



Gómez Gutiérrez, J. (1995). Distribution patterns, abundance, and population dynamics of the euphausiids *Nyctiphanes simplex* and *Euphasia eximia* off the west coast of Baja California, México. *Marine Ecology Progress Series*, 119: 63-76.

Distribution patterns, abundance, and population dynamics of the euphausiids *Nyctiphanes simplex* and *Euphasia eximia* off the west coast of Baja California, México

Jaime Gómez Gutiérrez

Distribution patterns and population structure of the euphausiids *Nyctiphanes simplex* and *Euphasia eximia* were examined in the California Current off the west coast of Baja California, Mexico with emphasis on the southern part near Bahía Magdalena, in relation to temperature zooplankton biomass, distance from the coast as a function of depth, and interannual variability. The data were collected in 6 surveys from May 1986 to October 1987. High densities of *N. simplex* were found in the shallow coastal waters (<300 m). For *E. eximia* the maximum abundance occurred offshore at stations with depths of 200 to 3000 m. These distribution patterns (offshore-inshore) remained relatively constant throughout the surveys, but the latitudinal distributions showed important variations in relation to the current patterns of the region and seasonal differences in the upwelling events, particularly near Bahía Magdalena (24 to 25° N). Both species displayed continuous breeding, with 25 to 77% of the adult female *N. simplex* in different fertilized stages. A slightly lower proportion of *E. eximia* females were reproductively active (37 to 48%). The breeding areas, indicated by early stages (calyptopes) and adults in the reproductive phase, showed that *N. simplex* is dependent on the upwelling system along Baja California. High densities are maintained during spring and summer, then decrease during autumn as the physical environment changes. The population dynamics of *E. eximia* indicated breeding areas offshore with a continuous recruitment. Breeding areas were found in regions of relatively low biological production. Maximum abundance occurred during autumn.

Palabras clave: Population dynamics, *Nyctiphanes simplex*, *Euphasia eximia*, Baja California

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