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A NEW RECORD OF THE SNAPPING SHRIMP, *ALPHEUS LOBIDENS,* FROM THE IRAQI COAST (MALACOSTRACA, DECAPODA, ALPHEIDAE)

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A New Record of the Snapping Shrimp, *Alpheus lobidens*, from the Iraqi coast (Malacostraca, Decapoda, Alpheidae). Yasser, A. Gh. & Naser, M. D. — Based on newly collected material from the Iraqi coast, the status of the common intertidal snapping shrimp, *Alpheus lobidens* De Haan, 1849 species complex, is discussed. Based on several morphological characteristics as well as the color pattern, the material examined herein strongly supports the validity of *A. lobidens*.
Key words: species complex, color pattern, morphological characteristics.

Introduction

Dehghani et al. (2019 a) identified 35 species of the snapping shrimp genus *Alpheus* Fabricius, 1798 in their most current checklist, including three species from Iran that were also described by the same authors. This indicates that the genus is rather well represented in the Arabian-Persian Gulf (Dehghani et al., 2019 b). Three additional species were added to that list by Ashrafi et al. (2020). In fact, Abu-Musa Island and the biologically diversified Qeshm Island, both of which are close to the Strait of Hormuz, account for the majority of the Gulf records of *Alpheus* and other snapping shrimps (Naderloo et al., 2013; Dehghani et al., 2019 a; Ashrafi et al., 2020). Due in part to poor sample attempts along the coasts of the United Arab Emirates, Bahrain, Qatar, Saudi Arabia, Kuwait and Iraq, the alpheid variety of the western side of the Gulf appears to be significantly less well-documented (De Grave & Ashelby, 2011). Iraq's snapping shrimps are still not well recognized, with only one species report being misidentified as *Alpheus edwardsii* (Audouin, 1826) (Al-Malikey et al., 2018).

Our team organized a general marine macro-invertebrate study between 2020 and 2021 in number of (5) locations along the Iraqi coast, including a more recent ecological survey of Khor Al-Zubair. The authors added to this survey in December 2021 by conducting further sampling throughout the Iraqi coastline with a focus on alpheid and other caridean shrimps.

The current study, which used samples from Iraq, clarifies the taxonomic status of *Alpheus lobidens* De Haan, 1849, which was previously confused with a species from the taxonomically troublesome *Alpheus edwardsii* (Audouin, 1826) species complex that is here tentatively referred to as *A.* cf. *lobidens*.

Material and Methods

The specimens were collected from different parts of the northwest of the Persian-Arabian coast (fig. 1).

Fao site1 — 29.894584° N,48.630582° E, silty/muddy, temperature 21° C, salinity: 33 ppt, 3.04.2020;

Fao sit2 breakwaters — 29.898430° N, 48.499663° E, rocky, temperature 26° C, salinity: 35 ppt, 16.05.2021;

Khor Abdullah — 29.907877° N, 48.398548° E, silty/muddy, temperature 27.5° C, salinity: 32 ppt, 22.07.2021;

Khor Al-Zubair — 30.216991° N, 47.869591° E, silty, temperature 19° C, salinity: 32.5 ppt, 17.12.2021;

Shatt Al-Basrah Canal — 30.433019° N, 47.765053° E, stony, temperature 26° C, salinity: 23 ppt, 18.06.2020.

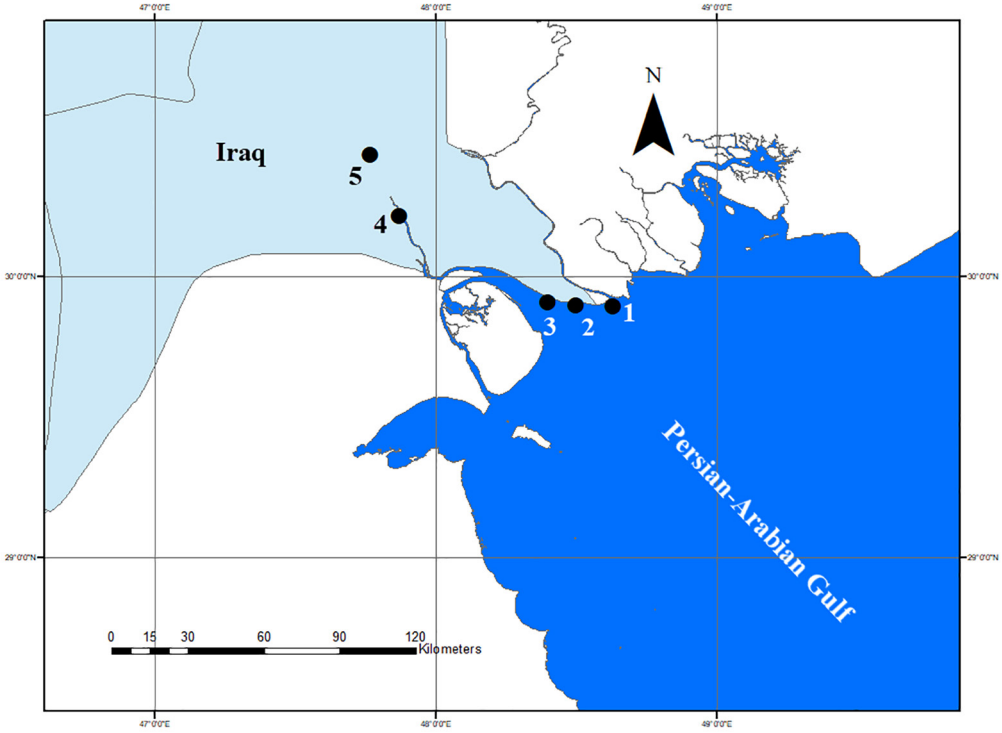

Fig. 1. Sampling site north west of the Persian-Arabian Gulf: 1 — Fao site1, 2 — Fao sit2 breakwaters, 3 — Khor Abdullah, 4 — Khor Al-Zubair and 5 — Shatt Al-Basrah Canal.

The material studied was deposited in the Marine Science Centre (MSC), University of Basrah, Iraq. The specimens were photographed with a digital camera, Model Nikon D7100. For identification Banner & Banner (1974) were followed.

Results

Description of some morphological characteristics of *Alpheus lobidens*.

Rostrum triangular, extending nearly to the end of the first antennular article. A large chela is 2.4 times as long as it is wide. Sharp distomesial tooth on the meri of the major and minor cheliped situated slightly below the distomesial angle. The male minor cheliped has noticeably slenderer merus. The color of the body is greenish-brown, with faint pale longitudinal stripes on the abdomen, brownish chela, and orange apically violet fingers on the larger chela (fig. 2).

Habitat. Muddy intertidal, estuaries, mangroves, rocky/cobble intertidal, typically under rocks and big pieces of coral rubble. Usually, this species can be found in the shallow subtidal, between 0 and 4 meters deep.

Distribution. Distribution. Indo-West Pacific: from Japan, Australia, and Hawaii to South Africa to Persian-Arabian Gulf and Gulf of Oman (Banner & Banner, 1981, Naderloo et al., 2015), and also occurs in the Eastern and Western Mediterranean (Cunha et al., 2020).

Remarks. *Alpheus lobidens* has a variety of color patterns and is currently a mysterious species. A detailed analysis of the morphology and observable differences in color pattern in this species is required. At least two species may now be distinguished from one another based on whether or not they have prominent black spots on the abdomen and major merus with a spine on it (Anker & De Grave, 2016, Anker et al., 2020). According

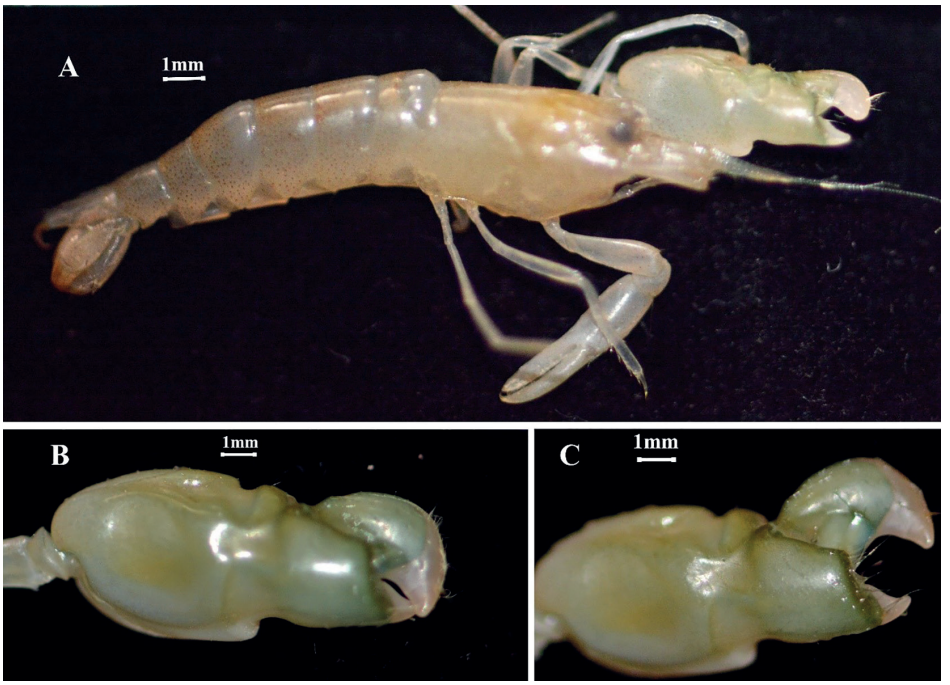

Fig. 2. *Alpheus* cf. *lobidens* De Haan, 1849: A — male from Iraqi coast, (MSC.233) lateral view; B — major chela of male, C — major chela of male, fingers opened to show the plunger. Photographs by M. D. Naser.

to Al-Maliky et al. (2017), *Alpheus edwardsii* (Audouin, 1826) was recorded in the Basrah region of Iraq, however, by checking the specimens photographed by them with low resolution (Al-Maliky et al., 2017: figs 2; 3, A), the dorsal shoulder of the major chela does not overflow the nearby transverse groove, and the main cheliped's merus appears to be equipped with a sharp distomesial tooth (Al-Maliky et al., 2017: fig. 3, B, D). So, Al-Maliky et al. (2017), mistakenly described *A. lobidens* as *A. edwardsii* from Shatt-Al-Basrah and Faw in Iraq, the Iraqi material can therefore be tentatively referred to as *A.* cf. *lobidens*.

Conflicts of interest

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

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