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## A second discovery of *Diapontonia maranulus* Bruce, 1986 (Crustacea: Decapoda: Palaemonidae) in the Caribbean

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### Abstract

A second discovery of the echinoid associated shrimp species *Diapontonia maranulus* Bruce, 1986 is recorded from deep water off Curaçao, Leeward Islands of the Dutch Caribbean. The material is compared with the type description and paratypic material as well as with material of closely related species. A mtDNA COI barcode was obtained from the material. The systematic position of the genus is discussed.

**Key words:** Crustacea, Decapoda, Palaemonidae, *Diapontonia maranulus*, taxonomy, range extension, DNA barcode

### Introduction

A new genus and species of pontoniine shrimp, *Diapontonia maranulus* Bruce, 1986, was described on the basis of 11 specimens found in association with an asterostomatoid echinoid host, *Paleopneustes tholoformis* Chesher, 1968, in the Bahamian region, at a depth of 240–309 m. Thus far this is the only record for the species.

During two surveys of pontoniine shrimp diversity on Curaçao (November 2013 and March 2014), deep dives were made with the Curasub submersible along the SE coast of the island. Specimens of *Diapontonia maranulus* were collected at depths of 220 m and 214 m respectively from the same host species on which the type specimens were found. The current records constitute a considerable range extension of the species to the south.

The specimens are deposited in Naturalis Biodiversity Center (formerly Rijksmuseum van Natuurlijke Historie (RMNH)). Post-orbital carapace length (pocl) is used as the standard measurement of size and indicated in mm. A mtDNA COI barcode was obtained using the protocol described by Fransen & Reijnen (2012).

### Palaemonidae Rafinesque, 1815

### Pontoniinae Kingsley, 1879

### *Diapontonia* Bruce, 1986

### *Diapontonia maranulus* Bruce, 1986

(Figs. 1, 2A, 3)

*Diapontonia maranulus* Bruce, 1986: 57–68, figs 1–7.

**Material examined.** 2 ovigerous females (pocl 1.8 and 2.1 (GenBank acc. nr. KM921671)) RMNH.CRUS.D.56690; stn COA.24, Curaçao Substation, Curaçao, Netherlands Antilles, 12.084542°N 68.898222°W, 220 m, 8 November 2013, Curasub submersible, on *Paleopneustes tholoformis*, collected by Adriaan (Dutch) Schrier, Bruce Brandt, Charles H.J.M. Fransen, Sancia E.T. van der Meij and Bastian T.

inclusion with the Atlantic species in a monophyletic group seems less obvious, moreover as the genetic distance in the mtDNA COI gene is substantial. Species of *Echinopericlimenes* do not share the apomorphies in the ambulatory dactyli and propodi and seem even less related.

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## Literature cited

- Anker, A., Pachelle, P.G. & Tavares, M. (2014) Two new species and two new records of deep-water caridean shrimps from Brazil (Decapoda: Pandalidae, Palaemonidae, Crangonidae). *Zootaxa*, 3815 (2), 263–278.  
<http://dx.doi.org/10.11646/zootaxa.3815.2.6>
- Berggren, M. & Svane, I. (1989) *Periclimenes ingressicolumbi*, new species, a pontoniine shrimp associated with deep-water echinoids off San Salvador Island in the Bahamas, and a comparison with *Periclimenes milleri*. *Journal of Crustacean Biology*, 9 (3), 432–444.  
<http://dx.doi.org/10.1163/193724089X00412>
- Bruce, A.J. (1986a) *Diapontonia maranulus*, new genus, new species, a pontoniine shrimp associate of a deep-water echinoid. *Journal of the Crustacean Biology*, 6 (1), 125–133.  
<http://dx.doi.org/10.1163/193724086X00785>
- Bruce, A.J. (1986b) *Periclimenes milleri* new species, a bathyal echinoid-associated pontoniine shrimp from the Bahamas. *Bulletin of Marine Science*, 39, 637–645.
- Bruce, A.J. (1990) Crustacea Decapoda: 5. Deep-sea palaemonoid shrimps from New Caledonian waters. In: A. Crosnier (Ed.), *Resultats des Campagnes MUSORSTOM*, 6. *Mémoires du Muséum National d'Histoire Naturelle*, 145, 149–215. [figs. 1–39]
- Bruce, A.J. (1991) Crustacea Decapoda: Further deep-sea palaemonoid shrimps from New Caledonian waters. In: Crosnier, A. (Ed.), *Résultats des Campagnes MUSORSTOM*, 9. *Mémoires du Muséum National d'Histoire Naturelle*, 152 (A), 299–411. [figs. 1–75]
- Bruce, A.J. (1996) Crustacea Decapoda: Palaemonid shrimps from the Indo-West Pacific region, mainly from New Caledonia. In: Crosnier, A. (Ed.), *Résultats des Campagnes MUSORSTOM*, 15. *Mémoires du Muséum National d'Histoire Naturelle*, 168, 197–267. [figs 1–31]
- Bruce, A.J. (2005) Pontoniine shrimps from the 2003 NORFANZ Expedition, 10 May–16 June (Crustacea: Decapoda: Palaemonidae). *Zootaxa*, 981, 1–20.
- Fransen, C.H.J.M. & Reijnen, B.T. (2012) A second discovery of *Lacertopontonia chadi* Marin, 2011 (Crustacea: Decapoda: Palaemonidae), with remarks on its systematic position. *Zootaxa*, 3437, 43–50.
- Kingsley, J.S. (1879) List of the North American Crustacea belonging to the suborder Caridea. *Bulletin of the Essex Institute*, 10 (for 1878), 53–71.
- Marin, I. & Chan, T.-Y. (2014) Deep water echinoid-associated pontoniine shrimp “*Periclimenes hertwigi* Balss, 1913” species group (Crustacea: Decapoda: Caridea: Palaemonidae): species review, description of a new genus and species from Philippines. *Zootaxa*, 3835 (3), 301–324.  
<http://dx.doi.org/10.11646/zootaxa.3835.3.1>
- Rafinesque, C.S. (1815) *Analyse de la nature ou tableau de l'univers et des corps organizes*, 224 pp. [Palermo]