



CICLO DI SEMINARI

Venerdì 24 Giugno 2016

Sala riunioni terzo piano - ore 11:00
Via Gobetti 101, Bologna

RECENT UNPRECEDENTED STATE OF EASTERN MEDITERRANEAN SEA WITHIN THE LAST MILLENNIUM

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The Mediterranean region is a climatic transitional zone between the subtropical/monsoon regime and the temperate westerlies and is subject to forces acting upon the global climate system. Much knowledge about its climate over the last millennium is derived from terrestrial records, whereas changes in sea surface temperatures (SSTs) and in the dissolved inorganic carbon pool (DIC) are poorly known. I will present continuous high-resolution reconstructions of SST and $\delta^{13}\text{C}_{\text{DIC}}$ in the eastern Mediterranean (EM) Sea, as inferred from oxygen and carbon isotope records from the skeletons of the reef builder gastropod *Dendropoma* sp. spanning the past millennium. The SST reconstruction reveals a 250 year persistent warming trend during which the twentieth century was the warmest on record. Coupled with a distinct trend of $\delta^{13}\text{C}_{\text{DIC}}$ depletion and superimposed upon decreased primary production, this climate reconstruction reflects a new state of the EM over the Anthropocene era that exceeds the natural variability of the last millennium.

