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Mesopelagic fish larval assemblages during El Niño-southern oscillation (1997-2001) in the southern part of the California Current

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Mesopelagic species are the principal constituents of larval fish assemblages inhabiting the southerly California Current region. Seasonal larval abundance is influenced by circulation of the California Current and subtropical Countercurrent, including regional changes of the physical, chemical, and biological characteristics during the El Niño-Southern Oscillation. This study examines the mesopelagic fish larvae distribution and abundance patterns between seasons and years, with the aim of describing the mesopelagic larval assemblages during dynamic environmental changes induced by El Niño (1997–1998) and the rapid transition to La Niña (1998–2000) along the west coast of the Baja California Peninsula (25–31N). Despite wide oceanographic variability, larval assemblages varied principally on a seasonal basis, related to reproductive periods and the north–south gradient influenced by the seasonal pattern of the California Current. An increased diversity, number of species, and abundance of tropical species was noticeable during the northward expansion of warm-water taxa during El Niño, principally in the orthern areas (Ensenada and Punta Baja). After El Niño, population adjustments and rapid recovery occurred during La Niña conditions, which reflected seasonal differences in the mesopelagic community structure that are closely related to the seasonal pattern of oceanic current.

Palabras clave: La Niña, Baja California Peninsula, California Current, El Niño, fish larvae assemblages, mesopelagic

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