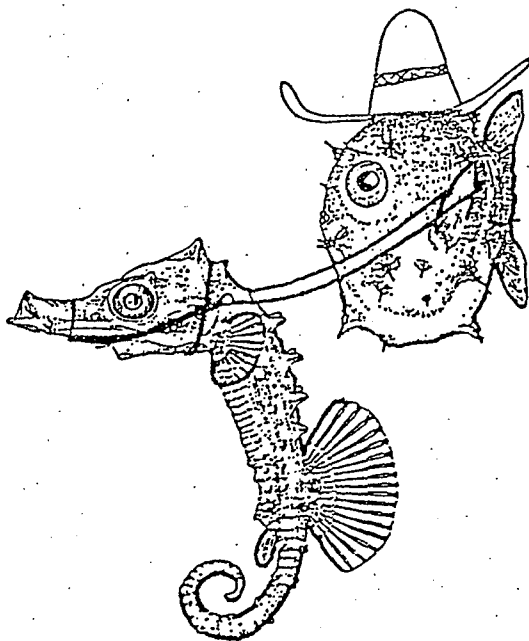


Aguirre-Leon, A., A. Yañez-Arancibia and D. Pauly. 1989. Recruitment model of *Eucinostomus gula* (Pisces: Gerridae) in the southern Gulf of Mexico: life-history with tropical estuary-shelf interrelationships. p. 57 In: XIII Annual Reunion of the Early Life History Section, American Fisheries Society, 21-26 May 1989, Merida, Mexico. El Programa y la Memoria.

13° Reunión Anual

American Fisheries Society Early Life History Section



El Programa y la Memoria
21 - 27 de Mayo de 1989
Mérida, Yucatán, México

Aguirre-León., A. Yáñez-Arancibia and D. Pauly*, Inst. Cienc. del Mar y Limnol., UNAM, Apdo. Postal 70-305, Mexico 04510 DF* and ICLARM*, MCC., P.O. Box 1501, Makati, Metro Manila, Filipinas. RECRUITMENT MODEL OF *EUCINOSTOMUS GULA* IN THE SOUTHERN GULF OF MEXICO: LIFE HISTORY WITH TROPICAL ESTUARY-SHELF INTERRELATIONSHIPS (PISCES: GERREIDAE). *E. gula* is a coastal species dominant in the southern Gulf of Mexico with wide distribution and high levels of numerical and biomass abundance (0.67 ton/km² prom. annual in Laguna de Términos LT; 0.78 ton/km² in Sonda de Campeche SC). They reproduce in SC during the dry season (Feb.-May) in the area adjacent to LT. Young fish penetrate LT with the tidal currents at the end of the dry season and during the rainy season (May-Sept.); the young fish inhabit habitats of *Thalassia testudinum*/*Rhizophora mangle* and average 4.5 cm length. They follow a complex recruitment, sequentially utilizing distinct estuarine habitats, correlated with salinity, temperature, transparency, food habits and shelter. They complete part of their growth and maturation at the end of the rainy season with an average length of 10.5 cm. In accordance with the ELEFAN analysis, this population contains $L_{\infty} = 20.1$ cm, $K = 0.504$ and $Z = 2.187$. The juvenile fish migrate to SC, mature and reproduce in the ocean. Average length is 14.5 cm. Marked differences in population structure are observed in the different habitats. The life-cycle reflects clear biological adaptations to the environmental variability of the estuarine-ocean system.

Aguirre-León., A. Yáñez-Arancibia and D. Pauly*, Inst. Cienc. del Mar y Limnol., UNAM, Apdo. Postal 70-305, Mexico 04510 DF* and ICLARM*, MCC., P.O. Box 1501, Makati, Metro Manila, Filipinas. RECRUITMENT MODEL OF *EUCINOSTOMUS GULA* IN THE SOUTHERN GULF OF MEXICO: LIFE HISTORY WITH TROPICAL ESTUARY-SHELF INTERRELATIONSHIPS (PISCES: GERREIDAE). *E. gula* es una especie costera dominante en el sur del Golfo de México, con amplia distribución y altos valores de abundancia numérica y biomasa (0.67 ton/km² prom. anual en Laguna de Términos LT; 0.78 ton/km² en Sonda de Campeche SC). Se reproduce en SC durante época de secas (feb. a may.) en la zona adyacente a LT. Alevines penetran a LT con corrientes de marea a finales de secas y durante lluvias (may. a sept.); los juveniles colonizan habitats de *Thalassia testudinum*/*Rhizophora mangle* con una moda de 4.5 cm long. total. Realiza un reclutamiento complejo, utilizando secuencialmente distintos habitats estuarinos, correlacionado con salinidad, temperatura, transparencia, hábitats alimentarios refugio. Completa parte de su crecimiento y madurez al final de lluvias con una moda de 10.5 cm. De acuerdo con análisis ELEFAN, esta población tiene valores de $L_{\infty} = 20.1$ cm, $K = 0.504$ y $Z = 2.187$. Los preadultos migran a SC, maduran y se reproducen en el mar con una moda de 14.5 cm. Se observan marcadas diferencias en la estructura poblacional para habitats distintos. El ciclo de vida refleja claras adaptaciones de su biología a la variabilidad ambiental del sistema estuario-mar.