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Short Communication: New records of Leucosiid crabs *Lyphira perplexa* Galil, 2009 (Crustacea; Decapoda; Leucosiidae) in the northwest of the Arabian Gulf, Iraq

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Abstract. *Al-Maliky THY. 2020. Short Communication: New records of Leucosiid crabs* Lyphira perplexa *Galil, 2009 (Crustacea; Decapoda; Leucosiidae) in the northwest of the Arabian Gulf, Iraq. Ocean Life 4: 1-3.* The present study reports the occurrence of one leucosiid crabs species *Lyphira perplexa Galil*, 2009 from Iraqi coast, Northwest of the Arabian Gulf. Considered, This was recording of crab for first time from the Iraqi waters and the Arabian Gulf. Previously, *L. perplexa* described from various sites in the Arabian Gulf. Taxonomic morphological details of the specie described and clarified are given here, The carapace is carried granules close to its dorsal surface, while the hepatic and the branchial are carries granules slightly larger, and in behind front were granules irregularly beaded cumference in behind front, different in size.

Keywords: Arabian Gulf, Crustacea, Leucosiidae, *Lyphira perplexa*

INTRODUCTION

The Genus *Lyphira* crab was of importance in both coastal biological diversity and artisanal fisheries of all coastal countries, including Iraq and so far research is continuing to records species affiliated with it. The family Leucosiidae of crab are common faunal of littoral and sublittoral smooth sediment habitats and are more diverse of all brachyuran families (Sudharma et al. 2014). In recent years, interest has been in recording crustaceans, especially crab of Brachyura, in the Iraqi coast from the Arabian Gulf (Al Khafaji et al. 2017; Al Khafaji and Al Maliky, 2019), also Maliky and Al-Maliky recorded *Lyphira heterograna* (Ortmann, 1892) one of the types of this family, in the preparation. Recorded *Lyphira perplexa* and *Acrania erinacea* in the Gulf Arabian waters by Ebadi et al. (2018). And Sudharma et al. (2014) they recorded *L. perplexa* crab in Indian waters.

This report the first record of *L. perplexa* from the northwest of the Arabian Gulf.

MATERIALS AND METHODS

A total of eight specimens (four males and four females) of *L. perplexa* crab was investigated and revised during the present study. Samples were collected from the waters of the Iraqi coast in the northwest of the Arabian Gulf by using trawl fishing: N29°53'35.9736", E48°35'28.9212", in-depth between 6-13 m (Figure 1). The collected specimens were immediately preserved in 70-80% Alcohol. The diagnosis this crab in the laboratory, Department Marine Biology, Marine Science Center (MSC), University of Basrah, Iraq.

The collected and examined specimens were photographed and identified according to keys of Galil (2009) and Ebadi et al. (2018). All the measurements were taken in mm. Abbreviations: CW: carapace width; CL: carapace length; Male G1: first left gonopods, Coll.: collector.

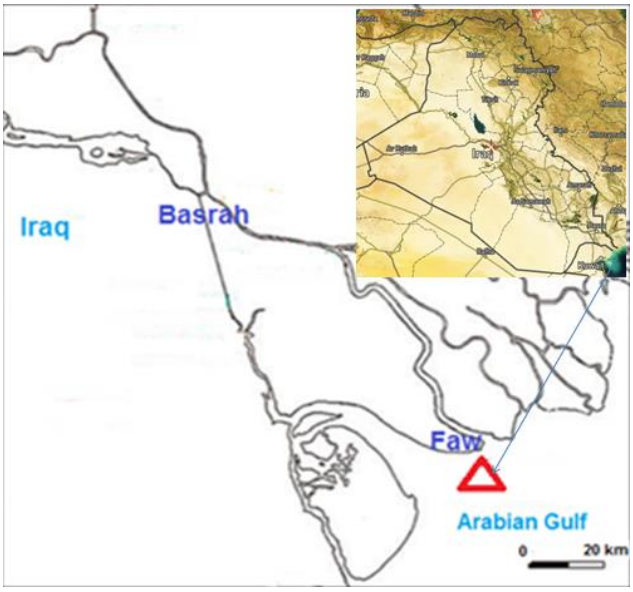

Figure 1. Map representing the occurrence of *Lyphira perplexa* on northwest of the Arabian Gulf

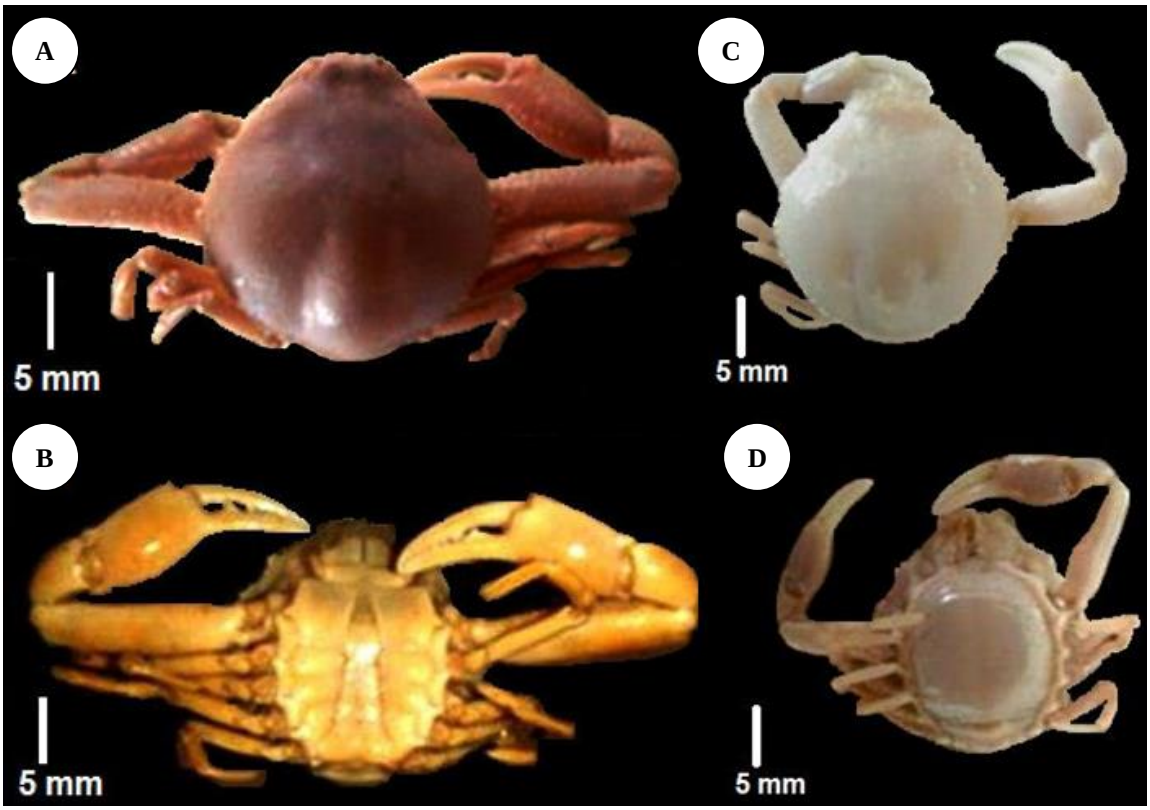

Figure 2. *Lyphira perplexa*: A, B, ♂ ; C, D, ♀. Scales:5 mm.

Figure 3. *Lyphira perplexa*: first male G1. Scales:2 mm

RESULTS AND DISCUSSION

Identification
Systematic accounts
Order: Decapoda Latreille, 1802
Family: Leucosiidae Samouelle, 1819
Subfamily: Philyrinae Rathbun, 1937
Genus *Lyphira* Galil, 2009
Species *Lyphira perplexa* Galil, 2009
(Figures 2.A-D)

Only first in male abdominal segment of articulate, and transversely yoke-shaped; first pleopod plain, as Second-6th abdominal segments of bearing abdominal denticle, while Apical process of first pleopod flattened, squat, also, carapace taller than cheliped merus (Galil, 2009).

Examined material

Coll. AL-Maliky,four ♂♂♂♂, CL 23.48, 19.64, 18.32, 17.80; CB 22.20, 19.25, 17.78, 17.53 mm; four ♀♀♀♀, CL 18.95, 16.99, 16.76, 16.62 mm; CB 18.42, 15.66, 16.19, 16.36 mm, (MSC).

Diagnosis

The carapace is carried granules close to its dorsal surface (Figure 2.A), while the hepatic and the branchial are carries granules slightly larger, and in behind front were granules irregularly beaded cumference in behind front,

different in size. And granules of minutely in both the frontal margin from carapace and external maxillipeds. Anterior margin of epistome is mindless. Pterygostomian region is prominently granulated. Anterior margin of abdominal sulcus in both male and female with prominently granulate (Figure 2.B, 2.D). Fused male abdominal segments 2-6 carry granular basal knots separated by concave. The margins of the abdominal segments are fused in the granules of the female, in which the granules of the regions are prominent (Figure 2.C, 2.D). Carpus with a row of granules on the inner margin; a piece of the granules are extremely fine on the upper margin.

The upper and lower surfaces of the propodus, as well as the lower conical granules with an inner surface. Grooved fingers, the most prominent granulation on the outer margins; the inner margin of polyex with a triangular dental margin. Male granulation more than female. G1 long with long hair in the apical portion of Gonopod, Its tip is hairless with a large, pointed opening (Figure 3).

Remarks

Lyphira perplexa (Galil, 2009) can be easily distinguished and diagnosed from other types of Leucosiidae found in the waters of the Arabian Gulf. *L. perplexa* can be diagnosed from *Lyphira heterograna* by its smaller granules size on surface and margin of carapace. The present specimen represents the new record of the specie L. perplexa its distribution range in the Arabian Gulf, Iraq.

Distribution

It spreads on the Indian and Pakistani coasts, the Gulf of Oman and in the Iranian and Kuwaiti coasts and in the current study on the Iraqi coast of the Arabian Gulf.

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REFERENCE

Al-Khafaji KK, Al-Maliky THY, Al-Maliky AMJ. 2019. First record of the crab, *Droippe quadridens* (Fabricius, 1793) (Brachyura: Dorippidae), from the Iraqi coastal waters of the NW Arabian Gulf, with notes on the occurrence of seven species of crabs in the region. Arthropods 8 (4): 118-126.

Al-Khafaji KK, Al-Waeli AA, Al-Maliky TH. 2017. New records of xanthid crabs *Atergatis roseus* (Rüppell, 1830) (Crustacea: Decapoda: Brachyura) from Iraqi coast, south of Basrah city, Iraq. Arthropods 6 (2): 54-58.

Ebadi Z, Dostanesh B, Sokhai N, Ghanemi K. 2018. Distribution and Morphology of Crabs Leucosiidae and Xanthidae province In the tidal waters of the coast of Khuzestan (Persian Gulf). Oceanography 30: 19-28.

Galil BS. 2009. An examination of the genus *Philyra* Leach, 1817 (Crustacea, Decapoda, Leucosiidae) with descriptions of seven new genera and six new species. Zoosystema 31 (2): 279-320.

Sudharma JS, Sayd M, Narayannane S, Kumar-U S, Sayd AJ, Narayanan SV. 2014. First record of the *Liphyra perplexa* (Crustacea: Decapoda: Leucosidae) in Indian waters, with DNA barcoding data. J Biol Environ Sci 4 (5): 25-37.