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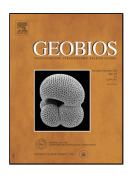
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## ACCEPTED MANUSCRIPT

A lithostratigraphic and palaeoenvironmental framework for the late Miocene El Caracolar section (Granada Basin, Betic Cordillera, Spain) and description of decapod crustacean \*

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#### **Abstract**

The locality of El Caracolar in the Granada Basin (Central Betic Cordillera, southern Spain) has yielded a rich late Miocene assemblage composed of marine invertebrates and vertebrates, accompanied by microfossils, macroflora and trace fossils. Exposed strata consisting of sands, sandy siltstones, silty sandstones, siltstones and calcirudites are divided into four local units. Lithostratigraphically, the studied section is placed between the top of the La Peza Formation and the Quéntar Formation. Based on foraminifers, the age of units 2 and 3 is estimated to be early Tortonian (11.0–9.9 Ma), whereas units 1 and 4 do not yield any reliable biostratigraphic markers. The diverse biotic association suggests that deposition took place in a near-shore outer neritic zone of a narrow to open seaway in a mesotrophic regime, responsible for the establishment of a chemosynthetic community under (sub)tropical

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