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SOME NEW RECORDS OF MARINE GASTROPOD FROM THE IRAQI COAST

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Some New Records of Marine Gastropod from the Iraqi Coast. Yasser, A. Gh., Naser, M. D., Abdul-sahib, I. M. — Eight marine gastropod records were recorded from the north west of the Arabian Gulf, Iraqi coast during March 2020. The species are *Turritella cochlea* Reeve, 1849 (family Turritellidae), *Rhinoclavis fasciata* (Bruguière, 1792) (family Cerithiidae), *Semiricinula tissoti* (Petit de la Saussaye, 1852) (family Muricidae), *Ancilla castanea* (G. B. Sowerby I, 1830) (family Ancillariidae), *Bulla ampulla* Linnaeus, 1758 (family Bullidae), *Oliva bulbosa* (Röding, 1798) (family Olividae), *Naria turdus* (Lamarck, 1810) and *Erronea caurica quinquefasciata* (Röding, 1798) (family Cypraeidae). These records raise the number of marine gastropods from the Iraqi coast to 40 species.
Key words: marine molluscs, fauna, distribution, Gastropoda, Arabian Gulf, Iraq.

Introduction

Marine Mollusca are poorly investigated in Iraq, with only a few species reported from the country's waters (Ahmed, 1975; Al-Hassan and Al-Hasani, 1985). Ahmed recorded 43 mollusk species (25 gastropods) in the sea, whereas Al-Hassan & Al-Hasani listed 24 (10 gastropods). Glayzer et al. (1984), for example, classified 62 families and 230 species of marine mollusks from the Kuwaiti coasts. Al-Kandari et al., 2020 provide a more recent list of Kuwaiti mollusk species. Kuwait's shoreline is much longer, and the habitat variation is much greater, which could explain the discrepancy (Yasser & Naser, 2021).

Bosch et al. (1995) provide an exhaustive treatment of the molluscan species in the Persian Gulf, however they do not provide particular records for Iraqi species.

Eames and Wilkins (1957) and Dance and Eames (1978) describe fossil molluscs (Holocene) from Iraq's Hammar Formation (1966). Some, if not all, of those species are likely to persist in Iraqi coastal waters. Plaziat and Younis provide additional information on these young Quaternary deposits (2005). Yasser and Naser, 2021; Yasser et al., 2022 conducted significant diversity research on the Mollusca of the Iraqi coast.

The article presents eight marine gastropods collected from Iraq's northwestern coast of the Arabian Gulf.

Material and methods

During March 2020, the third author collected eight species namely: *Turritella cochlea* Reeve, 1849, *Rhinoclavis fasciata* (Bruguière, 1792), *Semiricinula tissoti* (Petit de la Saussaye, 1852), *Ancilla castanea* (G. B. Sowerby I, 1830), *Bulla ampulla* Linnaeus, 1758, *Oliva bulbosa* (Röding, 1798), *Naria turdus* (Lamarck, 1810) and *Erronea caurica quinquefasciata* (Röding, 1798) from the Fao region and Khor Al-Zubair of Iraq, north of the Arabian Gulf, at 29.924643°, 48.620315° and 30.148060°, 47.902262°, respectively, on intertidal zones. The specimens are stored in the Marine Science Centre (MSC) at the University of Basrah, Iraq, under the collection voucher numbers (300–308, respectively).

Bosch et al. were used to identify the species (1995). The shells were measured using an electronic calliper and the results are provided to the closest millimeter.

Results

Family Turritellidae

Genus *Turritella* Lamarck, 1799

Turritella cochlea Reeve, 1849

(fig. 1, A; 40 mm)

Fig. 1. A — *Turritella cochlea* Reeve, 1849; B — *Rhinoclavis fasciata* (Bruguière, 1792); C — *Semiricinula tissoti* (Petit de la Saussaye, 1852); D — *Ancilla castanea* (G. B. Sowerby I, 1830); E — *Bulla ampulla* Linnaeus, 1758, F. *Oliva bulbosa* (Röding, 1798); G — *Naria turdus* (Lamarck, 1810); H — *Erronea caurica quinquefasciata* (Röding, 1798).

A thin, semitranslucent spire with a spire angle of around 13°. Each whorl is spherical (but seems to be straight-sided) with a strong, sharp median keel and an equally strong keel just above the next suture; the remainder of each whorl is covered by irregularly spaced spiral ridges. Aperture with a thin edge that is almost round in shape. Brown mottlings and stripes on a yellowish white background. The strength of keels varies significantly.

Habitat: intertidal and sand.

Distribution: in all Arabian Gulf (fig. 3).

Family Cerithiidae

Genus *Rhinoclavis* Swainson, 1840

Rhinoclavis fasciata (Bruguière, 1792)

(fig. 1, B; 60 mm)

Thick, glossy, straight-sided, flatter ventrally, approximately 4.5 times the length of the width, early spire whorls with varices Axial ribs are close-set, flat, and stronger toward the sutures, and are crossed by two or more incised spiral lines per whorl. The posterior canal of the aperture is weak, while the siphonal canal is strongly reflexed. Columella has a prominent center fold. White to brown hues, blotched, bordered, and dotted with pale and deeper brown; white aperture.

Habitat: subtidal in sand.

Distribution: NWG, SEG, GO (fig. 3).

Family Muricidae

Genus *Semiricinula* E. von Martens, 1879

Semiricinula tissoti (Petit de la Saussaye, 1852)

(fig. 1, C; 29 mm)

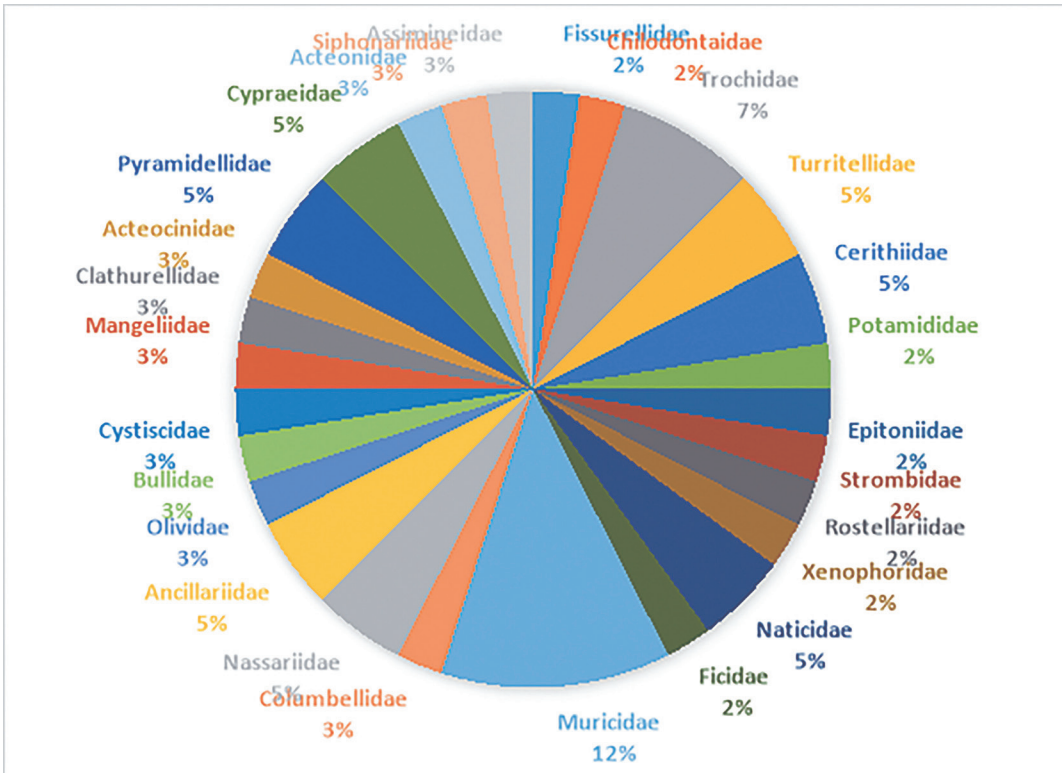

Fig. 2. Percentage of species gastropods represented by their families from the Iraqi coast.

High spired, with keeled whorls at the margin. The aperture, approximately twice the length of the spire, is lined with low spiral ridges. At the extremities of apertural ridges, the outer lip features low, blunt teeth. The umbilicus is merely a chink. Strong, nodulous spiral cords, approximately five on the final whorl; up to three fin-like spiral ridges between the cords. The surface is heavily packed with axial scales. Greyish reddish brown striped axially across nodules; brown-edged nodules may be brown.

Habitat: under intertidal rocks.

Distribution: NWG, SEG (fig. 3)

Family Ancillariidae

Genus *Ancilla* Lamarck, 1799

Ancilla castanea (G. B. Sowerby I, 1830)

(fig. 1, D; 30 mm)

Solid, oblong-ovate, with an aperture more than twice the length of the spire and nearly straight sided at the center. By way of a very broad siphonal canal, the upper fasciolar groove (visible as ridge enternally) terminates in noticeable denticle. Columella can have up to six plications, either strong or weak. Dark brown to yellowish protoconch, paler upper fasciolar groove, white or yellowish columella.

Habitat: intertidal in sand.

Distribution: NWG, SEG, GO (fig. 3).

Family Bullidae

Bulla Linnaeus, 1758

Bulla ampulla Linnaeus, 1758

(fig. 1, E; 37 mm)

Spire intorted and resembling a tiny umbilicus, outer lip evenly curled. Lower portion of outer lip thickened and connected with columella; callused partial wall. Lines of fine growth. Creamy or white with purple, violet, and brown blotches, spots, and mottling.

Habitat: intertidal in sand and beached.

Distribution: in all Arabian Gulf (fig. 3)

Family Olividae

Genus *Oliva* Bruguière, 1789

Oliva bulbosa (Röding, 1798)

(fig. 1, F; 38 mm)

Thick, heavy, oval, bulging in the center, short spire with deeply grooved sutures and a smooth corrugated callus in between. Columella is densely callused and features two noticeable ridges; the outer lip is significantly thickened. White, cream, greenish brown, brown, or black with dots, blotches, zigzags, spiral bands, or streaks; columella white with a brown tinge on ridges.

Habitat: intertidal and offshore in sand.

Distribution: SEG, GO (fig. 3).

Family Cypraeidae

Genus *Naria* Gray, 1837

Naria turdus (Lamarck, 1810)

(fig. 1, G; 40 mm)

Heavy, rounded-ovate, with highly calloused, typically lipped borders and produced, smooth extremities; virtually flat base. Short, gritty, and set deeply in a large aperture, the teeth have a coarse texture and are of a coarse consistency. Dorsum white, cream or

greenish typically spotted with irregular brown specks that are wider towards the margin; sulcus infrequently apparent; base and teeth white.

Habitat: under rocks and stones.

Distribution: in all Arabian Gulf (fig. 3)

Genus *Erronea* Troschel, 1863
Erronea caurica (Linnaeus, 1758)
Erronea caurica quinquefasciata (Röding, 1798)
(fig. 1, H; 40 mm)

Thick, elongate to ovate, with a dorsum that is well-rounded, produced ends, and lumpy borders. The anterior aperture is significantly larger; big teeth are dispersed around the base. Dorsum bluish-white with three darker transverse bands on top of brown spots and blotches; margins purplish brown to beige with big, dark brown spots; base and interdental spaces of teeth purplish brown to beige, teeth lighter. Size, shape, and color pattern vary significantly.

Habitat: between rocks and stones.

Distribution: NWG, SEG, GO (fig. 3).

Discussion

The Muricidae and Trochidae are the most diverse families on the Iraqi shore, with 5, 3, and 2 species, respectively. By comparison, the Trochidae and Muricidae families are represented on the Kuwaiti coast by seven and six species, respectively (Al-Kandari et al., 2020). Percentage of species gastropods represented by their families from the Iraqi coast can be found in (fig. 2).

The genus *Turritella* Lamarck, 1799 of the family Turritellidae is represented by seven species in the Arabian Gulf, namely: *T. cingulifera* Sowerby, 1825, *T. cochlea* Reeve, 1849,

Fig. 3. Distribution of marine gastropods in the Arabian Gulf.

T. columnaris Kiener, 1844, *T. fultoni*, Melvill 1898, *T. maculata* Reeve, 1849, *T. spectrum* Reeve, 1849 and *T. vittulata* Adams & Reeve, 1850 (Bosch et al., 1996). The only species is known from Iraq was *T. fultoni* (Ahmed, 1974) and *T. cochlea* in the present study.

Rhinoclavis Swainson, 1840 is the most diverse genus of the family Cerithiidae in the Arabian Gulf, the genus is represented by six species in the Gulf: *Rh. kochi* Philippi, 1848, *Rh. sordidula* Gould, 1849, *Rh. articulata* Adams & Reeve, 1850, *Rh. fasciata* (Bruguière, 1792), *Rh. aspera* Linnaeus, 1758 and *Rh. sinensis* Gmelin, 1791. The only species is recorded in the present study belongs to this genus from the Iraqi coast is *Rh. fasciata.*

So far the family Muricidae in Iraq consists of *Hexaplex* Perry, 1810, *Indothais* Claremont, Vermeij, S. T. Williams and D. Reid, 2013, *Murex* Linnaeus, 1758, *Rapana* Schumacher, 1817 which contain single species for each genus (Ahmed, 1974; Al-Hassan and Al-Hasani, 1985). However, new record species belongs to the genus *Semiricinula* E. von Martens, 1879 has been added in the present study.

Ancilla castanea (G. B. Sowerby I, 1830) (present study) and *Ancilla farsiana* Kilburn, 1981 (Ahmed, 1974) are only two species recorded of the genus *Ancilla* Lamarck, 1799 from the Iraqi coast. However, the genus *Ancilla* is much diverse genus in the Arabian Gulf which is represented by 9 species (Bosch et al., 1996).

The genus *Bulla* Linnaeus, 1758 of the family Bullidae is represented by only single species *Bulla ampulla* Linnaeus, 1758 (references) which is also recorded in the present study. While the genus *Oliva* Bruguière, 1789 contains two species in the Arabian Gulf (Bosch et al., 1996), one of them *Oliva bulbosa* is recorded in the present study as a first record from the north of the Arabian Gulf.

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Conflicts of interest

The authors declare that there are no conflicting issues related to this research article.

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