



Warming for the next 100 years in the marine region near to Yucatan, Mexico

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The results of warming obtained by the general circulation models (GCMs) and the Adem thermodynamic climate model (TCM), with scenarios of emissions of greenhouse gases reported by IPCC, are used in a thermodynamic model for the Gulf of Mexico.

We have obtained changes in the spatial and temporal distribution of the sea surface temperature (SST) and the mixed layer depth on the marine region of Yucatan, for the years 2000, 2025, 2050, 2075 and 2100, relative to the period 1961-1990. Such changes are dependent mainly of the latent heat flux and entrainment of cold water from the thermocline, both modified by the warming of the atmosphere, which produces important changes in wind, humidity, clouds and precipitation on the study region.