

New insights on the Aptian-Albian sedimentary record and age of the Serdj Formation (Central Tunisia): Impact on regional stratigraphic correlations

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New stratigraphic and sedimentologic investigations conducted in the Serj-Bargou (Central Tunisian Atlas) on the Aptian–Albian? succession allowed reinforcing previous biostratigraphic results and bringing new insights on the age of the uppermost part of the Serj Formation which is still subject of debates and controversies. In Jebel Serdj, these series comprise the Hamada and Serdj Formations. The first formation is composed of thick succession made up of transgressive *Orbitolina*-rich carbonates and deep marine shales and limestones. It extends from the uppermost Barremian to the lower Upper Aptian and includes the Oceanic Anoxic Event OAE1a covering the *Deshayesites weissii* to *Deshayesites deshayesi* ammonite zones. The overlying Serj Formation is made by moderate scale cycles composed of shallow marine carbonate units (Cu1 to Cu5) separated by four shaly, silty and rarely sandy intervals (T1 to T4) with mixed benthic and pelagic fauna from which have been collected new specimens of ammonites serving as complement data in refining the previous results of LEHMANN et al. (2009).

The first carbonate unit records *Tropaeum* sp. suggesting the *Epicheloniceras martini* Zone; while the overlying terrigenous interval (T1) encases *Acanthohoplites* sp., *Parahoplites* cf. *nutfieldensis* of the *Parahoplites melchioris* Zone. The third unit (Cu3) documents *Eodouvilleiceras* sp. of the *Hypacanthoplites jacobi* Zone. Within the T4 interval three ammonite specimens are collected (*Mellegueiceras* sp., *Mellegueiceras chiaouiae* and *Acanthohoplitinae* indet.). These ammonite specimens coupled with the presence of *Favusella washitensis*, and *Ticenella roberti* planktonic foraminifers and *Mesorbitolina* gr. *minuta-texana* within the Cu5 limestone strongly suggest a lower Albian age of the *Leymeriella tardefurcata* Zone of the uppermost part of the Serdj Formation rather than uppermost Aptian as previously considered. Northward, in Cheirich area which corresponds to a platform-basin setting, the Cu5 comprises shelf margin barrier reefs with several horizons of cross bedded sandstones. The latter could be correlated with the lower Albian clastic events described in Hameima formation (Tejroutine area, Northern Tunisia) (CHHAOUI, 2010). All these data support the new idea defended by TRABELSI et al. (2016) and considering that the upper Aptian-lower Albian sedimentary record is well preserved in several areas and does not correspond to a major Gap in overall central Tunisia as previously considered.

CHHAOUI, A. et al., 2010. doi: 10.1016/j.jafrearsci.2010.02.008

LEHMANN, J. et al., 2009. doi: 10.1016/j.cretres.2009.02.002

TRABELSI, K. et al., 2016. dx.doi.org/10.1016/j.cretres.2016.07.004