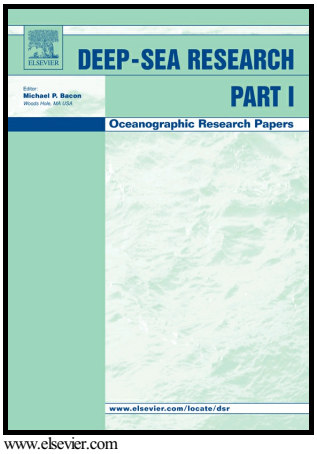

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Vertical pelagic habitat of euphausiid species assemblages in the Gulf of California

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ABSTRACT

We describe the seasonal changes in the horizontal and vertical distribution and abundance of euphausiid species associated with seven physical and 61 biological variables in the Gulf of California (24–31°N). Euphausiid community structure was explored in the epipelagic habitat (<200 m) in January, July, and October 2007 and in epipelagic to bathypelagic habitats (<1400 m depth) in May 2015. Twelve euphausiid species comprising two distinct regional assemblages were identified. *Nyctiphanes simplex* and *Nematoscelis difficilis* were the most abundant species (>90%) in all cruises carried out in the 26–31°N region and *Euphausia distinguenda* in the 24–26°N region (mostly in October >90%). We confirmed that *Euphausia gibboides* and *Nematobrachion flexipes* inhabit the mesopelagic habitat, adapted to <1 ml O_2 l^{-1} environmental condition. Although *Euphausia lamelligera* and *N. simplex* populations were concentrated in