



Upwelling trends along the Canary Upwelling System from 1967 to 2006.

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Spatio- temporal trends in upwelling patterns were studied along the Canary Upwelling System for the period 1967-2006. The NW African coast from 20°N to 32°N is observed to be under a permanent upwelling regime characterized by coastal sea surface temperature (SST) colder than the oceanic ones at the same latitude, being the difference named temperature upwelling index (UI^{SST}). This regime is consistent with the wind derived Ekman transport (UI^W) pointing offshore observed near shore. This index shows the existence of upwelling- favorable conditions all year long, although with an annual cycle characterized by more upwelling- favorable conditions from April to September, with a peak in July, and less upwelling- favorable conditions from October to March, with a peak in December-January.

In spite of both indices can be used to characterize the phenomenon, only UI^W values were used to quantify upwelling change during the four decades under scope since this index is less sensible to external factors than UI^{SST} . A strong decrease in upwelling intensity has been observed in all seasons. In particular, the summertime (wintertime) decrease is on the order of 45% (20%) of the mean amplitude of the upwelling cycle.