Ammonite biostratigraphy of Lower Aptian-Upper Albian deposits (Kazhdumi Formation) in Zagros Basin, SW Iran

***Raisossadat, S.N.*[1,*], Hamdani, H.[1], Amiribakhtiar, H.[2]**

*1) Geology Department, University of Birjand, Birjand, Iran, *E-mail: snraeisosadat@birjand.ac.ir*
2) Petroleum University of Technology, Abadan, Iran

The Zagros sedimentary basin is situated in south western Iran. This study is focused on biostratigraphy of lower Aptian- upper Albian deposits (Kazhdumi Formation). The measured section with 270 meters thickness includes three stratigraphic rock units consisting dark grey shale with inter-bedded limestones and marls.

11 genera and 16 species of ammonites were identified in this section: *Cheloniceras* sp., *Douvilleiceras* cf. *mammillatum, D. mammillatum* cf. *aequinodum, Dufrenoyia* cf. *furcata*, *Epicheloniceras* sp., *Hypacanthoplites* sp., *Hysteroceras* sp., *Kossmatella* sp., *Lyelliceras* cf. *lyelli, Oxytropidoceras* (*Mirapelia*) cf. *mirapelianum, Oxytropidoceras* (*Mirapelia*) cf. *buarquianum*, *Parahoplites* sp., *Venezoliceras* cf. *bituberculatum, Venezoliceras* cf. *karsteni* that some (see BULOT, 2010).

The Lower Cretaceous biozonation of the Tethys (especially south margin) has been discussed during recent years (COOPER, 1982; RENZ, 1982; OWEN, 1999; TAVARES et al., 2007, REBOULET et al., 2014). Based on the assemblage the following subzones and biozones are proposed; *Dufrenoyia* cf. *furcata* Zone is defined by presence of *Dufrenoyia* cf. *furcata* and *Cheloniceras* sp. Presence of *Epicheloniceras* sp., *Parahoplites* sp. and *Hypacanthoplites* sp. probably could suggest *Epicheloniceras martini*, *Parahoplites melchioris* and *Hypacanthoplites jacobi* zones. *Kossmatella* sp. co-occurs with *Parahoplites* sp. *Douvilleiceras* cf. *mammillatum* and *D. mammillatum* cf. *aequinodum* confirm *mammillatum* Zone. The *Lyelliceras* cf. *lyelli* Subzone which is known as part of *Hoplites dentatus* Zone, and *Oxytropidoceras (Mirapelia)* cf. *mirapelianum* and *Oxytropidoceras (Mirapelia) buarquianum* occurre in this subzone. *Oxytropidoceras (Mirapelia) buarquianum* is also introduced as ammonite horizon (COOPER, 1982). The *Hysteroceras* sp. subzone is defined by the presence of *Venezoliceras* cf. *bituberculatum, Venezoliceras* cf. *karsteni.* This subzone could be equal to the *Hysteroceras orbignyi* subzone (RENZ, 1982) or the *Hysteroceras varicosum* Subzone (OWEN, 1999).

According to the ammonite assemblage and occurring biozones a late Early Aptian to Late Albian age is proposed for the Kazhdumi Formation. Moreover the identified assemblage shows affinity with ammonites reported mostly from southern margin of the Tethys Realm and numerous ammonite taxa seem to be cosmopolitan.

BULOT, L.G., 2010. Geo Arabia, Spec. Publ., **4**, 2, p. 167–194.
OWEN, H.G., 1999. Scr. Geol., Spec. Iss., **3**, 129–149.
REBOULET, S. et al., 2014. Cret. Research, **50**, 126–37.
RENZ, O., 1982. The Cretaceous Ammonites of Venezuela. Birkäuser Verlag, Basel, p.132.
TAVARES, T. et al., 2007. S. Afr. J. Geol., **110**/1, 137–156.