



## On a collection of calappid crabs (Crustacea: Decapoda: Brachyura) from Fiji, with a description of a new species of *Mursia*

BELLA S. GALIL

National Institute of Oceanography, Israel Oceanographic & Limnological Research, Haifa 31080, Israel. E-mail: [bella@ocean.org.il](mailto:bella@ocean.org.il)

### Abstract

Seven species of calappid crabs were identified from material collected during four IRD-MNHN expeditions conducted in 1998 and 1999 in shallow and deep waters off Fiji. Six species are reported for the first time from the islands. One new species, *Mursia murimura* n. sp., is described and illustrated. The new species differs from the closely related *M. diwata* Galil & Takeda, 2004, with which it shares a stout, distally auriculated first male pleopod, by possessing much longer lateral carapacial and cheliped spines.

**Key words:** Calappidae, *Mursia*, new species, Fiji, Melanesia

### Introduction

A collection of specimens belonging to three genera of the family Calappidae de Haan, 1833, obtained during four expeditions to Fiji conducted by Institut de Recherche pour le Développement (IRD) and Muséum national d'Histoire naturelle, Paris (MNHN) on board the research vessel *Alis*: MUSORSTOM 10, 5–19 August 1998 surveyed Bligh Water, a deep basin between the islands of Viti Levu and Vanua Levu; BORDAU 1, 22 February - 14 March 1999, the eastern part of the archipelago, from Somo-somo Strait, between Vanua Levu and Taveuni, to the Lau Group (Richer de Forges *et al.*, 2000a, b). Samples were taken to depths of 1300 m, although some specimens were taken from 506 m. The SUVA 2 and SUVA 4 expeditions, also on board *Alis*, took place on 13–22 October 1998 and 21–26 September 1999 respectively, and surveyed lagoons and harbours in Viti Levu.

The listed species belong to *Calappa* Weber, 1895, *Mursia* Desmarest, 1823, and *Paracyclois* Miers, 1886. Although these species have been recently studied in adjacent areas in Melanesia (Galil 1993, 1997, 2007, 2013; Crosnier 1997; Galil & Ng 2010), they had not been previously recorded from Fiji. In The existence of a new species is also described herein. The material is deposited in the Muséum national d'Histoire naturelle, Paris.

Synonymy is restricted to original description and regional citations. Measurements given are of carapace length. Abbreviations: CP trawl, DW Warén dredge, stn station.

### Systematics

#### Superfamily Calappoidea de Haan, 1833

#### Family Calappidae de Haan, 1833

#### Genus *Calappa* Weber, 1895

#### *Calappa clypeata* Borradaile, 1903

## *Paracyclois* Miers, 1886

### *Paracyclois milneedwardsi* Miers, 1886

*Paracyclois milneedwardsi* Miers, 1886: 289, pl. 24, fig. 1. — Galil 2007: 556. — Galil & Ng 2009: 53; 2010: 143.

**Material examined.** MUSORSTOM 10. Bligh Water, stn CP1318, 17°15.6'S 178°03.4'E, 330–335 m, 6.08.1998, 1 ♂ (21.1 mm), MNHN-IU-2013-6969; stn CP1325, 17°16.4'S 177°49.8'E, 282–322 m, 7.08.1998, 1 ♂ (29.0 mm), MNHN-IU-2013-6979; stn CP1328, 17°16.8'S 177°50.4'E, 248–277 m, 7.08.1998, 1 ♂ (51.2 mm), MNHN-IU-2013-6982. Southeast of Viti Levu, stn CP1348, 17°30.3'S 178°39.6'E, 353–390 m, 11.08.1998, 1 ♀ (37.7 mm), 4 pre-adults (18.3–23.7 mm), MNHN-IU-2013-6981; stn CP1360, 17°59.6'S 178°48.2'E, 402–444 m, 13.08.1998, 1 ♀ (24.6 mm), MNHN-IU-2013-6958. South of Viti Levu, stn CP1368, 18°10.9'S 178°23.5'E, 380–469 m, 15.08.1998, 1 ♂ (21.4 mm), MNHN-IU-2013-6959; stn CP1389, 18°18.6'S 178°04.7'E, 241–417 m, 19.08.1998, 1 ♀ (48.1 mm), MNHN-IU-2013-6986. — BORDAU 1. stn CP1467, 18°12'S 178°36'W, 417–427 m, 6.03.1999, 1 ♂ (40.0 mm), MNHN-IU-2013-6987.

**Distribution.** Originally described from the Admiralty Is (Bismarck Archipelago), it has been subsequently recorded from Japan, Taiwan, Philippines, Solomon Islands and Vanuatu (Galil 2007; Galil & Ng 2009, 2010). New record for Fiji.

### Acknowledgements

MUSORSTOM 10 and BORDAU1, P. Bouchet & B. Richer de Forges principal investigators, were conducted by MNHN and IRD as part of the research program 'Tropical Deep Sea Benthos'. Thanks are due to L. Corbari, R. Kebir, P. Lozouet, P. Martin-Lefèvre, and A. Sato (MNHN). Jean-François Dejouanet, (MNHN UMS2700/Pôle), drew figure 2. I am grateful to P. Castro and P.K.L. Ng for their helpful comments on an earlier draft.

### References

- Alcock, A. (1896) Materials for a carcinological fauna of India. No. 2. The Blachyura Oxystoma. *Journal of the Asiatic Society of Bengal*, 65 (2), 134–296, pls 6–8.
- Borradaile, A. (1903) Marine Crustaceans VI. The Sand Crabs (Oxystomata). In: Gardiner, J.S. (Ed.), *The Fauna and Geography of the Maldive and Laccadive Archipelagoes*, 6, 434–439, figs. 115–117, pl. 22.
- Bouchet, P., Heros, V., Lozouet, P. & Maestrati, P. (2008) A quarter-century of deep-sea malacological exploration in the South and West Pacific: Where do we stand? How far to go? In: Heros, V., Cowie, R.H. & Bouchet, P. (Eds), *Tropical Deep Sea Benthos*. Muséum national d'Histoire naturelle (Paris), pp. 9–40.
- Crosnier, A. (1997) Une nouvelle espèce de *Mursia* de Nouvelle-Calédonie (Crustacea, Decapoda, Brachyura, Calappidae). *Zoosystema*, 19 (1), 151–158.
- Galil, B.S. (1993) Crustacea Decapoda: A revision of the genus *Mursia* Desmarest, 1823 (Calappidae). In: Crosnier, A. (Ed.), *Résultats des Campagnes MUSORSTOM, 10. Mémoires du Muséum national d'Histoire naturelle* (Paris), 156, 347–379.
- Galil, B.S. (1997) Crustacea Decapoda: A revision of the Indo-Pacific species of genus *Calappa* Weber, 1795 (Calappidae). In: Crosnier, A. (Ed.), *Résultats des Campagnes MUSORSTOM, 18. Mémoires du Muséum national d'Histoire naturelle* (Paris), 176, 271–335.
- Galil, B.S. (2007) The deep-water Calappidae, Matutidae and Leucosiidae of the Solomon Islands, with a description of a new species of *Euclosia* Galil, 2003 (Crustacea, Decapoda, Brachyura). *Zoosystema*, 29, 555–563.
- Galil, B.S. (2013) The deep water box crab *Calappa karenae* (Crustacea: Decapoda: Brachyura): a new record from Melanesia. *Marine Biodiversity Records*, 6, e76.  
<http://dx.doi.org/10.1017/s175526721300050x>
- Galil, B.S. & Ng, P.K.L. (2009) Calappoidea and Leucosioidea (Crustacea: Decapoda: Brachyura) from Luzon, Philippines, with descriptions of two new species of *Mursia*. *Zootaxa*, 2085, 45–60.
- Galil, B.S. & Ng, P.K.L. (2010) On a collection of calappoid and leucosioid crabs (Decapoda, Brachyura) from Vanuatu, with description of a new species of Leucosiidae. In: Castro, P., Davie, P.J.F., Ng, P.K.L. & Richer de Forges, B. (Eds.), *Studies on Brachyura: a homage to Danièle Guinot. Crustaceana Monographs*, 11, 139–152.  
<http://dx.doi.org/10.1163/ej.9789004170865.i-366.87>

- Galil, B.S. & Takeda, M. (2004) On a collection of *Mursia* (Crustacea, Decapoda, Brachyura, Calappidae) from Balicasag Island, Philippines. *Bulletin of the National Science Museum* (Tokyo), (A) 30 (1), 23–35.
- Linnaeus, C. (1758) *Systema Naturae per Regna tria Naturae, secundum Classes, Ordines, Genera, Species, cum Characteribus Differentiis, Synonymies, Locis*, Holmiae, Stockholm, ed. 10, 1, 824 pp.
- Miers, E.J. (1886) Report on the Brachyura Collected by H.M.S. Challenger during the Years 1873-1876. *Report on the Scientific Results of the Voyage of H.M.S. Challenger during the Years 1873-76*, Zool, 17, 1–362, pls. 1–29.
- Ng P.K.L. & Richer De Forges, B. (2007) The Brachyura of New Caledonia. *In*: Payeri, C. & Richer De Forges, B. (Eds.), *Compendium of Marine Species from New Caledonia*. Documents Scientifiques et Techniques IRD, Nouméa, pp. 273–289.
- Ng, P.K.L. & Lai, J.C.Y. (2012) *Calappa karenae*, a new species of box crab from Guam (Crustacea: Decapoda: Brachyura: Calappidae). *Zootaxa*, 3393, 57–65.
- Ng, P.K.L., Lai, J.C.Y. & Aungtonya, C. (2002) The box and moon crabs of Thailand, with description of a new species of *Calappa* (Crustacea: Brachyura: Calappidae, Matutidae). *Phuket Marine Biological Center Special Publication*, 23, 341–360.
- Richer De Forges, B., Newell, P., Schlacher-Hoenlinger, M., Schlacher, T., Nating, D., Cesa, F. & Bouchet, P. (2000a) La campagne MUSORSTOM 10 dans l'archipel des îles Fidji. Compte rendu et liste des Stations. *In*: Crosnier, A. (Ed.), Résultats des Campagnes MUSORSTOM 21. *Mémoires du Muséum national d'Histoire naturelle* (Paris), 184, 9–23.
- Richer De Forges B., Bouchet P., Dayrat B., Waren, A. & Philippe, J.S. (2000b) La campagne BORDAU 1 sur la ride de Lau (îles Fidji). Compte rendu et liste des stations, *In*: Crosnier, A. (Ed.), Résultats des Campagnes MUSORSTOM 21. *Mémoires du Muséum national d'Histoire naturelle* (Paris), 184, 25–38.