

**LIZA ABU (HECKEL, 1843) (PISCES: MUGILIDAE):
A NEW RECORD FROM KHOR AL-ZUBAIR,
NORTH-WEST OF THE ARABIAN GULF**

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ABSTRACT

Thirteen adult specimens of Kishni, *Liza abu* collected from Khor Al-Zubair were studied for meristic characters and some aspects of their biology. The capture of specimens of this species in November 1986 and January/February 1987 was the first record of occurrence of Kishni in Iraqi marine waters, North-West of the Arabian Gulf.

Key-words: *Liza abu*, Mugilidae, Pisces, Arabian Gulf.

Liza abu, locally known as "Kishni" is of economic importance as a source of protein. The first record of *L. abu* was that by Heckel (1843) who reported the species in Syria. Later it was recorded in Iraqi freshwater systems such as Tigris river, Euphrates river and their tributaries, Al-Hammar marsh, Shatt Al-Arab and Shatt Al-Basrah canal (Khalaf, 1961; Mahdi, 1962; Al-Nasiri and Hoda, 1975; Al-Daham, 1984; Wahab, 1986).

The fishes were collected from shallow water in the Khor Al-Zubair on 23 November 1986 and 1, January & February 1987 and is the first record from the area. This area is a north-western extension of the Arabian Gulf and situated on the south-west of Basrah province, Iraq (approx. 30°00'-30°20' N and 47°45'-48°E). It is an estuarine, lagoonal environment about 40 km long with an area of 60 km² covered by water at high tide during spring tide. Recently an artificial waterway (Shatt Al-Basrah) was constructed connecting the Khor Al-Zubair to the Hor Al-Hammar which is the largest marsh in Iraq. A brief description and a list of the fauna of this region has been given by Nasir (1987).

Specimens were collected by using 2 m beam trawl at low tide at depths ranging from 0.4 to 1.5 m. Measurements of fish length and weight to the nearest millimetre and 0.01 of a gram respectively were used. Meristic data was recorded following Khalaf (1961). The last ray of anal fin, though double was counted as one. Sex was determined and the weight of the gonad was expressed as a percentage of the body weight. Stomachs were dissected and kept in 10% neutral formaline for feeding analysis. Temperature, pH and salinity were measured during the sampling.

Description: D₁ V1; D₂ 1+7; A: 111+8; P: 14-15. Total length 114-190 mm; Standard length 92-159 mm; In percentages of standard length, body depth 27.34-31.43 (mean 29.20); Head length 23.40-25.00 (mean 24.00);

Preorbital length 4.22-5.76 (mean 4.93), Interorbital length 10.85-12.39 (mean 11.36), Eye diameter 5.14-7.70 (mean 6.26) and Predorsal length 42.85-46.66 (mean 45.04).

Body moderately robust; head wide, dorsally flattened. Fatty (adipose) tissue extends partly over iris; lips thin lower lip with a high symphyseal knob; Hind end of upper jaw teeth absent on roof of mouth; Preorbital bone slender, filling the space between lip and eye, slightly notched. First dorsal fin origin nearer to snout tip than to caudal fin base; second dorsal fin origin on vertical through end of anterior third of anal fin base; Pectoral axillary scale rudimentary; pectoral fin reaching vertical through first dorsal fin origin; anal fin with 3 spines and 8 to 10 soft rays; second dorsal and anal fins lightly scaled anteriorly and long base. Scales in lateral series 44 to 50.

Colour pattern: Grayish above, silvery below, somewhat indistinct silvery and longitudinal lines; Second dorsal and caudal fin dusky; Posterior margin of caudal, dark.

The temperature, pH and salinity in Khor Al-Zubair ranged from 12 to 16°C, 7.55 to 8.03 and 15.9 to 17.0 ppt respectively. Measurements by Dawood (1986) from Al-Hammar marsh recorded salinities of 1.0 to 4.7 ppt during the year where *L. abu* occurred. Wahab (1986) stated that *L. abu* in the Shatt Al-Basrah canal lived at a salinity range of 1.0 to 3.5 ppt. It may be suggested from these differences in the salinity regime that *L. abu* can tolerate the salinity variations as was indeed concluded by Beckman (1962). However this contrasts Wahab's (1986) postulation that *L. abu* is stenohaline.

Feeding: The stomach contents of *L. abu* consisted exclusively of diatoms and detritus. The diatom species were: *Amphora ventricosa*, *Campyloneis* sp., *Caloneis* sp., *Cocconeis* sp., *Coscinodiscus accentricus*, *C. radiatus*, *C. sp.*, *Cyclotella* sp., *Diploneis smithii*, *D. sp.*, *Gomphonema* sp., *Gyrosigma* sp.1, *G. sp.2*, *Hantzschia* sp., *Navicula* sp., *Nitzschia acuminata*, *N. navicularis*, *N. sp.* *Pinnularia* sp. *Surirella gemma*, *S. ovata*, *S. striata*. *Gyrosigma* spp. formed a significant part of the diatoms and was eaten in fairly large quantities among the twenty two species. *Nitzschia* spp. ranked next in importance. *Surirella* individuals such as a *S. ovata* and *S. striata* were however of minor importance.

Sex: Ten females and three males were caught. Maturing, ripe and running maturity stages were recorded for the females while only the ripe and running stages were observed in the males. Gonado-somatic index ranged from 5.15 to 14.74 (mean 10.10, 3.60) and 9.39 to 14.64 (mean 11.86, 2.22) was recorded for females and males respectively.

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