

ABSTRACT

Seasonal Use of a Neotropical Marsh by Avifauna; Caroni, Trinidad.

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A study of the avifaunal ecology of the Caroni marshes was undertaken with the purpose of assessing the current value of the habitat to birds and predicting possible effects of a proposed restoration plan for the marsh on the avifauna. The avifauna was censused at four sites for a period of 18 months. Physical factors such as salinity, water depth, tidal stage and availability of open water were concurrently monitored. Seasonal sampling of the macroinvertebrate fauna was performed. A short census of Scarlet Ibis in the mangrove proper was also undertaken.

A diverse community of seventy avian species was recorded in the marsh, demonstrating year-round use of the habitat, with major use occurring during the early rainy-season months of May, June and July. The community was divided into eight guilds based on taxonomy and feeding habits and analysis of data was performed on each guild. During the dry season minimal standing water was

present and salinities were high. During the rainy season significant increases in water depth and decreases in salinity occurred. Flooding of the marsh through inputs of rainfall and unidentified freshwater courses had pronounced effects on numbers of wading birds, shorebirds, surface dabblers and surface divers. Scarlet Ibis numbers were expectedly low during the breeding season, when most birds leave the island in order to breed.

Macroinvertebrate fauna was comprised largely of insects and spiders. Biomass of insects always exceeded that of spiders. Mud fauna was depauperate. Diversity and abundance of macroinvertebrates was poor in the dry season but increased markedly in the wet season. The restoration project will attempt to re-encourage breeding of the Ibis in Trinidad. It is thought that the avifauna as a whole will benefit from this effort, and that there will be an overall net gain in biodiversity of the marsh.

Keywords: Gail Catherine Cuffy; birds; marsh; avifauna; Caroni; seasonal; guilds.