ABSTRACT

A study was made of the general biology of the carite, *Scomberomorus maculatus*, in Trinidad during 1971 to 1974, during which period 1718 specimens, taken mainly by gill net and beach seines, were sampled.

Size composition of the catch and gear selectivity are discussed. Gonad maturation stages for males and females were established on macroscopic evidence. Relative gonad weights are also considered as a method in assessing gonad maturity, and the use of relative ovary weight was found to be feasible. Results of gonad examination suggest that spawning takes place mainly in the Gulf of Paria, from October to April, a period associated with low salinities. Thus the spawning period corresponds with that recorded for the Brazilian species. Sex ratio is examined, and results suggest that spawning may be promiscuous, males outnumbering females. Size at first maturity is also examined. Fecundity estimates are made, but too few specimens were available to allow for detailed analysis. The period of abundance from May to September is thought to be associated with a feeding migration, starting in the Gulf of Paria and the neighbouring Venezuelan coast and encompassing the island, possibly in a clockwise direction.

The counting of annual rings on the otoliths was found to be a valid means of ageing carite. Growth curves of males and females were successfully fitted to the von Bertalanffy model. Resulting parameters are presented for further population dynamics work. Mortality rates for gill nets and beach seines are investigated and it is thought that gill nets are a more effective type of gear.

Feeding habits are investigated and parasites and predators briefly discussed. Length-weight relationships are examined, and carite were found to approximate to the usual cubic relationship.

Suggestions for future investigations, in the light of a decline in beach landings,are made.