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Journal of Biological Studies
ISSN 2209-2560

JBS
An Open Access Peer Reviewed Journal

A new record of the Indo-Pacific species, *Belzebub hanseni* (Nobili, 1905) (Crustacea; Decapoda; Luciferidae) from north western Persian-Arabian Gulf

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Received 30 January 2019; Accepted 31 January 2019; Published online 08 September 2019

Abstract

Specimens of *Belzebub hanseni* (Nobili, 1905) were collected from North Western Persian-Arabian Gulf July 2012. Morphological features of this species are given to confirm the identification.

Keywords: *Belzebub hanseni*,Luciferidae,North Western Persian-Arabian Gulf

1 Introduction

Hansen (1919) presented a detailed monograph for the family Luciferidae listing and describing six species: *Lucifer typus* H. Milne Edwards, 1837, *Lucifer hanseni* Nobili, 1905, *Lucifer faxoni* Borradaile, 1915, *Lucifer intermedius* Hansen, 1919, *Lucifer orientalis* Hansen, 1919, *Lucifer penicillifer* Hansen, 1919. A seventh species, *Lucifer chacei*, was later recognized by Bowman (1967). More recently, Vereshchaka et al. (2016) comprehensively revised the family Luciferidae, examining both morphological and molecular characters, distinguishing two genera in the family Luciferidae: *Lucifer* and *Belzebub*. Therefore, the family Luciferidae at present is composed by *Lucifer typus* H. Milne Edwards, 1837, *Lucifer orientalis* Hansen, 1919 and *Belzebub hanseni* (Nobili, 1905), *Belzebub faxoni* (Borradaile, 1915), *Belzebub intermedius* (Hansen, 1919), *Belzebub penicillifer* (Hansen, 1919) and *Belzebub chacei* (Bowman, 1967).

The only *Belzebub* species known from the Persian-Arabian Gulf is *B. hanseni* (Grabe and Lees, 1992; Al-Yamani et al., 2011). De Grave et al. (2012) recorded *B. hanseni* as an invasive species in the Mediterranean coast of Israel, expanding its distribution from Indo-Pacific to the Mediterranean coasts.

The aim of the present study is to give the new record of the genus *Belzebub* from Iraqi waters.

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2 Materials and Methods

Zooplankton was collected using a plankton net, during a field survey on the Marine Science Centre (University of Basrah) ship . A flowmeter was mounted in the center of the mouth of the net to measure the volume of filtered water. The specimens were collected from Fao region 29°52'54.86"N, 48°43'45.19"E (Fig. 1) on 21 July 2012 and were collected by T.A.Khalaf at the depth of 12-14m .All samples were removed from the net and immediately preserved in 5% formaldehyde solution with sea water, later preserved in 70% alcohol and deposited in the collections of the Marine Science Centre (MSC).

Figure 1. Sampling site (Fao blue dot)

3 Resluts and Remarks

Systematics
Order Decapoda Latreille, 1802
Suborder Dendrobranchiata Bate, 1888
Superfamily Sergestoidea Dana, 1852
Family Luciferidae de Haan, 1849

Genus *Belzebub* Vereshchaka, Olesen & Lunina, 2016
Belzebub hanseni (Nobili, 1905)
(Fig. 2)
Examined material – Iraq, Fao region 29°52'54.86"N, 48°43'45.19"E, coll. T.A.Khalaf, 2 males (respectively, Total Length (TL)=9.4 mm; Carapace Length (CL)= 2.7 mm; TL=9.0 mm; CL= 2.4 mm), 1 female (TL=9.2 mm; CL= 2.5 mm) (MSC 55). Diagnosis – It can be easily identified by the stumpy shape of its body (Fig. 2 A-B), sixth abdominal segment armed with two teeth (Fig. 2 C), terminal portion of the sheath of petasma is acute and not curved in the opposite direction towards the end (Fig. 2 D), lateral view of telson with ventral process (Fig. 2 E), outer marginal spine of uropodal exopod not reaching lamellar part (Fig. 2 F).

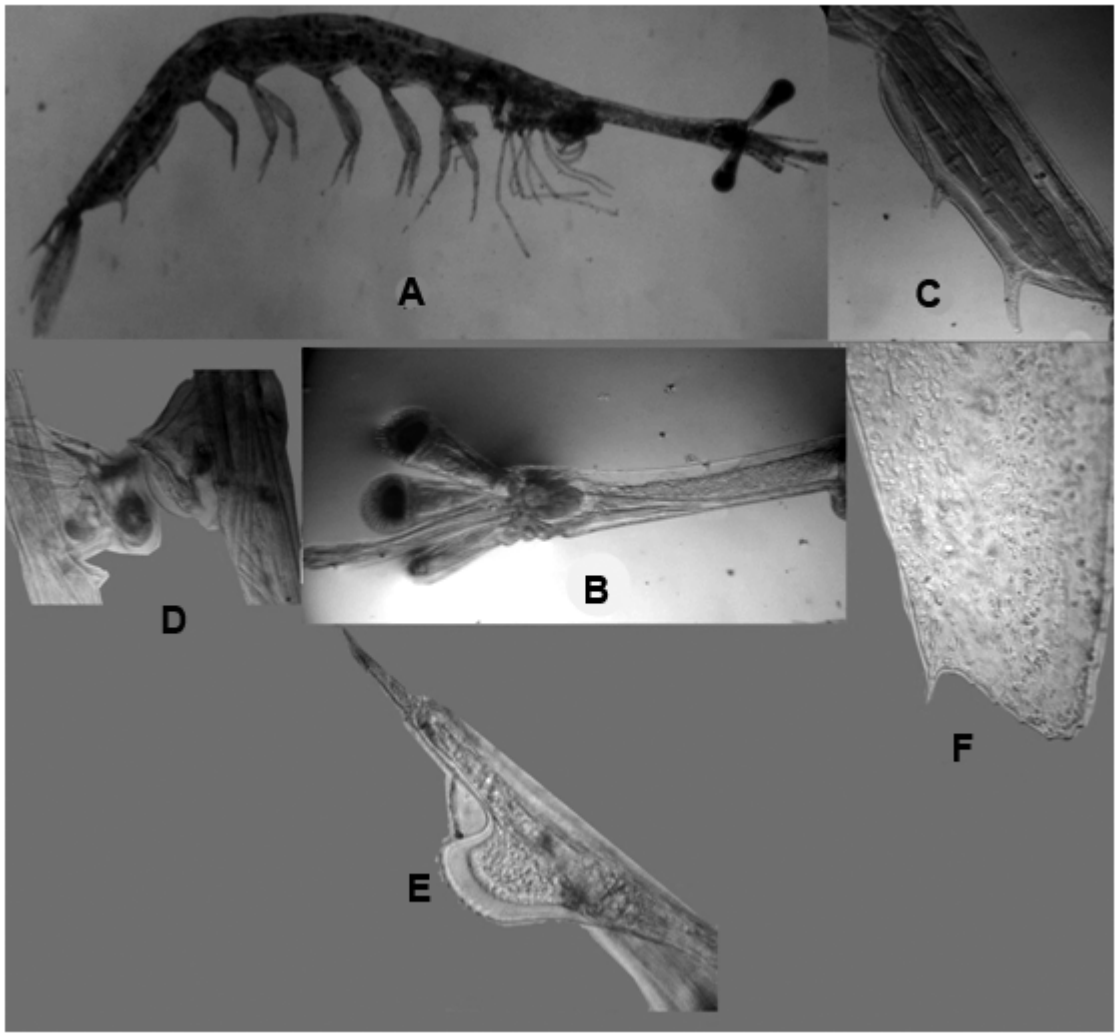

Figure 2. A, adult male; B, cephalothorax; C, sixth abdominal segment; D, petasma; E, lateral view of telson; F, distal portion of uropodal exopod.

Distribution : Indo-West Pacific Region from Madagascar to Australia; Arabian Gulf, Eastern Mediterranean Sea (invasive), and now from Iraq.

Habitat : Intertidal zone, muddy substrates and in mangrove swamps.

Conflict of interests

There are no conflicts of interest between the authors.

Acknowledgements

We would like to thank the anonymous reviewers for their valuable comments and suggestions to improve the quality of the paper.

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