

***Bodianus macrognathos* (Teleostei: Labridae), *Coris nigrotaenia*  
(Teleostei: Labridae) and *Bothus pantherinus* (Teleostei: Bothidae)  
in the Iraqi marine waters**

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**Abstract.** New records of three fish species from the Arabian Gulf coast of Iraq are reported: *Bodianus macrognathos*, *Coris nigrotaenia* and *Bothus pantherinus*. All examined specimens were caught during a fishing survey on the 7<sup>th</sup> March 2012 and were deposited in the fish collection of the Marine Science and Fisheries Centre, Muscat, Oman. The present paper provides morphological description and distribution data for each species.

**Key words:** fishes, range extension, Basra, taxonomy.

The history of the studies on the Iraqi fish fauna is very long and goes back to the time of Heckel (1843). Nevertheless, there has not been much comprehensive work published on the freshwater and marine fish species (for a review, see Jawad 2012). Several studies published in the last few decades represent the only research that has been done on the marine fish fauna of Iraq (Mehdi & George 1969, Mehdi 1971, Hussain et al. 1988).

The present paper reports three new distribution records for two wrasses - the giant hogfish *Bodianus macrognathos* and the blackbar coris *Coris nigrotaenia* - and the leopard flounder *Bothus pantherinus* (Labridae and Bothidae, respectively), mainly as a result of recent taxonomic work in the Arabian Gulf coast of Iraq by the first author.

The fish were caught by gill net on 7<sup>th</sup> March 2012 south of Basra (29°49'11.9"N, 48°45'50.31"E). The three species were collected at depths ranging from 50 to 100 m. Identification and methods of measurement were according to Fischer & Bianchi (1984). Standard length (SL), and total length (TL) were determined using dial callipers (length to nearest mm; weight to nearest 1 g). After measuring, fish were fixed in 10% formalin and stored in 70% ethanol. Catalogue numbers are OMMSTC 1205-1207 for *Bodianus macrognathos*, *Coris nigrotaenia* and *Bothus pantherinus*, respectively. All specimens of the three species were deposited in the ichthyological collection of the Marine Science and Fisheries Centre, Oman (OMMSFC).

The material of the three teleost species included: *Bodianus macrognathos* (Morris, 1974) (8 specimens, 395 - 474 mm TL) (Fig. 1); *Coris nigrotaenia* Mee & Hare, 1995 (5 specimens, 280 - 336 mm TL) (Fig. 2); and *Bothus pantherinus* (Rüppell, 1830) (6

specimens, 220 - 330 TL) (Fig. 3). Fish size and meristic characters of the three species are presented in Table 1.



Figure 1. *Bodianus macrognathos*, 400 mm TL.



Figure 2. *Coris nigrotaenia*, 285 mm TL.

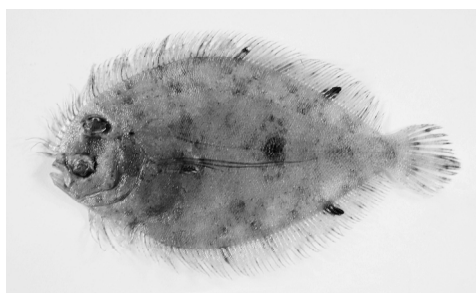


Figure 3. *Bothus pantherinus*, 225 mm TL.

**Table 1.** Morphometric and meristic characters of *Bodianus macrognathus*, *Coris nigrotaenia* and *Bothus pantherinus* collected from the Arabian Gulf coasts of Iraq.

Morphometric characters	<i>Bodianus macrognathus</i>	<i>Coris nigrotaenia</i>	<i>Bothus pantherinus</i>
TL	395-474	280- 336	220-330
SL (% in TL)	315-378(79.6-79.8)	230- 276(82.3-82.6)	185-277(84.3-84.7)
HL (% in SL)	105-125(33.2-33.7)	63- 75(27.2-27.7)	48-72(25.6-25.8)
ED (% in SL)	15-18(14.1-14.6)	16- 19(25.2-25.8)	15-23(31.1-31.8)
Pre. O.L. (% in HL)	30-36(28.3-28.9)	17- 20(26.5-26.8)	10-15(20.5-20.7)
Post. O.L. (% in HL)	45-54(42.6-43.8)	23- 28(36.2-37.6)	25-37(52.3-52.6)
Pre. D.L. (% in SL)	110-132(34.6-34.9)	68- 80(29.3-29.9)	5-8(2.5-2.7)
Post. D.L. (% in SL)	270-324(85.3-85.9)	210- 252(91.2-91.6)	176-264(95.2-95.8)
Pre. P.L. (% in SL)	95-114(30.5-30.8)	57- 68(24.6-24.8)	55-82(29.5-29.8)
Pect. L. (% in SL)	65-78(20.4-20.8)	55- 66(23.2 -23.6)	90-135(48.3-48.9)
Pre. A. (% in SL)	190-228(60.4-60.9)	104- 124(45.3-45.8)	-
Pre. A F.L. (% in SL)	200-240(63.2-63.7)	133- 159(57.4-57.9)	19-28(10.5-10.8)
Post.A.F.L. (% in SL)	208-248(66.5-67.5)	219- 262(95.5-96.2)	176-264(95.2-95.8)
Max. B.D. (% in SL)	100-120(31.4-31.9)	79- 94(34.2-34.6)	102-153(55.5-55.9)
C.P.D. (% in SL)	50-60(15.2-15.6)	35- 42(15.1-15.7)	16-24(8.3-8.8)
Meristic characters			
D. F. spines	12	9	-
D.F. rays	10	12	90
A.F. spines	3	3	-
A.F. rays	12	12	70
P.F. rays	16	14	10

TL, total length; SL, standard length; HL, head length; Ed, eye diameter; Pre. O.L., Pre-orbital length; Post. O.L., Post-orbital length; Pre. P.L., Pre-pectoral fin length; Pec. L., Pectoral fin length; Pre. A, Pre-anus length; Pre. A.L., Pre-anal fin length; Post. A.L., Post-anal fin length; Max. B.D., Maximum body depth; C.P.D., Caudal peduncle depth; D. F. spines, Dorsal Fin Spines; D. F. rays, Dorsal Fin Rays; A. F. spines, Anal Fin Spines; A.F. rays, Anal fin Rays; P.F. rays, Pectoral Fin Rays.

*Bodianus macrognathos* is characterised by the following features. Body moderately deep. Dorsal profile of head is curved. Anterior tip of head blunt. Lower jaw massive. Four strong canines in each jaw. Large curved canine on each side at rear of upper jaw. Teeth on roof of mouth. Lateral line smoothly curved. Scales extending onto bases of dorsal and anal fins. On mid side of the head, scales reaching forward in advance of posterior extent of eye and reaching only forward of corner of mouth. Scales on cheek and opercle. Colour: pink colour in general, jaws blue. Body sides with two hazy broad blotches, one under the hard part of the dorsal fin and the other under the soft part, with an additional darker blotch passing through eye on head (Fig. 1).

The giant hogfish, *B. macrognathos* is distributed in the western Indian Ocean from Kenya (Froese & Pauly 2014) to Somalia (Sommer et al. 1996) and the Arabian Sea (Manilo & Bogorodsky 2003) and to the Gulf of Oman (Randall 1995). It was recorded for the first time by Morris (1974) from off Kanyika Island, Kenya. *B. anthioides* dif-

fers from this species in having 14 branched pectoral fin rays (15 in *B. macrognathos*); scales covering top of head and reaching forward in advance of anterior nostril; pored lateral line scales 29 or 30 (40 or 41 in *B. macrognathos*); angled black stripes following upper and lower margins of caudal fin extending forward onto sides; body bicolored, red anteriorly and white posteriorly, with the areas separated by a diagonal black line. *B. bilunulatus* has pointed head, branched pectoral-fin rays 14 (rarely 15); *B. macrourus* has pointed head, pored lateral-line scales-30 to 32, band preceded by a distinct white bar dorsally on side in young individuals. *B. perditio* has pointed head, pored lateral-line scales 30 or 31, a prominent black spot or smudge situated posteriorly just below dorsal fin. The remaining species of *Bodianus* differ in lacking the lobe-like extensions at the corners of caudal fin and having a distinctly pointed snout at all sizes.

The nearest records to the one at hand are those of Randall (1995) from the Gulf of Oman and the Arabian Sea coast of Oman and of Manilo & Bogorodsky (2003) from the southern coast of

Oman. There is no record of this species from the Arabian Gulf area (Froese & Pauly 2014). The present record extends its range to the northwest, to the Arabian Gulf.

The size of the specimens in the present study is much smaller than that given by Randall (1995), but larger than that reported by Froese & Pauly (2014) (Table 1).

*Coris nigrotaenia* is characterized as follows. Elongated, compressed body. Convex dorsal profile of head. Jaws forward-projecting with conical teeth. Smooth and thin lips. Short, broadly rounded tongue. Suborbital pores rimming eyes. Lateral line continuous, rising steeply at its anterior end. Head naked except for small scales on nape. Fins naked, except for small scales on base of caudal fin. Origin of dorsal fin above second lateral-line scale. Caudal fin truncated to slightly round. Pectoral fin broad with rounded tip. Origin of pelvic fins below centre of base of pectoral fins. Colour: body dark bluish green with a lighter blue spot on centre of each scale. Light blue spots on dorsal fin, but spots formed into lines on anal and caudal fins. Narrow bands surrounding eye. Black bar under the first third of dorsal fin. Lower jaw lighter in color than rest of body.

The blackbar *coris*, *C. nigrotaenia* has so far been reported only from the Gulf of Oman (Mee & Hare 1995) and the Arabian Sea coast of Oman (Randall 1995; Manilo & Bogorodsky 2003).

*C. nigrotaenia* differs from any known *Coris* in having a unique body coloration. Several adult *Coris* have vertically elongated bars in the same general location as *C. nigrotaenia*, but these bars are light, not dark, as in *C. africana* and *C. aygula*. *C. aurilineata*, *C. caudimacula*, *C. pictoides*, and *C. variegata* all have lateral line scale counts which fall in the range of *C. nigrotaenia*, but all are small species with greatly dissimilar color patterns (Mee & Hare 1995).

The only record near the area where the present specimens were caught is the Arabian Sea coast of Oman, northwestern Indian Ocean (Randall 1995). The record from the Gulf of Oman seems to be anecdotal (Mee & Hare 1995). This record extends its range to the northwest of the Arabian Gulf area where it is considered a new record to this area and to the Iraqi marine waters.

Randall (1995) suggested that the largest specimen of this species is 435 mm in total length. The length of our specimens is smaller than the size given by Randall (1995) (Table 1).

*Bothus pantherinus* has the following set of

characters. Oval, flat body. Convex upper profile of head. Both eyes on left side, separated by a wide space. Upper jaw ending below front edge of lower eye. Two rows of teeth in both jaws. Pelvic fin base of blind side much shorter than that of eye side. Ctenoid scales on eye side. Brown on eye side, with paler and darker markings. Large, dark blotch midway along straight part of lateral line.

The leopard flounder, *B. pantherinus* is distributed in the Indo-Pacific region from the Red Sea and the Arabian Gulf to the Hawaiian, Marquesan, and Society islands, north to southern Japan, south to Lord Howe Island.

*B. mancus* differs from this species in having 9 to 11 rakers on lower limb of first gill arch (6 to 8 in *B. pantherinus*) and upper profile of head concave. *B. myriaster* has cycloid scales on eyed side, and ctenoid on edges of body (all scales on eyed side in *B. pantherinus* are ctenoid) (Fischer & Bianchi 1984).

Fischer & Bianchi (1984) did not report it from the Arabian Gulf, while Carpenter et al. (1997) listed it as present on the western coast. Froese & Pauly (2014) reported it from Bahrain only. Randall (1995) does not mention where exactly he obtained the specimen from Oman. The present record is considered a confirmation of its presence in the Arabian Gulf waters and a new record for the Iraqi waters.

The range of the total length obtained in the present study for this species is larger than that given by Amaoka et al. (1974) (86-187 mm) for specimens collected from Seychelles, but it is smaller than the one given by Randall (1995) (300 mm TL) (Table 1).

It is premature to assess whether the populations of the three species studied in the present work are represented by only a few visitors, or whether these specimens are part of a well-established population hitherto undetected, probably due to a lack of ichthyological expeditions and fishery surveys. Thus, there is a need to further investigate the frequency of their occurrence and to study their biological characteristics in order to determine whether any sustainable populations have been established in this new region.

The three species had never before been recorded in the fish fauna literature of the Iraqi coast of the Gulf (Mehdi & George 1969, Mehdi 1971, Hussain et al. 1988). This first documentation of their occurrence in the study area indicates a significant extension of their previously known dis-

tribution.

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