



Nota breve | Short note

First record of the striped bumblebee shrimp *Gnathophyllum americanum* (Crustacea, Decapoda, Palaemonidae) in the Cabo Verde Islands

Keider Neves^{1,*}

¹ Mindelo, São Vicente, Cabo Verde

*Corresponding author e-mail: biokeider2012@hotmail.com

Keywords: Matiota bay, decapod fauna, cryptic species, zebra shrimp

The Cabo Verde marine decapod fauna is relatively well studied, and the state of knowledge was recently reviewed by González (2018). Despite this, cryptic habitats remain virtually unexplored in the archipelago, with common and widely distributed species recently recorded for the first time (e.g.: Neves, 2016; Wirtz, 2019). In addition, some groups, such as the ecologically cryptic palaemonid shrimps, remain poorly studied, with some frequently found species awaiting to be described or recorded for the first time (K. Neves unpub. data).

In the present work, the occurrence of the circumtropical striped bumblebee shrimp *Gnathophyllum americanum* Guérin-Méneville, 1855, is documented for the first time in the Cabo Verde Islands. The diagnostic characters of this species are the anterolateral angle of carapace reaching distinctly beyond level of the antennal spine; intermediate spines

on distal margin of telson nearly twice as long as median pair; third maxilliped with exopod not overreaching endopod; second pereopod with carpus distinctly longer than broad; three posterior pereopods with dactyli distinctly longer than broad; posterior tooth of dorsal rostral series situated on rostrum anterior to level of orbital margin; and colour pattern composed of alternate transverse black and white stripes.

One specimen from Baía de Matiota, São Vicente Island, Cabo Verde (16.896528 -24.992389; WGS84) was found on November 9, 2019, snorkelling, two meters depth, associated with the echinoid *Echinometra lucunter* (Fig 1). Two additional specimens, not collected, were observed: one free-living under stones, another among red algae, all representing common habitats for this species (Tavares *et al.* 2017).

The collected specimen was examined with a dissecting microscope for identification based on the morphological characters described above.



Fig. 1. Striped bumblebee shrimp *Gnathophyllum americanum* found in Matiota bay, São Vicente Island, collected on November 9, 2019 (photo by K. Neves).

The single specimen examined was well in agreement with the descriptions and illustrations given by Holthuis (1949) and Manning (1963) of *Gnathophyllum americanum*. This species is known to have a pantropical distribution (González 2018). In the eastern Atlantic, it was known from Madeira (Araújo 2002), Canary Islands (Holthuis 1949), São Tomé (Wirtz 2003) and Gabon (Gauff & Liwouwou 2019). Therefore, it was expected it would also occur in the Cabo Verde Islands as revealed by the present study. Despite being a quite colourful and easily recognizable species, *G. americanum* has not

been recorded so far from the Cabo Verde Islands. This may be due to its small size, the fact that it seems to be quite rare, or because the habitats where it occurs remain poorly studied in the archipelago. The specimen occurring under stones was observed occurring together with *Gnathophyllum elegans*, the only other species of the genus known in Cabo Verde, but none of them seems to be common in the sampled area. Actually, *G. elegans* had been recorded only once in the country (Turkay 1982), and this represents, therefore, the second documented record of the species in the islands.

ACKNOWLEDGEMENTS

I am most grateful to Dr. P. Wirtz for useful comments and suggestions on a first draft of the manuscript which help to improve its quality, and for English corrections.

REFERENCES

- Araújo, R. (2002) *Gnathophyllum americanum* Guérin-Méneville, 1855 (Crustacea, Decapoda, Gnathophyllidae): a new record from the Archipelago of Madeira (NE Atlantic Ocean). *Bocagiana*, 208, 1–4.
- Gauff, R.P. & Liwouwou, J. F. (2019) First record of *Gnathophyllum americanum* Guerin-Meneville, 1855 on the African mainland of the Gulf of Guinea (Gabon). *Cahiers de Biologie Marine*, 60, 473–475.
- González, J.A. (2018) Checklists of Crustacea Decapoda from the Canary and Cape Verde Islands, with an assessment of Macaronesian and Cape Verde biogeographic marine ecoregions. *Zootaxa*, 4413, 401–448.
- Holthius, L.B. (1949) The Caridean Crustacea of the Canary Islands. *Zoologische Mededelingen Leiden*, 30, 227–255.
- Manning, R. (1963) The east American species of *Gnathophyllum* (Decapoda, Caridea), with the description of a new species. *Crustaceana*, 5, 47–63.
- Neves, K. (2016) Contribuição para o conhecimento da fauna de Decápodes das Ilhas de Cabo Verde. Graduation thesis, Faculdade de Engenharias e Ciências do Mar, Universidade de Cabo Verde, Mindelo, Cabo Verde, 76 pp.
- Tavares, M., Carvalho, L. & Braga de Mendonça, J. (2017) Towards a review of the decapod crustacea from the remote oceanic archipelago of Trindade and Martin Vaz, south Atlantic Ocean: new records and notes on ecology and zoogeography. *Papéis Avulsos de Zoologia*, 57, 157–176.
- Türkay, M. (1982) Marine Crustacea Decapoda von den Kapverdischen Inseln mit Bemerkungen zur Zoogeographie des Gebietes. *Courier Forschungsinstitut Senckenberg*, 52, 91–129.
- Wirtz, P. (2003) New records of marine invertebrates from São Tomé Island (Gulf of Guinea). *Journal of the Marine Biological Association of the United Kingdom*, 83, 735–736.
- Wirtz, P. (2019) New records of shrimp species (Arthropoda Crustacea) from the Cape Verde Islands. *Revista de la Academia Canaria de Ciencias*, 31, 9–14.

Received 26 November 2019

Accepted 16 December 2019