off-shore installations (Veiga, J.M., EUR, 2016). And this garbage is visible in the "between tides" zone, from plastic bags to broken glass, thus putting the physical integrity of locals and tourists at risk. We can observe that a large part of tourists end up discarding their garbage even though they have trash cans scattered along the shore, and thus polluting the environment instead of helping to improve this issue.



OBJECTIVE

Characterize the garbage present on the beach of Ajuruteua, to know the amount of waste found, its origin, and the dangers that they can bring to health and the environment.

METHODOLOGY

The research was qualitative with statistical support, carried out through observation. With the aid of a tape measure, a strip of 200x6m was delimited on the edge of the beach, in the intertidal zone for quantification and characterization of the solid waste present in the beach environment. The researchers divided into small groups to explore the area, attentive to each object left on the beach. From the first few minutes it was evident the presence of a wide variety of materials, plastic bags and bottles were the most common, followed by glass, styrofoam, metals and paper.

DEVELOPMENT

A number of 250 items were found, mostly plastic bags along with fishing and construction materials, and in smaller numbers fabrics, paper and metal cans were found. The predominant presence of irregularly discarded waste in a short space of time was observed. Plastic in all its variables is the most common material found in garbage worldwide, and on Ajuruteua beach the reality is the same as on many other beaches. In this way, the research was able, through direct observation, to understand the worrying state in which the beach is, due to the number of inappropriate disposal in an irregular environment, causing damage to the coastal ecosystem and human health.

In a study on marine pollution conducted by the International Solid Waste Association (ISWA) and UN Environment, it was found that 25 million tons of garbage are discarded into the ocean. Of this volume, 13 million tons correspond to plastic waste (BADARI – Green Bond, 2022.S/P).

The human being is the main modifying agent of the environment, adapting quickly and modifying to meet its requirements and to satisfy its primary needs (REVISTA EDUCAÇÃO PÚBLICA, 2015), The human impact on the beach was palpable, represented by the presence of construction debris and fishing equipment brought by the waves. Of concern was the lack of vegetation in the study area. The sandy, compacted soil indicated environmental degradation, with few signs of plant life. Among the most frequent residues, nylon ropes used in fishing stood out, due to the region being a strong fishing pole on the north coast. Alcântara (2021) points out that "garbage in the sea also affects the economy of municipalities, which need to increase expenses with beach cleaning and lose revenue from tourism. In the shipping sector and in fishing activities, productivity tends to decrease due to the death of fish and the pollution of the oceans, caused by this garbage discarded irregularly."



FINAL THOUGHTS

The predominant presence of plastics, metals, and other inorganic waste demonstrates the direct impact of human activities on the beach. In addition, the absence of vegetation and the presence of dead fish underscore the devastating consequences of this environmental neglect.



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