

Ichthyofaunal Composition of Batticaloa Lagoon, Sri Lanka

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Abstract: The present study was undertaken to generate an inventory of the fin fish and shell fish of Batticaloa lagoon and to assess the impact of water chemistry on the assemblages of fishes. A total of 5689 fish specimens were collected, belonging to 62 species, representatives of 30 genera and 36 families. The species compositions of lagoons vary according to the physical characteristics and salinity regime of the lagoon. Marine, marine-estuarine and freshwater species were classified in each season (Dry and Wet season) according to their capability to cope with salinity fluctuations. *Etroplus suratensis* was the most abundant species (23.12%), followed by *Oreochromis niloticus* (17.21%), *Nematalosa nasus* (14.55%) and *Arius bilineatus* (12.72%); Forty-three percent (43%) of the collected species correspond to a eurihaline marine component, followed by autochthonus species for truly brackish water (22.5%), estuarine residents (17%), stenohaline marine (10.5%), Seasonal migrant (4%), freshwater component (2.5%), and very few are reef fishes (0.5%). Twenty species were transient visitors and thirteen species were marine juvenile migrants comprising of 8% of total numerical abundance. Seasonal changes of salinity also have a great impact on the fish abundance and distribution of the lagoon. The information and observation in this study will be useful in formulating management policies for the future use of Batticaloa lagoon especially multi-usage of fisheries with other sectors.

Keywords: Autochthonus, Eurihaline, Lagoon, Reef fishes, Stenohaline