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Dynomenid crabs (Decapoda, Brachyura) from Upper Cenomanian-Lower Turonian nearshore, shallow-water strata in the Bohemian Cretaceous Basin, Czech Republic

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Conditions of preservation of small crabs at nearshore deposits in the Bohemian Cretaceous Basin (BCB) were poor and fossil record is mostly restricted to fragmentary pereiopods, i.e. isolated propodi or dactyli, whereas crab carapaces in the area are rather rare. Excluding three specimens of dynomenid *Graptocarcinus texanus* Roemer, 1887 and one necrocarcinid carapace fragment, no other carapaces are known from the nearshore deposits of the BCB. These partially crushed carapaces lacking chelipeds or other appendages come from the lower Turonian calcareous siltstones at Kamajka. By contrast, crab claws and isolated dactyli are more common in the BCB, but notoriously difficult to identify (Jagt et al. 2010, Veselská 2011). In view of the confused taxonomy of isolated claws, its identity has not been recognised and claws were described as fragments of the necrocarcinid species *Necrocarcinus avicularis* Fritsch (in Fritsch & Kafka 1887). However morphology of crab chelipeds originally described as *N. avicularis* is in fact typical of graptocarcinines (dynomenids); claws are covered with small tubercles and are rectangular in outline with a distinctive bulge on propodus/carpus articulation. The bulge closed the space between propodus and carpus when bent and probably protected the claws when crabs moved between coral colonies or during feeding, similar to extant dynomenids (Jagt et al. 2010, Van Bakel et al. 2012, Kočová Veselská et al., submitted). Jagt et al. (2010) prefer to use parataxonomy for such cases and suggest using "form genus" *Roemerus* Bishop, 1983 for isolated dynomenid chelae.

Between 2001 and 2013, the authors conducted field works in the upper Cenomanian-lower Turonian nearshore, shallow-water bioclastic limestones to marly siltstones at Velim, Chrtníky and Kamajka situated approximately 60–100 km east of Prague along the southern and eastern margins of the BCB, which are interpreted to have been laid down under high-energy conditions (Žítt et al. 1997a, b). During these sessions, 200 kg of rubble were amassed and screened through a 1 mm-sieve with a result of an additional isolated dactyli and cheliped fragments. Whereas strata containing brachyuran crabs at Kamajka are exclusively of early Turonian age, crustaceans from Chrtníky and Velim are from upper Cenomanian and early Turonian nearshore sediments alike.

A recent re-examination of these new finds together with crab chelipeds originally described as *N. avicularis* deposited in the National Museum (Prague) has revealed that all alleged

necrocarcinid claws or dactyli from nearshore strata in the BCB indeed correspond to the diagnosis of the dynomenid "form genus" *Roemerus*, in size, ornament, development of the fixed and movable fingers and presence of ovate depressions in dactylus and fixed finger (Veselská 2011, Kočová Veselská et al., submitted). Although still not found connected with carapaces, these claws may be conspecific with the co-occurring, carapace-based species, *G. texanus*, at Kamajka.

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