

The External Tanger Unit (Intrarif sub-Domain, External Rifian Zones, Morocco): an interdisciplinary study

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The External Tanger Unit represents one of the most complete Cretaceous-Miocene successions in the central areas of the Internal Intrarif sub-Domain (External Rif Zones, Morocco). An interdisciplinary study has been carried out to propose a new characterization of this unit which would allow a better comprehension of the confused and complex relationships among different units of the same sub-domain. The results achieved can be summarized as follows: (1) redefinition of the stratigraphic (litho-, bio-, and chrono-) record and introduction of a new, informal lithostratigraphic terminology; (2) recognition of two main depositional sequences (lower-middle Eocene p.p. and lower Oligocene p.p.-lower Miocene p.p.) separated by extended gaps (latest Cretaceous-early Eocene p.p. and middle Eocene p.p.-early Oligocene p.p.); (3) reconstruction of the evolution of the sedimentary realm, and of the relationships between tectonics and sedimentation; and (4) comparison between the upper Cretaceous-Miocene stratigraphic record and tectonic events of the Intrarif, which is located in the western external portion of the Maghrebian Flysch Basin, and the equivalent sedimentary record of the eastern portion of this basin in the Tunisian Tell. More in general, our results allowed (i) a first reconstruction of the Cretaceous-Miocene main tectono-sedimentary events; (ii) a more detailed location of the

sedimentary suite in the external African Margin in the context of a wider palaeogeographic framework; and (iii) the definition of the main stages of the geological evolution of the area. © 2017, Saudi Society for Geosciences.

Cretaceous-Miocene

External Rif

Morocco

Stratigraphic record

Tectono-sedimentary events

Cretaceous

depositional sequence

Eocene

Eocene-Oligocene boundary

geological record

interdisciplinary approach

lithostratigraphy

Miocene

Oligocene

paleogeography

sedimentation

tectonic evolution

tectonic reconstruction

tectonics

tectonostratigraphy

African Margin [Atlantic Ocean]

Atlantic Ocean

Morocco

Tunisia