

Fish Resources in the Seagrass Beds of the Bay of Fort-de-France (Martinique Island, FWI)

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ABSTRACT

The fish community of the seagrass beds of *Thalassia testudinum* in the Bay of Fort-de-France (Martinique Island, French West Indies) were studied with a seine net, from March 1990 to March 1992, at two stations, one located near the coastal mangrove and one on a shoal in the middle part of the Bay.

A factorial correspondence analysis of the data showed that the fish community structure was different in the two types of seagrass beds. On the whole, the fish fauna was relatively rich in number of species, with 65 species belonging to 28 families, and richer near the coast (55 species) than seaward (45 species). Fish density was 3 times higher in the seagrass beds near the mangrove. The fish biomass was relatively low in both stations and 1.5 times higher near the coast. Most of the fishes collected were juveniles or belonged to small sized species. The structural differences were attributed to the proximity of the mangrove areas. Furthermore, an examination of the feeding habits of the species showed that the carnivorous fishes dominated in the fish community. Nevertheless, herbivorous fishes were more abundant in the seagrass beds located seaward. This fact seems to be related to the higher primary productivity of these seagrass beds.

In spite of their relative paucity from a quantitative point of view, the seagrass beds of the Bay of Fort-de-France possess a relatively high proportion of commercial species (56%). They represent 52% of the total number and 63% of the total fish biomass.