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- Title:** The age of Late Pleistocene shorelines and tectonic activity of Taranto area, Southern Italy
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- Abstract (English):** The results of isoleucine epimerization ratios in pelecypods (*Glycymeris* sp., *Arca* sp. and *Cerastoderma* sp.) and U-series dating of bivalves and *Cladocora caespitosa* sampled from different Late Pleistocene units in the Chéradi Islands and in the coastal areas of Mar Piccolo and Mar Grande near Taranto (Apulia region, Italy) are presented. U-series measurements on pelecypods and on corals directly associated with mollusc samples provide an independent calibration of amino acid data. The *D/L* ratios of isoleucine show a strong correlation with age, and thus may be considered as a predictive dating technique. This correlation also supports the reliability of U-series ages obtained for molluscs. These results, including the stratigraphic position, the lithological lateral continuity, the morphological evidence and the palaeontological characteristics of the various units, made it possible to attribute them to different marine transgressive phases referable to oxygen isotope stages (OIS) 5e–c, 5a and 3. No evidence of land emersion between OIS 5e and 5c has been found in the area. Pinkish/red sands deposits located above present sea level (~ 1 m) have been referred to OIS 3. The Late Pleistocene morphological evolution and uplift of a complex area between the Apulian foreland and the Bradanic foredeep have been reconstructed. Due to the lack of incontestable indicators of past sea level stands the facies analysis has been performed on U-series dated 89.8ka, OIS 5c shoreline north of Mar Piccolo and an uplift rate ranging from 0.21–0.27mm/yr has been calculated.