



On new record of brachyuran crab *Scopimera crabicauda* Alcock, 1900 (Crustacea: Decapoda) from India

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Short Communication

Abstract

The brachyuran crab *Scopimera crabicauda* Alcock, 1900 belonging to family Dotillidae, was recorded for the first time in Indian waters. The specimens were collected from different coastal areas of Beyt Dwarka (22° 27' 50" N; 69° 08' 22" E), Gulf of Kachchh, Gujarat. The species is so far reported from Persian Gulf, Iran, Oman, Qatar, UAE and Pakistan. Morphological description of the species is given in the report.

Keywords: *Scopimera*, Gujarat, brachyuran crab, sandy-muddy habitat, India.

Introduction

Brachyuran crabs belonging to the family Dotillidae Stimpson, 1858 are smaller in size and mostly found on the shores of estuaries, mudflats, sandy habitat or backwaters in the tropical and sub tropical Indo-Pacific region (Alcock, 1900; Kemp, 1919). Under the family Dotillidae, around 59 species are reported, out of which 14 are under genus *Scopimera* De Haan, 1833

(Ng *et al.*, 2008; Wong *et al.*, 2010). The genus is represented by three species *viz.* *Scopimera pilula* Kemp, 1919, *Scopimera investigatoris* Alcock, 1900 and *Scopimera proxima* Kemp, 1919 in Indian waters (Alcock, 1900; Kemp, 1919) and the present study reports the presence of a fourth species *Scopimera crabicauda* Alcock, 1900 for the first time from Indian waters.

Material and methods

The study was carried out as part of a research project on documentation of crustacean fauna of Gujarat, India comprising of mudflat habitats. Hand picking method was adopted for specimen collection during low tide. Specimens were washed properly to remove sediment and photographed (Canon 1000D; 18-55 mm lens). Specimens were then preserved in 70% alcohol and deposited in the Zoology Museum of Department of Zoology, Faculty of Science, The Maharaja Sayajirao University, Vadodara, Gujarat, India. The carapace width (CW) and carapace length (CL) of the crabs were measured in mm. The abbreviation G1 is used for male first left gonopod.

Results and discussion

In the present study, brachyuran crab species *Scopimera crabicauda* Alcock, 1900 belonging to family Dotillidae is reported for the first time from Indian waters.

Systematics

Family : Dotillidae Stimpson, 1858

Genus : *Scopimera* DeHaan, 1833

Scopimera crabicauda Alcock, 1900 (Figures 1, 2)

Synonyms: 1: *Scopimera crabicauda* Alcock, 1900: 370, 371; Apel and Türkay, 1992: 191, 204-205; Tirmizi and Ghani, 1996: 124-126, fig. 47; Al-Khayat and Jones, 1999: 58, 61; Apel and Türkay, 1999: 136.

Synonyms: 2: *Scopimera scrabicauda* Stephensen, 1946: 189-190, fig. 56; Pretzmann, 1971: 481, pl. 6 figs. 13-15; Clayton, 1986: 87-88, fig. 3; Jones, 1986 b: 77-78, fig. 4.

Material examined

One male (ZL- AR-CR-77) (CW- 6.40, CL- 4.27), Sandy muddy habitat, Beyt Dwarka (22° 27' 50" N; 69° 08' 22" E), Gulf of Kachchh, Gujarat, India, (leg. Jignesh Trivedi and Gunjan Soni—07 June, 2014). Three males (ZL- AR-CR-77) (1-3) (CW- 5.40, CL- 3.16; CW- 5.16, CL- 3.28; CW- 5.11, CL- 3.91), Sandy muddy habitat, Beyt Dwarka (22° 27' 50" N; 69° 08' 22" E), Gulf of Kachchh, Gujarat, India, (leg. Jignesh Trivedi, Gunjan Soni, Dhruva Trivedi and Barkha Purohit- 11 November, 2014). Two females (ZL- AR-CR-77) (1-3) (CW- 5.45, CL- 3.38; CW- 5.50, CL- 3.35), Sandy muddy habitat, Beyt Dwarka (22° 27' 50" N; 69° 08' 22" E), Gulf of Kachchh, Gujarat, India, (leg. Jignesh Trivedi, Gunjan Soni, Dhruva Trivedi and Barkha Purohit- 11 November, 2014).

Description

Carapace broader than long (Fig. 1), rectangular, regions ill defined, hepatic region with scattered granules towards anterolateral border, mesogastric and hepatic regions swollen, intestinal and cardiac region without lobes or granules, mesobranchial regions with prominent lobules with deep grooves. Front deflexed downwards, orbits broad, deep, eye stalks thick and longer than front, exorbital angle acute, directed outwards with setae present on tip, lateral borders smooth with setae, a narrow groove extending from the frontal base to the posterolateral margin. Third maxilliped convex, smooth without rhomboidal gap.



Fig. 1. *Scopimera crabicauda* Alcock, 1900, (ZL- AR-CR-77) (CL- 4.27 mm, CW- 6.40 mm), male, dorsal view

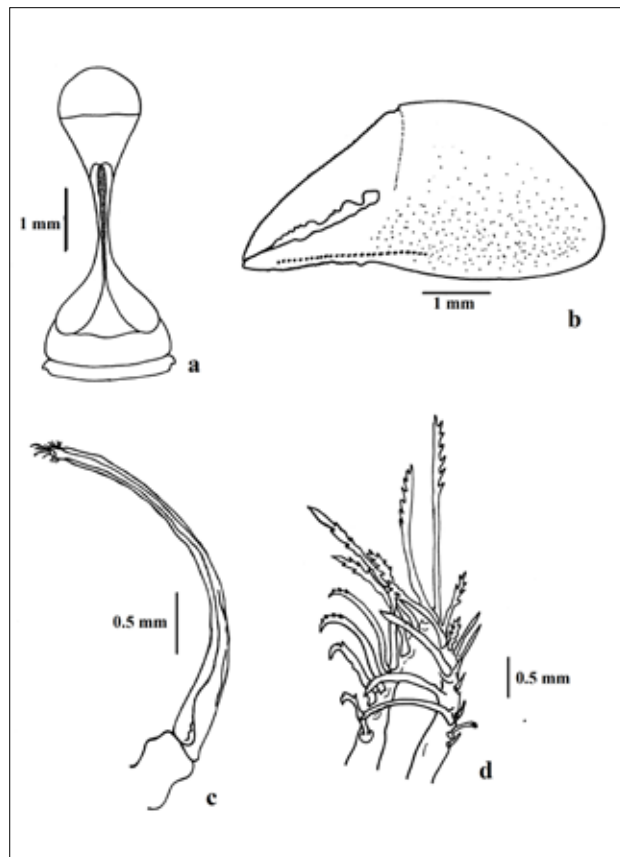


Fig. 2. *Scopimera crabicauda* Alcock, 1900, (ZL- AR-CR-77), male; a. abdomen; b. left chela; c. G1; d. G1 apical lobe.

Male chelipeds longer and stouter than legs, inner and outer surface finely granular (Fig. 2b), meri inner surface with one large tympanum, lower margin of tympanum with long setae, outer surface with small tympanum near lower margin, fingers outer surface with granulated ridge (Figure 2b), dactyli with large tooth on cutting edge. Male abdomen (Fig. 2a) first two segments concealed, third and fourth segments fused, making a triangular and grooved plate together, fifth segment narrow and grooved, telson apically rounded. G1 long (Fig. 2c), curved bearing long and short setae on both inner and outer margin of apical lobe (Fig. 2d). Female cheliped less stout and shorter than ambulatory legs. Ambulatory legs medium sized and less stout than male chelipeds, anterior and posterior margin with long spine like setae, meri with tympanum on inner and outer surfaces, row of short setae present medially on tympanum, dactyli longer than propodi, longest in the fourth pair.

Distribution

The species is reported from Persian Gulf, Iran, Iraq, Qatar, Abu Dhabi, UAE (Apel, 2001); Oman (Fatemi *et al.*, 2011) Pakistan (Alcock, 1900; Tirmizi and Ghani, 1996) and now from Gujarat, India.

Remarks

The specimens examined in the present study agree with the description given by Alcock (1900). Their eye stalk did not exceed beyond the outer orbital angle which is in agreement with the specimen from Oman (Fatemi *et al.*, 2011) but in those from Pakistan the eye stalk exceed beyond the outer orbital angle (Tirmizi and Ghani, 1996).

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