

ORIGINAL RESEARCH ARTICLE

New Record of a Long Eyed Swimming Crab *Podophthalmus Vigil* Fabricius, 1798 from Pondicherry Coast, South East Coast of India

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Received 23 May 2012; Revised 04 Oct 2012; Accepted 12 Oct 2012

ABSTRACT

The first invention for introduction of *Podophthalmus vigil* in Pondicherry coastal waters was done. It has resulted into ever increasing demand for timely discovery and fast access to biodiversity data and information, while the good data depicting the state of the biodiversity are very important to support responses to key issues related to biodiversity conservation.

Key words: *Podophthalmus vigil*, biodiversity data.

INTRODUCTION

The biodiversity is of basic importance to the functioning of all natural ecosystems and also the most habitually quantified as the number of species. The marine environment provides a greater range of habitats and thus potentially supports greater biodiversity. The commercially important crabs studies from different parts in Indian coasts of ^[1] the Parangipettai coast, ^[2] Pitchavaram mangroves, ^[3] Pulicate Lake, ^[4] Sunderbans, ^[5] Gulf of Mannar, ^[6] Indian waters, ^[7] Palk Strait. The presence or absence of decapod species in an area or overall distribution patterns of a species in biotic communities are mostly decided in many factors. Therefore a region with specific set of environmental condition contains specific biodiversity pattern. Hence, in the present study, the recorded crabs and the trend in production indicate scope for further expansion and to evaluate the crab fishery resources from Pondicherry coastal waters.

STUDY AREA

Pondicherry a city of southeast India, the district is located on the Coramandal coast. It is limited on the east by the Bay of Bengal at latitude of 11 56'N and longitude of 79 50' E and 162 kms west of Chennai of Tamil Nadu State. It has a gorgeous coastline. The beach of this territory is unspoiled and neat with clear water and sand. In this regions coastal facing average of 3 to 4 cyclones annually. It is consists of different fishing landing centres

viz., Chinnamudaliarchavadi, Nochikuppam, Cholakandikuppam and Kanakachettykuppam.

Taxonomy hierarchy

Kingdom: Animalia
Phylum: Arthropoda
Class: Crustacea
Order: Decapoda
Family: Portunidae
Genus: *Podophthalmus*
Species: *P. vigil*

**Plate 1: *Podophthalmus vigil* (Fabricius, 1798)
Dorsal view**



Ventral view



FAO Name: Sentinel crab

Local name: Neela Kan Nandu, Poisonous crab (or) Visha Nandu

Common name: Long-eyed swimming crab, Sentinel crab, Periscope crab

Synonyms: *Portunus vigil* (Weber, 1795), *Podophthalmus spinosus* (Lamarck, 1801)

Description: Carapace broad with 2 anterolateral teeth, T-shaped lying below eyestalks and without pterygoid expansions, orbits and eyestalks very long, elongated eye-stalks to reaching the whole breadth of the carapace, asymmetrical chelipeds, left compare right slightly heavier; 3 spines of merus, 2 on posterior border; legs in last pair with propodus and dactylus flattened, paddle shaped.

Colour: Carapace green; chelipeds and parts of legs violet to maroon and cream with some purple parts, especially the distal chelipeds.

Size: Maximum carapace width 55mm, Length of carapace 75 mm.

Habitat: Marine, 10-35 metres deep, estuary, sandy mud or sand substrate on sandy to muddy substrates in offshore waters.

Species collected: 19 males and 14 females in Pondicherry coast (11° 52' 56 N"; 11° 59' 53" E), 29th in March, 2009.

Distribution: Gulf of Aden, red Sea, South Africa; Madagascar, Gulf of Oman, Pakistan; West Malay Peninsula, West Sumatra, Japan, Sagami Bay, Nagasaki, Sagami Bay, Kii Nagashima, Kii Minabe and Tosa Bay, Tanabe, Okinawa; Taiwan, China, Thailand; Malaysia, Singapore, Philippines, Indonesia, Australia, Hawaiian Islands, India- Nicobar Islands and Palk straight.

CONCLUSION

The marine organisms play a vital role in almost all the processes that sustain the biosphere and provide a variety of functions and products which are important to human being. Crab is an essential source of food for people, the lots of countries millions of peoples are suffering from malnutrition. Protein deficiency may be minimized for some extent by making available cheaper fish meal items like crabs, which are rich in protein, minerals and vitamins A & D. Their meat contains considerable amount of glycogen and free amino acids, rendering their flesh sweet and tasty. It also serves as a good source for iodine, phosphorus, magnesium, iron, copper, sulphur and calcium which are essential to keep up the health and stamina^[7]. The crab meat has got medicinal value for curing asthma and chronic fevers^[8]. So study on crab is very much essential not only for its nutritional significance but also fishery they support^[8, 10]. The natural population of crustaceans which support commercial fisheries is damaged in several ways by the activities of modern man. The overwhelming value of biodiversity as an indication of environment health and for the functioning of ecosystems. The estimation of biodiversity values in monetary terms helps to promote and justify conservation actions at the public policy and decision making level and is essential to define the optimal level of conservation. In the present study, the results showed that the number of decapod species found in a given area. Yet it is not often in low diversity areas that are in need of conservation. The support of conservation and sustainable exploitation of crab biodiversity will require development of rapid assessment techniques for monitoring marine biodiversity. Hence, the play an important invention of crab biodiversity research should be the required scientifically knowledge and tools for adequately managing and protecting marine biodiversity.

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