

Fish yield and mangrove biomass utilization of a model brush pile in Pambala-Chilaw lagoon, Sri Lanka

P.M.M.M. Pitiyagedara^{1*}, W.N.D. Thisera² and M.P. Kumara¹

¹Faculty of Fisheries and Marine Sciences, Ocean University, Mahawela Road, Tangalle, Sri Lanka.

²Small Fishers Federation of Sri Lanka, Pambala, Chilaw, Sri Lanka.

The catch variation of a model brush pile constructed similar to an ordinary brush pile of the Pambala-Chilaw Lagoon complex (07°3'N, 079°4'E) were investigated between May and July 2013. 430kg wet biomass of *Rhizophora mucronata* and *Rhizophora apiculata* mangrove species were used for making the model brush pile. The first three catches of the pile were observed and the major fin-fish species caught in the catch were *Oreochromis niloticus*, *Monodactylus argenteus*, *Lutjanus argentimaculatus* and *Liza macrolopis*. *Oreochromis niloticus* was abundant in the total fish production from the model brush pile. None of the catches contained fishes <5cm total length while the 10-20cm total length class was the dominant among the major fish types. 94.9% of *Oreochromis* sp., 100% of *Lutjanus argentimaculatus*, 100% of *Monodactylus argenteus* and 94.4% of *Liza macrolopis* individuals were present in the 3 catches and they belonged to the 10-20cm total length class. *Ambassis commersonii*, *Arothron immaculate*, *Arothron reticularis*, *Caranx sexfasciatus*, *Etroplus maculatus*, *Etroplus suratensis*, *Macrones gulio*, *Oreochromis mossambicus* and *Scatophagus argus* were also present, but their abundance was less. The fish productions from the model pile were 1.6, 24.9 and 2.9 kg for the three harvests, where the total numbers of fishes caught from the three harvests were 46, 568 and 72 respectively. The number of shell-fishes from the model pile was comparatively very low (one *Macrobrachium* sp., four *Penaeus indicus* and one *Scylla serrata*). Except the *Clarias teysmanni brachysoma*, all the species reported from the model brush pile were also observed from the coexisting ordinary brush piles in the lagoon area. High price of the net, payments for vessels and high river discharge during May to November and some damages to mangroves are the main issues related to the brush pile fishery in the Pambala-Chilaw lagoon.

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*Corresponding author e-mail: manekatn@gmail.com