

Marsupenaeus japonicus



Taxon	Family / Order / Class / Phylum
<i>Marsupenaeus japonicus</i> (Bate, 1888)	Penaeidae / Decapoda / Malacostraca / Arthropoda

COMMON NAMES (English only)

Kuruma prawn

SYNONYMS

Penaeus canaliculatus var. *japonicus* Bate, 1888

Penaeus pulchricaudatus Stebbing, 1914

SHORT DESCRIPTION

A nocturnal prawn (TL males: 17 cm, females: 27 cm) adults buried in substrate during daytime. The body is pale bearing uninterrupted brown transverse bands; walking legs and pleopods are pale yellow proximally and blue distally; uropods are distally striped with yellow and blue, setal fringe red. The rostrum has 7-11 teeth on upper margin and a single tooth on the lower margin. The carapace bears gastrofrontal, hepatic crests; the post-rostral crest is medially grooved. Abdominal segments are 4-6 keeled; sixth abdominal segment bear three lateral scars. The telson has a pointed tip and 3 pairs of movable distal spines. First three pairs of walking legs are chelate.



Marsupenaeus japonicus

Photo: Bella Galil

BIOLOGY/ECOLOGY

Dispersal mechanisms

Long-living planktonic larvae.

Reproduction

The minimum size at maturity is 13 - 14 mm BL. However, after a female reaches maturity it is able to produce mature ova regardless of size. Repeated copulations follow moulting in females. Copulation does not directly accelerate maturation. The proportion of inseminated females increased with increasing body size up to 17 cm BL. Multiple spawnings occur between April-November. Recruitment takes place between August and March.

Known predators/herbivores

Teleost fish and elasmobranches

Resistant stages (seeds, spores etc.)

None.

HABITAT

Native (EUNIS code)

A2: Littoral sediments, A4: Sublittoral sediments. Marine sublittoral soft.

Habitat occupied in invaded range (EUNIS code)

A2: Littoral sediments, A4: Sublittoral sediments. Marine sublittoral, on sandy bottoms, up to 90 m, usually less than 50 m.

Habitat requirements

The larvae require water temperature above 24°C; the rate of larval growth increases with temperature to 32°C, the optimal range being from 28° to 30°C. Salinities below 27 ‰ and above 35 ‰ inhibit hatching and induce high mortalities. Adults are poor osmoregulators compared with the young, preferring salinity >35 ‰.

DISTRIBUTION

Native range

Indo-Pacific: Red Sea and East Africa to Fiji.

Known Introduced Range

Mediterranean: very abundant along the Levantine coast, sporadic records from Sea of Marmara, Turkey, Amvrakikos and Vistonikos Gulfs, Greece, Adriatic coast of Italy, and France.

Trend

It was first recorded in Egypt in 1924; successively in Syria, southern Turkey, Israel, Cyprus, Lebanon, Greece and Rhodes Island.

MAP (European distribution)



Legend

	Known in country		Known in CGRS square		Known in sea
	Key distribution area		Infrequent		Unestablished

INTRODUCTION PATHWAY

It entered the Levant through the Suez Canal. It has been released by mariculture in Italy, France, Greece, and Marmara Sea.

IMPACT

Ecosystem Impact

Appears to have outcompeted the native penaeid prawn, *Melicertus kerathurus*, which has almost disappeared and its habitat overrun by the Erythraean prawn.

Health and Social Impact

Unknown.

Economic Impact

Of major commercial importance, a highly prized species considered a boon to the Levantine fisheries. It composes much of the prawn catch off the Mediterranean coast of Egypt and in the Nile delta lagoons. Off the Israeli coast a small fleet of coastal “mini” trawlers has specialized in shrimping, bringing in a quarter of the total trawl catch volume and a third of the trawl gross income. It is also of major commercial importance in the Bay of Iskenderun, Turkey.

MANAGEMENT

Prevention

Erect a salinity barrier in the Suez Canal in order to reduce the number of Red Sea aliens arriving in the Mediterranean.

Mechanical

Unknown.

Chemical

Unknown.

Biological

Unknown.

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