

## SHORT COMMUNICATION

# First record of the Sculptured Mitten Lobster *Parribacus antarcticus* (Crustacea, Decapoda, Scyllaridae) from the Cabo Verde Islands (eastern Atlantic)

RUI FREITAS AND PETER WIRTZ



Freitas, R. and P. Wirtz 2018. First record of the Sculptured Mitten Lobster *Parribacus antarcticus* (Crustacea, Decapoda, Scyllaridae) from the Cabo Verde Islands (eastern Atlantic). *Arquipelago. Life and Marine Sciences* 36: 15 – 18. <https://doi.org/10.25752/arq.19843>

Key words: Slipper lobster, biodiversity, West Africa, Cape Verde

Rui Freitas (email: [rui.freitas@docente.unicv.edu.cv](mailto:rui.freitas@docente.unicv.edu.cv)) Faculdade de Engenharia e Ciências Marinhas, Universidade de Cabo Verde, CP 163 Mindelo, Cabo Verde; P. Wirtz ([peterwirtz2004@yahoo.com](mailto:peterwirtz2004@yahoo.com)): Centro de Ciências do Mar, Universidade do Algarve, Campus de Gambelas, PT-8005-139 Faro, Portugal.

### INTRODUCTION

The lobster genus *Parribacus* contains six living and one fossil species (Holthuis 1991; Chan 2010; Nyborg & Garassino 2017). In the Atlantic Ocean, only one living species is known, *Parribacus antarcticus* (Lund, 1793); it has been recorded in the western Atlantic from Florida to Brazil and recently also from the mid-Atlantic island of Ascension (Brown et al. 2016). It is nocturnal and is often found hiding in crevices during daytime (Holthuis 1991). We here note the presence of *Parribacus antarcticus* at the Cabo Verde Islands, the first record of the species from the eastern Atlantic.

### RESULTS

The mitten lobster *Parribacus antarcticus* is recorded from four different islands in the Cabo Verde archipelago: 1) Santa Luzia Island: The photo of the first specimen (Figure 1A), taken by Kiyotaka Hatooka, came from a research project on marine biodiversity in the Cabo Verde Exclusive Economy Zone (OFCF, Overseas Fishery Cooperation Foundation of Japan). An ovigerous female of about 11 cm carapace length (CL) was captured at Santa Luzia Island during a

purse seine operation in the night of 04 November 2003 in 25-30 m depth. 2) São Vicente Island: The second specimen came from SCUBA diving in 18-25m depth. It was collected off Salamansa bay, São Vicente Island, in January 2012 by the experienced fisherman Roberto dos Santos. He told the first author that in 25 years of fishing he had never seen the species until a few years ago, but that it was now becoming more common, found only in dark shelters, particularly on the north of the island. The specimen (64 mm CL) was sent to Ehud Spanier and Kari Lavalli at the University of Boston, USA, who kindly took photos and measurements (Figure 1B); 3) Sal Island: The dive instructor White Oliveira observed and photographed *P. antarcticus* in a lava tunnel at Palmeira, in 11m depth, on 23 November 2017 (Figure 2A). 4) Santiago Island: A film taken in April 2010 by João Sá Pinto at Ponta Grande (13m depth), Cidade Velha, Santiago Island (<https://vimeo.com/82012872>) shows a specimen of *P. antarcticus* at 02:35 (video-frame, Figure 2B).

### DISCUSSION

Eight lobster species were until now known to occur at the Cabo Verde Islands. *Panulirus regius*, the endemic *Palinurus charlestoni* and



Fig. 1. A) Ovigerous female (11 cm CL) of *Parribacus antarcticus* from Santa Luzia Island (photos by Kiyotaka Hatooka in 2003); B) Dried specimen of *P. antarcticus* (6 cm CL) from São Vicente Island captured in 2012 (photo by Kari Lavalli in 2018).

*Scyllarides latus* used to be common species but their populations have been severely reduced by fishery (including illegal fishery using SCUBA).

Other species are *Scyllarus pygmaeus*, *Panulirus echinatus*, *Panulirus argus*, *Enoplometopus antillensis* and *Enoplometopus callistus* (Wirtz et

al. 1988; Holthuis 1991; Merino & Lindley 2003; Freitas & Castro 2005). Distinctively with a more flattened body than *S. latus*, *P. antarcticus* has a dorsal surface with tubercles and the lateral margin shows large teeth banded with yellow and orange (Holthuis 1991). We do not know if *Parribacus antarcticus* is a recent arrival at the Cabo Verde archipelago or, due to its small size and secretive habits, has simply been overlooked

in the past. In a similar case, Freitas & Castro (2005) discussed possible scenarios of the arrival of the Caribbean lobster species *Panulirus argus* in the Cabo Verde archipelago (larval dispersal or human transport). The capture of an ovigerous female of *Parribacus antarcticus* and the presence of the species at four different islands indicates a reproducing population.



Fig. 2. A) *P. antarcticus* from Sal Island in a lava tunnel (photo by White Oliveira in 2017); B) frame capture of video (<https://vimeo.com/82012872>) showing *P. antarcticus* in a cave in 13 m depth off Cidade Velha, Santiago Island (video by João Sá Pinto in 2010).

#### ACKNOWLEDGEMENTS

We are grateful to Kiyotaka Hatooka for the photo of the Santa Luzia specimen, to Roberto dos Santos for the specimen from São Vicente Island and comments on the species, and to White Oliveira of the ecodiveschool at Santa Maria, Sal Island, for a photo and information on the third specimen. João Sá Pinto kindly confirmed that his film showing *P. antarcticus* was taken at Santiago Island. Thanks also to Kari Lavalli and Ehud Spanier for comments and data on the second specimen sent to USA in 2012. This study received Portuguese national funds through FCT -

Foundation for Science and Technology - through project UID/Multi/04326/2013.

#### REFERENCES

- Brown, J., K. Downes, R.J. Mrowicki, E.L. Nolan, A.J. Richardson, F. Swinnen & P. Wirtz 2016. New records of marine invertebrates from Ascension Island (central Atlantic). *Arquipélago. Life and Marine Sciences* 33: 71-79.
- Chan, T.Y 2010. Annotated checklist of the world's marine lobsters (Crustacea: Decapoda: Astacidea, Glypheidea, Achelata, Polychelida). *The Raffles Bulletin of Zoology* 23: 153-181.

- Freitas, R. & M. Castro 2005. Occurrence of *Panulirus argus* (Latreille, 1804) (Decapoda, Palinuridae) in the northwest islands of the Cape Verde Archipelago (Central-East Atlantic). *Crustaceana* 78: 1191-1202.
- Holthuis, L.B. 1991. FAO Species Catalogue. Vol. 13. Marine lobsters of the world. An annotated and illustrated catalogue of species of interest to fisheries known to date. *FAO Fisheries Synopsis No. 125*, 13, Rome, FAO. 292 pp.
- Merino, S.E. & J.A. Lindley 2003. First record of *Enoplometopus callistus* (Crustacea: Decapoda: Nephropidae) in the Cape Verde Islands. *Journal of the Marine Biological Association of the United Kingdom* 83: 1233-1234.
- Nyborg, T. & A. Garassino 2017. A new genus of slipper lobster (Crustacea: Decapoda: Scyllaridae) from the Eocene of California and Oregon (USA). *Neues Jahrbuch für Geologie und Paläontologie - Abhandlungen* 283: 309-316.
- Wirtz, P., B. Müller & P. Nahke 1988. The Caribbean shrimp *Tuleariocaris neglecta* Chace 1969 found in association with *Diadema antillarum* at Madeira, and two new records of decapod crustaceans from the Cape Verde islands. *Courier Forschungsinstitut Senckenberg* 105: 169-171.

*Submitted 07 Nov 2018. Accepted 13 Nov 2018.  
Published online 18 Jan 2019.*