

**The factors governing the habitat selection of *Meretrix casta* in Dutch Canal,
Sri Lanka**

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Abstract

Meretrix casta is a brackish water bivalves, it is abundant in some areas in the Dutch canal in Sri Lanka. The present study was carried out to find out the factors governing the habitat selection of *Meretrix casta* in Dutch canal in Sri Lanka. Marawala area and Lunu Oya were selected from Dutch canal, where *Meretrix casta* was abundant in Marawala area and less or absent in Lunu Oya. In these two areas some physicochemical parameters such as salinity, water current, temperature, pH, and soil organic content were measured and compared with the present of *Meretrix casta*. There are two clusters were observed from cluster analysis (Minitab 11 software), Cluster A (Marawala area) consist of site with high salinity, high water current, high pH, low soil organic content and high alkalinity and Cluster B (Lunu Oya) consist of site with low salinity, low water current, low pH, high soil organic content and low alkalinity. *Meretrix casta* was present in the site in Cluster A and it was absent in the site in Cluster B. The abundance of this species in Marawala area was significantly related with salinity, water current, pH, and Organic matter content in the soil.

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