

**THE FIRST OCCURENCE OF “PROSOPIDAE” S.L.
(CRUSTACEA: DECAPODA: BRACHYURA)
AND OTHER FINDINGS OF CRUSTACEANS
IN THE UPPER JURASSIC LIMESTONES
OF THE PIENINY KLIPPEN BELT**

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The remains of decapod crustaceans in the Mesozoic strata are much more less common than those in Cenozoic strata. Here we present the first material coming from Jurassic limestones of the Pieniny Klippe Belt referable to crustaceans.

The material from Štepnická Skala locality (Aubrecht *et al.* 2002) comprises one almost complete dorsal carapace (see Fig. 1), three propodi and fragments apparently coming from some unidentified crustacean found in white ammonite coquina belonging to Bohunice Formation (Gregoryceras transversianum zone of Middle Oxfordian). Dorsal carapace belongs to “prosopid” crab *Tanidromites insignis* (von Meyer, 1857). It is the first occurrence of Jurassic primitive crab reported from the Pieniny Klippen Belt and from Slovakia as well.

Prosopidae sensu von Meyer (1860) is today considered as not monophyletic group consisting of altogether eight distinct families distributed within two superfamilies Homolodromioidea and Glaessneropsoidea with the former one represented with the only living family Homolodromiidae which members are considered as the closest living relatives of the extinct “Prosopidae” s.l. (Schweitzer & Feldmann 2008, 2009).

The findings of these crabs are restricted almost exclusively to the isolated carapaces, although there are several reports of “prosopids” found also with appendages preserved (Förster 1985, Garassino *et al.* 2005).

“Prosopids” are known from the facies of the Upper Pliensbachian to Danian throughout the world with the exception of South America. During the Oxfordian they flourish and are considered to occupy the sponge megafacies belt from Portugal to southern Poland and Romania including Sicily (Müller *et al.* 2000, Krobicki & Zatoń 2008). However, here presented finding differs from the most others as it originates from non-biohermal facies.

Here uncovered ammonite coquinas probably represent the long-term peaks in ammonoid production and not the accumulations caused by sediment starvation (Tomašových & Schlögl 2008).

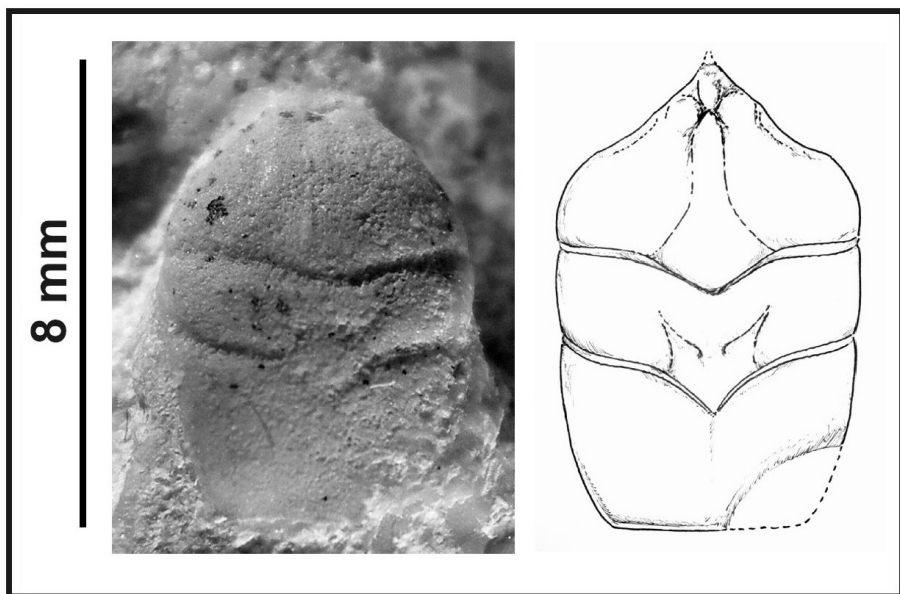


Fig. 1. *Tanidromites insignis* (von Meyer 1857) – dorsal carapace, Štěpnická Skala locality, Slovak part of the Pieniny Klippen Belt

Fig. 1. *Tanidromites insignis* (von Meyer 1857) – głowotułów, odsłonięcie Štěpnická Skala, słowacka część pienięńskiego pasa skałkowego

The chelae found in association with *T. insignis* from Štěpnická Skala are in many respects similar to those found in Upper Jurassic strata of several other sites (Förster 1985, Feldmann *et al.* 2006, Garassino *et al.* 2005), which are at least partly believed to belong to Prosopidae s.l. However, as the chelae from Štěpnická Skala were not found in direct articulation with carapace it is not possible to assign them to any decapod group with confidence.

Fragment of cephalon of isopod crustacean, which are very rare in Jurassic strata was found in the Oxfordian deposits (probably early Middle Oxfordian) at Vršatec locality. Sediments represent infillings of neptunian dykes, extremely rich in invertebrate macrofauna. Preservation of isopod specimen is however insufficient for determination within family or genus level. Another finding represents poorly preserved imprint of presumed unidentified fragmentary propodus assignable tentatively to Decapoda.

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