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## Copepod daily egg production and growth rates in Bahía Magdalena, Mexico

Jaime Gómez Gutiérrez, José Ricardo Palomares García, Roxana De Silva-Dávila, M.A. Carballido Carranza & Aida Martínez Lopez

The hydrography, chlorophyll (Chl) *a* and egg production of the copepods *Paracalanus parvus* (Claus), *Acartia lilljeborgii* Giesbrecht, *Acartia clausi* Giesbrecht and *Centropages furcatus* were estimated daily between 7 February and 5 March 1998 in Bahía Magdalena, Baja California Sur, México. Temperature was homogeneous throughout the water column during the study (20°C). Positive anomalies of the sea surface temperature were recorded 10 months before and during the sampling period compared with a temperature–time series, 1982–1989. Chlorophyll *a* concentration indicated oligotrophic conditions with <math>\approx 10\text{ Chl } a\text{ mg m}^{-2}</math> from 15 m depth to the surface during the first half of the study, with a pulse of moderate concentration in the second part. The egg production of these copepod species was usually suboptimal, and not correlated with Chl concentration or temperature. Each genus responded differently to Chl *a* and to environmental variables. The rate of input of turbulent kinetic energy to the ocean by the winds, indicated by the cube of the wind speed, was negatively correlated to copepod egg production, suggesting that turbulence can disperse phytoplankton patches and may affect the carbon input to these copepod populations. Turbulence and a previous long warming event observed several months before the winter season were probably the most important factors in limiting copepod production and growth rates.<br/>

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