



First record of spider decorator crab *Camposcia retusa* (Latreille, 1829) from west coast of India

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Received: 03 Dec 2016 Accepted: 30 Nov 2017 Published: 10 Dec 2017

Short Communication

Abstract

The present paper reports a species of majid crab *Camposcia retusa* (Latreille, 1829), for the first time from the west coast of India. This species is commonly found in camouflage with algae, sponges and mud. Morphological descriptions of the species with key characters and geographical distribution are given.

Key words: *Camposcia retusa*, new record, distribution, Gujarat.

Introduction

Crab of the genus *Camposcia* is also known as masking or decorator crabs as it has curled or hooked hairs on the carapace. Genus *Camposcia* has elongate-triangular or pyriform shaped carapace, basal segments of antenna immovable, antennules in a single cavity, eyestalks much curved, rostrum somewhat depressed and abdomen consisting of seven plates (Alcock, 1895; Tirmizi and Kazmi, 1986). The sub-family Inachinae comprises of a single genus and species *Camposcia retusa*,

(Ng *et al.*, 2008). This species was described from different regions of the world by various authors like Haswell (1882); Stimpson (1907); Barnard (1950); Adams and White (1850); Apel (2001); while from Indian Ocean by Alcock (1895); Laurie (1906); Tirmizi and Kazmi (1986) and listed by Jeyabaskaran *et al.* (2000) and Roy (2008). In this short report, this species with extended distribution for the first time from the west coast of India is described.

Material and methods

Sikka is situated on the northwest coast of Gujarat in west coast of India. The intertidal area of Sikka coast is rocky, sandy and somewhere muddy with coral habitat at lower zone (Fig. 1). Crabs were collected from lower intertidal zone of Sikka coast (22°25'47.81"N, 69°48'48.39"E). 4-10% buffered formalin were used to preserve the samples. Samples were brought to the laboratory for species level identification. Crabs were cleaned with freshwater, and attached algae and other debris were removed from entire body of crab by scraping with different sized forceps. Identification was carried out using standard references like Griffith and Pidgeon, 1833; Alcock, 1895; Barnard, 1950 and Tirmizi and Kazmi, 1986. Voucher specimens were deposited in the museum of Department of Life Sciences, Maharaja Krishnakumarsinhji Bhavnagar University, Bhavnagar.

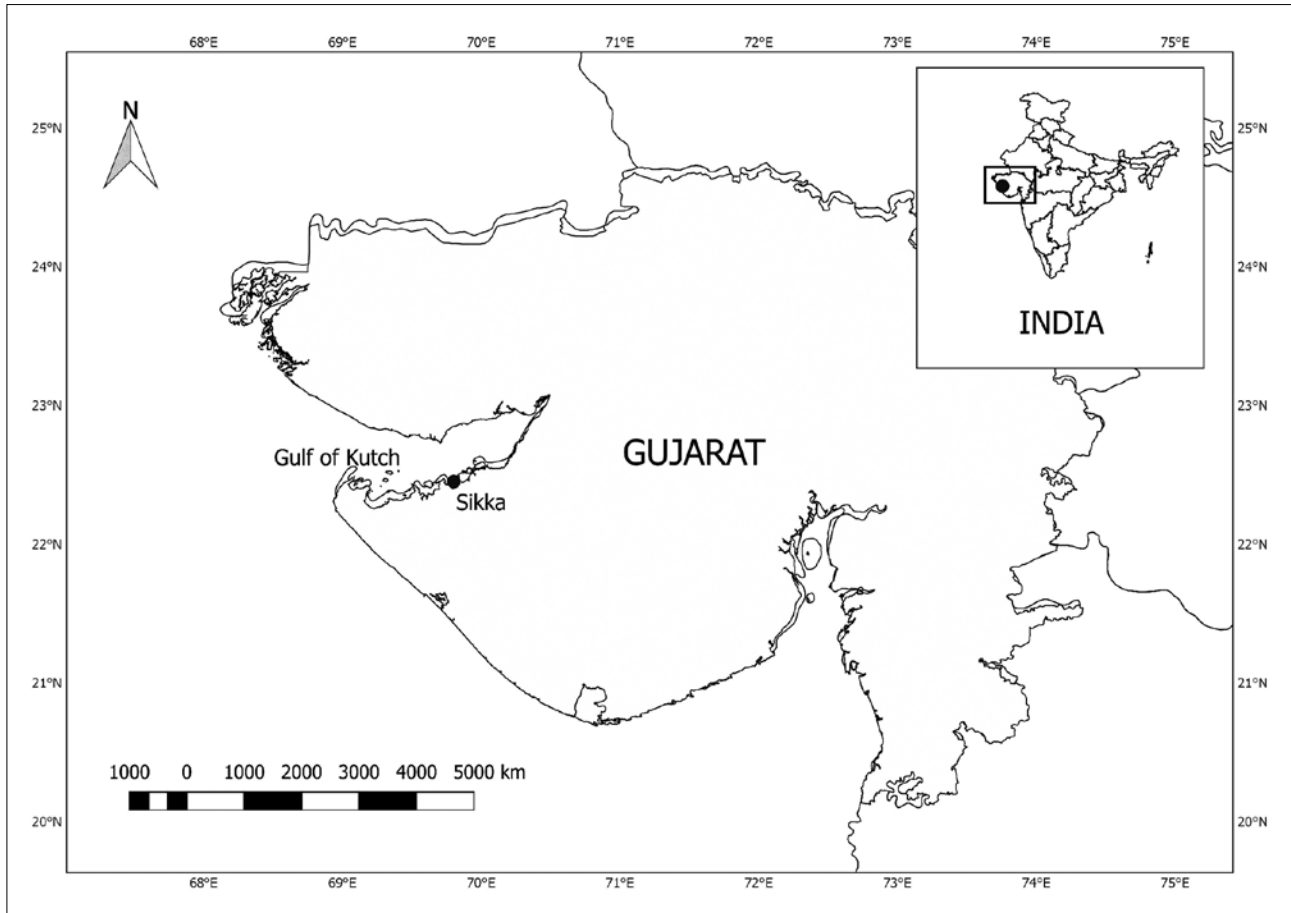


Fig. 1. Location of the study area.

Morphometric measurements were taken using standard vernier calipers and stereo zoom microscope (Carl Zeiss Primo Star). The following abbreviations are used: CL: carapace length; CW: carapace width and P1: male first pleopod.

Results and discussion

Systematics

Order : Decapoda Latreille, 1802
 Infraorder : Brachyura Latreille, 1802
 Superfamily : Majoidea Samouelle, 1819
 Family : Inachidae MacLeay, 1838
 Genus : *Camposcia* Latreille, 1829

Camposcia retusa (Latreille, 1829) (Fig. 2 a-d)

Synonymy : *Maia retusa* Latreille, 1829

Material examined

2♂, (1) CL: 25.5 mm, CW: 19.6; (2) CL: 29.6 mm, CW: 21.7 mm; 1♀, CL: 31.8 mm, CW: 22.0 mm; (1) 1st Pleopod pl1:

10.5 mm; (2) 1st Pleopod pl1: 9.0 mm, Collected by: Imtiaz Beleem, April-2016, Museum ID: LSAIAB18

Description

Carapace pyriform, longer than broad, dorsal surface uneven, entirely covered with curled hair, regions well marked (Fig. 2a, b); rostrum broad, slightly deflexed anteriorly, anterior edge emarginated; mesogastric, protogastric and gastric regions slightly swollen. Eye-stalks long, recurved, retractile to the sides of the carapace, post orbital blunt spine present. The antennae with basal joint long and slender and the free joints of the peduncle flat and densely setose. Maxilliped densely setose, ischium twice longer than merus. Chelipeds identical in shape and armature, slender, entirely covered with feathery setae; merus denticulated on anterolateral margin, meri twice longer than carpi; carpus denticulate at dorsoanterior margin; palm inflated; fingers with closely opposable tooth throughout in inner margin. Ambulatory legs subcylindrical, entirely covered with dense setae; second ambulatory leg shorter, third and fourth increasing gradually, fifth as long as third; merus and propodus of each

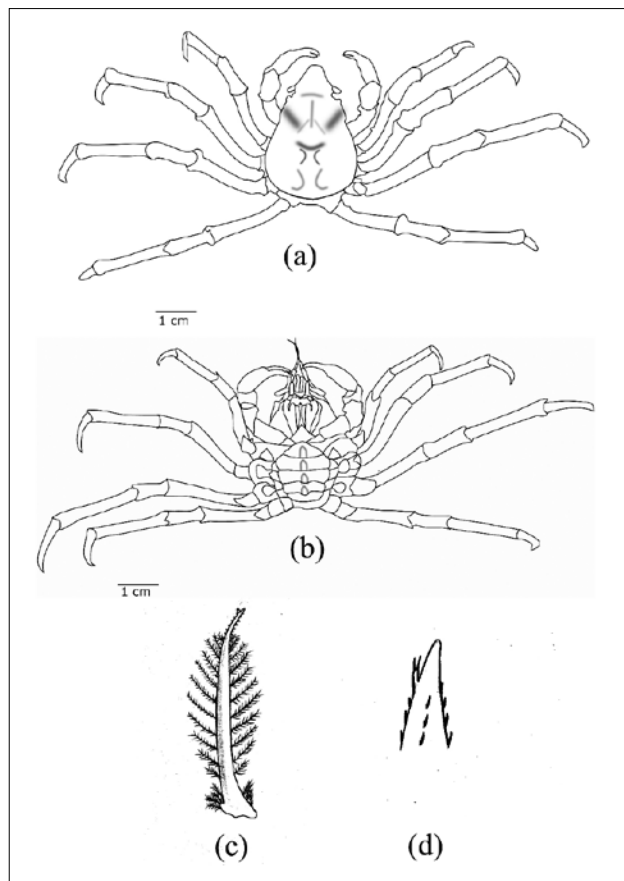


Fig. 2. *Camposcia retusa* (Latreille, 1829), (a) Dorsal view (b) Ventral view (c) First pleopod (entire view) and (d) enlarged view of apical region (First pleopod)

pereopod longer than carpus and dactylus; dactylus each with sharp curved distal end. Abdomen broad, subcircular with six plates in both sexes. First pleopod (Fig. 2c) slender, setose, tapering distally, apical region (Fig. 2d) covered with a pair of movable spines.

Color: In fresh specimen carapace reddish brown; cheliped whitish at posterior region.

Habitat: Generally found in muddy area of lower intertidal zone, under big boulders and rocks.

Distribution

Philippine Islands and Cuming (Adams and White, 1850); Cape Grenville and Port Denison (Australia) (Haswell, 1882); Oshima, Japan (Stimpson, 1907); Indo-West Pacific (Sakai, 1965; Griffin, 1966); Cocos Island, Sri Lanka (Alcock, 1895) tropical region like East Africa and Red Sea to Indian seas and southern Japan, Malay Archipelago, West and North East Australia, and eastwards to

Samoa and Fiji (McNeill, 1968); Mauritius; Ibo, Portuguese East Africa; Chagos (Barnard, 1950); Pakistan (Tirmizi and Kazmi, 1986); South Africa, Gulf of Oman, Nicobar Islands, Christmas Island, Indonesia, Australia, Japan (Apel, 2001).

India: Andamans, (Alcock, 1895); Nicobar Islands (Apel, 2001), Pearl banks, Gulf of Mannar (Laurie, 1906); Gulf of Mannar, India (Jeyabaskaran *et al.*, 2000; Roy, 2008). In the present study this species is reported from the intertidal zone of Sikka, Gujarat, India.

Acknowledgements

We are thankful to the Head of the Department of Life Sciences, Maharaja Krishnakumarsinhji (Bhavnagar University, Bhavnagar). First author is thankful to the University Grant Commission for providing financial support through Maulana Azad National Fellowship (MANF scheme). First author is also thankful to Mr. Piyush Vadher (Senior Research Fellow, Sikka, Gujarat, India) for helping in field survey of Gulf of Kutch, Gujarat, India.

References

- Adams, A. and A. White 1850. Crustacean In: A. Adams (ed.) the Zoology of the Voyage of H.M.S. Samarang under the command of Captain Sir Edward Belcher, during the years 1843-1846. London, pp viii; 1-63:13 pls. doi: <http://dx.doi.org/10.5962/bhl.title.120169>
- Alcock, A. 1895. Materials for a carcinological fauna of India. No. 1. The Brachyura Oxyrhyncha. *J. Asiat. Soc. Bengal*, LXIV (1), 3-5. 2:157-291. doi: <http://dx.doi.org/10.5962/bhl.title.16033>
- Apel, M. 2001. Taxonomie und Zoogeographie der Brachyura, Paguridea und Porcellanidae (Crustacea: Decapoda) des Persisch-Arabischen Golfes. Unpublished doctoral thesis, Johann Wolfgang Goethe-Universität, Frankfurt a M, 268.
- Barnard, K. H. 1950. Descriptive catalogue of South African Decapod Crustacea (Crabs and Shrimps). *Ann. S. Afr. Mus.*, figs 1-154. 38:1-837.
- Griffith, E. and E. Pidgeon. 1833. The Classes Annelida, Crustacea, and Arachnida, Arranged by the Baron Cuvier, with Supplementary Additions to Each Order. In Edward Griffith, The Animal Kingdom Arranged in Conformity with Its Organization, by the Baron Cuvier, with Supplementary Additions to Each Order. 13: viii + 540 pages, 27 plates, London: Whittaker, Treacher, and Co. doi: <http://dx.doi.org/10.5962/bhl.title.41463>
- Griffin, D. J. G. 1966. A review of the Australian majid spider crabs (Crustacea, Brachyura). *Australian Zoologist*, figs.1-3, pls. 15-17; 13(3):259-298
- Haswell, W. A. 1882. Catalogue of the Australian stalk- and sessile-eyed Crustacea. Sydney, The Australian Museum, p. iii-xxiv, 1-324, fig. 1-8, pi. 1-4. doi: <http://dx.doi.org/10.5962/bhl.title.55755>
- Jeyabaskaran, R., A. S. Khan, and V. Ramaian, 2000. Biodiversity Project on Gulf of Mannar Biosphere Reserve. Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai, India.
- Laurie, G. D. 1906. Report on the Brachyura collected by Prof. Herdman. Report on the Pearl Oyster Fisheries of the Gulf of Mannar. 40(5): 349-432.
- McNeill, F. 1968. Crustacea, Decapoda and Stomatopoda. Great Barrier Reef Expedition 1928-29. *Sci. Rep.*, 7 (1): 1-98, pis. 1-2, text-figs. 1-2.
- Ng, P. K. L., D. Guinot and P. Davie 2008. Systema Brachyurorum: Part I. An annotated checklist of extant Brachyuran crabs of the world. *Raffles Bull. Zool.*, 17:1-286.
- Roy, M. K. D. 2008. An annotated checklist of Mangrove and Coral Reef inhabiting Brachyuran Crabs of India, India. *Rec. Zool. Soc. India*, Occasional Paper No. 289:1-212.
- Sakai, T. 1965. The Crabs of Sagami Bay collected by His Majesty the Emperor of Japan. Tokyo: Maruzen. Pp. xvi, 1-206, 1-26 (English), 1-92, 27-32 (Japanese), 26 text-figs., 100 pis. (coloured), 1 map.
- Stimpson, W. 1907. Report on the Crustacea (Brachyura and Anomura) collected by the North Pacific Exploring Expedition 1853-1856. Smithsonian Miscellaneous Collections, 49(1717): 1-240, 26 pls. doi: <http://dx.doi.org/10.5962/bhl.title.51448>
- Tirmizi, N. M. and Q. B. Kazmi, 1986. Marine Fauna of Pakistan: 4, Crustacea: Brachyura (Dromicaea, Archaeobrachyura, Oxytomato, Oxyrhyncha). Publication 1 BCCI Foundation Chair Institute of Marine Sciences, 1- 244.