

Seasonal Influence on Environmental Indicators of Beach Waste

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Abstract : The environmental indicators and the classification of beach waste are essential tools to diagnose the current situation and to indicate ways to improve the quality of this environment. The purpose of this paper was to perform a qualitative-quantitative analysis of the beach waste on the Curva da Jurema Beach (Espírito Santo - Brazil). Three transects were used with equidistant positioning over the total length of the beach for the solid waste collection. Solid wastes were later classified according to their use and primary raw material from the low and high summer season. During the low season, average values of 7.10 items.m⁻¹, 18.22 g.m⁻¹ and 0.91 g.m⁻² were found for the whole beach, and transect 3 contributed the most waste, with the total sum of items equal to 999 (49%), a total mass of 5.62 kg and a total volume of 21.31 L. During the high summer season, average values of 8.22 items.m⁻¹, 54.40 g.m⁻¹ and 2.72 g.m⁻² were found, with transect 2 contributing the most to the total sum with 1,212 items (53%), a total mass of 10.76 kg and a total volume of 51.99 L. Of the total collected, plastic materials represented 51.4% of the total number of items, 35.9% of the total mass and 68% of the total volume. The implementation of reactive and proactive measures is necessary so that the management of the solid wastes on Curva da Jurema Beach is in accordance with principles of sustainability.

Keywords : beach solid waste, environmental indicators, qualitative-quantitative analysis, waste management

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