

Levels of Plastic Waste and Fish Landed By Beach Seine Fishers in Coastal Ghana

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Abstract : Baseline data on plastic landing by fishers and monitoring of this is important in evaluating the success of plastic waste management efforts. This study investigated plastic and fish landed by beach seine fishers in Ghana, together with the rate of plastic deposition on an adjoining beach. Plastic constituted 31.6% of the total catch, and 41.7% of the fish landed by weight. There were significant differences between the average weight of fish (139.58 ± 53.6 kg) and plastic (65.73 ± 14.6 kg) landed per fishing session and the catch per unit effort of fish (183.4 ± 76.7 kg/day) and plastic (88.4 ± 35.2 kg/day). The mean weight of plastic landed per fishing session was higher than the mean weight of each of the 26 species of fisheries. The rate of plastic deposition on the beach was 8.1 ± 2.5 plastic items per m² per tidal cycle or 0.35 ± 0.11 kg plastic per m² per tidal cycle, with food packs and tableware dominating the deposited plastic. The results suggested that ongoing water sachets and plastic bottle recycling in Ghana are yielding results and calls for targeted efforts in plastic food packs and tableware management.

Keywords : fishig, landing, plastic waste, intertidal area, fishing effort

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