

Short Communication

A record of the moon crab *Matuta victor* (Fabricius, 1781) (Crustacea; Decapoda; Matutidae) from the Mediterranean coast of Israel

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Abstract

Two adult specimens of *Matuta victor* were recently collected in Haifa Bay, Israel. A single specimen of *Ashtoret lunaris*, collected in 1987 from Haifa Bay, was hitherto the only record of the Matutidae in the Mediterranean Sea.

Key words: *Matuta victor*; Decapoda; Erythraean alien; Mediterranean; Israel

Introduction

The Levantine upper shelf biota has an ever increasing component of Erythraean aliens (Galil 2012). Decapod crustaceans are well represented (Galil 2011): some penaeid and portunid species have established flourishing populations and are highly prized and considered a boon to the Levantine fisheries (Galil 2007), while a few species are only known from a single record. Twenty five years ago, a single specimen of *Ashtoret lunaris* (Forskål, 1775) was collected by a trawler in Haifa Bay at depth of 20 m (Galil and Golani 1990). Although those sandy-silt bottoms are frequently trawled, no other specimens were reported since, and it is assumed the population is extinct.

Material and methods

Israel: Haifa Bay, 1 km north of the Kishon harbour, 32°83 N, 35°35 E, 31.10.2012, trammel net, depth 10 m, 1 ♂, carapace length 3.25 cm; Kiryat Yam, 32°85 N 35°07 E, 20.11.2012, seine net, depth 5 m, 1 ♀, carapace length 2.95 cm; collected by M. Mendelson. The specimens

are deposited in the Steinhardt National Collections of Natural History, Tel Aviv University, Israel (TAU AR 29089).

Results

Family Matutidae De Haan, 1835

Matuta victor (Fabricius, 1781)

(Figures 1, 2)

Cancer victor Fabricius, 1781: 502, 1793: 449.

Matuta victor; Fabricius, 1798: 369.

Diagnosis: Carapace subcircular, bearing six obtuse tubercles centrally. Front, wider than orbit, trilobate, median lobe projecting, anteriorly emarginate. Anterolateral margin arcuate, tuberculate. Posterolateral margin convergent, carinate. Lateral spine massive. Orbits communicating with antennular fossa. Suborbital margin laterally interrupted by curved inhalant canal. On pterygostomial region rows of elongate tubercles, serving as stridulating organ. Chelipeds subequal, massive. External surface of palm with two rows of granulate low tubercles, proximalmost in lower row largest. Mid-palm a rounded ridge extending to tip of lower finger,

Figure 1. *Matuta victor* (Fabricius, 1781) (TAU AR 29089). Photo: O. Rittner.



Figure 2. *Matuta victor* (Fabricius, 1781) (TAU AR 29089). Photo: M. Mendelson.



proximally with granulate tubercle followed by a prominent spine. At lower proximal angle of palm a prominent spine. Dactylus in male bearing distinctly milled ridge on outer surface, absent in female. Ambulatory legs natatory, with first propodus bearing triangular tooth on inferior margin; penultimate carpus unicarinate; unicarinate; fifth propodus greatly extended. Sternum anteriorly in 'fleur de lis' form.

Colour in life: carapace and chelae ivory colored, minute purplish dots forming a diffuse

reticulate pattern; pereiopods yolk-yellow with white margins, speckled purple; propodi of first pereiopods distally with prominent purple mark (Figure 1).

Seemingly gaudily-colored, the color pattern is in fact perfectly suited for concealment in sandy bottoms (Figure 2).

Remarks: Up to now, only one moon crab species has been recorded from the Mediterranean coast of Israel, *A. lunaris* (see Galil and Shlagman 2010), a common inhabitant of

tropical sandy shores, widely distributed from the Red Sea and East Africa to Australia (Galil and Clark 1994). Males of both species can be easily separated on account of the oblique mid-palmar ridge, strongly milled dactylar ridge and uncarinate carpus of fourth pereopod in *M. victor* (vs. mid-palmar ridge parallel with lower margin, finely milled dactylar ridge and bicarinate carpus in *A. lunaris*). Further details to separate both species can be found in Galil and Clark (1994).

Distribution: Gulf of Suez, Red Sea, Gulf of Oman, Arabian Sea, East Africa, Madagascar, Comoro Is, Bay of Bengal, Andaman Sea, Malaysia, Indonesia, South China Sea, Japan, New Caledonia, Australia, New Hebrides. Confirmed records in the Mediterranean Sea.

Discussion

Of the 34 Erythraean alien decapod crustacean species recorded off the Israeli coast, 4 are known from single specimens and 5 more are rarely found, but the remainder have established large populations and some are more prominent in the Levant than in their native habitats in the Red Sea. Since the role of brachyurans in the regulation of prey populations may be considerable, what might possibly be the implications were *M. victor* to establish large populations in the Levantine sandy littoral? Moon crabs are carnivorous and facultative scavengers, 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). As a predator of slow-moving benthic invertebrates, *M. victor* may influence the abundance and distribution of its prey items were it to achieve numerical abundance in Levantine sandy shores.

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