

New record of trapeziid crab, *Quadrella reticulata* Alcock, 1898 (Brachyura: Trapeziidae) from the Persian Gulf

R. NADERLOO and A. SARI*

Department of Biology, Faculty of Science, University of Tehran, Tehran, Iran

In the present study, trapezoid crab, *Quadrella reticulata* was found for the first time in the north of Kish Island, the Persian Gulf, Iran. Diagnostic characters of the species are figured and its world geographical distribution in the Indo-West Pacific region is considered.

Key words: *Quadrella reticulata*, Persian Gulf, Trapeziidae, Brachyura, Iran.

Previous studies on the Persian Gulf brachyuran crabs are confined to Heller (1861), Alcock (1895-1900), Nobili (1905 and 1906), MacGilchrist (1905), Klunzinger (1913), Stephensen (1945), Kuronuma (1974), Basson *et al.* (1977), Titgen (1982), Jones (1986), Apel and Türkay (1992), Apel (1994), Cooper (1995), Al-Ghais and Cooper (1996), Türkay *et al.* (1996), Bahmani (1997), Apel and Spiridonov (1998) and Apel and Türkay (1999).

According to these studies and Castro (2004, personal communication), this is the first record of *Quadrella reticulata* from the Persian Gulf.

Since October 2003, a series of samplings for subtidal crabs were carried out in 110 stations in the Iranian territory of the Persian Gulf. In 21st December 2003, a single female specimen (ZUTC-Brach.1075, CL = 10.8 mm, CW = 12.7 mm) was caught (on black coral) by fishing trawler vessel Ferdous I, which belongs to the Fisheries Research Organization of Iran, in the north Kish Island, 26° 74' N, 53° 35' E, Depth 30m (Fig. 1). The specimen (Fig. 2) is deposited in the Zoological Museum, University of Tehran (ZUTC).

Quadrella reticulata Alcock, 1898

(Fig. 2 and 3)

Quadrella coronata var. *reticulata* Alcock, 1898: 227; *Quadrella coronata* var. *reticulata* Borradaile, 1902:266; *Quadrella reticulata* reticulata Serène 1968: 89; *Quadrella reticulata* Serène, 1973: 199; *Quadrella reticulata* Serène, 1975: 519; *Quadrella reticulata* Serène, 1984: 286 & 287; *Quadrella reticulata* Galil & Takeda, 1985: 204; *Quadrella reticulata* Galil, 1986: 288 & 1988: 179; *Quadrella reticulata* Castro, 1999a: 38; *Quadrella reticulata* Castro, 1999b: 96; *Quadrella reticulata* Castro *et al.*, 2004: 56.

The examined material agrees with earlier descriptions and illustrations. The carapace is hexagonal (Figure 3A). Front (including inner orbital lobes) is wider than posterior border of carapace and has four triangular teeth, of which medians are larger than laterals. Anterolateral border of carapace is slightly globose and poorly serrated. Epibranchial tooth is acute. Border of supraorbital lobe is

*Corresponding author: Sari@khayam.ut.ac.ir

granular. The surface of carapace is granular except in its central portion. Anterior margin of cheliped and the immovable finger is denticulate (Figure 3B). There are 10 triangular teeth (variable in size) along anterior border of merus of chelipeds, of which the first four distal teeth are larger than the others (Figure 3A & B). Two nearly small and equal teeth present on the anterior border of chelipeds basis (Fig. 3-C). Propodus and dactylus of walking legs are hairy, posterior margin of the latter bear 12 teeth, including the terminal one. Amongst these, only the teeth on the fourth walking legs are triangular in shape and larger than the others (Figure 3D). According to Galil (1986), there are short spines on the posterior margin of propodus of walking legs. But in the material of the present study, this is spineless. There are purple lines on the chelipeds and carapace of the fresh specimens (Fig.2) which make an interesting meshwork (agreeing with description of Alcock, 1898). These purple lines fade away in preservative liquids.

The present female material looks to be larger than all other measured specimens by Alcock (1898) and Castro (1999a). It is noteworthy that, according to Castro (1999a), female individuals are larger than their mates.

In the past, specimens of *Q. reticulata* were studied from different parts of the Indo-West Pacific region. Chronologically, these are from Sri Lanka (type locality) and Andaman Islands (Alcock, 1898); Sri Lanka, Colombo and South China Sea - off Sarawak (Serène, 1973); Japan - Tanegashima (Galil and Takeda, 1985); South China Sea - near Natuna Islands and the Philippine Islands - Gulf of Davao (Galil, 1986); Red Sea (Galil, 1988); Indonesia - Ambon, South China Sea - off Sarawak and Philippine Islands - Gulf of Davao (Castro, 1999a); Sri Lanka - Colombo (Castro, 1999a & b). Its chance discovery in the Persian Gulf is the first record of *Quadrella reticulata* from its north-eastern range of distribution in the Indian Ocean and its nearest record to the present study is the Red Sea (Galil, 1988). Zoogeographically, *Q. reticulata* is confined to the north Indian Ocean (not yet found in the Persian Gulf and the Oman Sea) and the west Pacific Ocean.

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Fig.1.– Sampling locality in Kish Island (arrow head), the Persian Gulf.

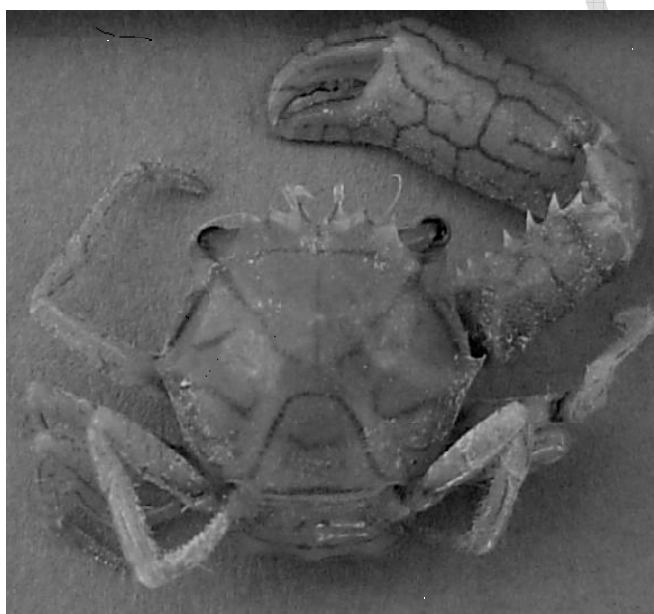


FIG. 2. – Female, *Quadrella reticulata* (CL. 10.8 mm, with autotomy on left chela).

Fig.3.– Female *Quadrella reticulata*. (A) Carapace dorsal view; (B) Right cheliped; (C) Basis of right cheliped (anterior side) and (D) Fourth walking leg. Scale bars 1mm: a (C); b (A, B & D).

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