

Assessment of the composition of beach litter: A case study in two beaches in Sri Lanka

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Waste is dumped into the sea and the seas are turning into underwater landfills. The root cause of the increased amounts of litter is directly related to our modern life style, consumption and production patterns, as well as attitudes and behaviors concerning waste, recycling and littering. Beach litter is an emerging environmental threat to our seas. The amounts, trends and composition of beach litter have been unknown. Most of the litter is related to our modern take-away lifestyle and composed of plastic. Littering by beach visitors or litter ending up at beaches from nearby cities seem to be the most common source of marine litter. This study was performed to assess the composition of marine litter in two beaches in Sri Lanka; the Mount Lavinia beach and the Beruwala Beach. Sampling was done in both dry and wet seasons in 2014. Two sampling sessions were carried out in each season. One sampling session of each season was carried out in the middle of the week and the other sampling session was carried out during a weekend in order to identify the variation of marine litter based on the days of the week.

The results showed that the dominant litter items in the two beaches were different. In the Mount Lavinia beach which is considered as a major recreational beach, many of the litter consisted of items such as bottle caps, plastic bags, plastic food containers and wrappers, and cigarettes. In the Beruwala Beach, which is a major fishery beach, the amount of take away-lifestyle litter items was small while most of the litter items were ocean based. In addition the results showed temporal and spatial variations of marine litter items.

Successful management of beach litter needs proper understanding on the dominant forms of marine litter, their abundance and potential sources. In addition assessing beach litter composition provides significant insight and understanding of this pollution problem and can function as an ongoing component of management strategies.

Keywords: Beach litter, Mount Lavinia beach, Beruwala beach