Giovedì 14 Febbraio, ore 12:00, Aula M2, Dipartimento BiGeA, Via Zamboni 67, Bologna.

Seminario

Seawater palaeotemperature of a Cretaceous lagoon: How to interpret the δ18O signal of a fossil bivalve.

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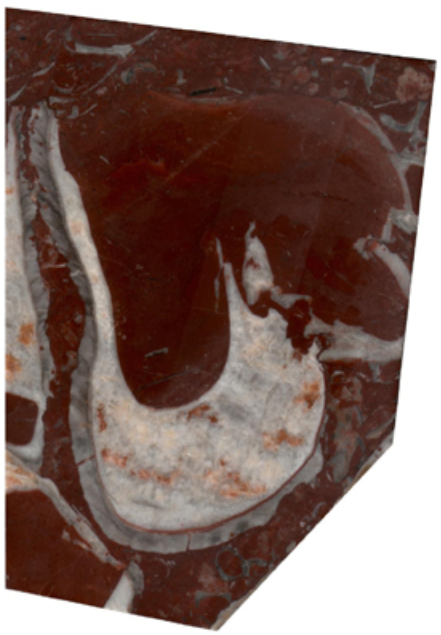
The shells of a bivalve are the result of the continuous accretion of fine rows of carbonatic prisms, which precipitate in isotopic equilibrium with the surrounding water. This precipitation strategy provides a very precise record of the δ18O of the waters and, indirectly, of its temperature.



Here I present the investigation into the seawater temperatures of a mid-Cretaceous rudist-dominated lagoon from Basque Land (Spain). Palaeotemperatures have been reconstructed on the base of the elemental composition of the outer Polyconites (Rudists) shell and considering the major controlling factors (biogenic controls of shell growth, taphonomic preservation, diagenetic overprint, external controls-temperature and salinity, as well as sampling bias).