

## ORIGINAL RESEARCH ARTICLE

## New Record of Portunid Crabs from Pondicherry Coast, South East Coast of India

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**ABSTRACT**

The Matutidae family species of *Matuta lunaris* Galil & Clark, 1995 and *Matuta planipes* Fabricius, 1798, it was recorded for the first time from Pondicherry coastal waters. These two species naturally occurs in lot of difference. The colour, structure of carapace, abdomen, chelipeds, legs and gonopod. The *Matuta planipes*, it is having on surface regions of male chela a single spine, frontal lobes and carapace covered with reticulated loops as compared with the bispinose chela, rounded lobes and minutely spotted carapace of the latter, these characters mostly differs from *Matuta lunaris*.

**Key words:** *Matuta lunaris*, *Matuta planipes*, new record, Pondicherry coast.

**INTRODUCTION**

The decapod crabs are considered as ecologically and biologically important in marine ecosystem and play an important role in coastal biodiversity. It is not evenly distributed, quite it varies greatly across the world and within regions. There are a lot of improvements that can be brought about in the biodiversity science. The moon crabs belonging to family Calappidae, it was containing 16 genera, of which 7 in fossils. The calappidae crabs have been studied from Indian waters was represented by <sup>[1]</sup> has been reported 33 species from the Indo-West Pacific regions. <sup>[2,3]</sup> has been reported 13 species of ocypodids from Andaman and Nicobar Islands. <sup>[4]</sup> has been recorded 38 species from Chilka Lake and Hooghly River. <sup>[5]</sup> was reported that the 29 species from Andaman and Nicobar islands. <sup>[6]</sup> has been reported 3 species from the Parangipettai coast. <sup>[7]</sup> has been reported 5 species from Gulf of Mannar. The marine crabs are of substantial economic significance in fisheries, medicine and ecology. There is a need to identify potential food crabs, bio-indicators and endangered species. Since, the crustaceans vary so widely in size, they can fulfill many niches within the ecosystems. It can be provides significant support for drug discovery and the availability of medicinal resources. The conservation status of many crabs is poorly known. While, the commercially and recreationally exploited species may be locally

reduced in numbers or even threatened. Hence, in the present study an essential need to establish a working list of marine crabs from Pondicherry coast by determining the current synonymy of all species, to confirm the identities of each species and assess the taxonomy of unsure and poorly known species through present taxonomic approaches.

**STUDY AREA**

Pondicherry at latitude of 11° 56' N and longitude of 79° 50' E, little coastal town, totally 290 Sq.Kms, is situated along the Bay of Bengal sea coast of Southern India. The total length of coastal 23.25 kms. It is situated in two river sankarabarani and penniar. Aurovill beach is about 12 km, east coast road, Paradise beach is about 8 km, along Cuddalore main road in chunnambar. The beach of this territory is unspoiled and neat with clear water and sand. It is consists of different fishing landing centres viz., Chinnamudaliarchavadi, Nochikuppam, Cholakandikuppam and Kanakachettykuppam.

**Specimen collected:** 19 males and 21 females in Pondicherry coast (11° 52' 56 N"; 11° 59' 53" E), 17<sup>th</sup> in December, 2008.

***Matuta lunaris* Galil & Clark, 1995**

**Taxonomy hierarchy**

Kingdom: Animalia  
Phylum: Arthropoda  
Class: Malacostraca

Order: Decapoda  
Family: Matutidae  
Genus: *Matuta*  
Species: - *M. lunaris*

Plate 1: Dorsal view of *Matuta lunaris* Galil & Clark, 1995



**Common Names:** Sand Crab, Moon Crab  
**Synonyms:** *Cancer lunaris* Forsskal, 1775; *Matuta lunaris* Alcock, 1896, *Matuta victrix* Alcock and Anderson, 1894.

**Description:** Carapace granular, U- shaped, postero-lateral borders sharply convergent, lateral spine 0.3 times carapace width, chelipad strongly milled; palm with spine-like teeth, eyes in sunken, eyestalk long, edge in black spots of eye, paddle-like legs (**Plate 1**).

**Color:** Carapace yellow, while covered with red dots.

**Size:** Length of carapace, 21 mm; breadth of carapace (excluding lateral spines), 24 mm.

**Habitat:** Sandy, muddy, coastal in open water areas, it can be burrow just below the surface during day. They can feed for clams, worms, shells, its maximum taken feed at night time.

**Distribution:** Andaman and Nicobar Islands, Gujarat, Gulf of Kachchh, West Bengal, Sundarbans, Orissa, Mahanadi Estuary, Bay of Bengal, Maharashtra, Mumbai, Goa, Mandovi Estuary, Tamil Nadu, Chennai, Parangipettai Coast, Gulf of Mannar, Gujarat, Gulf of Kachchh, Red Sea, Arabian Sea, Palk Bay, Kerala, Shanghumugham, Trivandrum.

***Matuta planipes* Fabricius, 1798**

**Taxonomy hierarchy**

Kingdom:Animalia  
Phylum: Arthropoda  
Class: Malacostraca  
Order: Decapoda  
Family: Matutidae  
Genus: *Matuta*

Species: *M. planipes*

**Common Names:** Two spined burrowing sand crab, reticulated moon crab, flower moon crab and beach crab.

**Synonyms:** *Matuta victor* Alcock, 1896, *Matuta planipes* Fabricius, 1798, *Cancer americanus* Seba, 1758, *Cancer planipes* Weber, 1795, *Matuta appendiculata* Bosc, 1830, *Matuta flagra* Shen, 1936, *Matuta laevidactyla* Miers, 1880, *Matuta lineifera* Miers, 1877, *Matuta rubrolineata* Miers, 1877.

Plate 2: Dorsal view of *Matuta planipes* Fabricius, 1798



**Description:** Rounded carapace, armed is lateral spines on each side and mosaic and maroon lines on a white background, eyestalks edges present small black eye, paddles formed by the flattened hind limbs, it is slightly flattened and the mouth is triangular, flattened hind limbs are not fringed by hairs, extending to tip of fixed finger, proximally with a granulate tubercle (**Plate 2**).

**Size:** Length of carapace, 24 mm; breadth of carapace (excluding lateral spines), 29 mm.

**Color:** Color of the carapace bright yellow with vermicular red lines, which usually form spots, it ranges from white to yellow, with a range of spots, rings and mottling and dark purple through dark red to brown. The color can be changing in nature of the habitat.

**Habitat:** it is decorated moon crab is mostly swimming shallow waters, on sandy areas near sea grasses. It is can be actively playing on shore at night time and is rarely seen by daytime.

**Distribution:** West Bengal, Gangetic Delta, Andaman and Nicobar Islands, West Bengal, Sundarbans, Orissa, Mahanadi Estuary, Maharashtra, Mumbai, Tamil Nadu, Chennai Parangipettai Coast, Gulf of Mannar, Maharashtra, Mumbai, Mergui Myanmar,

Lakshadweep, West Bengal, Hugli River Mouth Orissa, Chilika Lake West Bengal, Gangetic delta.

**Remarks:** The special character of Matutidae crabs, it is takes in oxygen-rich water near its eye-sockets. It is not commercially valuable ones, it can eating for many people.

## CONCLUSION

The Matutidae of sand crab is an attractively patterned surf crab, the *Matuta lunaris* was recorded from the Pondicherry coastal for the first time, where it inhabitants unusually in deep waters. Since, the new species are habitually discovered, the identifying *Matuta lunaris* and *M. planipes* it is essential for stating and testing biological aspects of theories and for measuring biodiversity, it be able to a strength of ecosystems<sup>[8,9]</sup>. The scientific evidence builds on the global health implications of biodiversity loss<sup>[10]</sup>. While, the reason of directly linked with the issue of climate change. The good and concise illustrated guides on crab fauna are extremely needed for conservation and management of marine protected areas. The marine environment is a significant resource for life on earth, the marine scientists are intensely interested in protecting our oceans, believing that by protecting the marine environment, we ensure survival for all species.

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