



Mass mortalities and upper layer warming in the Mediterranean Sea

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A large dataset of bottle, CTD, MBT and XBT temperature profiles has been analysed for identifying warming signals in the upper layer of the Mediterranean Sea and explaining observed mass mortalities events. Results do not reveal homogeneous trends that are valid for the whole basins (or at least for a large fraction of it) for different seasons and depth in the Mediterranean upper layer (0-100m). Therefore there is no robust evidence that mean temperature increase at basin scale is the cause of the observed mass mortalities. However, the analysis at local scale, shows that, in some locations where mass mortalities have been recorded, a shift towards high temperature of the mean profile since early 90' has allowed interannual temperature variability to reach environmental conditions beyond the thermal tolerance of some species.