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Mesoscale eddies and variability of chlorophyll-a in the Sea of Oman

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ABSTRACT

Satellite-derived (TOPEX/Poseidon, Jason-1, Jason-2, SeaWiFS (Sea-Viewing Wide Field-of-View Sensor) and MODIS (Moderate Resolution Imaging Spectroradiometer) Aqua) weekly and monthly products for sea surface height, sea surface temperature (SST) and chlorophyll-a (CHL) concentration were used to analyse the trends of physical–biological coupling. In the variability of chlorophyll, no interannual trends were found for the Sea of Oman (1997–2008). However, the variation of chlorophyll within the annual cycle has increased. A similar tendency was evaluated for the variability of the energy of mesoscale eddies. The median level of kinetic energy and the coefficient of variation of this energy within the annual cycle both increased from 1997 through 2008.

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