A Preliminary Study of the Fisheries Canane (*Ocyurus chrysurus*) in Holbox, Quintana Roo, Mexico

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In this study it was considered in a preliminary way the age and the growth of the yellowtail (*Ocyurus chrysurus*, Bloch 1791) in the Island of Holbox, Quintana Roo during the period March-May of the 2002. The yellowtail is a characteristic tropical fish of the reef areas, belonging to the family Lutjanidae, this species is found distributed from Florida to Brazil being more abundant in the Gulf of Mexico. A total of 871 organism captured by the handmade fleet of community of Holbox were obtained, using the hook and line like fishing art. For the estimate of the age and the populational parameters they used the lenght frequencies of the three worked months. It was observed that the biggest capture incidence is among the sizes 255 and 275 mm FL, with a stocking of 265 mm FL. The populational parameters obtained through the software FiSAT were for ELEFAN Loo= 500.50, k= 0.33 and to= -0.19 and by means of Shepherd's Loo= 520.05, k= 0.30 and to= -0.22. The intervals of lenght frequency were also used to determine the relationship between lenght and weight with a n= 659 organisms; the result of the regression was $W= 0.00004334FL^{2.8105}$. The curve of growth was carried out for the von Bertalanffy equation where $Lt= 500.5 (1-e^{-0.33(t+0.19)})$ for ELEFAN and $Lt= 520.05 (1-e^{-0.30(t+0.22)})$ for Shepherd's. The knowledge of the populational parameters is of supreme importance to guarantee an appropriate handling of this resource, as well as its conservation for the future generations.

KEY WORDS: Yellowtail snapper, *Ocyurus chrysurus*, population parameters

Estudio Preliminar de la Pesqueria de Canane (*Ocyurus chrysurus*) en Holbox, Quintana Roo, México

En este estudio se estimó de manera preliminar la edad y el crecimiento del canane (*Ocyurus chrysurus*, Bloch 1791) en la Isla de Holbox, Quintana Roo durante el periodo Marzo-Mayo del 2002. El canane es un pez tropical característico de las zonas arrecifales, perteneciente a la familia Lutjanidae, esta especie se encuentra distribuida desde Florida hasta Brasil siendo más abundante en el Golfo de México. Se obtuvieron un total de 871 organismos capturados por la flota artesanal de comunidad de Holbox, utilizando la línea como arte de pesca. Para la estimación de la edad y los parámetros poblacionales se utilizaron las frecuencias de longitud de los tres meses trabajados. Se observó que la mayor incidencia de captura se encuentra entre las tallas 255 y 275 mm LF, con una media de 265 mm LF. Los parámetros poblacionales obtenidos a través del software FiSAT fueron para

ELEFAN Loo= 500.50, k= 0.33 y to= -0.19 y por medio de Shepherd's Loo= 520.05, k= 0.30 y to= -0.22. Los intervalos de frecuencia de longitud también fueron utilizados para determinar la relación longitud-peso con una n= 659 organismos; el resultado de la regresión fue W= $0.00004334LF^{2.8105}$. La curva de crecimiento se realizó por la ecuación de von Bertalanffy donde Lt= 500.5 $(1-e^{-0.333(t+0.19)})$ para ELEFAN y Lt= 520.05 $(1-e^{-0.30(t+0.22)})$ para Shepherd's. El conocimiento de los parámetros poblacionales son de suma importancia para garantizar un adecuado manejo de este recurso, así como su conservación para las futuras generaciones.

PALABRAS CLAVES: Canane, *Ocyurus chrysurus*, parámetros poblacionales

Oceanographic Features and Zooplankton Community Structure in Mayagüez Bay, Puerto Rico

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This study was part of a multidisciplinary research effort aimed to establish a characterization of the oceanographic features and the zooplankton community structure that could serve to evaluate the response of marine communities to a water quality restoration initiative.   Monthly samplings consisted of conductivity, temperature and depth (CTD) and chlorophyll-a fluorescence profiles. Grab samples for nutrients determination (NO_3/NO_2 organic N, NH_4^+ and PO_4^{-3})   and Secchi transparency.   Zooplankton was collected by oblique tows using a 1m5 TuckerTrawl System with three nets of 0.202 mm mesh. Sampling program included twelve cruises from February, 1997 through January, 1998 at six stations. Density profiles at Ocean station showed permanent stratification with well-developed pycnoclines associated with increasing salinity and declines of water temperature with depth. Inshore stations had well-mixed water columns, vertical stratification associated to freshwater lenses at the surface during large rainfall events. Maximum water column chlorophyll-a concentrations were consistently higher at Atuneras and AAA stations. Chlorophyll-a concentration was positively correlated with streamflow at Manchas and Rodríguez, but varied independently from streamflow at the other stations. Organic nitrogen (Org-N) was the nutrient in highest concentration, followed by ammonium-ion (NH_4^+) and nitrate (NO_3-N). Concentrations of orthophosphate (PO_4^{-3}BP) were only detected during April in Añasco. These data suggests that phosphate may be regulating plankton production at stations with good light penetration. Secchi transparency penetrated less than 50 % of the water column at Atuneras and AAA stations.