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Sea surface temperature and salinity rise in the Eastern Mediterranean

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Increases in sea surface temperatures (SSTs) have been recorded to occur globally, with the Mediterranean Sea temperatures rising about twice as much as those of the global oceans. Here we analyze data collected from CTD casts conducted in the Levantine Basin for the period 1996-2006, and compare the in-situ data with satellite remote sensing SST data sets. We show that the Levantine Basin has undergone temperature as well as salinity increases, during the last 10 years. The warming in the Levantine, which is revealed by the AVHRR Pathfinder sea surface temperature data, as well as the recorded increases in salinity, occurred at both decadal and interannual time scales. The driving mechanisms of these changes need to be investigated, as they may be driven by changes in annual latent heat losses and by the variability in regional wind speeds.