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A New Alien Crab from the Coast of Syria: *Matuta victor* (Fabricius, 1781) (Crustacea: Decapoda: Brachyura: Matutidae)

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□ ABSTRACT □

Eleven specimens of the moon crab *Matuta victor* (Fabricius, 1781) were recorded from the eastern coast of the Mediterranean Sea in Syria . The most adult specimens are males, one female only. They were recently collected by Fishermen from the coast of Tartus , Banias and Lattakia at about 8 to 12m deep. This lessepsian migrant is the first species from the family Matutidae reported in the Syrian water so far.

Keywords: Moon crab, *Matuta victor*; Mediterranean Sea; lessepsian crab; Matutidae; Syrian waters.

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نوع جديد ومهاجر من السرطانات البحرية في المياه الشاطئية السورية- *Matuta victor* (Fabricius, 1781) (Crustacea: Decapoda: Brachyura: Matutidae).

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ملخّص

تم جمع أحد عشر فرداً من القشري سرطان القمر *Matuta victor* (Fabricius, 1781) وسجل وجوده في الجزء الشرقي من البحر المتوسط من سورية. معظم العينات من الذكور ولم يسجل سوى أنثى واحدة. جمعت العينات من قبل صيادي الأسماك من شاطئ طرطوس وبانياس واللاذقية على أعماق من 8-12 متر. هذا النوع المهاجر عبر قناة السويس (ليسبسياني) من فصيلة Mututidae يسجل لأول مرة في المياه الشاطئية السورية.

الكلمات المفتاحية:
Mututidae ، سرطان القمر، البحر المتوسط ، سرطان مهاجر ليسبسياني، المياه الشاطئية السورية،

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Introduction

The fauna of the Mediterranean has undergone considerable changes through the course of its history. Certain

ly, geological and climatic changes have led to the vanishing of a large number of species, and yet also led to the emerging of another fauna. The present climate changes of the planet would be one cause of the faunistic changes in progress favoring the introduction of the species (Gómez & Claustre, 2003). Furthermore, the opening of the Suez Canal in 1869 has already led to a significant change in the fauna of the eastern Mediterranean which led to the colonization of the Mediterranean Sea by species of the Red Sea. A large number of crustaceans (mainly Decapoda) arrived in the Mediterranean, mainly from the Red Sea (and even from the Indo-Pacific) via the Suez Canal (Hasan, 2008).

The total number of species introduced into the Mediterranean Sea from the Northern Red Sea to be 300 species (Boudouresque, 2005). Of the 350 known Decapoda species in the Mediterranean, 59 were exotic species, 37 of which have successfully established populations in the Mediterranean (Galil *et al*., 2002). The number of Decapoda species introduced into the Mediterranean increased in 2008 to 66 species, 47 of which are present in the Levant Basin (Hasan, 2008, Hasan *et al*., 2008) Until 2013, the number of alien Brachyuran species recorded in the Mediterranean of Red Sea/Indo-Pacific origin is 39, belonging to 19 families (Galil, 2011; Zenetos *et al*., 2012; Karhan *et al.*,2013; Galil & Mendelson , 2013; Zaouali, *et al*., 2013). The lessepsian migration is continues, due to the yearly introduction of at least one new species to the Mediterranean. The coast of Syria, like the other coasts of the Levantine Basin, has favorable habitats and conditions for Decapoda species from the Red Sea. Thus, this paper presents the first record of the deep-water crab *Matuta victor* (Fabricius, 1781) (Crustacea; Decapoda; Matutidae) from the Mediterranean coast of Syria.

Materials and Methods

Specimens of ***Matuta victor*** were recorded from the eastern coast of the Mediterranean (Fig.1). The 10 adult specimens ♂♂, one ♀ were recently collected by fishing nets from the coast of Tartus , Banias and Lattakia in Syria at 8 to 12 m deep on a sandy bottom. Specimens were fixed and preserved in 70% ethyl alcohol. Moreover, the collected specimens fit the description given by (Galil & Clark ,1994), and were deposited in the collections of TISHREEN University in Lattakia, Syria.

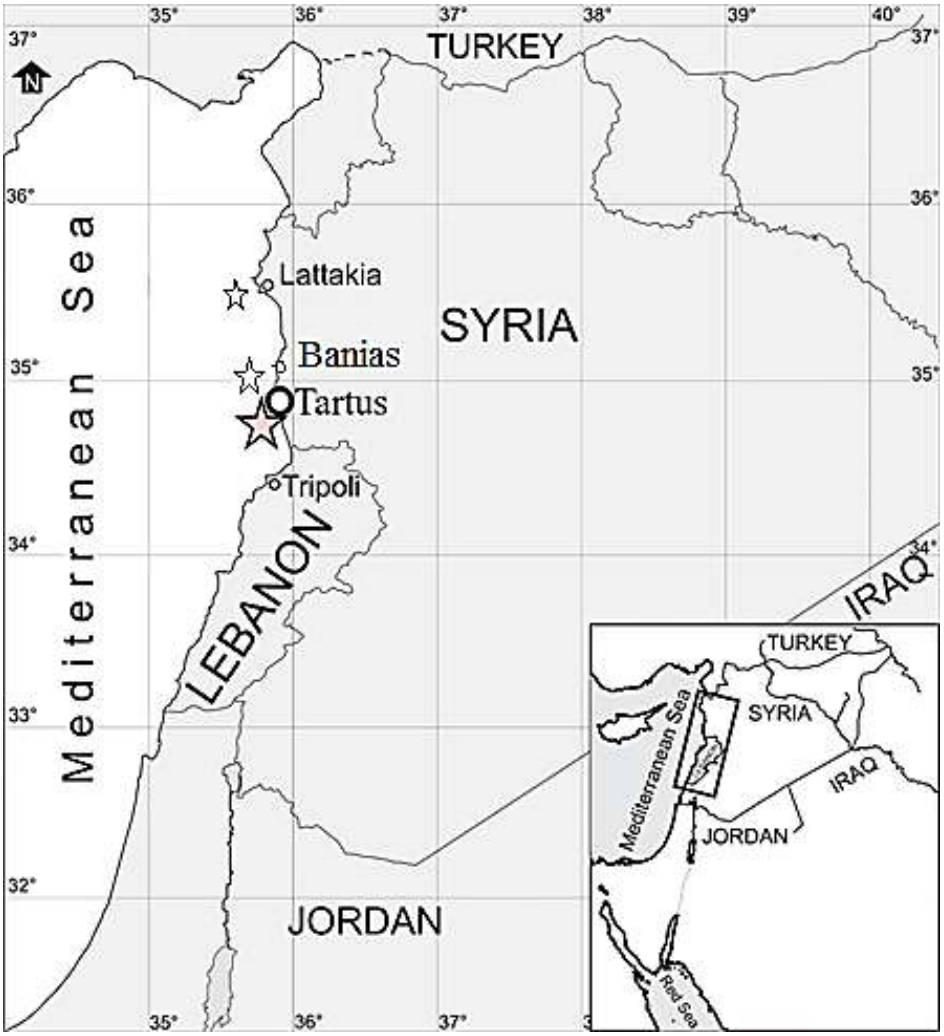

Fig.1. Map of the eastern Mediterranean coast, Tartus, Syria, showing location where specimens of *Matuta victor* (Fabricius, 1781) were collected.

Results

Family Matutidae De Haan, 1835

Matuta victor (Fabricius, 1781) (Malacostraca: Decapoda: Matutidae) (Fig. 2)

Material examined:

Tartus, banias and Latakkia of Syria, (23 February, 28 April, 4 May ,2017), Sandy bottom, 8 to 12 m depth, 10 specimens ♂♂,and one ♀ .(CL × CW = 21 x 31 mm and 18 × 25 mm) collected by Fishermen.

Distribution: *Matuta victor* species is widely distributed in the Gulf of Aden, Red Sea, Gulf of Oman, Arabian Sea, south and East Africa, Dar es Salaam, Madagascar, Comoro Is, Bay of Bengal, Madras and Malabar Coast, Malaysia, Indonesia, South China Sea, New Caledonia, Australia, New Hebrides (Galil & Clark, 1994). Two specimens of *Matuta victor* were recorded for the first time from the eastern coast of the Mediterranean in Haifa in 2012 (Galil & Mendelson, 2013) and frequent collection and

observation of this species in different locations has been recorded in Lebanon in 2012 (Batroun) and 2014 (Saida) (Crocetta *et al*., 2015). In 2015, a single specimen of M. victor was found at 2-3 m depth on a sandy bottom in the Gulf of Antalya, constituting the first record of this species in Turkey (Dailianis *et al*., 2016). Our **Eleven Specimens** from Tartus, Banias and Lattakia of Syria and other collections from the Mediterranean suggest a permanent establishment of *Matuta victor* in this sea.

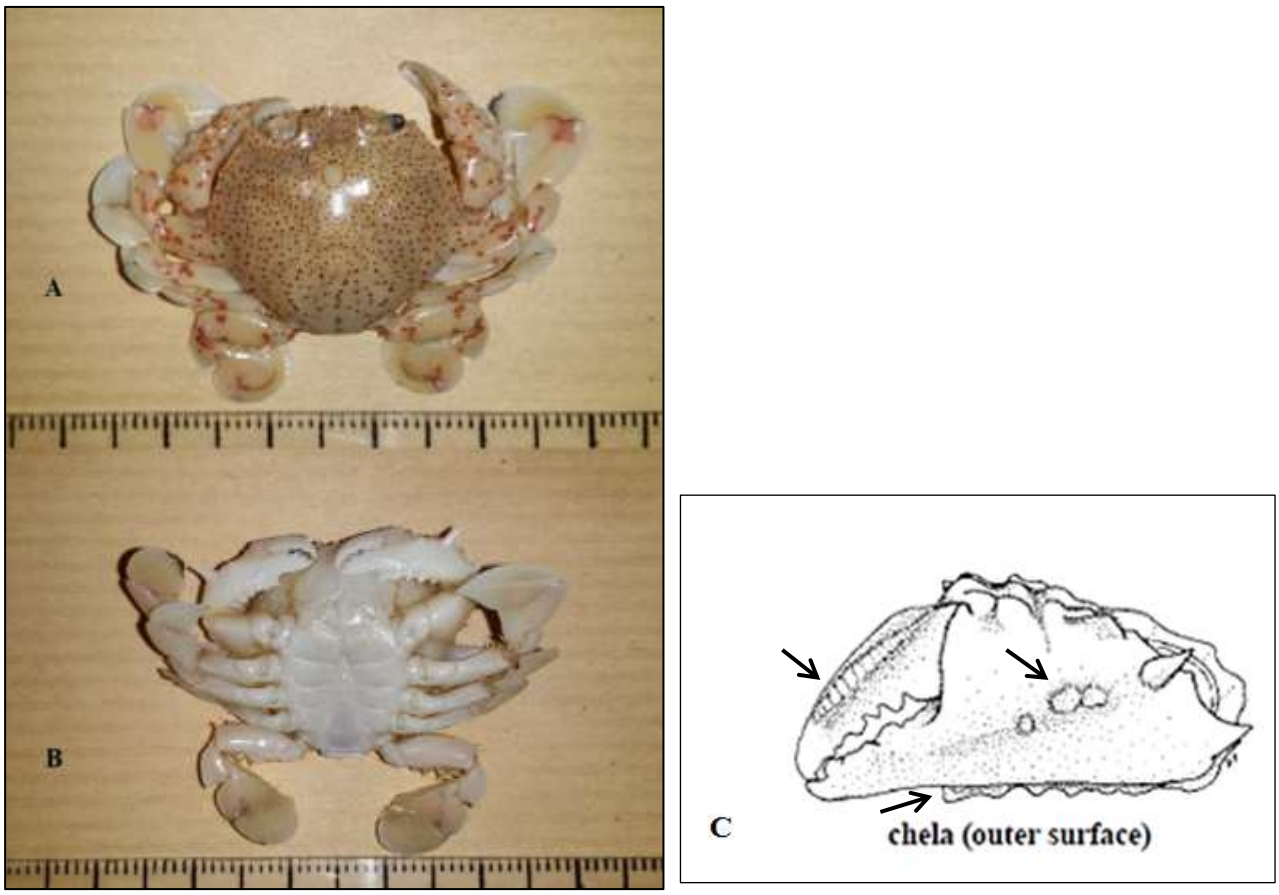

Fig. 2. *Matuta victor* (specimen male, color in life, carapace length × carapace width = 21 x 31 mm) collected in Tartus, Syria (A: dorsal view, B: ventral view, C: Chela).

Diagnosis

In our specimens, the front is distinctly wider than orbit, with three slightly rounded lobes and emarginated rostrum medially; the carapace subcircular; minutely granular; the antero-lateral border of the carapace with six tubercles and three crenulate teeth; lateral spine large and equal to a quarter of the width of carapace. Orbits communicating with antennular fossa. Pterygostomial region with rows of elongate tubercles. Chelipeds subegual; Upper margin of cheliped palm cut into three teeth, proximal tooth tuberculate; mid-palmar ridge rounded and extending to tip of lower finger, proximally with a granulate tubercle followed by un acuminate spine, lower proximal angle with a prominent acute spine.(Fig. 2,C)

Coloration: Carapace and legs are colored and marked with minute brown points, which are distributed extensively on the entire surface. Lateral spine is also dotted with small red dots.

Discussion

Among the sixty-eight species of Decapoda introduced into the Mediterranean, only 22 species of Decapoda have been found in Syria (Hasan, 2008). This number represents about 20% of all Decapoda Known in Syria. The Decapoda species introduced into Syria belong to 9 different families and are spread over 18 genres. The Penaeidae family and the Portunidae family are the most represented in the introduced species with 6 species for each. The family of Leucosiidae occupies the second place by the number of species with 3 lessepsiennes and then the Family Crangonidae represented by two species. Only one introduced species was reported For the following families: Alpheidae, Palinuridae, Majidae, Xantidae and Pilumnidae. Of the 22 species found in Syria, 6 are reported for the first time in the marine life of this country. Our new recolt of *Matuta victor* increases the number of alien species registered in Syria. The number of alien species registered in Syria remains relatively small compared with other neighboring countries, where there are 34 Erythraean alien decapod crustacean species recorded off the Palastine coast (Galil & Mendelson, 2013).

Some migrant species have become particularly abundant on the Syrian coast and are often collected by fishermen. Some of them have contributed to the modification of the original composition of the fauna by their impacts on the species and on the indigenous communities or the landscapes. This phenomenon, called biological pollution (Sindermann et al., 1992, Bright, 1998, Bourdouresque and Verlaque, 2002a), has important ecological and economic consequences. The distribution of moon crabs (such as *Mauta victor* and *Ashtoret Lunaris*) on the east coast of the Mediterranean can play a role in this phenomenon especially as these species are carnivorous, their diet composed primarily of crustaceans and mollusks, with smaller individuals feeding on smaller, softer shelled species, whereas large size classes prey on shelled sessile or slow-moving species such as anomurans, bivalves and gastropods (Perez and Bellwood 1988).

Matuta victor species has recently arrived in the Mediterranean Sea and collected from different locations, and may be able to establish its own communities due to the favorable conditions available in the Eastern Mediterranean.

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