Abstract

Green Jacks, Caranx caballus, are distributed along the Eastern Pacific coast. In Panama, C. caballus was heavily fished around Las Perlas Archipelago to sustain local markets until 2007, when the archipelago was declared a marine protected area. This first study in Panama, analyzed a sample of 4,990 individuals from Las Perlas, obtained monthly from June 2005 to June 2006, from landings at the central fish market. Average total length was 36.1±6.4cm and optimum length 38.9cm. Approximately 68% of fish lengths were within ±10% of the optimal length but only six (15%) were considered mega-spawners. The von Bertalanffy parameters describe a long-lived and fast growing species, while mortality rates revealed that C. caballus is under high fishing pressure. Standard length at which half of the population is mature was 38.8cm, and the size at which individuals matured massively, 33cm. Only 10-13% of the fish were immature. C. caballus reproduces two to three times per year, with peaks in December, April, and probably September, and recruits to the population at least twice per year. Catch per unit effort (CPUE) was best predicted by minimum annual values of the Multivariate ENSO/ LNSO Index (MEI) (R²=0.54). Results show that C. caballus in Pacific Panama is overfished. We recommend the raising of the minimum capture/landing size of this species in order to increase the proportion of megaspawners in the population and guarantee the sustainability of this resource.

Keywords

Caranx caballus, cojinua, green jack, fishery assessment, Eastern Pacific, Panama.