



Aceves Medina, G., R.J. Saldierna Martínez, A.T. Hinojosa Medina, S.P.A. Jiménez Rosenberg, M.E. Hernández Rivas & R. Morales Ávila (2008). Vertical structure of larval fish assemblages during diel cycles in summer and winter in the southern part of Bahía de La Paz, México. *Estuarine Coastal and Shelf Science*, 76: 889-901. DOI: 10.1016/j.ecss.2007.08.016

## Vertical structure of larval fish assemblages during diel cycles in summer and winter in the southern part of Bahía de La Paz, México

Gerardo Aceves Medina, Ricardo Javier Saldierna Martínez, Alejandro Trinidad Hinojosa Medina, Sylvia Patricia Adelheid Jiménez Rosenberg, Martín Enrique Hernández Rivas & Raúl Morales Ávila

The effect of environmental variables on the vertical structure of larval fish assemblages in a tropical coastal lagoon was analyzed. Ichthyoplankton samples were collected from the near-bottom and surface strata near the mouth of a subtropical lagoon during contrasting seasonal conditions of temperature, photoperiod, light intensity, and tidal heights. During summer, larval fish assemblages had high species richness ( $R$ ) and were dominated by tropical species. During winter, assemblages had lower  $R$  values and were dominated by subtropical and temperate species. Vertical distribution patterns of the taxa were determined by the interaction of environmental variables and behavior of each species to maintain their position in a stratum in the water column, or to achieve vertical migrations induced by environmental stimuli that, in this case, were thermal gradient, column water stratification, and intensity of light. Depth position and vertical migration of fish larvae, coupled with the flood and ebb tide conditions, played an important role in their retention and displacement toward the lagoon. Fish larvae with distribution restricted to the inner part of the inlet, such as *Achirus mazatlanus*, *Etropus* sp., and several gobies, were more abundant in the near-bottom stratum during the ebb tide, allowing them to avoid exportation, whereas those that could spawn outside, but depended on the inlet as a nursery area, were more abundant near the surface during flood tide, such as *Abudefduf troschelii* and *Stegastes rectifraenum*

Palabras clave: Tendencias espaciales, Fish larvae, circadian rhythms, seasonal variations, vertical distribution, Specialist, Depredación

Para obtener copia del documento contacta con el autor (gaceves@ipn.mx) o con el personal de la biblioteca (bibliocicimar@ipn.mx).