

ABSTRACT.

Samples of fishes caught, with traps and/or lines, at the Port Royal reefs, on the north and south Jamaica shelf, at St. John, Virgin Islands, on various oceanic banks and on the Honduran-Nicaraguan shelf during 1967 to 1972 were analysed. The length, weight, sex and gonad activity of the fishes were noted and scales and otoliths were collected for age determinations. Seasonal and developmental changes in the gonads were based on macroscopic examinations. Spawning of grouper species was generally restricted to the first half of the year but snappers and jacks were found with ripe gonads all year round, suggesting an extended spawning season. Age and growth determinations from otoliths and scales yielded poor results and in most instances length-frequency distributions were used to estimate growth rates. Total annual mortality estimates (a) derived from length-frequency distributions were high and ranged from 73 - 98 per cent. Trap and line catch compositions and catch rates are presented for the major fishing grounds sampled. 113 species of fish and crustaceans were caught on the Port Royal reefs. A similar number of species was caught with traps on oceanic banks and line catches include a maximum of 40 - 50 species. The commercially important species vary markedly in maximum size and body shape. Any regulatory measures therefore, involving mesh size or escape gaps will have to be a compromise, appropriately weighted, according to the relative economic importance and relative abundance of each species.

The Jamaican commercial fishery is described briefly.