



Comparison of temperature data in the atmospheric and oceanic domain in the Mediterranean and their links to the large-scale atmospheric circulation

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Atmospheric time series are used to explain the observed behaviour of upper ocean temperatures in the Mediterranean Sea. The purpose of the analysis is to determine the extent observed variations of oceanic temperature during recent decades are linked with changes of the in situ atmospheric temperatures and identify the synoptic conditions leading to the observed changes. Annual trends and temporal and spatial variability of the upper ocean temperatures during the last 50-60 years are explored and their relationship to the large scale atmospheric circulation, and air temperature is studied. The differing degrees of the observed trends between the East and West Mediterranean are connected to the main circulation patterns influencing the Mediterranean area.