



Comments on the generic position of *Typton australis* Bruce, 1973, and some related taxa (Crustacea: Decapoda: Pontoniinae)

A. J. BRUCE

Crustacea Section, Queensland Museum, P. O. Box 3300, South Brisbane, Queensland, Australia 4101.
E-mail: abruce@broad.net.au

A recent communication by Marin (2008) discussed the generic position of *Typton australis* Bruce, 1973, with the conclusion that it should be transferred to the genus *Onycocaridella* Bruce, 1981, with further changes to the generic attributions of *Onycocaridella antokha* Marin, 2007 and *Onycocaridella monodoa* (Fujino & Miyake, 1969) and *Onycocaridella stenolepis* (Holthuis, 1952), both returned to the genus *Onycocaris* Nobili, 1904.

The assessment of the generic situation of *T. australis* is not helped by the lack of a detailed illustrated description of *T. spongicola* Costa, 1844, the type species of the genus, which is in the process of rectification. The range of morphological variation found between the 16 species (including *T. australis*) referred to *Typton* strongly suggests that that assemblage is artificial and that the genus is in need of revision. Based on the key of Holthuis (1993), the synoptic diagnosis of the genus *Typton* is: rostrum present, scaphocerite rudimentary, mandibular palp absent, exopods present on all maxillipeds, ambulatory dactyls biunguiculate. The rudimentary scaphocerite distinguishes *Typton* from *Onycocaris* and *Onycocaridella* in which it is well developed. This character is shared with *Typtonychus* Bruce, 1996, but both genera can be readily distinguished by the presence of filtratory mouthparts in the latter genus. However, an autapomorphic generic character not utilized in the key by Bruce (1995), but included in the diagnosis given for the genus *Typton* (see Bruce 1995: 144), is the presence of shearing cutting edges on the fingers of the minor second pereiopod. This configuration of the minor cheliped fingers is present in all species currently referred to *Typton*, including *T. australis*, and is a character of major significance in the diagnosis of this genus, being absent from species of *Onycocaris* and *Onycocaridella*.

The ambulatory dactyls of *Onycocaris* are also highly characteristic of that genus, being strongly compressed bilaterally, short, proximally broad, with the corpus bearing a large laminar, often ornate, distal accessory tooth, and with a strongly denticulate ventral margin. Similarly, the second pereiopod chelae of *Onycocaris* are highly characteristic with their short, deep, highly compressed palms and relatively long fingers with complex dentition, closing with a gripping, non-shearing action. These features are consistent in the 15 species included in the genus prior to Marin (2008). No other pontoniine genus has similar chelae. The first pereiopod chelae in *Onycocaris* have long slender subcylindrical palms, with short fingers, much less than half the palm length. In species of *Typton*, including *T. australis*, these chelae are short and robust, with the fingers more than half the length of the palm.

The first pereiopod chelae of neither *Onycocaridella stenolepis* nor *Onycocaridella monodoa* resemble those of the other species of *Onycocaris*, and therefore, these two species should not be retained in that genus. Though distinctly different from the typical chelae of *Onycocaris*, their second pereiopod chelae are generally similar, having the palm oval in section, relatively long with shorter, simpler, more slender, dentate fingers, opposing with gripping action. The first pereiopod chelae are also very similar to each other, with the fingers broad and subequal to the palm length, unlike those of *Onycocaris*. Neither species has ambulatory dactyls resembling in detail those of *Onycocaris*, having dactyls not strongly compressed and with a laminar accessory tooth and denticulate corpus. Both species have a small simple accessory tooth and non-denticulate corpus.

Onycocaridella prima Bruce, 1981, the type species of the genus *Onycocaridella*, shares many of its characters with *O. stenolepis* and *O. monodoa*, particularly the shape of the first pereiopod chelae, but also the configuration of the second pereiopod chelae, with a slender, oval section palm, but differing from them by the non-dentate fingers and the minor chela having shearing fingers. The fingers of the major chela of *O. prima* are unarmed and oppose into a groove on the fixed finger. The minor chela of *O. prima* resembles the state in *Typton*; however, *Onycocaridella* differs from *Typton* by the presence of a well developed scaphocerite, the ambulatory dactyls slender, not strongly compressed, with the corpus bearing a small accessory tooth and minutely denticulate ventral margin. The characters of *O. stenolepis* and *O.*