

ABSTRACT

STUDIES ON POPULATIONS OF SHALLOW WATER PENAEID SHRIMPS AND BLUE CRABS FROM THE SOUTH COAST OF JAMAICA

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The paucity of information and a rise in interest in local crab and shrimp stocks led to the conception and subsequent undertaking of this study.

Data were recorded for various physical and environmental parameters which were thought to influence the biology of these two crustacean groups. Seven stations were selected in shallow inshore waters of the south coast for monthly sampling of the adults and larvae; this occurred during an eighteen month period from November, 1983 to March, 1985. Adults of these two crustacean groups were caught with a 1.5 m beam-trawl, while the larvae of both were sampled with a Gulf V plankton net.

From the data collected, it was concluded that blue crabs and penaeid shrimps are distributed throughout the shallow waters of the south coast of Jamaica. The coast of St. Catherine harbours the highest numbers of blue crabs while the penaeids are

found mostly in and around Kingston Harbour. Callinectes danae and C. ornatus were the main species of Callinectes, constituting over 85 % of the crab catch. Penaeus notialis, which amounted to 76.5 % of the shrimp catch, was the major species of Penaeus. It was ascertained also that Kingston Harbour is a major spawning ground for the blue crabs as well as the major nursery for the penaeids in that area.

Based on information available, new distribution records for two penaeidean shrimps were recorded in Jamaican waters for the first time. These are Sicyonia laevigata and Trachypenaeus constrictus; no new species of blue crabs were found. The average catch rate of blue crabs and penaeid shrimps were 2.84 kg h⁻¹ and 1.10 kg h⁻¹ respectively, these relatively low yields do not favour the setting up of large scale commercial exploitation for these shell-fish resources.