SHORT COMMUNICATION

One fish and seven invertebrate species new for the marine fauna of the Cape Verde islands

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Wirtz, P., E. d' Oliveira & G. Bachschmid 2016. One fish and seven invertebrate species new for the marine fauna of Cape Verde Islands. *Arquipelago*. Life and Marine Sciences 34: 51- 54.

The sea anemone *Alicia mirabilis*, the opisthobranch gastropods *Tethys fimbria*, *Scyllaea pelagica*, the shrimps *Alpheus crockeri*, *Lysmata moorei* and *Processa macrophthalma*, the antennariid fish *Histrio histrio*, and an undetermined arminacean are recorded from the Cape Verde Islands for the first time. The presence of the parasitic gastropod *Echineulima leucophaes* is confirmed.

Key words: Anthozoa, Nudibranchia, Gastropoda, Decapoda, Pisces

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INTRODUCTION

The marine fauna of the Cape Verde Islands is insufficiently explored (Morri et al. 2000; Fernández-Gil et al. 2013). Lists of species exist only for a few groups such as Polychaeta (Nuñes et al. 1999), Gastropoda (Rolán 2005), Echinodermata (Entrambasaguas 2008), Brachiopoda (Logan et al. 2009), Bivalvia (Lopes 2010, 2012), Zoantharia (Reimer et al. 2010), and fish (Wirtz et al. 2013). New records of marine species are being published occasionally (e.g. Wirtz 2009, Ocaña et al. 2015, de Grave et al. 2016). The present communication reports on the discovery, at Santiago Island, of one fish species and seven invertebrate species not previously recorded for the archipelago. Three of these species have an amphi-Atlantic distribution, two are circumtropical, two Atlanto-Mediterranean, and one inhabits (sub)tropical Atlantic islands, thus conforming to the composite character of the Capverdean marine biota (Morri et al. 2000).

MATERIAL AND METHODS

The species were photographed and, when necessary for identification, collected with a small hand-held net while SCUBA diving in a depth range of 0 – 40 m at Santiago Island.

RESULTS

CNIDARIA ANTHOZOA

Alicia mirabilis Johnson, 1861

A large specimen of this species (estimated height more than 20 cm) was seen at 8 m depth, at night, on a sandy bottom, in the bay of Tarrafal, on 6

May 2016. The animal was probably attached to some solid substrate below the level of the sand. *Alicia mirabilis* was not found in an earlier paper on Cape Verde cnidarians. (Morri & Bianchi 1995).

The species is known from both sides of the Atlantic. In the eastern Atlantic it is found from the Portuguese continental coast to Senegal, the Mediterranean Sea included (Wirtz 2011).

MOLLUSCA GASTROPODA

Echineulima leucophaes (Tomlin & Shackleford, 1913)
Wirtz (2009) noted the presence of *Echineulima leucophaes* on the sea urchin *Diadema antillarum* (now called *Diadema africanum* Rodriguez et al., 2013) at Tarrafal, Santiago Island. However, this record was based only on a photograph. The species has since been collected from *Diadema africanum* at 15 m depth, at Tarrafal, and has been deposited in the Swedish Museum of Natural History, Stockholm, with the number SMNH 110762. The species has previously been recorded from Madeira, Canaries, São Tomé, and recently from Ascension Island (Brown et al. 2016).

Tethys fimbria Linnaeus, 1767
A specimen of about 3 cm length was encountered during a night dive in King Bay, Tarrafal, on a sandy bottom, at about 7 m depth.

The species is known from the Mediterranean Sea and in the eastern Atlantic from Morocco to Senegal, including the Canary Islands (Cervera et al. 2006), but has not previously been recorded from the Cape Verde Islands.

Scyllaea pelagica Linnaeus, 1758
This species was encountered on the green alga *Ulva lactuca* growing on ropes floating from a buoy in front of King Bay, Tarrafal, on May 2016. It has not previously been recorded from the Cape Verde Islands. *S. pelagica* has a circumtropical distribution, commonly occurring among floating masses of *Sargassum* and other macroalgae.

Armina sp. (Fig. 1)
A white-striped specimen of *Armina* was seen to crawl over a sandy bottom, at 7 m depth, in Tarrafal bay, during a night dive on 6 May 2016. It appears to be different from *Armina ballesterosi* Ortea, 1989, the only species of *Armina* recorded from the Cape Verde Islands until now (Rolán 2005). The specimen was sent to Lucas Cervera at Cadiz University.

Fig. 1. Unidentified species of *Armina* from Tarrafal (photo Peter Wirtz).

ARTHROPODA CRUSTACEA

Alpheus crockeri (Armstrong, 1941)
An individual of this yellow-orange snapping shrimp was found when turning over a stone at about 10 m depth in King Bay, Tarrafal, Santiago Island, in October 2015 (Fig. 2). The specimen was deposited in the collection of the Oxford University Natural History Museum with the number OUMNH.ZC.2015-02-50.

The species is known from the Indo-Pacific and from both sides of the Atlantic, in the eastern Atlantic from the Gulf of Guinea but to date not from the Cape Verde Islands (Anker et al. 2016).

Fig. 2. *Alpheus crockeri* from Tarrafal (photo Peter Wirtz)

Lysmata moorei (Rathbun, 1901)
Numerous specimens of this species were collected during snorkelling in a tidal pool near King Bay, Tarrafal, at night, on 16 October 2010. Two more specimens were collected with the anaesthetic Quinaldine from a crack in the rock in the bay of Cidade Velha, in 12 m depth, on 11 May 2016. The specimens were deposited in the collection of the Oxford University Natural History Museum with the number OUMNH.ZC.2017-01-08. A colour photo of the species can be found in Wirtz (2011: Fig. 1c).

This amphi-Atlantic shrimp species has been recorded in the eastern Atlantic from Senegal (Sourie 1954; Wirtz 2011 as *Lysmata n.*sp.) to Gabon (Manning & Chace 1990) but not before in the Cape Verde Islands.

Processa macrophthalma Nouvel & Holthuis, 1957
This shrimp was collected on sandy bottom at about 20 m depth in front of King Bay, Tarrafal, Santiago Island in October 2015. The specimen was deposited in the collection of the Oxford University Natural History Museum with the number OUMNH.ZC.2015-02-51

This Atlantic-Mediterranean species,distributed from the North Sea to the Gulf of Guinea and the Western Mediterranean, was known from the Azores and continental Portugal to Madeira Island (Udekem d´Acoz 1999; Araujo & Wirtz 2015) but not from the Cape Verde Islands.

PISCES TELEOSTEI

Histrio histrio (Linnaeus, 1758)
Five individuals of this antennariid fish species were seen on ropes overgrown with algae, especially *Ulva lactuca*, floating from a buoy in front of King Bay, Tarrafal, in May 2016.

This circum(sub)tropical species has not previously been recorded from the Cape Verde Islands (cf. Wirtz et al. 2013).

ACKNOWLEDGEMENTS

Thanks to Anders Warén for providing the collection number of *Echineulima leucophaes* and to Sammy de Grave for the identification of the shrimp species. The Centre of Marine Sciences at the University of the Algarve, Faro, Portugal, partly financed four trips of the first author to the Cape Verde Islands. This study received national funds through FCT - Foundation for Science and Technology through project.
UID/Multi/04326/2013.

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Received 18 Apr 2017. Accepted 19 May 2017. Published online 30 Jun 2017.