First Record of Strongspine Silver-Biddy *Gerres longirostris* (Lacepède, 1801) (Pisces: Gerreidae) from Iraqi Marine Territorial Waters

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Abstract. Seven specimens of strongspine silver-biddy *Gerres longirostris* (Lacepède, 1801) were collected from marine territorial water of Iraq near Khor Al-Ummiah during December 2012 and February 2013. Meristic and morphometric characters expressed as percentage of standard length of this species was given. This species is easy distinguished from other two gerreid [*G. filamentosus* Cuvier, 1829 and *G. oyena* (Forsskål)] known from Iraq by absence of an elongated second dorsal spine and having less percentage of body depth to standard length in the former (33-37.8 in compared to 42.9-51.4) and from *G. oyena* by having both higher counts of pored lateral line scales (44-46 in compared to 35-39) and higher number of scale rows above lateral line (6-7.5 in compared to 4.5-5.5). The present records bring the total number of *Gerres* species in Iraq to three species.

Key words: *Gerres longirostris*, Gerreidae, marine fish, first record, Iraq.

Introduction

Member of the family Gerreidae small to medium-sized fishes, mouth strongly protractile downwards when extended, acute teeth in both jaws, 9-11 dorsal spines in the Genus *Gerres* (12-18 in other genera of Gerreidae), first dorsal and anal spines very short**,** pelvic fin with 1 spine and 5 rays. Pectoral fins long and pointed. Scale large and obvious (13).

Adults of *G. longirostris* often found in clear coastal waters up to about 50m depth; Juveniles often occur in estuaries or lagoons influenced by fresh water, prefers shallow waters over sandy bottoms, from coral reefs to brackish waters, Occurs singly or in groups (3). Sivasubramaniam and Ibrahim (12) studied fishes of Qatar and reported *G. filamentosus* Cuvier and *G. oyena* (Forsskål). Kuronuma and Abe (9) during their extensive surveyed in the Arabian Gulf they found only two species of member of Gerreidae, *G. filamentosus* and *G. oyena*. Al-Baharna (1) edited a survey of fishes of Bahrain and carried out *G. argyreus* (Forster,1801), *G. filamentosus*, *G. oyena* and *Pentaprion longimanus* (Cantour). Carpenter *et al.* (2) listed *Gerres acinaces* Bleeker, *G. filamentosus*, *G. oyena* and *Pentaprion longimanus* in Arabian Gulf and the Gulf of Oman.

In Iraq the works on recording the species of Gerreidae was very rare. Khalaf (8) and Mahdi (10) reported *G. punctatus* Cuvier, 1830 (now *G. filamentosus*). Recently Mohamed *et al*. (11) found two specimens of *G. oyena* from Hamdan and Fao stations along of Shatt Al-Arab River.

During extensive surveyed of marine fish species within territorial water of Iraq, one species from family Gerreidae is record for the first time in Iraq and give a morphometric and meristic characters, which distinguished this species from other two species found in the region.

Materials and Methods

Seven specimens of silver-biddy *Gerres longirostris* (Lacepede, 1801) were collected from marine territorial water of Iraq near Khor Al-Ummiah during December 2012 and February 2013. Fish were caught with trawl net. Fixed and preserved in 10% formalin. Counts and measurements follow Iwatsuki *et al.* (7). All measurement in millimeter. Common and scientific name of the fish follow Froese and Pauly (3). The specimens are deposited in the Department of Fisheries and Marine resources, College of Agriculture, Basrah University.

Results and Discussion

Five specimens of *G. longirostris* 220-265 mm in standard length were collected in December 2012 and two specimens 180-190 mm caught in February 2013 from Khor Al-Ummiah, marine territorial waters, Iraq.

Description: Counts and measurements of all specimens summarized in table 1.

Slender body, compressed, anterodorsal finely convex, ascending at angle of about 40° to horizontal axis, weakly concave profile above eye. Snout length less than eye diameter (Plate. 1A). Predorsal length less than dorsal fin base length. Pectoral fin length longer than head length. Tip of it reach at level of first dorsal spine. first dorsal and anal spines very short, second dorsal spine longer than the rest of dorsal spines, while the third anal spine longer than rest of anal spines. Caudal fin deeply forked. Gill rakers 5,1,7 or 6, 1, 7 in the upper, angle and lower parts of arch respectively (Plate 1B). Gill rakers in the upper limb shorter than that on the lower once (Plate 1B). Fresh specimens have silvery body with yellow pelvic and spinous part of anal fins. Pale orange of most part of pectoral fin. Darken posterior margin of caudal fin. 7-9 column of dark ovoid spots on sides below of lateral lines (Plate. 1A).

Remarks: *Gerres longirostris* still for considered time have been uncertain taxonomic status (13; 6), Iwatsuki and Kimura (5) had earlier shown *G. longirostris* Günther, 1861 from South Africa to be a secondary homony of *Labrus longirostris* Lacepède, 1801. Iwatsuki *et al*. (7) redescribed *G. longirostris* as valid species with designation of neotype from Madagascar, Indian ocean. In that study *G. brittannus* (Lacepède, 1802), *G. poieti* Cuvier, 1829 and *G. acinaces* Bleeker, 1854 all considered senior synonym of *G. longirostris*. Both two species (*G. poieti* and *G. acinaces* Bleeker, 1854) have long been considered valid (see Woodland, 13 for two recent species; see Carpenter *et al*., 2 for the latter species).

On the basis of meristic and morphometric data and colour characters four nominal species *G. lineolatus* Playfair in Playfair and Günther, 1867, *G. longicaudus* Alleyne

and Macleay, 1876, *G. ruppellii* Klunzinger, 1884 and *G. darnleyense* Ogilby, 1913 were also considered junior synonyms of *G. longirostris* (7). Iwatsuki *et al*. (7) confirmed *G. oblongus* Cuvier in Cuvier and Valenciennes, 1830 as valid species based on lectotype and the two species *G. macrosoma* Bleeker, 1854 and *G. gigas* Günther, 1862 are junior synonyms of *G. oblongus*. In the same study *G. longirostris* and *G. oblongus* designed in the " *G. longirostris* complex".

The seven specimens of present study caught in Iraqi marine territorial waters during the winter have larger standard length than that of Iwatsuki *et al*. (7) (180-260 mm in compared to 92-171 mm from Madagascar, Indian ocean). Although extensive surveyed of Kuronuma and Abe (9) in the most parts of Arabian Gulf did not found *G. longirostris* or its synonyms, and a few specimens caught in this study and in the limited time (Winter), which considered the first time in Iraqi marine waters, suggest this species may occurrence in few population and in a short time of the year, and may support the result of Grandcourt *et al*. (4) when studied population dynamics and reproductive biology of *G. longirostris* in off the coast of the Emirate of Abu Dhabi in the United Arab Emirate appears that even short-lived, fast-growing tropical species with high rate of natural mortality should have conservative harvest rates. Sivasubramaniam and Ibrahim (12) showed the photograph of specimen identified as *G. oyena* and provided a few morphometric in their book; Because the specimen have broader body and higher count of pored lateral scale line and unique shape of head and presence of seven longitudinal rows of dark spots bellow lateral line aware in compared to *G. oyena*, hence record of Sivasubramaniam and Ibrahim (12) was misidentification *G. longirostris* with *G. oyena*.

After this record bring the total number of *Gerres* species in Iraq to three species. This species is easy distinguished from other two gerreid [*G. filamentosus* Cuvier, 1829 and *G. oyena* (Forsskål)] known from Iraq by absence of an elongated second dorsal spine and having less percentage of body depth to standard length in the former (33-37.8 in compared to 42.9-51.4) and from *G. oyena* by having both higher counts of pored lateral line scales (44-46 in compared to 35-39) and number of scale rows above lateral line (6-7.5 in compared to 4.5-5.5).

Table 1. Meristic and proportional measurements of the *Gerres longirostris* expressed as percentage of standard length.

Serial number of specimen	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Dorsal fin rays	9+10	9+10	9+10	9+10	9+10	9+10	9+10
Anal fin rays	3+7	3+7	3+7	3+7	3+7	3+7	3+7
Pectoral fin rays	1+15	1+15	1+15	1+15	1+15	1+15	1+15
Pored lateral line scales	45	45	46	46	46	44	44
Scale above/below lateral line	6/11.5	6.5/11	7.5/11	7.5/11	7.5/12	7/11	7/11
Scale between 5th dorsal spine to lateral line	6.5	6.5	6.5	6	6.5	5	5
Gill rakers	5,1,7	5,1,7	6,1,12	6,1,7	6,1,7	5,1,7	5,1,7
Standard length	265	220	220	230	228	180	190
Body depth	36.6	36.18	35.45	33.04	36	37.8	36.1
Body depth at first anal fin spine base	28.9	29.54	29.54	29.47	30.4	32.6	31.8
Head length	32	32.86	31.59	30.87	30.3	34.1	32.2
Body width at pectoral fin base	14	15.45	12.54	16.39	15.8	15.2	14.2
Snout length	11.8	10.45	9.36	11.13	10	11.1	10.9
Orbit diameter	8.86	10.31	9.36	8.86	8.28	10.1	10.2
Dermal eye opening	6.41	6.95	11.18	7.13	7.45	9.11	9.01
Bony interorbital width	10.8	10.45	11.18	10	10.7	11.4	12.2
Upper jaw length	11.47	11.27	11.72	11.17	15.7	12.7	12.2
Caudal peduncle depth	16.3	15.9	14.5	14.43	15.7	14.8	15.9
Caudal peduncle length	19.6	19.9	20.18	20.3	22.2	21.6	22.3
Predorsal length	43.6	43.22	42.95	42	40.2	45.1	42.6
Preanal length	65.7	68.45	69.54	67.13	66.8	70.4	67.8
Prepelevic length	37	34.77	36.68	36.78	34.3	38.9	40
Dorsal fin base	47.8	47.36	50.63	48.21	47.5	50.2	47.2
Anal fin base	15.5	16.04	16.04	14.74	15.5	16.2	14.7
Caudal fin length	30.5	30.63	30.45	28.26	30.3	31.3	35.6
Pelvic fin spine	12.9	13.18	13.5	13.17	13.9	15.2	14.6
First pelvic fin ray	15.8	16.54	16.95	15.82	16.7	18.2	17.3
Longest pectoral fin ray	35.7	35.9	36.54	33.08	34.5	36.4	37.7
First dorsal fin spine	2.34	broken	2.33	2.13	2.28	2.85	2.17
2nd dorsal fin spine	18.1	18.27	20.22	18.4	18.5	22	21.7
3rd dorsal fin spine	15.2	15.9	17.04	15.47	16.7	16.5	19.9
1st dorsal fin ray	11.1	9.54	11.6	11.13	9.47	11.9	11.8
1st anal fin spine	2.22	2.27	1.68	2.08	1.97	2.44	2.15
2nd anal fin spine	12.2	11.81	11.59	9.47	11.1	11.8	12.4
3rd anal fin spine	10.8	11.59	9.86	9.43	9.51	broken	10.7
1st anal fin ray	9.81	10.1	9.27	8.65	8.99	9.91	10.4

Plate 1. *Gerres longirostris*: (A) Fresh specimen (B) First gill arch to explain number and arrangement of gill rakers.

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أول تسجيل لسمكة البدح الفضي قوي الشوكة *Gerres longirostris* (Lacepède, 1801) (أسماك: عائلة جيريدي) من المياه البحرية الاقليمية العراقية

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الخلاصة. جمعت سبعة نماذج من سمكة البدح الفضي قوي الشوكة *Gerres longirostris* (Lacepède, 1801) من المياه البحرية الأقليمية العراقية قرب خور العمية خلال كانون الأول 2012 وشباط 2013. اعطيت الصفات العددية والمظهرية والموضحة كنسبة مئوية من الطول القياسي لهذه السمكة. يمكن تمييز هذا النوع من الأسماك بسهولة عن النوعين المعروفيين من نفس العائلة في العراق (*G. filamentosus* Cuvier,1829 و *G. oyena* (Forsskål) بغياب الشوكة الظهرية الثانية المتطاولة وصغر نسبة عمق الجسم الى الطول القياسي عن النوع الاول (33–37.8 مقارنةً ب 42.9–51.4)، وعن النوع *G. oyena* بامتلاكه لعدد اكبر من حراشف الخط الجانبي (44–46 مقارنةً ب 35–39) ولعدد اكبر من صفوف الحراشف فوق الخط الجانبي (6–7.5 مقارنةً ب 4.5–5.5).