

FIRST RECORD AND SIGNIFICANCE OF TURONIAN (CRETACEOUS) AMMONITES FROM EAST-CENTRAL IRAN (SHOTORI MOUNTAINS)

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A Turonian ammonite faunule from the Shotori Mountains (Tabas area, east-central Iran, see Fig. 1A) is recorded for the first time and briefly described (WILMSEN et al, 2005). It includes several specimens of *Thomasites koulabicus* (KLER) and two specimens of *Collignonicerias woollgari regulare* (HAAS) (Fig. 1C). *T. koulabicus* appears, in contrast to the widespread *C. w. regulare*, to be restricted to central East Asia. The occurrence of *T. koulabicus* in the area is of palaeobiogeographical interest as it demonstrates faunal relationships with east Central Asia (Kyrgyzstan, Tajikistan, Uzbekistan). *Thomasites koulabicus* seems to be a taxon typical of the northern Tethys marginal shelf seas in the Middle East and the east Central Asian basins. According to the literature, Cretaceous (mainly Aptian to Cenomanian) ammonite faunas of northern and central Iran are dominated by Boreal and cosmopolitan taxa. The turnover towards more endemic ammonite faunas fits the general palaeobiogeographic turnover from cosmopolitan taxa in the Cenomanian to more regional developments in the Turonian. The ammonites document a Cretaceous marine transgression onto the Shotori Mountains in the central part of the Central-East Iranian Microcontinent during the Early to Middle Turonian. The nearshore character of the host sediments (Fig. 1B), a strong terrigenous input, and the intercalation of conglomerates originating from nearby cliffs suggest that at least portions of the Shotori Mountains defied inundation by the Turonian sea. This 'Shotori Island' extended for at least 130 km near the centre of the Central-East Iranian Microcontinent (CEIM) during the Turonian and was surrounded by shelf seas and narrow oceanic basins, forming an important palaeogeographic feature in the Middle Eastern Tethysides during the Late Cretaceous (Fig. 1D).

Reference:

WILMSEN, M., WIESE, F., SEYED-EMAMI, K. & FÜRSICH, F.T. (2005): First record and significance of Cretaceous (Turonian) ammonites from the Shotori Mountains, east-central Iran. – *Cretaceous Research*, **26**: 181-195; Amsterdam.

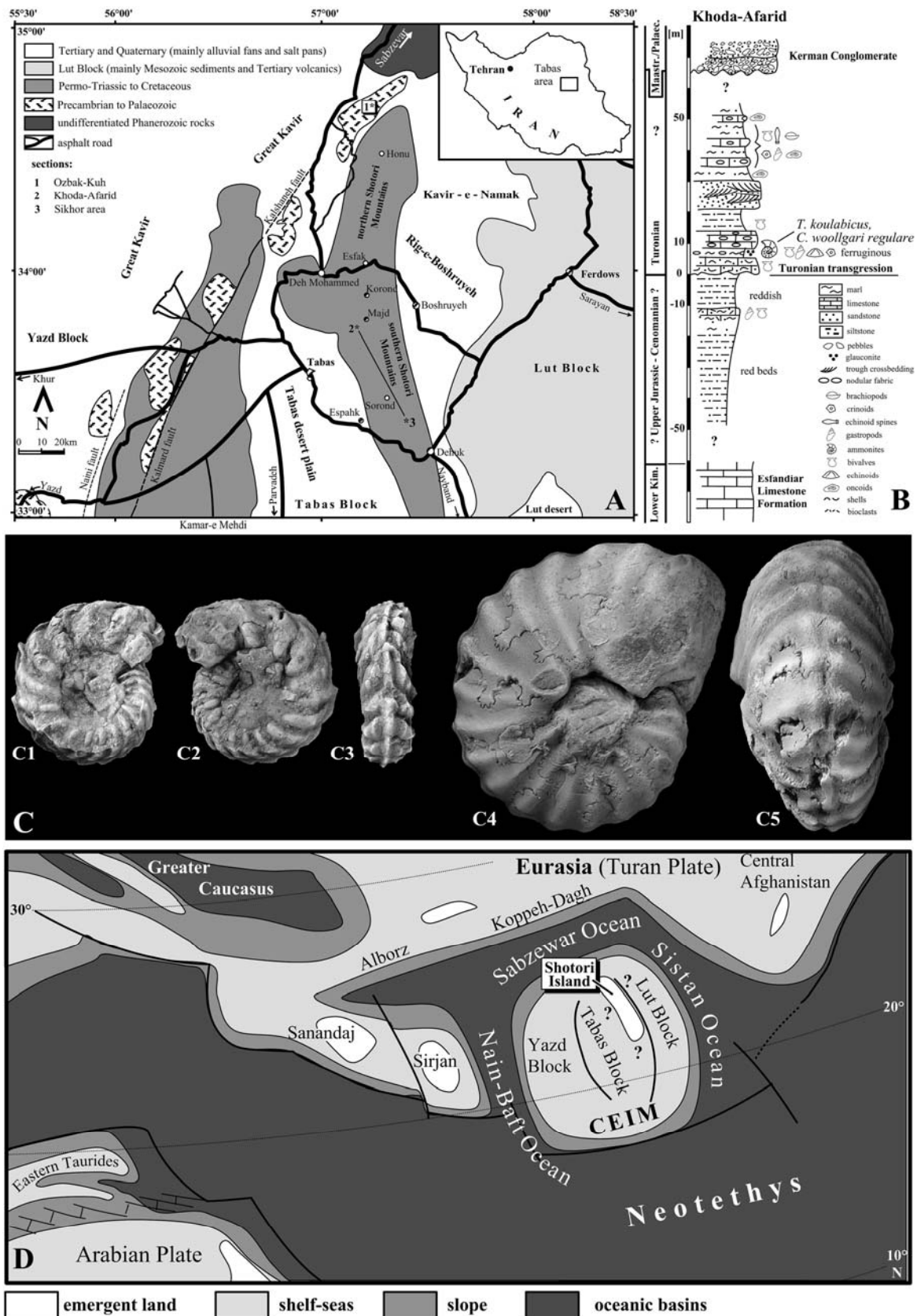


Fig. 1: **A**, Simplified geological map of the Tabas area with indication of investigated localities (no. 1-3). **B**, Section at Khoda-Afarid (no. 2 in A) with indication of the ammonite-bearing beds. **C1-3**, *Collignoniceras woollgari regulare* (Haas, 1946) (specimen PIW2003I-1); **C4-5**, *Thomasites koulabicus* (Kler, 1909) (specimen PIW2003I-5); all in natural size. **D**, Palaeogeography of the Tethysides (Middle East) during the early Late Cretaceous (CEIM = Central East Iranian Microcontinent).