

First Evidence of Upper Oligocene Strata within the Internal Tanger Unit and the Melloussa Unit (Northern External Rif, Morocco): New Scenario for the Palaeogeography of the Massylian Domain (s.l.).

M.N. Zaghloul¹, A. Di Staso², V. Perrone³, and M. Durand Delga⁴

¹ Département des Sciences de la Terre, Université Abdelmalek Essaadi FST Tanger (Morocco)

² Dipartimento di Scienze della Terra, University Federico II of Napoli (Italy)

³ Istituto di Scienze della Terra dell'Università "Carlo Bo" di Urbino (Italy)

⁴ Rue Charles- Lefebvre, 77210 Avon (France)

Nannoplanckton associations indicating an age not older than Chattian have been recognized within metre-thick yellowish marls belonging to the Massylian successions of the Melloussa nappe in the Beni Harchan area. Lithologically similar Upper Oligocene strata have been also evidenced in the Internal ("oriental") Tanger Unit, south of Tétouan, in a section starting with grey calcareous beds, alternating with marls, followed by metre-thick marly key-beds, associated with micaceous centimetre- to decimetre-thick arenaceous beds.

The occurrence of Upper Oligocene strata within both Internal Tanger Unit and Melloussa Unit, within very similar lithofacies, suggest these units were narrowly deposited, probably within a same Massylian Domain. Consequently, the Internal Tanger Unit formerly considered as belonging to the External Intrarifian sub-Domain, very likely have to be assigned to the Massylian Domain. Whereas, External Tanger Unit (or Tanger Unit s.s.), as well as the Ketama and Loukkous Units are assigned to the External Intrarifian sub-Domain.

Key words: Internal Tanger Unit, Massylian Domain, Intrarifian Domain, Melloussa-chouamat nappe.