


New records of bivalves from the Iraqi coast


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Abstract

Six marine bivalves species were recorded from the north west of the Arabian Gulf, Iraqi coast from 2020 to 2021. The species are *Acar plicata* (Dillwyn, 1817) (family Arcidae), *Sunetta effossa* (Hanley, 1843) (family Veneridae), *Scissileta tropica* (Melvill, 1897) (family Yoldiidae), *Protapes cor* (Sowerby, 1853) (family Veneridae), *Circentia callipyga* (Born, 1778) (family Veneridae) and *Acrosterigma lacunosa* (Reeve, 1845) (family Cardiidae). These records raise the number of marine bivalves known from the Iraqi coast to 38 species.

Key words: Persian-Arabian Gulf, records, Iraqi coast.

Introduction

Marine gastropods and bivalves are some of the most diverse invertebrate groups in nature, but in Iraq a better knowledge of their taxonomic composition is required. Although there are important studies on mollusks in the Iraqi marine coast (Ahmed, 1974; Al-Hassan and Al-Hasani, 1985; Yasser & Naser, 2021; Yasser *et al.*, 2022), many new records are being recorded from time to time.

Even if these nominal taxa represent individual species, the diversity is much lower than that found in neighbouring Kuwait, where Al-Kandari *et al.* (2020) identified 100 living species from 33 families. Al-Kandari & Oliver (in prep) taking into account species recorded as dead shells they illustrate 214 species. The current lists are also less diverse than those from the neighboring region of Iran, where Papahn and Ghajari (2018) list 57 nominal bivalve taxa.

Material and Methods

From 2020 to 2021, specimens of *A. plicata*, *S. effossa*, *S. tropica*, *P. cor*, *C. callipyga* and *A. lacunosa* were collected from various locations along the Iraqi coast to the north west of the Persian-Arabian Gulf by dredge, or picked up by hands from under rocks/stones, among intertidal vegetations. The specimens were

preserved in 70% ethanol and deposited in the Marine Science Centre (MSC) at the University of Basrah, Iraq, with collection voucher numbers (500-505). Provisional identifications were made using Bosch *et al.* (1995), with MolluscaBase nomenclature and classification.

Results

These marine bivalves species were reported for the first time for Iraqi waters. Six marine bivalves are listed here.

Arcidae Lamarck, 1809
Acar Gray, 1857

Acar plicata (Dillwyn, 1817)
 (Fig. 1A)

Material examined: 6 specimens, length= 28mm, (MSC:500).

Shell description

Often subrectangular and anteriorly decreased. Coarse sculpture composed of lamellae interlaced with radial riblets. Adductor vehicles were lifted somewhat. White to buff with orange or pink undertones.

Habitat: Lower coast and below: adhering to corals and rocks.

Distribution: all (Fig. 2).

Veneridae Rafinesque, 1815
Sunetta Link, 1807

Sunetta effossa (Hanley, 1843)
 (Fig. 1B)

Material examined: 3 specimens, length= 42mm, (MSC:501).

Shell description

Beaks are slightly forward of the midline. Subovate, roundly pointed anterior, broadly rounded posterior, or subtruncate. Up to 25 prominent, concentric, smooth ridges. Escutcheon was thoroughly excavated. Beige to lilac with zigzag lines and blotches in brown.

Habitat: living offshore in sand.

Distribution: NWG, GO (Fig. 2).

Yoldiidae Dall, 1908
Scissileda Kilburn, 1994

Scissileda tropica (Melvill, 1897)
 (Fig. 1C)

Material examined: 1 specimen, length= 18mm, (MSC:502).

Shell description

Beaks slightly forward of the midline. Subelliptical; dorsal edges are long and very softly sloping; the anterior is rounded; the posterior dorsal junction is subacute, and the posterior margin is short, nearly straight, and inwardly sloping. Shiny, opaque surface sculpture with weak oblique lines terminating along the posterior slope. With a narrow yellowish periostracum and a white coloration.

Habitat: *S. tropica* found offshore in the mud.

Distribution: NWG, GO (Fig. 2), recorded from Kuwait by Glayzer *et al.*, 1984 as *Yoldia nicobarica*, Al-Yamani *et al.*, 2012; Al-Kandari *et al.*, 2020

Veneridae Rafinesque, 1815
Protapes Dall, 1902



Figure 1. Photographs of some of the newly recorded species: A – *Acar plicata* (Dillwyn, 1817) 28mm; B – *Sunetta effossa* (Hanley, 1843) 42mm; C – *Scissileta tropica* (Melvill, 1897) 18mm; D – *Protapes cor* (Sowerby, 1853) 75mm; E – *Circenita callipyga* (Born, 1778) 47mm; F – *Acrosterigma lacunosa* (Reeve, 1845) 65mm.

Protapes cor (G. B. Sowerby II, 1853)
(Fig. 1D)

Material examined: 3 specimens, length= 75mm, (MSC:503).

Shell description

Beaks much forward of the midline Globose. Suborbicular, about as high as it is long, with a somewhat narrow, pouting anterior border. Lunule not defined and lunule margin horizontal or almost so. The sculpture is initially composed of very thin lines that progressively become coarser and more narrow. The pallial sinus is brief, gently rising, and its apex is subacute. White to filthy beige with no radial coloration.

Habitat: Living offshore in the mud.

Distribution: NWG, SEG (Fig. 2).

Veneridae Rafinesque, 1815
Circenita Jousseume, 1888

Circenita callipyga (Born, 1778)
(Fig. 1E)

Material examined: 2 specimens, length= 47mm, (MSC:504).

Shell description

Beaks are nearly central, subovate (length distinctly greater than height) (length distinctly greater than height). Posterior slope varies proportionally from moderate to steep. Sculpture composed of low, slender ridges and growth lines that are frequently worn in the middle and nearly smooth. Inner margin is polished. Pale with sparse spots, radially interrupted rays, and zigzag lines; grey, orange, brown, chocolate, and black.

Habitat: It is living in sand and sandy mud, mid tide levels.

Distribution: all (Fig. 2).

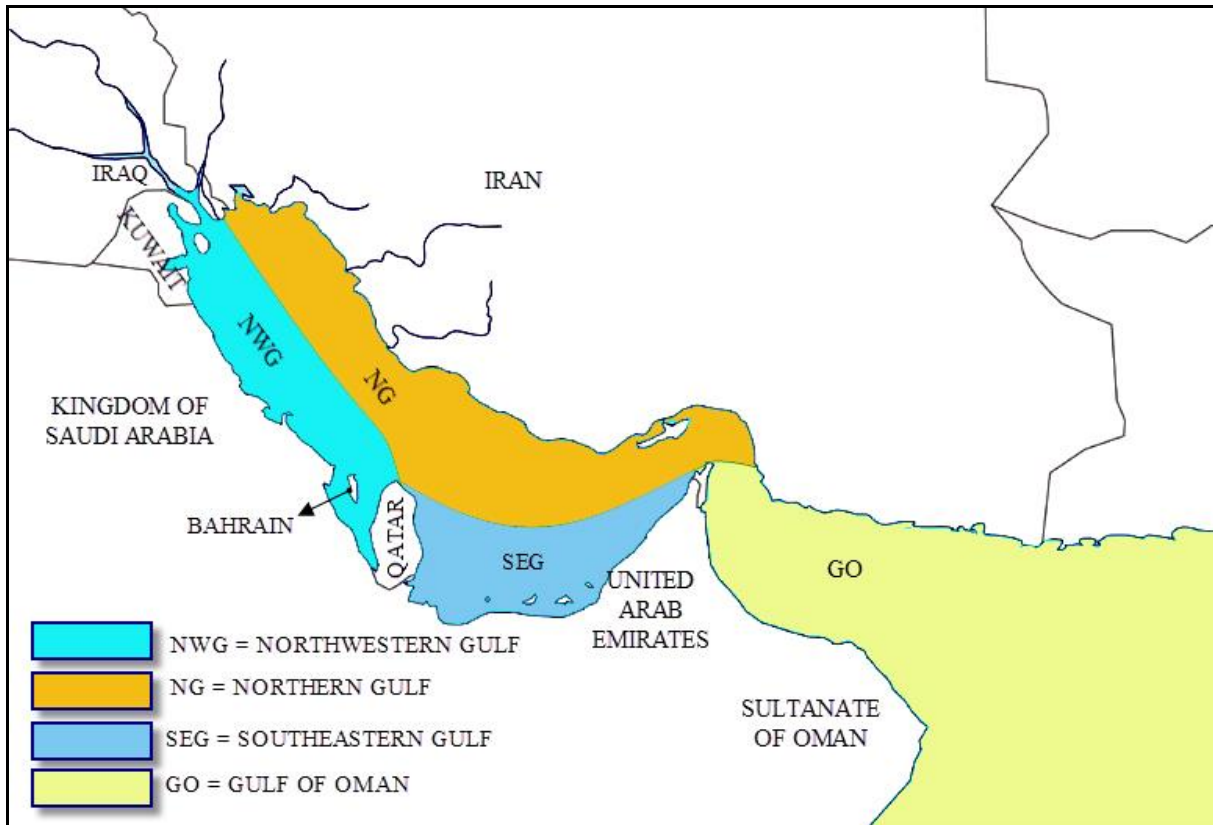


Figure 2. Zones of distribution of marine bivalves in the Persian-Arabian Gulf.

Cardiidae Lamarck, 1809

Acrosterigma Dall, 1900

Acrosterigma lacunosa (Reeve, 1845)

(Fig. 1F)

Material examined: 1 specimen, length= 65 mm, (MSC:505).

Shell description

Solid and moderately thick. Ovate, longer than it is wide. Sculpture of 31–35 radial ribs; posterior 6–8 with somewhat oblique, lamellar spines. Externally cream with zones, dots, and patches of ochre, chestnut, and mauve; internal edge reddish to purple-brown, umbonal cavity initially with a pair of longitudinal purple bars and suffused with fawn to orange.

Habitat: *A. lacunosa* lives in sand, offshore.

Distribution: NG, NWG, SEG, GO (Fig. 2).

Discussion

The most current study of the marine Mollusca of Iraq is a checklist of marine bivalves (Yasser *et al.*, 2022), in which 32 species are recorded. However, with recording these six species from the Iraqi coast, the number species recorded raising to 38 species.

The genus *Acar* Gray, 1857 of the family Arcidae is represented by two species in the Arabian Gulf, namely: *A. plicata* (Dillwyn, 1817) which is widely distributed in the Gulf and *A. abdita* (Oliver & Chesney, 1994; Al-Kandari *et al.*, 2020) which is restricted in the Gulf of Oman (Bosch *et al.*, 1995). *Sunetta effossa* (Hanley, 1843) and *S. donacina* (Gmelin, 1791) are only two species recorded of the genus *Sunetta* Link, 1807 from the Gulf. *Scissileda tropica* (Melvill, 1897) is the first species recorded from the Persian-Arabian Gulf and it was already recorded from the Gulf of Oman.

Common smaller species found at the Iranian Bay such as *Scissileda tropica* (Melvill, 1897) Papahn & Ghajari, 2018 is listed in the present paper. Bosch *et al.*, 1995 listed this species as *Yolida tropica* (Melvill, 1897) and only from the Gulf of Oman. *Protapes cor* is widely distributed in the Gulf and there are three species of the genus *Protapes* as listed earlier by Bosch *et al.*, 1995. The other two species recorded or in description are: *Protapes* sp. from NWG, SEG, GO, and *P. sinuosa* (Lamarck, 1818) which is widely distributed in the Gulf. The genus *Circenita* Jousseaume, 1888 in the Gulf is only represented with only one species *C. callipyga* which is widely distributed in the Gulf living in sand and sandy mud. In the Persian-Arabian Gulf, the genus *Acrosterigma* Dall, 1900 is represented only with one species *A. lacunosa* recorded from different sites of the Gulf. However, there are some records such as *A. maculosa* (Wood, 1815) and *A. assimile* (Reeve, 1845) and other two undescribed species from Southern Oman or Masirah far from the Gulf.

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