



Original Research Paper

A Study on Distribution of Brachyuran Crabs Inhabiting the Intertidal Coral Reef and Mangroove Ecosystem of Andaman Islands

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Abstract The present study documents the systematics, taxonomy, distribution, and ecological characteristics of brachyuran crabs inhabiting the intertidal, coral reef and mangrove ecosystems of the Andaman Islands. A total of 28 species belonging to 10 families were recorded during the survey. Among the collected specimens, the family Xanthidae was the most prevalent, represented by 11 species, followed by Portunidae with three species, Carpiliidae with two, and the remaining families represented by a single species each. The results revealed habitat type significantly influenced crab distribution, with rocky intertidal zones supporting higher species richness than sandy habitats due to the greater availability of shelter and food resources. Environmental factors such as salinity, tidal fluctuations, substrate characteristics, and anthropogenic disturbances were found to play important roles in determining species abundance and distribution patterns. Several species exhibited notable ecological adaptations, including camouflage, burrowing behaviour and specific habitat preferences, which enhance their survival in the dynamic intertidal environment. The study also identified species of ecological and economic significance, while some species were considered less important for consumption due to their small size or toxicity. Overall, this study provides baseline information on the taxonomy, systematics, ecology, and distribution of intertidal brachyuran crabs in the Andaman Islands and highlights the importance of conserving intertidal and coral reef habitats to maintain biodiversity and ecosystem stability.

Key Words Brachyuran crabs, intertidal habitat, 28 species, 10 families, marine biodiversity

Introduction

The Andaman and Nicobar Islands are one of the major Union Territories of India, located in the Bay of Bengal. The territory comprises two principal groups of islands—the Andaman Islands and the Nicobar Islands—which separate the Andaman Sea to the east from the Indian Ocean. Geographically, these islands represent the emergent peaks of a submerged mountain chain extending southward from the Arakan Yoma range and the Irrawaddy Delta region of Myanmar (Burma). The Andaman Islands are situated approximately between 10°30'N and 14°N latitude and 92°E and 93°E longitude, whereas the Nicobar Islands extend between 6°30'N and 9°30'N latitude and 93°E and 94°E longitude. The topography of the islands is predominantly hilly and undulating, characterized by narrow valleys, dense tropical evergreen forests, and limited stretches of flat terrain. Saddle Peak (732 m) in North Andaman is the highest point in the Andaman group, while Mount Thullier (642 m) is the

highest peak in the Nicobar group (Venkataraman *et al.*, 2012).

The Andaman and Nicobar Islands possess a wide variety of ecosystems, including tropical evergreen forests, mangroves, littoral forests, wetlands, coral reefs, seagrass beds, and coastal ecosystems. These diverse habitats support an exceptionally rich biodiversity with many endemic and endangered species of flora and fauna. The islands are home to species such as the Nicobar pigeon, Andaman wild pig, saltwater crocodile, dugong, leatherback turtle, and several endemic birds, reptiles, and marine organisms. The surrounding coral reefs and seagrass ecosystems also support a diverse range of fish, crabs, molluscs, and other marine life, making the region one of India's most important biodiversity hotspots (Venkataraman *et al.*, 2012).

Crustacea is a rich subphylum of Arthropoda with over 70,000 known species found globally in marine, freshwater,

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and terrestrial habitats (Martin and Davis, 2001; Ah Yong et al., 2011). More than 3,500 species of crustaceans have been identified in India, making up a significant portion of the nation's aquatic biodiversity (Venkataraman et al., 2015). Major groupings of crustaceans include Branchiopoda, Maxillopoda, Ostracoda, and Malacostraca, which includes economically significant species including crabs, lobsters, prawns, shrimp, amphipods, and mantis shrimp.

Crustaceans have segmented, bilaterally symmetrical bodies, jointed limbs, and a hard, chitinous exoskeleton. The head, thorax, and abdomen are the normal divisions of the body; in many species, the head and thorax combine to form a cephalothorax that is covered by a carapace. They typically have mandibles, compound eyes and two pairs of antennae, and specialized appendages for swimming, feeding, and moving. Gills are primarily responsible for respiration, whereas antennal or green glands are responsible for excretion. A ventral nerve cord with segmental ganglia and a dorsal brain make up the nervous system (Newman, 2015).

Crustaceans exhibit remarkable ecological adaptations and occupy a wide range of habitats, including marine, freshwater, terrestrial, and subterranean ecosystems. In marine environments, some species are littoral and inhabit intertidal zones, while others are pelagic or abyssal, occurring at great depths in the ocean. A few species are adapted to terrestrial habitats and caves. However, crustacean diversity and abundance are particularly high in rocky intertidal zones, mangroves, estuaries, and coral reef ecosystems. In India, rich crustacean diversity has been reported from the Gulf of Mannar, Gulf of Kutch, Lakshadweep, and the Andaman and Nicobar Islands (Venkataraman et al., 2015; Dev Roy and Nandi, 2012; Silambarasan et al., 2025).

The Decapoda order includes some of the largest crustaceans, such as the American lobster and the Japanese spider crab, while certain branchiopods, such as *Alonella*, are smaller than 0.25 mm long (Newman, 2015). According to Ng et al. (2008), xanthid crabs are frequently found in rocky shorelines, coral rubble, and intertidal habitats connected to reefs, where they live in cracks and dead coral substrates. Portunid crabs, also referred to as swimming crabs, are found in seagrass beds, mangroves, estuaries, sandy shorelines, and shallow coastal waters. They serve significant ecological and commercial functions in coastal environments (Stephenson & Campbell, 1959).

The study of Indian brachyuran crabs began with the pioneering works of Linnaeus (1758) and was subsequently advanced by several renowned carcinologists such as Fabricius, Herbst, H. Milne Edwards, and Henderson during the eighteenth and nineteenth centuries. Significant contributions to the taxonomy of Indian marine crabs were

made through the expeditions of the Royal Indian Marine Survey Ship Investigator, particularly by Alcock, Anderson, and Wood-Mason, who described numerous new species from the Bay of Bengal, Andaman and Nicobar Islands, Lakshadweep Islands, and the Indian coastline.

Several researchers have contributed to our understanding of Indian brachyuran crab diversity, taxonomy, and distribution in recent decades through thorough surveys and taxonomic revisions (Dev Roy, 2008; Trivedi et al., 2018b; Valarmathi, 2020; Silambarasan et al., 2025). Brachyuran crabs are comparatively extensively studied in India compared to other crustacean groups, although ongoing research continues to yield new species and distributional data from the nation's marine and coastal habitats.

Materials And Methods

In the present study, xanthid, portunid, and carpiliid crabs were collected from intertidal, coral reef, and sandy shore habitats at Burmanallah, Kodyaghat, Badabalu, Chidiyatapu, Baludera, and Kalipur in the Andaman Islands. Sampling was carried out during low tide periods using the hand-picking method from rocky crevices, coral rubble, sandy substrates, and shallow reef areas. Habitat characteristics such as substrate type and tidal condition were also observed during collection.

The collected specimens were carefully washed, photographed, labelled, and transported to the laboratory for further taxonomic examination and analysis. Specimens were preserved in 10% formalin solution for long-term storage and detailed morphological studies. Identification of specimens was carried out based on external morphological characters using standard taxonomic literature and identification keys provided by Alcock (1891), Chhapgar (1957), and Dev Roy and Nandi (2012). Morphometric characters such as carapace length, carapace width, cheliped structure, and color patterns were also examined for accurate identification.

After identification, all specimens were deposited in the National Zoological Collections of the Zoological Survey of India, Andaman and Nicobar Regional Centre, Port Blair, Andaman and Nicobar Islands, India.

Results

In the Andaman and Nicobar Islands' intertidal and coral reef regions, 28 different species of brachyuran crabs were identified for this study. Xanthid crabs (11 species) predominated throughout the collection, followed by portunid crabs (3 species), Carpiliidae (2 species), and other families (1 species each) (Table 1). The taxonomy, systematics, distribution, and behaviors of 28 species of brachyuran crabs are covered in detail in this paper.

Table 1: List of inter-tidal crabs collected from the Andaman and Nicobar Islands

S. No.	Species	S. No.	Species
1.	<i>Thranita crenata</i> (Rüppell, 1830)	15.	<i>Metopograpsus messor</i> (Forsskal, 1775)
2.	<i>Thranita prymna</i> (Herbst, 1803)	16.	<i>Petrolisthes fimbriatus</i> Borradaile, 1898
3.	<i>Tylocarcinus styx</i> (Herbst, 1803)	17.	<i>Epixanthus frontalis</i> (H. Milne Edwards, 1834)
4.	<i>Actaeodes tomentosus</i> (H. Milne Edwards, 1834)	18.	<i>Portunus pelagicus</i> (Linnaeus, 1758)
5.	<i>Leptodius affinis</i> (De Haan, 1835)	19.	<i>Portunus reticulatus</i> (Herbst, 1799)
6.	<i>Leptodius nudipes</i> (Dana, 1852)	20.	<i>Charybdis (Charybdis) anisodon</i> (De Haan, 1850)
7.	<i>Atergatopsis signata</i> (Adams & White, 1849)	21.	<i>Myomenippe hardwickii</i> (Gray, 1831)
8.	<i>Ceratoplax ciliata</i> Stimpson, 1858	22.	<i>Euxanthus exsculptus</i> (Herbst, 1790)
9.	<i>Pilodius areolatus</i> (H. Milne Edwards, 1834)	23.	<i>Zosimus aeneus</i> (Linnaeus, 1758)

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S. No.	Species	S. No.	Species
10.	<i>Luninella pugil</i> (Dana, 1852)	24.	<i>Eriphia sebana</i> (Shaw and Nodder, 1803)
11.	<i>Etisus laevimanus</i> Randall, 1840	25.	<i>Atergatis ocyroe</i> (Herbst, 1801)
12.	<i>Percnon planissimum</i> (Herbst, 1804)	26.	<i>Carpilius maculatus</i> (Linnaeus, 1758)
13.	<i>Xanthias lamarckii</i> (H. Milne Edwards, 1834)	27.	<i>Liomera loevis</i> (A. Milne Edwards, 1873)
14.	<i>Pilumnopus indicus</i> (De Man, 1887)	28.	<i>Platypodia cristata</i> (A. Milne Edwards, 1865)

Taxonomy

Family Portunidae Rafinesque, 1815 Subfamily Thalamitinae Paulson, 1875 *Thranita* Evans, 2018

***Thranita crenata* Ruppell, 1830 (Figure 1A)**

Thalamita crenata- Stimpson, 1907; Gordon, 1931:527; Shen, 1940:223; Davie, 1992b: tab; Chan and Caley, 2003:86.

Material examined: ZSI/ANRC/M/33079, 2 male (55 x 27 mm), 13°16.260'N, 93°04.253'E, coll. Anu, 5 April 2026.

Diagnosis: Carapace hexagonal with two longitudinal gastric and epibranchial ridges on the surface or perfectly smooth. Frontal region with six frontal lobes; anterolateral margin bearing 5 teeth. Last pair of pereopods modified into natatory legs used for swimming. Propodus of swimming leg bearing about 5 spines and 4- 6 small inconspicuous tubercles.

Remarks: This species is characteristically by the massive, smooth cheliped with only a single costa on the lower outer surface of the manus. Our specimen agreed well with the previous description by Wee and Ng (1995).

Distribution: A mangrove inhabitant, it is found all over southern Red Sea, Somalia, Kenya, Mozambique, South Africa, Madagascar, Mauritius, Seychelles, Pakistan, India, Sri Lanka, Andaman Islands, Malay Peninsula, Sumatra, Thailand, Japan, Korea, Taiwan, China, Singapore, Indonesia, Vietnam and Australia (Wee and Ng, 1995).

Family Portunidae Rafinesque, 1815 Subfamily Thalamitinae Paulson, 1875 *Thranita* Evans, 2018

***Thranita prymna* Herbst, 1803 (Figure 1B)**

Thranita prymna Herbst, 1803; Dana, 1852; Laurie, 1906; Montgomery, 1931; Borradaile, 1902.

Material examined: ZSI/ANRC/M/33080, 1 male (50 x 30 mm), 13°16.260'N, 93°04.253'E, coll. Anu, 5 April 2026.

Diagnosis: Carapace hexagonal in shape, with scattered hairs in the depressions and distinct frontal, gastric and epibranchial ridges on the surface. Frontal region bearing 6 frontal lobes; anterolateral margin with 5 teeth, the fourth being the smallest and fifth smaller than the first three. Upper surface of cheliped bearing 2 spines on anterior and 2- 3 on posterior borders. Last pair of pereopods modified into natatory legs used for swimming. Propodus of swimming leg bearing about 9- 13 spines and seven bristles on the outer surface.

Remarks: The present specimen perfectly matched with Herbst's type specimen in having a smooth inner surface of the manus of the cheliped. Our specimen was collected from coral rubble areas.

Distribution: A widespread Indo-Pacific species, from the Red Sea, southern Oman, Madagascar and East African coast up to Pakistan, Malaysia, Japan, Australia, French Polynesia and Hawaii (Wee & Ng, 1995; Apel & Spiridinov, 1998; Vannini & Innocenti, 2000).

Family Epialtidae MacLeay, 1838

Subfamily Pisinae Dana, 1851

***Tylocarcinus* Miers, 1879**

***Tylocarcinus styx* Herbst, 1803 (Figure 1C)**

Tylocarcinus styx Herbst 1803:53-54; Paulson, 1875: 11-12; Sakai, 1938: 271- 2; Guinot, 1962b: 242.

Material examined: ZSI/ANRC/M/33081, 1 male (19.2 x 13 mm), 11°34.383', 92°44.406'E, coll. By Anu, 18 May 2026.

Diagnosis: Carapace elongate and pyriform, dorsal surface covered with rounded tubercles. Rostral spines fused basally and diverging distally. Preocular spine sharp, upcurved. Lateral

margins tuberculate, lacking distinct spines. Chelipeds shorter and slenderer than first ambulatory legs. Ambulatory legs very stout; merus bearing 5-6 spines on the anterior margin of carpus with a sharp distal spine, and dactylus claw-shaped.

Remarks: This species was recorded from areas of dead coral rubble.

Distribution: It ranges from Indian ocean to Western Pacific which includes Red sea, Mozambique Channel, Seychelles, Mauritius, Indonesia, Japan, Fiji, and French Polynesia. (Alcock, 1898).

Family Xanthidae MacLeay, 1838 Subfamily Actaeinae Alcock, 1898 *Actaeodes* Dana, 1851

***Actaeodes tomentosus* H. Milne Edwards, 1834 (Figure 1D)**

Actaeodes tomentosus (H. Milne Edwards, 1834); Shokita et al., Okin Pref., 09: 629-658.

Material examined: ZSI/ANRC/M/33082, 2 male (26 x 15 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace marked with furrows and distinct areolae on the regions; surface covered with a fine, close- cropped maroon velvety pubescence, leaving only the apices of the granules exposed. Cheliped fingers relatively thick and short, with enlarged distal extremities bearing hoof- shaped excavations.

Remarks: The specimen exhibited irregular grooves and ridges over the granulated carapace. The chelipeds were likewise granulated. The pleopods were lined with setae and hairs, consistent with the description provided by H. Milne-Edwards (1834).

Distribution: Maldives, Andaman and Nicobar Islands, Australia, China, Fiji, French Polynesia, Guam, Hawaii, Indian Ocean, Indo Pacific, Japan, Kenya, Madagascar, Malaysia, Mauritius, Mayotte, Mozambique, New Caledonia, Palau, Papua New Guinea, Philippines, Red Sea, Samoa, Solomon Islands, Somalia, South-Africa, Taiwan, (Mediterranean), the Mediterranean Sea, the Seychelles, Wallis and Futuna (Kumaralingam et al., 2017).

Family Xanthidae MacLeay, 1838 Xanthinae MacLeay, 1838

***Leptodius* A. Milne- Edwards, 1863**

***Leptodius affinis* De Haan, 1835 (Figure 1E)**

Leptodius affinis De Haan, 1835; Serene, 1962; H. Milne Edwards, 1835.

Material examined: ZSI/ANRC/M/33083, 11 male (14 x 9 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace subovate, with regions well-defined; dorsal surface depressed and finely granular. Front short, divided into two lobes, anterior margins of frontal lobes moderately concave; orbits well developed. Surface of carpus covered with fine granules. fingers spoon shaped, toothed, black in colour. Ambulatory legs smooth, first to third pairs with setae along the anterior margin of the merus; dactylus densely covered with setae.

Remarks: The specimen was collected from the inter-tidal and rocky outcrop areas of Andaman and Nicobar Islands.

Distribution: Eastern Indian Ocean and in the western and central Pacific Ocean, ranging from the eastern coast of India all the way to the oceanic islands of French Polynesia; extending northward to central Japan and southward to southwestern and southeastern Australia (Lee et al., 2013).

Family Xanthidae MacLeay, 1838 Subfamily Xanthinae MacLeay, 1838 *Leptodius* A. Milne- Edwards, 1863

***Leptodius nudipus* De Haan, 1852 (Figure 1F)**

Xantho (*Leptodius*) *nudipes*, Alcock, 1898, p. 121; *Leptodius nudipes*, Borradaile, 1903, p. 252.

Material examined: ZSI/ANRC/M/33084, 3 male (24 x 16 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace with anterolateral margins bearing 10-11 short, blunt teeth of unequal size posterior to the extra-orbital angle, resulting from subdivision of the usual marginal teeth. Carapace regions well defined, surface coarsely punctate. Chelipeds with supero-external surfaces coarsely reticulated.

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Remarks: The specimen observed possessed grooves on the dorsal surface and was collected from the littoral zone.

Distribution: It is widely distributed in India, including the Andaman and Nicobar Islands, and is also reported from other regions such as Australia, China, the Hawaiian Islands, Indonesia, Japan, and Madagascar (Kumaralingam et al., 2017).

Family Xanthidae MacLeay, 1838 Subfamily Zosiminae Alcock, 1898

Atergatopsis A. Milne- Edwards, 1862

Atergatopsis signata Adams & White, 1849 (Figure 1G)

Atergatopsis signata, Adams & White, 1849; Barnard, 1950, p. 2.

Material examined: ZSI/ANRC/M/33085, 14 male (3.7 x 2.5 cm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace quadrilateral in shape, marked with broad grooves. Anterolateral borders arcuate and divided into four lobes; the anterior two lobes subequal, the third lobe longest, and the last lobe very short. Chelipeds symmetrical, bearing two obtuse teeth on the inner angle.

Remarks: The specimen was collected from the coral-reef areas.

Distribution: This is the first record of the species from the Andaman and Nicobar Islands. The species is also known from South Africa, Mauritius, Zanzibar, Seychelles and Chagos (Sankarankutty et al., 1962).

Family Pilumnidae Samouelle, 1819 Subfamily Rhizopinae Stimpson, 1858 Ceratoplax Stimpson, 1858

Ceratoplax ciliata Stimpson, 1858 (Figure 1H)

Ceratoplax ciliata Stimpson, 1858; 10: 93-110; Sakai, 1976; figs. 1: i-xxix, 1-773.

Material examined: ZSI/ANRC/M/33086, 7 male (6.8 x 5 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace longitudinally arched, especially in the anterior region, and nearly straight transversely. Margins of the carapace covered with short hairs, similar to the subhepatic and sub-branchial regions, while the central regions of the carapace remain smooth.

Remarks: The specimen was collected from sandy shore areas. In the examined specimen, the carapace margins were covered with short hairs, while the dorsal surface remained smooth.

Distribution: Native to marine environments ranging from the South China Sea, including its type locality of Hong Kong, through Southeast Asia to Papua New Guinea and northern Australia (Sankarankutty et al., 1962).

Family Xanthidae MacLeay, 1838

Subfamily Chlorodiellinae Ng & Holthuis, 2007

Pilodius Dana, 1851

Pilodius areolatus H. M. Edwards, 1834 (Figure 2A)

Chlorodius areolatus H. Milne Edwards, 1834; *Pilodius areolatus* Sakai, 1976: p. 460.

Material examined: ZSI/ANRC/M/33087, 2 male (20 x 15 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace oval in shape, with rounded lobes and a granulate surface. Anterior margin of the cheliped merus granulate. External surface of the cheliped carpus bearing clusters of pearlforn granules. External surface of the chela minutely setose and proximally ornamented with large rounded granules. Pereiopods fringed with plumose setae; merus and carpus bearing conical tubercles on the superior margin, while the propodus and carpus possess pearlforn granules.

Remarks: The specimen was collected from sandy shore areas. The examined specimen exhibited irregular grooves, and the ambulatory legs were covered with dense setae and conical tubercles on the merus and carpus.

Distribution: Gulf of Mannar (Jeyabaskaran et al., 2000), Andaman and Nicobar Islands (Alcock, 1898) and from the Indo-Pacific region: Red Sea, east coast of Africa, Mauritius, Sri Lanka, south seas, Japan and Hawaii (Alcock 1898; Sakai 1976).

Family Xanthidae MacLeay, 1838

Subfamily Chlorodiellinae Ng & Holthuis, 2007

Luniella Lasley, Klaus & Ng, 2015

Luniella pugil Dana, 1852 (Figure 2B)

Chlorodius (Pilodius) pugil Dana, 1852, *Chlorodius (Pilodius) pugil* Dana, 1852, *Pilodius pugil* Dana, 1852.

Material examined: ZSI/ANRC/M/33088, 1 male (50 x 40 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace oval in shape, with deep grooves across the surface and densely covered with hairs. External surfaces of the cheliped, carpus, and propodus bearing large conical tubercles. Anterolateral margin armed with three equal, prominent, hook-shaped spines.

Remarks: The examined specimen was densely covered with hairs, and the ambulatory legs bore dense setae. The present specimen was collected from littoral zones.

Distribution: This species is widely distributed in the Indian Ocean and the western Pacific, and is also reported from the Persian–Arabian Gulf and parts of the Red Sea (Dev Roy and Nandi, 2012).

Family Xanthidae MacLeay, 1838 Subfamily Etisinae Ortmann, 1893 Etisus H. Milne Edwards, 1834

Etisus laevimanus Randall, 1840 (Figure 2C)

Etisus laevimanus, Henderson, 1893, p. 362. Alcock, 1898, p. 131. Borradaile, 1903, p. 263.

Gravelly, 1927, p. 146. Barnard, 1950, p. 244. Chhapghar, 1957, p. 430.

Material examined: ZSI/ANRC/M/33089, 3 male (50 x 40 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace hexagonal in shape, broader than long. The gastric region is fairly demarcated, the branchio- hepatic region contains 3 lobes and the anterolateral margin has 4 teeth. The outer margins of the teeth are smooth but sometimes endowed with spinules or denticles. Chelipeds are very long and slightly unequal.

Remarks: The examined specimen is unequal cheliped which are very long. The present specimen was collected from the sub-tidal zones.

Distribution: The species has been reported from Rameswaram, Tuticorin, and Ceylon by Henderson; Bombay, the Laccadives, and the Andaman Islands by Alcock, 1898. It is also known from Mauritius, Réunion, the east coast of Africa, the Red Sea, and the Indo-Pacific region (Gokul et al., 2010).

Family Percnidae Stevcic, 2005

Percnon Gistel, 1848

Percnon planissimum Herbst, 1804 (Figure 2D)

Cancer planissimum Herbst, 1804. *Acanthopus planissimus* (Herbst, 1804). *Acanthopus tenuifrons* H. Milne Edwards, 1853. *Percnon demani* Ward, 1935. *Plagusia clavimana* Latreille, 1806. *Plagusia serripes* Lamarck, 1818.

Material examined: ZSI/ANRC/M/33090, 1 male (30 x 20 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace square in shape and is thin, slightly longer than broad, covered with short bristles. Merus slender with rows of short spines, the ventral inner border with 2 subdistal sharp spines and a distal obtuse spine, the ventral outer border with 3 distal spines. Carpus small, with 2 rows of short spines. Ambulatory legs are slender; first pleopod of the male with its distal end hook- like with hairy base.

Remarks: The specimen was observed thin and soft carapace. The examined specimen was collected from the coral reef areas.

Distribution: It is widely distributed throughout the tropical Indo-Pacific region. It's distribution ranges from the Red Sea and eastern coast of Africa to Japan, Australia, Polynesia, and Hawaii, as well as New Zealand (Gokul et al., 2010).

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Family Xanthidae MacLeay, 1838 Subfamily Xanthinae MacLeay, 1838 *Xanthias* Rathbun, 1897

***Xanthias lamarckii* H. Milne Edwards, 1834 (Figure 2E)**

Xantho lamarckii H. Milne Edwards, 1834. *Xantho cultrimanus* White, 1848. *Xanthodes granosomanus* Dana, 1852. *Xanthodes lamarcki* (H. Milne Edwards, 1834).

Material examined: ZSI/ANRC/M/33091, 11 male (20 x 12 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace oval in shape, with a granular surface marked by distinct ridges and grooves. Anterolateral margin bearing 6–7 teeth. Chelipeds unequal in size; external surface of the palm regularly granulated and marked with three longitudinal furrows. Surface of the chelipeds also granular. Pleopod tips furnished with short hairs.

Remarks: The specimen was collected from the coral reef areas.

Distribution: *Xanthias lamarckii* is the most common species of the genus *Xanthias* (Serène, 1984), with a distribution extending in the Indo-West Pacific Ocean, from Eastern Africa (South Africa), Mauritius, Réunion, Madagascar, Europa Isl., Comoros (Anjouan, Mayotte) to Australia, Japan, tuna islands (Serène, 1984; Davie, 2002, 2012; Legall & Poupin, 2013).

Family Pilumnidae Samouelle, 1819 Subfamily Pilumninae

Samouelle, 1819 *Pilumnopus* A. Milne Edwards, 1867

***Pilumnopus indicus* De Man, 1887 (Figure 2F)**

Pilumnopus indicus (De Man, 1887). *Heteropanope indica* De Man, 1887. *Heteropanope (Pilumnopus) indica* – Serène, 1968. *Benthopanope indica* – Davie, 1989 / Ng & Davie, 2002.

Material examined: ZSI/ANRC/M/33092, 14 male (15 x 11 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace hexagonal in shape and broader than long. Dorsal surface sparsely covered with scattered plumose setae, barely visible to the naked eye. Anterolateral margin bearing three teeth posterior to the extra orbital angle; first tooth blunt, second and third teeth acute but not spine-tipped. Third and fourth teeth unequal in size, with the fourth tooth directed almost laterally.

Remarks: The specimen was collected from the coral reef patches of Wandoor.

Distribution: The species distributed from the Indian Ocean, including the Mergui Archipelago, Chilika Lake (Odisha, India), and the western coast of Peninsular Malaysia (Kumaralingam et al., 2017; Krupal Patel et al., 2023).

Family Grapsidae MacLeay, 1838

***Metopograpsus* H. Milne Edwards, 1853**

***Metopograpsus messor* Forsskal, 1775 (Figure 2G)**

Cancer messor Forsskal, 1775. *Eurycarcinus messor* (Forsskal, 1775). *Grapsus gaimardi* Audouin, 1826. *Grapsus messor* H. Milne-Edwards, 1837. *Grapsus aethiopicus* Hilgendorf, 1869.

Material examined: ZSI/ANRC/M/33093, 1 female (25 x 21 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Description: Carapace rectangular in shape. Inner margins of the ambulatory legs bearing 2–3 teeth. Surface of the carapace and chelipeds smooth. Ambulatory legs with hairs along the upper margins of the propodus, except in the fifth pereopod where hairs are absent. Postfrontal regions marked with distinct ridges or markings.

Remarks: The specimen was collected from the mangrove areas of Andaman Islands.

Distribution: The distribution of *M. messor* extends from East Africa, along the coast of the Indian Ocean, including the Red Sea and the Persian Gulf, and at least as far east as Fiji (Trivedi et al., 2018).

Family Porcellanidae Haworth, 1825

***Petrolisthes* Stimpson, 1858**

***Petrolisthes fimbriatus* Borradaile, 1898 (Figure 2H)**

Petrolisthes lamarckii var. *fimbriatus* Borradaile, 1898: 466. *Petrolisthes lamarcki* var. *fimbriatus* Borradaile, 1898) Borradaile, L.A. (1898): 457–468.

Material examined: ZSI/ANRC/M/33094, 3 male (5 x 8 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Body with light red to white colour. Carapace oval in shape with red spots all over the body. The chelipeds are equal or unequal in size. The inner lining of carpus bear 3–4 teeth on the anterior surface and 1–2 teeth on the posterior surface. Carpus of the ambulatory legs are without anterodistal spines.

Remarks: The specimens were collected from intertidal, underneath on reef flats.

Distribution: This species is distributed throughout the Indo-Pacific region, including the Nansha and Xisha Islands, the Philippines, New Guinea, New Caledonia, the Caroline, Marshall, Ellice, Tonga, and Phoenix Islands (Osawa, 2007).

Family Oziidae Dana, 1851

***Epixanthus* Heller, 1861**

***Epixanthus frontalis* H. Milne Edwards, 1834 (Figure 3A)**

Epixanthus frontalis (H. Milne Edwards, 1834) (Table 1, Figs 2–4). *Ozius frontalis*, H. Milne Edwards, 1834: 406–40715 (type locality: Tranquebar, India) *Epixanthus kotschii* Heller, 1861: 3258. *Epixanthus frontalis* (H. Milne Edwards, 1834) Heller, 1861: Alcock, 1898: 18510. *Epixanthus frontalis* (H. Milne Edwards, 1834): Chhappargar, 1957: 35, pl. 10, figs g–i6.

Material examined: ZSI/ANRC/M/33095, 10 male (23.7 x 16 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace subovate in shape, with regions shallowly defined. Frontal and anterolateral regions covered with fine granules, while the remaining surface is smooth. Chelipeds unequal in size, long, and slender. Fingers of the minor cheliped distinctly longer than those of the major cheliped.

Distribution: It is widely distributed in India: Andaman and Nicobar Islands (Mayabunder, North Andaman), Tranquebar in Tamil Nadu coast, Orissa coast and Bombay coast; Elsewhere: Australia, Burma, China, Gulf of Thailand, Hong Kong, Indonesia, Japan, Pakistan, Philippines, Madagascar, Mauritius, Malay Peninsula, Red Sea, South Africa, Sri Lanka, Sagami Bay, Taiwan. (Trivedi et al., 2018).

Remarks: The species is very common in the inter-tidal zones.

Family Portunidae Rafinesque, 1815 Subfamily Portuninae

Rafinesque, 1815 *Portunus* Weber, 1795

***Portunus pelagicus* Linnaeus, 1758 (Figure 3B)**

Cancer pelagicus: Linnaeus (1766), *Neptunus pelagicus* De Haan (1833), *Lupea pelagica*: Milne-Edwards (1834) (Kangas, 2000).

Material examined: ZSI/ANRC/M/33096, 3 male (15.5 x 7 cm), 11°39.29'N, 92°43.37'E, coll. Sivnath Adhikary, 15 May 2026.

Diagnosis: Carapace hexagonal in shape, broader than long, with the surface covered in coarse granules. Anterolateral margin bearing nine teeth, the last tooth very large and projecting laterally. Chelipeds marked by a black spot at the junction of the dactylus and propodus. Merus of the cheliped armed with 3–4 sharp spines along the anterior border. Natatory legs lacking spines or spinules.

Remarks: This species commonly occurs in sandy and muddy habitats. Its taxonomy remains controversial, and further molecular studies are necessary to resolve the existing ambiguities.

Distribution: The blue swimmer crab occurs throughout the Indian and the west Pacific Oceans: from Japan, and Philippines throughout south-east and east Asia, to Indonesia, the east of Australia, Fiji Islands and westward to the Red Sea and east Africa. It is present in the Mediterranean Sea as a lessepsian migrant, southern Pacific Ocean, along the coast of Egypt, Mozambique, Kenya, Israel, Lebanon, Turkey, the Syrian Arab Republic, Cyprus and the east southern coast of Sicily (Lai et al., 2010).

Family Portunidae Rafinesque, 1815 Subfamily Portuninae

Rafinesque, 1815 *Portunus* Weber, 1795

***Portunus reticulatus* Herbst, 1799 (Figure 3C)**

Cancer reticulatus Herbst, 1799: 65, Pl. 50. *Portunus pelagicus* – Sakai, 1999: 29, Pl. 15C. *Portunus trituberculatus* – Stephenson & Rees, 1967a: 17 (material from the Bay of Bengal and India) [not *Neptunus trituberculatus* Miers, 1876, fide Stephenson 1976: 18]. *Neptunus (Neptunus) pelagicus* – Alcock, 1899: 34; Chopra, 1935: 476, 477, Fig. 3.

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Material examined: ZSI/ANRC/M/33097, 2 male (140 x 70 mm), 11°39.29'N, 92°43.37'E, coll. Sivnath Adhikary, 15 May 2026.

Diagnosis: Carapace hexagonal; frontal teeth spinous, small but conspicuous. Cheliped merus relatively short, anterior margin usually bearing three spines and normally lacking an enlarged proximal spine near the articulation. Ambulatory legs relatively stouter and less slender. Natatorial paddle oval, less elongate, with a more rounded distal margin.

Remarks: The specimen observed has carapace wider than long. The chelipeds has long and slender fingers. The last anterolateral teeth are very long and protrudes laterally as described by Herbst in 1799.

Distribution: *Portunus reticulatus* appears to be restricted to the Bay of Bengal and is currently known only from the southeastern coast of the Indian subcontinent, waters off Sri Lanka, and the Andaman coast of southern Thailand (Lai et al., 2010). In India, the distribution of this species appears to be sporadic. (Dev Roy and Nandi, 2008).

Family Portunidae Rafinesque, 1815 Subfamily Thalamitinae Paulson, 1875 *Charybdis* De Haan, 1833

***Charybdis (Charybdis) anisodon* De Haan, 1850 (Figure 3D)**

Charybdis anisodon Stimpson, 1858a: 39; Stimpson, 1907: 80, pl. 12(1); Gee, 1926: 161; Davie, 1992b: tab. 1; Blackmore and Rainbow, 2000: app. 1; *Charybdis (Goniosoma) anisodon* Gordon, 1931: 527; Shen, 1932a: 43, text-figs. 9-10, pl. 9b; Shen, 1940: 221.

Material examined: ZSI/ANRC/M/33099, 6 male (5.8 x 3.2 cm), 11°39.29'N, 92°43.37'E, coll. Sivnath Adhikary, 15 May 2026.

Diagnosis: Carapace smooth, with faintly granular transverse ridges; frontal, cardiac and mesogastric ridges absent. Front with six lobes; median lobes truncate, situated on a lower plane and projecting beyond the laterally directed submedian lobes. Chelipeds smooth and unequal; merus with two spines on anterior border, posterior border granulated. Carpus bearing a strong spine on inner angle and three spinules on outer angle. Dorsal surface pale green; ventral surface whitish.

Remarks: The examined specimen was collected from muddy substrate at depth of 10 m.

Distribution: Widespread in the Indo-Pacific: from Madagascar, to Japan in Asia, and Australia and New Caledonia (Wee and Ng, 1995).

Family Menippidae Ortmann, 1893

***Myomenippe* Hilgendorf, 1879**

***Myomenippe hardwickii* Gray, 1831 (Figure 3E)**

Cancer Hardwickii Gray, 1831: 40; *Menippe (Myomenippe) granulosa*, Alcock, 1898: 179.

Menippe hardwickii, Deb, 1998; 10: 373.

Material examined: ZSI/ANRC/M/33100, 1 female (80 x 55 mm), 11°39.29'N, 92°43.37'E, coll. Sivnath Adhikary, 15 May 2026.

Diagnosis: Carapace oval in shape, broader than long. Body brown in colour, resembling the colour of mud. Chelipeds very large and robust. Ambulatory legs sparsely covered with short hairs (setae) and terminating in black tips. Anterolateral margins armed with 4-5 spines. Major cheliped with large molar-like teeth at the base of the fingers.

Remarks: The examined specimen was collected from the Junglighat fish market; therefore, its natural habitat is unknown.

Distribution: Worldwide, the species has been documented from the east coast of Africa, Mauritius, Bangladesh, Taiwan, Japan, and from Southeast Asian countries, namely, Myanmar, Thailand, Philippines, Malaysia and Singapore, and Indonesia (Dev Roy and Nandi, 2008).

Family Xanthidae MacLeay, 1838 Subfamily Euxanthinae Alcock, 1898 *Euxanthus* Dans, 1851

***Euxanthus exsculptus* Herbst, 1790 (Figure 3F)**

Euxanthus exsculptus var. *rugosus* - Nobili, 1907: 389 (Mangareva) not *Euxanthus rugosus* Miers, 1884 = *E. exsculptus* fide Guinot-Dumortier (1960b: 170). - *Euxanthus exsculptus* - Guinot-Dumortier, 1960b: 169, pl. 1, fig. 4, pl. 2, fig. 10, pl. 6, fig. 36-37, pl. 8, fig. 42-47 ("Rikitea" = Mangareva).

Material examined: ZSI/ANRC/M/33101, 1 male (19 x 13 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace is hexagonal to rectangular in shape. Its surface is irregular, bearing grooves and ridges. Chelipeds and pereopods are covered with smooth, swollen tubercles. The propodus is black in colour, with the pigmentation extending backwards. The anterolateral margin bears 5-6 teeth.

Remarks: The examined specimen was collected from the rocky outcrop areas.

Distribution: Indo-West Pacific: Mayotte, Mauritius, Sri Lanka, Andaman Islands, Mergui Archipelago, Indonesia, Taiwan, China (Paracel Islands), Vietnam, Japan, the Philippines, Australia, New Caledonia, Fiji, Samoa, and French Polynesia (Sakai, 2004).

Family Xanthidae MacLeay, 1838 Subfamily Zosiminae Alcock, 1898 *Zosimus* Desmarest, 1823

***Zosimus aeneus* Linnaeus, 1758 (Figure 3G)**

Zosimus aeneus (Linnaeus, 1758). *Cancer aeneus* Linnaeus, 1758: 630. *Zosimus aeneus* (Linnaeus, 1758) — Rathbun 1906: 846 [O 'ahu]. *Zoymus [sic] aeneus* (Linnaeus, 1758) — Edmondson 1946: 286 [Rathbun's record]; 1962a: 225, fig. 2a [Rathbun's record].

Material examined: ZSI/ANRC/M/33102, 2 male (90 x 60 mm), 13°16.260'N, 93°04.253'E, coll. Anu, 5 April 2026.

Description: Carapace oval in shape, its surface covered with flat confluent tubercles and grooves. Chelipeds symmetrical and covered with flat confluent tubercles arranged in rows. Dactylus and propodus black in colour with white tips. Inner margins of the fingers bearing stout teeth. Body marked with small red spots throughout. Ambulatory legs furnished with setae (hairs) along the inner and outer margins.

Remarks: The specimen was collected from the coral-reef areas of the Andaman Islands.

Distribution: *Z. aeneus* is widely distributed throughout the Indo-Pacific region, ranging from South Africa and the Red Sea eastward to Japan, Australia, and Hawaii (Dev Roy and Nandi, 2008).

Family Eriphiidae MacLeay, 1838

***Eriphia* Latreille, 1817**

***Eriphia sebana* Shaw and Nodder, 1803 (Figure 3H)**

Cancer sebana Shaw & Nodder, 1803: pl. 591. *Eriphia laevimana* Guérin-Méneville, 1829-1844 (1831-1832): pl. 3, fig. 1. - Milne Edwards A., 1862c: 5. - de Man, 1888d: 327. - Alcock, 1898: 214. - Lenz, 1905: 358.

Material examined: ZSI/ANRC/M/33103, 2 male (60 x 40 mm), 13°16.260'N, 93°04.253'E, coll. Anu, 05 April 2026.

Diagnosis: Carapace oval in shape with a reddish appearance. Anterolateral margin armed with 6-7 spines. Frontal, hepatic, and branchial regions of the carapace bearing sparse beaded granules. Chelipeds smooth and asymmetrical; inner margins of both chelipeds furnished with large teeth. Ambulatory legs stout and covered with black hairs on the surface.

Remarks: *Eriphia sebana* is a common crab found throughout littoral zones and coral reef areas.

Distribution: *Eriphia sebana* is a fairly common crab, with a wide biogeographical distribution. International locations of the species include: Indo-West Pacific islands, including Hawaii, Papa New Guinea, Eastern Australia, New Caledonia, Fiji, Cook Island, Kiribati, French Polynesia, East Africa, Japan (Dev Roy and Nandi, 2008).

Family Xanthidae MacLeay, 1838 Subfamily Zosiminae, 1898

***Atergatis* De Haan, 1833**

***Atergatis ocyroe* Herbst, 1801 (Figure 4A)**

Cancer ocyroe Herbst, 1801: 20, Pl. 54 fig. 2. *Atergatis compressipes* MacLeay, 1838: 59. *Atergatis floridus* Sakai, 1999: 32, Pl. 17c. Chhapgar, 1957a: 426, Pl. 8. Jeyabaskaran et al., 2000: 62, Pl. 52. Trivedi & Vachhrajani, 2012: 11. *Atergatis ocyroe*.

Material examined: ZSI/ANRC/M/33104, 2 male (30 x 20 mm), 13°16.260'N, 93°04.253'E, coll. Anu, 5 April 2026.

Description: Carapace oval in shape with red irregular marking or spots on both the dorsal as well as ventral surface. Surface of the carapace as well as chelipeds are smooth in nature. The tip of dactylus as well as propodus are black in colour with white tip. The inner lining of chelipeds bears 4 teeth.

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Remarks: *Atergatis ocyroe* is commonly found in coral reef areas and is noted for its distinctive colour variations.

Distribution: The species is distributed in Northern and Western Indian Ocean including South Africa, Pakistan, India, Sri Lanka and western Thailand (Trivedi et al., 2018).

Family *Carpiliidae* **Ortmann, 1893**

Carpilius **Desmarest, 1823**

Carpilius maculatus **Linnaeus, 1758 (Figure 4B)**

Cancer maculatus **Linnaeus, 1758, p. 626; *Carpilius maculatus* Milne Edwards, 1834, p. 382; Ng et al., 2008, p. 54; Trivedi et al., 2018, p. 32.**

Material examined: ZSI/ANRC/M/33105, 1 male (150 x 120 mm), 13°16.260'N, 93°04.253'E, coll. Anu, 5 April 2026.

Diagnosis: The carapace is oval in shape with a smooth surface. The body colour ranges from light yellowish to white. The body bears 7–11 red spots arranged in a 2–3–4 pattern. The inner margin of the major cheliped has two teeth. The maxillipeds and pleopods have pointed tips that aid in feeding, walking, swimming, and egg carrying.

Remarks: This so-called “spotted reef crab” is a widespread species in the Indo-Pacific, ranging from the Cocos (Keeling) Islands to French Polynesia and Hawaii (Ng, 1998). Carapace with not fewer than 11 large, roundish dark-red blotches arranged as follows: two on either side immediately behind the eyes, the smaller anterior one of these involving the orbital margin; three forming a transverse curved row across the middle of the carapace; and four in another transverse row just in front of the posterior margin (Silambarasan et al., 2025).

Distribution: The species were previously reported in the Red Sea, Kenya, Mozambique, South Africa, Madagascar, Mauritius, Indonesia Japan, Taiwan, China, the Philippines, Palau, Australia, Hawaii, Line Islands, Tahiti, and Tuamotu Archipelago (Karaithil et al., 2002).

Family *Xanthidae* **MacLeay, 1838 Subfamily** *Liomerinae* **Sakai, 1976 *Liomera* Dana, 1851**

Liomera laevis **A. Milne Edwards, 1873 (Figure 4C)**

Liomera laevis, H.M. Edwards, 1873; *Carpilodes laevis*, A. Milne Edwards, 1873.

Material examined: ZSI/ANRC/M/33106, 1 male (14 x 11 mm), 06°51.056'N, 93°53.769'E, coll. K. Silambarasan, 13 January 2026.

Diagnosis: Carapace oval to subovate in shape and smooth in nature. Chelipeds and ambulatory legs with a granular or punctate surface. Carapace bearing ridges along the anterolateral margins. Anterolateral margin with four blunt teeth. Inner margins of the chelipeds bearing 3–4 teeth used for grasping.

Remarks: The examined specimens collected from the inter-tidal zones of Andaman Islands.

Distribution: It is widely distributed across the Indo-Pacific region including Andaman & Nicobar Islands, Lakshadweep, Madagascar, The Red Sea, Taiwan and the Eastern Coast of Africa (Dev Roy and Nandi, 2008).

Family *Xanthidae* **MacLeay, 1838 Subfamily** *Zosiminae*, **1898**

Platypodia **Bell, 1835**

Platypodia cristata **A. Milne Edwards, 1865 (Figure 4D)**

Lophactaea cristata A. Milne Edwards, 1865: vol. 1, p. 246, pi. 16 fig. 1; Alcock, 1898: 67, pt. 2, p. 100 (for the older literature).

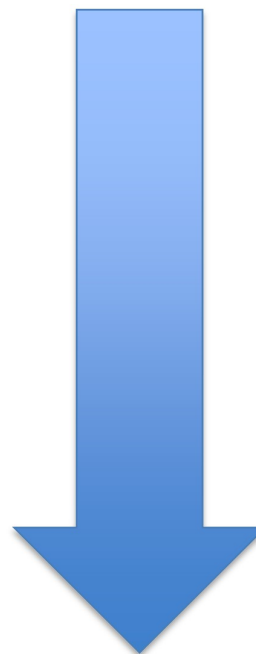
Material examined: ZSI/ANRC/M/33079, 2 male (20 x 10 mm), 13°16.260'N, 93°04.253'E, coll. K. Silambarasan, 5 April 2026.

Diagnosis: Carapace and outer surface of the carpus and propodus of the legs covered with pearly granules, and the upper margin of the chela (hand) sharply crested. The anterior male abdominal appendage is elegantly curved at the tip and bears spinules on its distal portion.

Remarks: The specimen was collected from the coral rubble areas of the Andaman Islands.

Distribution: Widespread throughout the Indo-West Pacific region, ranging from the western Indian Ocean and the East African coast to parts of the Indian coastline, including the Andaman and Nicobar Islands (Dev Roy & Nandi, 2008).

CHECK TO THIS EMPTY SPACE



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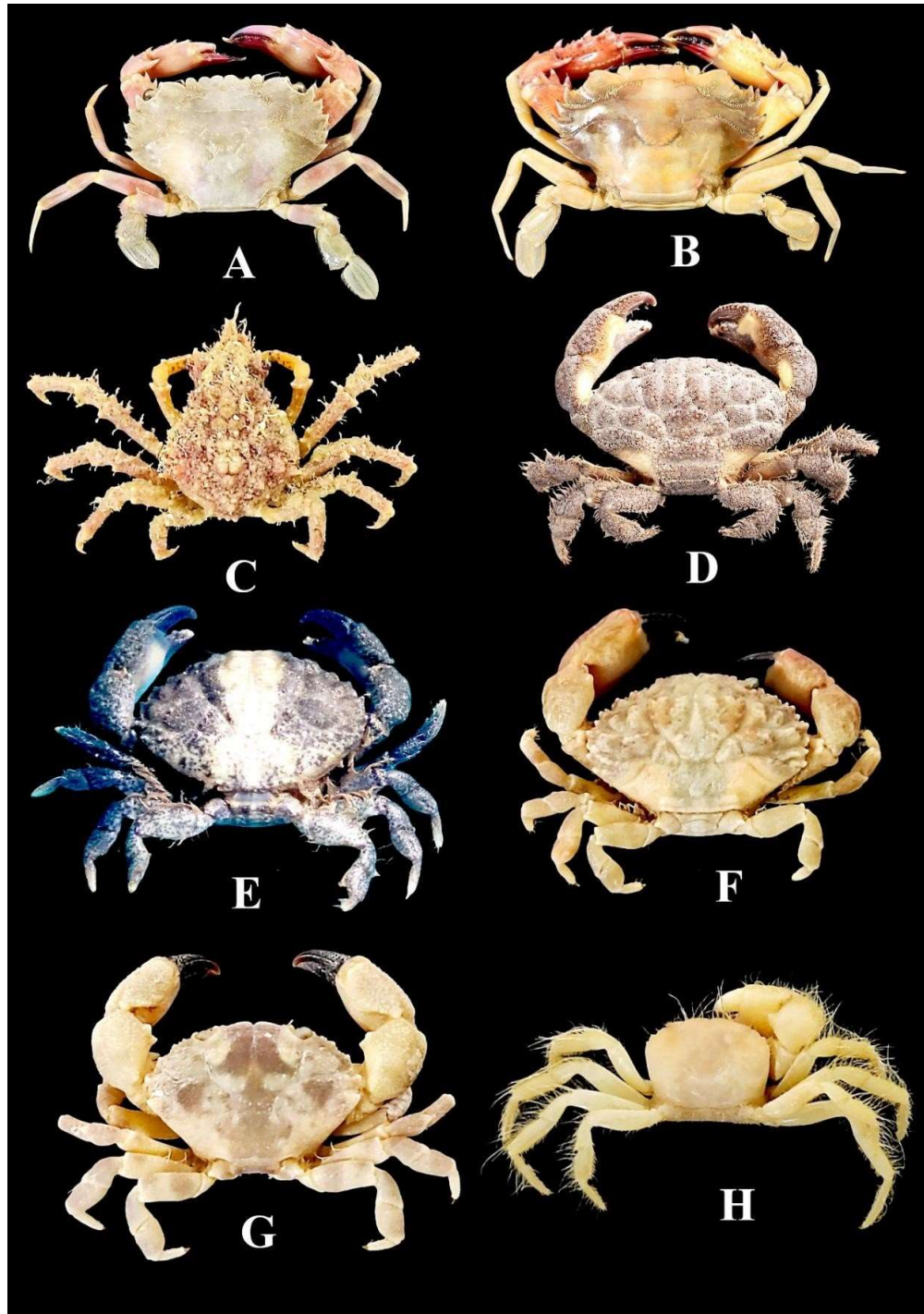


Figure 1: Dorsal habitus photographs: A. *Thranita crenata* (Rüppell, 1830), ZSI/ANRC/M/33079, 2 male (55 x 27 mm); B. *Thranita prymna* (Herbst, 1803), ZSI/ANRC/M/33080, 1 male (50 x 30 mm); C. *Tylocarcinus styx* (Herbst, 1803), ZSI/ANRC/M/33081, 1 male (19.2 x 13 mm); D. *Actaeodes tomentosus* (H. Milne Edwards, 1834), ZSI/ANRC/M/33082, 2 male (26 x 15 mm); E. *Leptodius affinis* (De Haan, 1835), ZSI/ANRC/M/33083, 11 male (14 x 9 mm); F. *Leptodius nudipus* (De Haan, 1852), ZSI/ANRC/M/33085, 14 male (3.7 x 2.5 cm); G. *Atergatopsis signata* (Adams & White, 1849), ZSI/ANRC/M/33085, 14 male (3.7 x 2.5 cm); H. *Ceratoplax ciliata* (Stimpson, 1858), ZSI/ANRC/M/33086, 7 male (6.8 x 5 mm).

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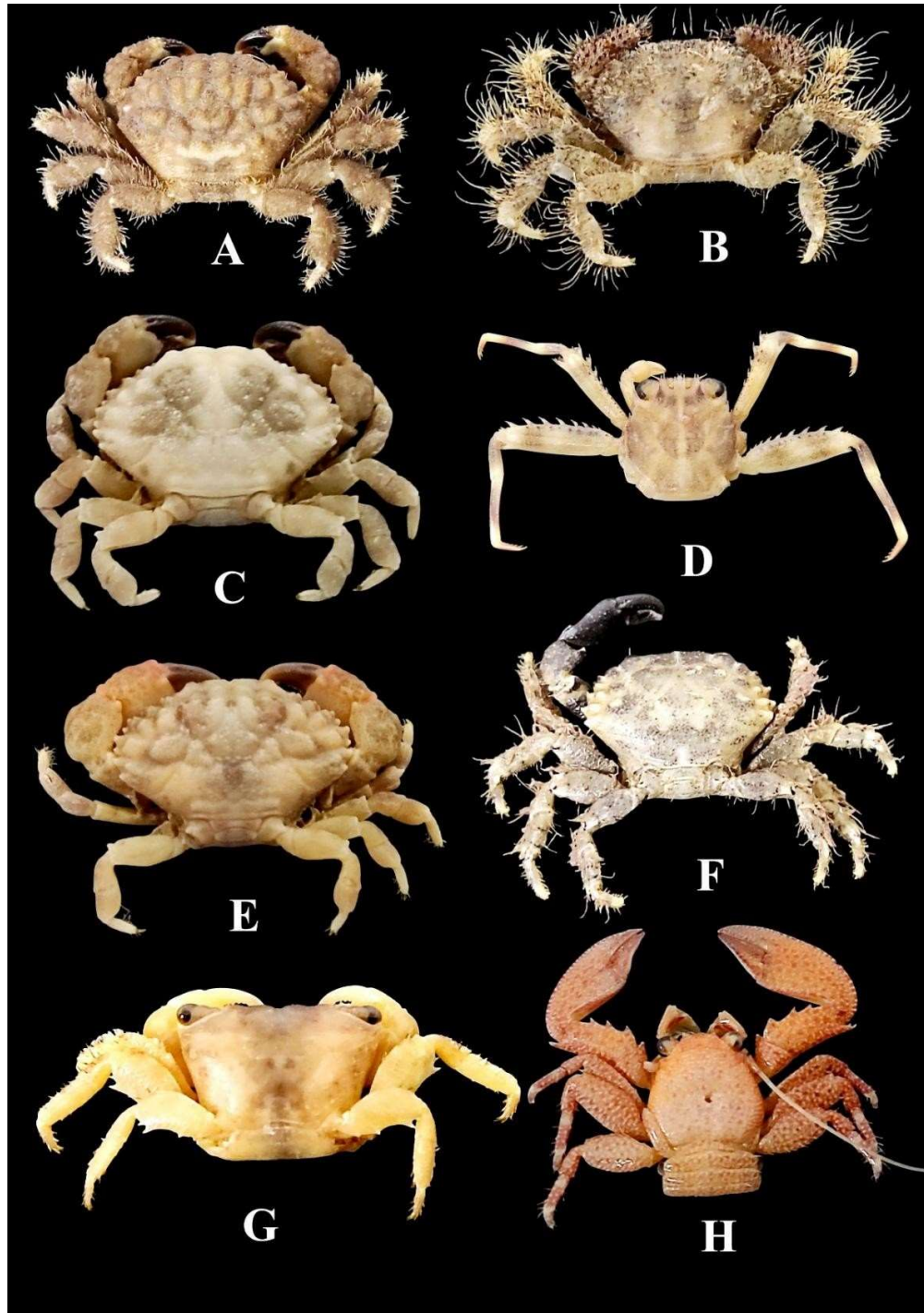


Figure 2: Dorsal habitus photographs: A. *Chlorodius areolatus* (H. Milne Edwards), ZSI/ANRC/M/33087, 2 male (20 x 15 mm); B. *Luniella pugil* (Dana, 1852), ZSI/ANRC/M/33088, 1 male (50 x 40 mm); C. *Etisus laevimanus* Randall, 1840), ZSI/ANRC/M/33089, 3 male (50 x 40 mm); D. *Percnon planissimum* (Herbst, 1804), ZSI/ANRC/M/33082, 2 male (26 x 15 mm); E. *Xanthias lamarckii* H. Milne Edwards, 1834), ZSI/ANRC/M/33091, 11 male (20 x 12 mm); F. *Pilumnopus indicus* (De Man, 1887), ZSI/ANRC/M/33092, 14 male (15 x 11 mm); G. *Metopograpsus messor* Forsskal, 1775), ZSI/ANRC/M/33093, 1 female (25 x 21 mm); H. *Petrolisthes fimbriatus* Borradaile, 1898), ZSI/ANRC/M/33094, 3 male (5 x 8 mm).

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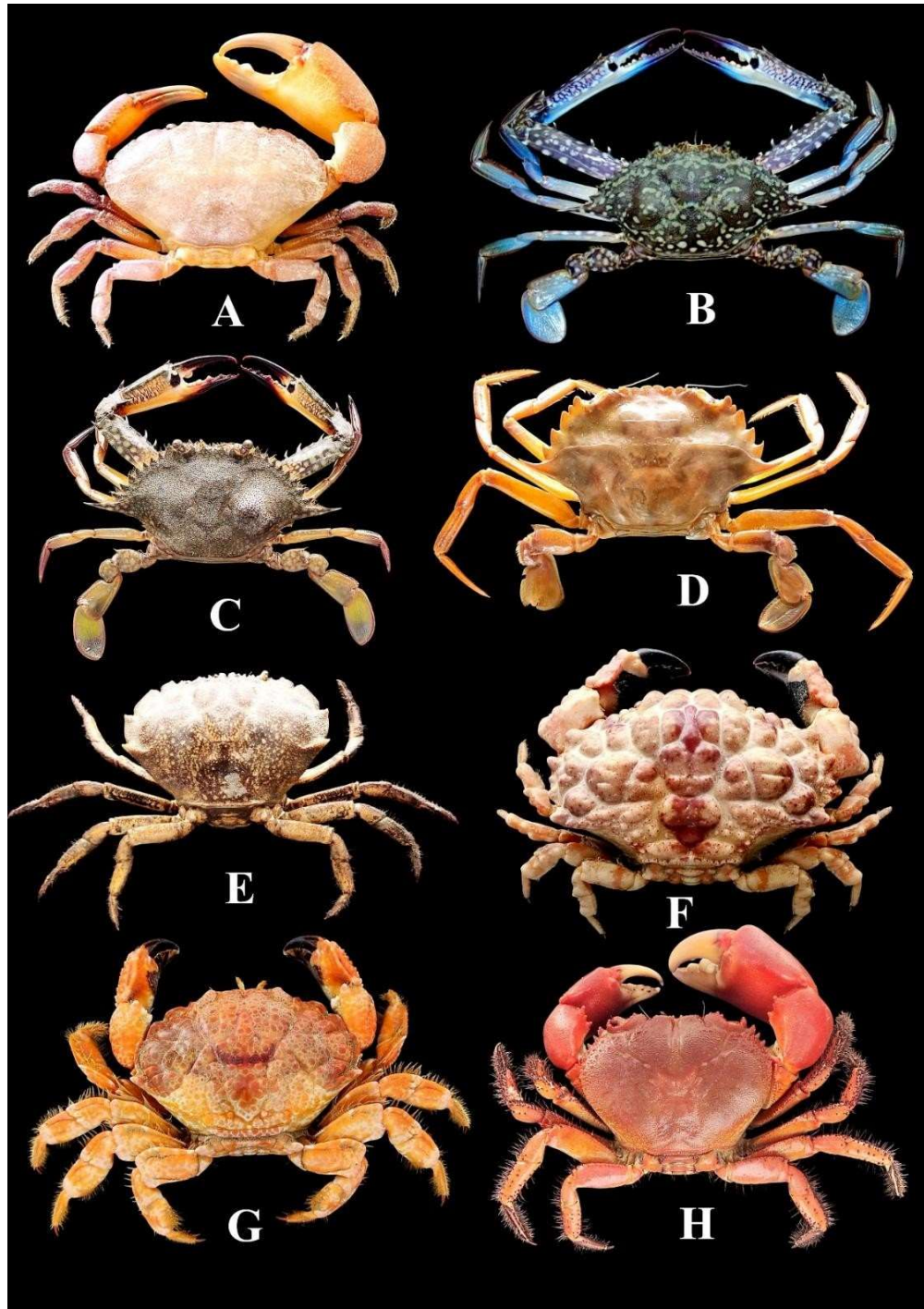


Figure 3: Dorsal habitus photographs: A. *Epixanthus frontalis* (H. Milne Edwards, 1834), ZSI/ANRC/M/33095, 10 male (23.7 x 16 mm); B. *Portunus pelagicus* (Linnaeus, 1758), ZSI/ANRC/M/33096, 3 male (15.5 x 7 cm); C. *Portunus reticulatus* (Herbst, 1799), ZSI/ANRC/M/33097, 2 male (140 x 70 mm); D. *Charybdis* (*Charybdis*) *anisodon* (De Haan, 1850), ZSI/ANRC/M/33099, 6 male (5.8 x 3.2 cm); E. *Myomenippe hardwickii* (Gray, 1831), ZSI/ANRC/M/33100, 1 female (80 x 55 mm); F. *Euxanthus exsculptus* (Herbst, 1790), ZSI/ANRC/M/33101, 1 male (19 x 13 mm); G. *Zosimus aeneus* (Linnaeus, 1758), ZSI/ANRC/M/33102, 2 male (90 x 60 mm); H. *Eriphia sebana* (Shaw & Nodder, 1803), ZSI/ANRC/M/33103, 2 male (60 x 40 mm).

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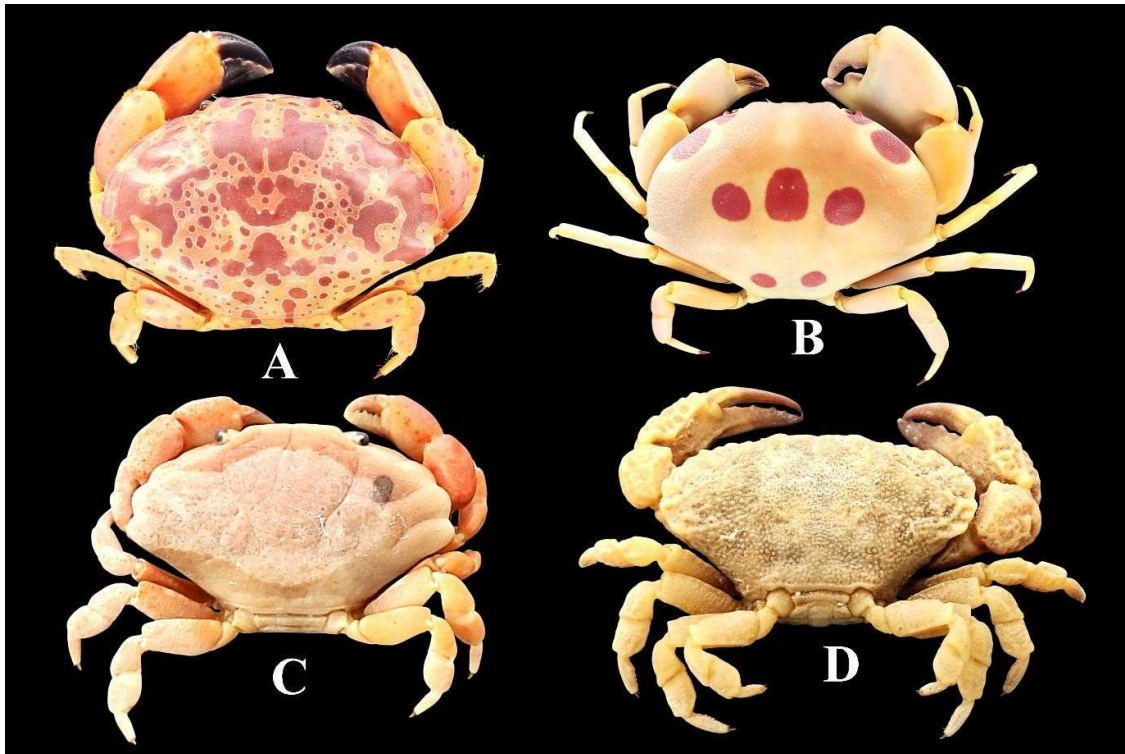


Figure 4: Dorsal habitus photographs: A. *Atergatis ocyroe* (Herbst, 1801), ZSI/ANRC/M/33104, 2 male (30 x 20 mm); B. *Carpilius maculatus* (Linnaeus, 1758), ZSI/ANRC/M/33105, 1 male (150 x 120 mm); C. *Liomera laevis* (A. Milne Edwards, 1873), ZSI/ANRC/M/33106, 1 male (14 x 11 mm); D. *Platyopodia cristata* (H. Milne Edwards, 1834), ZSI/ANRC/M/33079, 2 male (20 x 10 mm).

Discussion

In the present study, a total of 28 species of intertidal xanthid and portunid crabs were collected from different habitats, including intertidal zones, rocky shores, and sandy shores. The study recorded 10 families, namely Xanthidae, Portunidae, Epialtidae, Pilumnidae, Percnidae, Grapsidae, Porcellanidae, Oziidae, Menippidae, and Carpiliidae. The specimens were collected from various intertidal zones of the Andaman and Nicobar Islands, with sampling carried out from Burmanallah, Kodyaghat, Badabalu, and Chidiyatapu in South Andaman; Baludera in Middle Andaman; and Kalipur in North Andaman.

The taxonomy, systematics, and distribution of the specimens under examination are covered. The results advance knowledge of the diversity of brachyuran crabs in the intertidal zone and their interactions with their surroundings. Because of the intertidal zone's exposure to both marine and terrestrial conditions as a result of tide changes, species that live there have developed a number of adaptations that allow them to endure a variety of environmental situations (Ng, 1998). Because of their small size or toxicity, the majority of the crab species under study are inedible. The families Menippidae and Portunidae are economically significant. On the other hand, Epialtidae, Pilumnidae, Percnidae, Grapsidae, and Porcellanidae are typically avoided due to their tiny size and low meat yield, while Xanthidae, Oziidae, and Carpiliidae are typically regarded as inedible due to the presence of toxins (Ng et al., 2008; Davie et al., 2015).

During low tide, the majority of xanthid crabs were seen sheltering under coral rubble, beneath rocks, and in cracks. They probably avoid predators, lessen their exposure to intense sunlight, and minimize desiccation thanks to this

behavior. They effectively blend in with their surroundings thanks to their body coloring, which closely resembles the substrate. Because rocky substrates offer more refuge and food resources than sandy habitats, crab abundance was relatively higher in rocky regions (Warner, 1977; Wells, 2002). According to the current observations, brachyuran crabs were essential to preserving the intertidal ecosystem's biological equilibrium. Numerous species were seen consuming algae, tiny creatures, and organic detritus, demonstrating their function in maintaining habitat and recycling nutrients. Some crabs also showed defensive and territorial behaviour when disturbed. Their mobility and burrowing activity influence benthic ecosystem processes by improving substrate aeration and mixing sediments (Warner, 1977; Alongi, 1998; Cannicci et al., 2008).

The distribution of crabs in the research area appears to be influenced by environmental parameters such temperature, salinity, tidal movement, and substrate type. Greater crab diversity was found in areas with little human disturbance, while lower abundance was found in areas impacted by trash disposal and habitat change. This implies that intertidal biodiversity and ecosystem health may be adversely impacted by human activity (Snelgrove, 1998; Alongi, 2002; Schlacher et al., 2007). The current study offers baseline data on the systematics and taxonomy of brachyuran crabs, including intertidal xanthids. It also highlights the importance of conserving intertidal habitats, as these ecosystems support a wide range of marine organisms. Overall, the study enhanced field experience and improved understanding of the ecology and diversity of intertidal and xanthid crabs.

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Conclusion

The present study recorded a total of 28 species of brachyuran crabs belonging to 10 families from the intertidal and coral reef habitats of the Andaman and Nicobar Islands. The results indicate that Xanthidae was the most dominant family, followed by Portunidae and Carpilidae, highlighting the high diversity of xanthid crabs in the study area. The distribution of crabs was found to be strongly influenced by habitat type, with rocky intertidal zones supporting greater species richness compared to sandy areas due to the availability of shelter and food resources. The study also showed that environmental factors such as salinity, tidal variation, substrate type, and anthropogenic disturbances play a significant role in determining crab abundance and distribution. Many species exhibited important ecological adaptations such as camouflage, burrowing behaviour, and habitat preference, enabling survival in the highly fluctuating intertidal environment. Furthermore, several species recorded in the study area are of ecological and economic importance, while others are restricted due to toxicity or small size. Overall, this study provides baseline taxonomic and ecological information on intertidal brachyuran crabs of the Andaman and Nicobar Islands and emphasizes the need for conservation of intertidal habitats to maintain biodiversity and ecosystem stability.

References

- [1] Abdul-sahib., Ibtisam. (2012). Some biological aspects of the swimming crab *Portunus pelagicus* (Linnaeus, 1766) (Decapoda: Portunidae) in NW Arabian Gulf. *Mesopotamian Journal of Marine Sciences*, 27 (2): 78- 87.
- [2] Adams, A., & White, A. (1849). Crustacea, Part II. In A. Adams (Ed.), *The Zoology of the Voyage of H.M.S. Samarang: Under the Command of Captain Sir Edward Belcher, During the Years 1843–1846* (pp. 33–66).
- [3] Ahlyong, S.T., Lowry, J.K., Alonso, M., Bamber, R.N., Boxshall, G.A., Castro, P., Gerken, S., Karaman, G.S., Goy, J.W., Jones, D.S., Meland, K., Rogers, D.C., & Svavarsson, J. (2011). Subphylum Crustacea Brünnich, 1772. *Zootaxa*, 3148(1), 165–191.
- [4] Alcock, A. (1895). Materials for a carcinological fauna of India. No. 1. The Brachyura Oxyrhyncha. *Journal of the Asiatic Society of Bengal*, 64(2), 157–291.
- [5] Alcock, A. (1898). Materials for a carcinological fauna of India. No. 3. The Brachyura Cyclometopa. Part I. The family Xanthidae. *Journal of the Asiatic Society of Bengal*, 67(21), 67–233.
- [6] Alcock, A. (1898). Materials for a carcinological fauna of India. No. 3. The Brachyura Cyclometopa. Part I. The family Xanthidae. *Journal of the Asiatic Society of Bengal*, 67(Part 2, No. 1), 67–233.
- [7] Alcock, A. (1899). Materials for a carcinological fauna of India. No. 4. The Brachyura Cyclometopa. Part II. A revision of the Cyclometopa with an account of the families Portunidae, Cancridae and Corystidae. *Journal of the Asiatic Society of Bengal*, 68(2), 1–104.
- [8] Alongi, D. M. (1998). Coastal ecosystem processes. *Marine Ecology Progress Series*, 172, 233–246.
- [9] Alongi, D. M. (2002). Present state and future of the world's mangrove forests. *Environmental Conservation*, 29(3), 331–349.
- [10] Alongi, D.M. (2002). Present Status and Future of the Worlds mangrove forests. *Biodiversity and Conservation*, 29(3), 331- 349.
- [11] Audouin, V. (1826). Explication sommaire des planches de crustacés de l'Égypte et de la Syrie, publiées par Jules-César Savigny, membre de l'Institut; offrant un exposé des caractères naturels des genres, avec la distinction des espèces. In: *Description de l'Égypte, Histoire Naturelle*, 1(4), 77–98.
- [12] Barnard, K.H. (1950). Descriptive Catalogue of South African Decapod Crustacea (Crabs and Shrimps). *Annals of the South African Museum*, 38, 1–837.
- [13] Blackmore, G., & Rainbow, P.S. (2000). Hong Kong Crustacea. *The Natural History Museum, London, and The Hong Kong University Press, Hong Kong*, 548 pp.
- [14] Borradaile, L. A. (1903). Marine Crustaceans. IV. Some remarks on the classification of the crabs. V. The crabs of the Catometope families. VI. Oxystomata. In J. S. Gardiner (Ed.), *The Fauna and Geography of the Maldives and Laccadive Archipelagoes (Vol. 1, Part 3, pp. 424–443)*.
- [15] Borradaile, L.A. (1898). A revision of the Pontoniidae. *The Annals and Magazine of Natural History*, Series 7, 2, 376–391.
- [16] Borradaile, L.A. (1902). Marine crustaceans. III. The Xanthidae and some other crabs. In: Gardiner, J.S. (Ed.), *The Fauna and Geography of the Maldives and Laccadive Archipelagoes; Being the Account of the Work Carried on and of the Collections Made by an Expedition During the Years 1899 and 1900, Vol. 1, Part 3, pp. 237–271*.
- [17] Cannicci, S., Burrows, D., Fratini, S., Smith, T. J. III, & Offenberg, J. (2008). Faunal impact on sediment processes in intertidal ecosystems. *Estuarine, Coastal and Shelf Science*, 76, 1–10.
- [18] Cannicci, S., Burrows, D., Fratini, S., Smith, T.J., III, Offenberg, J. and Dahdouh- Guesbas, F. (2008). Faunal impact on vegetation structure and ecosystem function in mangrove forests: A review. *Aquatic Botany*, 89(2), 186- 200.
- [19] Cannicci, Stefano., Dahdouh- Guebas, Farid., Anyona, Dyane., & Vannini, Marco (1996). Natural diet and feeding habits of *Thalassidroma crenata* (Decapoda: Portunidae). *Journal of Crustacean Biology*; 16(4): 678- 683.
- [20] Chhappgar, B.F. (1957). On the marine crabs (Decapoda: Brachyura) of Bombay State. Part I. *Journal of the Bombay Natural History Society*, 54(2), 399–439.
- [21] Chopra, B.N. (1935). Further notes on Crustacea Decapoda in the Indian Museum. VIII. On the decapod Crustacea collected by the Bengal Pilot Service off the mouth of the River Hooghly. Brachygnatha (Oxyrhyncha and Brachyrhyncha). *Records of the Indian Museum*, 37(4), 463–514.
- [22] Clark, G.F., & Caley, M.J. (2003). The use of taxonomic distinctness indices in marine biodiversity assessment, with examples from eastern Australian rocky reefs. *Marine Ecology Progress Series*, 258, 27–36.
- [23] Corsini- Foka, Maria., & Kondylatos, Gerasimos., (2015). First occurrence of *Actaeodes tomentosus* (H. Milne Edwards, 1834) (Brachyuran: Xanthidae: Actaeinae) in the Mediterranean Sea. *Mediterranean Marine Sciences*, 16(1): 201- 205.
- [24] Corsini- Foka, Maria., & Kondylatos, Gerasimos., & Pancucci, Antonella (2013). A new alien crab for the Mediterranean Sea: *Xanthias lamarekii* (H. Milne Edwards, 1834) (Crustacea: Decapoda: Brachyura: Xanthidae). *Mediterranean Marine Sciences*: 14 (2): 295- 297.
- [25] Milne-Edwards, H. (1862). Monographie des crustacés fossiles de la famille des Cancériens. Première partie. *Annales des Sciences Naturelles, Zoologie, Série 4*, 18, 31–85, pls. 1– 10.
- [26] Milne-Edwards, H. (1865). Études zoologiques sur les crustacés récents de la famille des Cancériens. *Nouvelles Archives du Muséum d'Histoire Naturelle*, Paris, 1, 177–308.
- [27] Dana, J.D. (1852). Crustacea. Part I. In: United States Exploring Expedition during the years 1838, 1839, 1840, 1841, 1842, under the command of Charles Wilkes, U.S.N. Vol. 13. Philadelphia: C. Sherman, pp. 1–685.
- [28] Davie, P. J. F., Guinot, D., & Ng, P. K. L. (2015). Systematics and classification of Brachyura. In P. Castro et al. (Eds.), *Treatise on Zoology: The Crustacea* (Vol. 9, Part C-I). Brill.
- [29] Davie, P.J.F. (1989). A new genus and species of xanthoid crab from the Northern Territory, Australia (Crustacea: Decapoda: Brachyura). *Memoirs of the Queensland Museum*, 27(2), 411–422.
- [30] Davie, P.J.F. (1992). A revision of the genus *Tuerkayana* Sakai, 1976 (Crustacea: Brachyura: Gecarcinidae), with descriptions of two new species. *Memoirs of the Queensland Museum*, 32(2), 391–404.
- [31] Davie, P.J.F. (2002). Crustacea: Malacostraca: Eucarida (Part 2): Decapoda—Anomura, Brachyura. In: Wells, A. & Houston, W.W.K. (Eds.), *Zoological Catalogue of Australia, Vol. 19.3B*. CSIRO Publishing, Melbourne, 641 pp.
- [32] Davie, P.J.F., Guinot, D., & Ng, P.K.L. (2015). Systematics and classification of Brachyura. In: Castro, P., Davie, P.J.F., Guinot, D., Schram, F.R., & von Vaupel Klein, J.C. (Eds.), *Treatise on Zoology –*

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(DOI): 10.70102/AEJ.2026.18.2s.56

- Anatomy, Taxonomy, Biology. The Crustacea*, Volume 9C-II: Decapoda: Brachyura (Part 2), Chapter 71-18, pp. 1049–1130.
- [33] De Haan, W. (1833–1850). Crustacea. In: von Siebold, P.F. (Ed.), *Fauna Japonica sive Descriptio Animalium, quae in Itinere per Japoniam, Jussu et Auspiciis Superiorum, qui Summum in India Batava Imperium Tenent, Suscepto, Annis 1823–1830 Collegit, Notis, Observationibus et Adumbrationibus Illustravit. Lugduni-Batavorum (Leiden)*, pp. i–xxx, ix–xvi, 1–243, pls. A–J, L–Q, 1–55.
- [34] De Haan, W. (1835). Crustacea. In: von Siebold, P.F. (Ed.), *Fauna Japonica sive Descriptio Animalium, quae in Itinere per Japoniam, Jussu et Auspiciis Superiorum, qui Summum in India Batava Imperium Tenent, Suscepto, Annis 1823–1830 Collegit, Notis, Observationibus et Adumbrationibus Illustravit. Lugduni-Batavorum (Leiden)*, pp. 25–64, pls. 9–15, 17, C–D.
- [35] De Man, J.G. (1887). Report on the Podophthalmous Crustacea of the Mergui Archipelago, collected for the Trustees of the Indian Museum, Calcutta, by Dr. John Anderson, F.R.S., Superintendent of the Museum. Part I. *Journal of the Linnean Society of London, Zoology*, 22(136), 1–64.
- [36] De Man, J.G. (1888). Report on the Podophthalmous Crustacea of the Mergui Archipelago, collected for the Trustees of the Indian Museum, Calcutta, by Dr. John Anderson, F.R.S., Superintendent of the Museum. *Journal of the Linnean Society of London, Zoology*, 22(139), 1–312, pls. 1–19.
- [37] Deb, M. (1998). Crustacea: Decapoda: Brachyura (Crabs). In: State Fauna Series 3: Fauna of West Bengal, Part 10. *Zoological Survey of India, Kolkata*, pp. 345–403.
- [38] Dev Roy, M. K. (2008). An annotated checklist of mangrove and coral reef inhabiting brachyuran crabs of India. *Records of the Zoological Survey of India, Occasional Paper No.* 289, 1–212.
- [39] Dev Roy, M. K., & Nandi, N. C. (2008). Intertidal crabs of the Andaman and Nicobar Islands. *Records of Zoological Survey of India*, 185–236.
- [40] Dev Roy, M. K., & Nandi, N. C. (2012). Brachyuran Crabs (Crustacea). In: *Fauna of Andaman and Nicobar Islands (State Fauna Series, Vol. 19, Part 1)*, pp. 185–236. Kolkata: Zoological Survey of India.
- [41] Forsskål, P. (1775). *Descriptiones Animalium Avium, Amphibiorum, Piscium, Insectorum, Vermium; quae in Itinere Orientali Observavit Petrus Forsskål. Post Mortem Auctoris Edidit Carsten Niebuhr. Hauniae (Copenhagen): Möller*, pp. 1–164.
- [42] Gee, N.G. (1926). Tentative list of Chinese decapod Crustacea. *Lingnaa Agricultural Review*, 3(2), 156–166.
- [43] Gokul, A., & Venkataraman, K. Taxonomy and Systematics of coral associated Brachyuran crabs in Gulf of Mannar marine biosphere reserve. *Records of Zoological Survey of India*: 110(3): 61.
- [44] Gordon, I. (1931). Brachyura from the coasts of China. *Journal of the Linnean Society of London, Zoology*, 37(254), 525–558.
- [45] Gravely, F.H. (1927). Orders Decapoda (except Paguridea) and Stomatopoda. In: *The Littoral Fauna of Krusadai Island in the Gulf of Mannar. Bulletin of the Madras Government Museum (Natural History), New Series*, 1*(1), 135–155, pls. XIX–XXVI.
- [46] Gray, J.E. (1831). Description of a new genus, and some undescribed species of Crustacea. In: *The Zoological Miscellany*. To be Continued Occasionally, Part I, pp. 39–40. London: Treuttel, Wurtz & Co.
- [47] Griffin, J.G. & Tranter, H.A. (2013). Spider crabs of the family Majidae (Crustacea: Brachyuran) from the Red Sea. *Israel Records of Zoology*, 23 (3).
- [48] Guinot, D. (1962). Sur une collection de Crustacés Décapodes Brachyours des îles Maldives et de la Mer Rouge (Expédition “Xarifa” 1957–1958). *Kieler Meeresforschungen*, 18(2), 231–244.
- [49] Guinot-Dumortier, D. (1960). Revision des genres Euxanthus Dana et Hypocolpus Rathbun (Crust. Decap. Brach.). Remarques sur les cavités sous-hépatiques et les coaptations des Hypocolpus. *Mémoires du Muséum National d'Histoire Naturelle, Série A (Zoologie)*, 20(2), 153–218, pls. 1–12.
- [50] Heller, C. (1861). Beiträge zur Crustaceen-Fauna des Rothen Meeres. I. Theil. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Classe*, 43(1), 297–374.
- [51] Henderson, J.R. (1893). A contribution to Indian carcinology. *Transactions of the Linnean Society of London, Series 2 (Zoology)*, 5(10), 325–458, pls. 36–40.
- [52] Herbst, J. F. W. (1799). Versuch einer Naturgeschichte der Krabben und Krebse nebst einer systematischen Beschreibung ihrer verschiedenen Arten (Vol. 3, Part 1). *Berlin & Stralsund: Gottlieb August Lange*, pp. 1–66, pls. 41–46.
- [53] Herbst, J.F.W. (1801). *Versuch einer Naturgeschichte der Krabben und Krebse nebst einer systematischen Beschreibung ihrer verschiedenen Arten*. Vol. 3, Part 2, Berlin & Stralsund: Gottlieb August Lange, pp. 1–46, Plates 51–54.
- [54] Herbst, J.F.W. (1803). Versuch einer Naturgeschichte der Krabben und Krebse nebst einer systematischen Beschreibung ihrer verschiedenen Arten. Vol. 3, Part 3. *Berlin & Stralsund: Gottlieb August Lange*, pp. 1–54, pls. 55–58.
- [55] Herbst, J.F.W. (1804). Versuch einer Naturgeschichte der Krabben und Krebse nebst einer systematischen Beschreibung ihrer verschiedenen Arten. Vol. 3, Part 4. *Berlin & Stralsund: Gottlieb August Lange*.
- [56] Hilgendorf, F. (1869). Crustaceen. In C. C. von der Decken, *Reisen in Ost-Afrika in den Jahren 1859–1865* (Vol. 3, Part 1, pp. 69–116).
- [57] Kamboj, R.D., Venkataraman, K., Satyanarayana Ch., Yogesh Kumar J.S., Bellem I.B. (2014). Distribution of marine crabs from the Marine National Park, Gulf of Mannar. *Scholars Academic Journal of Biosciences*, 2(7): 419–427
- [58] Kizhakudan, J.K., & Loveson, E. (2017). Portunus (Portunus) pelagicus (Linnaeus, 1758). *Prioritized Species for Mariculture in India* (pp. 201–207).
- [59] Kumaralingam, S., Raghunathan, C., Ajithkumar, T.T. and Kailash Chandra (2017). Reef associated common crustaceans of Andaman and Nicobar Islands, Lakshadweep, & Gulf of Mannar. *Records of Zoological Survey of India, Occasional Paper No.* 380: 1–249.
- [60] Lai, Joelle., Ng, Peter., & Davie, Peter. (2010). A revision of the *Portunus pelagicus* (Linnaeus, 1758) species complex (Crustacea: Brachyura: Portunidae), with the recognition of four species. *The Raffles Bulletin of Zoology*, 58(2): 199–237.
- [61] Lamarck, J.B.P.A. de. (1818). Histoire naturelle des animaux sans vertèbres, présentant les caractères généraux et particuliers de ces animaux, leur distribution, leurs classes, leurs familles, leurs genres, et la citation des principales espèces qui s’y rapportent. Tome 5. Paris: Verdrière, 612 pp.
- [62] Latreille, P. A. (1806). Genera Crustaceorum et Insectorum secundum ordinem naturalem in familias disposita, iconibus exemplisque plurimis explicata (Vol. 1). Paris: A. Koenig.
- [63] Laurie, R.D. (1906). Report on the Brachyura collected by Professor Herdman at Ceylon, in 1902. In: *Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar, Part 5 (Supplementary Reports)*, pp. 349–432, pls. 1–2.
- [64] Lenz, H. (1905). Ostafrikanische Dekapoden und Stomatopoden. Gesammelt von Herrn Prof. Dr. A. Voeltzkow. In A. Voeltzkow (Ed.), *Wissenschaftliche Ergebnisse der Reisen in Madagaskar und Ostafrika in den Jahren 1889–1895. Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft*, 27(4), 341–392.
- [65] Linnaeus, C. (1758). *Systema Naturae per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, cum Characteribus, Differentiis, Synonymis, Locis. Editio Decima, Reformata (10th Edition)*, Vol. 1. Holmiae (Stockholm): Laurentii Salvii, 824 pp.
- [66] Linnaeus, C. (1758). *Systema Naturae per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, cum Characteribus, Differentiis, Synonymis, Locis. (10th Edition)*, Vol. 1. Holmiae (Stockholm): Laurentii Salvii, 824 pp.
- [67] Linnaeus, C. (1766). *Systema Naturae per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, cum Characteribus, Differentiis, Synonymis, Locis. Editio Duodecima Reformata (12th Edition), Tomus I, Pars I. Holmiae (Stockholm): Laurentii Salvii*, pp. 1–532.
- [68] Martin, J.W., & Davis, G.E. (2001). An Updated Classification of the Recent Crustacea. Science Series No. 39. Los Angeles: *Natural History Museum of Los Angeles County*, 1–124 pp.
- [69] Martin, J.W., & Davis, G.E. (2001). An Updated Classification of the Recent Crustacea. Science Series No. 39. Los Angeles: *Natural History Museum of Los Angeles County*, 1–124 pp.
- [70] McLeay, W. S. (1838). *On the Brachyurous Decapod Crustacea brought from the Cape by Dr. Smith*. In A. Smith (Ed.), *Illustrations of the Annulosa of South Africa* (pp. 53–71).

*Corresponding Author:

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(DOI): 10.70102/AEJ.2026.18.2s.56

- [71] Miers, E.J. (1876). Catalogue of the Stalk- and Sessile- Eyed Crustacea of New Zealand, London: *Colonial Museum and Geological Survey Department*, 136 pp.
- [72] Miers, E.J. (1884). Crustacea. In: Report on the Zoological Collections Made in the Indo-Pacific Ocean During the Voyage of H.M.S. "Alert", 1881–1882. Part I. *The Collections from Melanesia*. London: British Museum (Natural History), pp. 178–322, pls. 18–32.
- [73] Milne-Edwards, A. (1873). Recherches sur la faune carcinologique de la Nouvelle-Calédonie. Première partie. *Nouvelles Archives du Muséum d'Histoire Naturelle*, 9, 155–332.
- [74] Milne-Edwards, H. (1834). *Histoire naturelle des crustacés: comprenant l'anatomie, la physiologie et la classification de ces animaux*. Vol. 1. Paris: Librairie Encyclopédique de Roret, 1–468 pp.
- [75] Milne-Edwards, H. (1835). Histoire naturelle des crustacés: comprenant l'anatomie, la physiologie et la classification de ces animaux. Vol. 1. Paris: Librairie Encyclopédique de Roret, 1–468 pp.
- [76] Milne-Edwards, H. (1837). Histoire naturelle des crustacés: comprenant l'anatomie, la physiologie et la classification de ces animaux. Vol. 2. Paris: Librairie Encyclopédique de Roret, 1–532 pp.
- [77] Milne-Edwards, H. (1853). Mémoire sur la famille des Ocypodiens. *Annales des Sciences Naturelles, Zoologie, Série 3*, 20, 163–228.
- [78] Milne-Edwards, H. (1873). Recherches sur la faune carcinologique de la Nouvelle-Calédonie. Première partie. *Nouvelles Archives du Muséum d'Histoire Naturelle*, Paris, 9, 155–332.
- [79] Montgomery, S. K. (1931). Report on the crustacea Brachyura of the Percy Sladen Trust Expedition to the Abrolhos Islands under the leadership of Prof. W.J. Dakin in 1913, along with other crabs from Western Australia. *Journal of the Linnean Society of London, Zoology*, 37(253), 405–465.
- [80] Ng, P. K. L., Guinot, D., & Davie, P. J. F. (2008). Systema Brachyurorum: Part I. An annotated checklist of extant brachyuran crabs of the world. *Raffles Bulletin of Zoology*, 17, 1–286.
- [81] Ng, P.K.L. (1998). Crabs. In: Carpenter, K.E. & Niem, V.H. (Eds.), *FAO Species Identification Guide for Fishery Purposes. The Living Marine Resources of the Western Central Pacific*. Volume 2: Cephalopods, Crustaceans, Holothurians and Sharks. FAO, Rome, pp. 1045–1155.
- [82] Ng, P.K.L., Guinot, D., & Davie, P.J.F. (2008). Systema Brachyurorum: Part I. An annotated checklist of extant brachyuran crabs of the world. *Raffles Bulletin of Zoology, Supplement No. 17*, 1–286.
- [83] Ng, P.K.L., Guinot, D., & P.J.F. (2008). Systema Brachyurorum: Part I. An annotated checklist of extant brachyuran crabs of the world. *Raffles Bulletin of Zoology, Supplement No. 17*, 1–286.
- [84] Nobili, G. (1907). Ricerche sui crostacei della Polinesia. Decapodi, stomatopodi, anisopodi e. *Bollettino del Museo di Zoologia ed Anatomia Comparata della R. Università di Torino*, 22(576), 1–35.
- [85] Patel, Krupal., Trivedi, J.N., Mishra, Santanu. (2024). The taxonomy of *Heteropanope indica* De Man, 1887 from the Indian ocean, with a note on *Pilumnopus pearsei* (Rathbun, 1932) (Crustacea: Decapoda: Brachyura: Pilumnidae). *Zootaxa*:5437 (3): 384–396.
- [86] Paulson, O. (1875). Investigations on the Crustacea of the Red Sea with Notes on Crustacea of the Adjacent Seas. Part I. Podophthalmata and Edriophthalmata (Cumacea). Kiev: S.V. Kulzhenko, i-xiv, 1–144 pp., pls. 1–21.
- [87] Prusty, Shradhanjali., Behera, Rajaram., Mishra, Aparna., & Priyadarshini, Pragyan. (2022). First record of a menippid crab *Myomenippe hardwickii* (Gray, 1831) from Hukitola, Odisha coast, India. *Indian Journal of Geo- Marine Sciences*, 51(10): 854–858.
- [88] Rathbun, M.J. (1906). The Brachyura and Macrura of the Hawaiian Islands. *Bulletin of the United States Fish Commission*, 23(1903), 827–930, pls. 1–24.
- [89] Sakai, K. (1999). Synopsis of the family Callianassidae, with keys to subfamilies, genera and species, and the description of new taxa (Crustacea: Decapoda: Thalassinidea). *Zoologische Verhandelingen, Leiden*, 326, 1–152.
- [90] Sakai, T. (1938). Studies on the Crabs of Japan. III. Brachygnatha, Oxyrhyncha. Yokendo Co., Tokyo, pp. 193–364, pls. 20–41.
- [91] Sankaranakutty, C. (2010). On Decapoda brachyuran from the Andaman and Nicobar Islands: 2. Family Xanthidae. *Journal of the Marine Biological Association of India*, 1962: 4(1): 121–150.
- [92] Schlacher, T. A., Schoeman, D. S., Jones, A. R., Dugan, J. E., Hubbard, D. M., Defeo, O., Peterson, C. H., Weston, M. A., Maslo, B., Olds, A., Scapini, F., Nel, R., Harris, L., Lucenzi, S., & McLachlan, A. (2007). Impacts of anthropogenic disturbance on coastal environments. *Biological Reviews*, 82, 591–608.
- [93] Schlacher, T/A., Daugan, J., Schoeman, D.S., Lastra, M., Jones, a., Scapini, F., McLachlan, A., Defeo, O. Sandy beaches at the brink, *Diversity and Distributions*, 13(5), 556–560.
- [94] Serène, R. (1962). Note sur les espèces du genre *Leptodius* (Decapoda, Brachyura, Xanthidae). *Bulletin du Muséum National d'Histoire Naturelle, Série 2*, 34(5), 474–480.
- [95] Serène, R. (1968). The Brachyura of the Indo-West Pacific Region. In: *Prodromus for a Checklist of the Non-planctonic Marine Fauna of South East Asia*. Singapore National Academy of Science, *Special Publication No. 1*, 33–112.
- [96] Shaw, G., & Nodder, F. P. (1803). Crustacea. In *The Naturalist's Miscellany; or, Coloured Figures of Natural Objects Drawn and Described Immediately from Naturalist's Miscellany*, 15.
- [97] Shen, C.J. (1932). The brachyuran Crustacea of North China. *Zoologia Sinica, Series A*, 9(1), 1–320, pls. 1–10.
- [98] Shen, C.J. (1940). The Brachyuran Fauna of Hong Kong. *Journal of the Hong Kong Fisheries Research Station*, 1(2), 211–242.
- [99] Silambarasan, K., Kar, A. B., Prasad, G. V. A., Pattanayak, S. K., & Jeyabaskaran, R. (2025). On a collection of brachyuran crabs in the exploratory fishery survey cruises on the northeast coast of India, Bay of Bengal (Crustacea: Decapoda: Brachyura). *Journal of the Marine Biological Association of the United Kingdom*, 105, e31.
- [100] Snelgrove, P. V. R. (1998). The biodiversity of macrofaunal organisms in marine sediments. *Biodiversity and Conservation*, 7, 1123–1132.
- [101] Snelgrove, P.V.R. (1998). The Biodiversity of Macrofaunal Organisms in Marine Sediments. *Biodiversity and Conservation*, 7(9), 1123–1132.
- [102] Stephenson, W., & Campbell, B. (1959). The Australian Portunids (Crustacea: Portunidae). III. The genus *Portunus*. *Australian Journal of Marine and Freshwater Research*, 10(1), 84–124.
- [103] Stephenson, W., & Rees, M. (1968). The Endeavour and other Australian Museum collections of Portunid crabs (Crustacea, Decapoda, Portunidae). *Records of the Australian Museum*, 27(13), 285–298.
- [104] Stimpson, W. (1858). *Prodromus descriptionis animalium everttebratorum, quae in Expeditione and Oceanum Pacificum Septentrionalem, a Republica Federata missa, Cadwaladaro Ringgold et Johanne Rodgers ducibus, observavit et descripsit. Pars V. Crustacea Ocypodoidea. Proceedings of the Academy of Natural Sciences of Philadelphia*, 10, 93–110.
- [105] Stimpson, W. (1907). Report on the Crustacea (Brachyura and Anomura) collected by the North Pacific Exploring Expedition, 1853–1856. *Smithsonian Miscellaneous Collections*, 49, 1–240, pls. 1–26.
- [106] Tenali, R.D., Ranjeet Singh, Babu D.E., Ponnada Vijay Kumar (2014). Taxonomic notes on spotted reef crab *Carpilius maculatus* (Linnaeus, 1758) of Andhra Pradesh coastal waters. *Ecology, Environment & Conservation*, 30 pp.
- [107] Trivedi, J. N., Trivedi, D. J., Vachhrajani, K. D., & Ng, P. K. L. (2018). An annotated checklist of the marine brachyuran crabs (Crustacea: Decapoda: Brachyura) of India. *Zootaxa*, 4502(1), 1–83.
- [108] Trivedi, J.N. and K.D. Vachhrajani (2013). Study of color morphs of Brachyuran crabs *Etisus laevimanus* Randall, 1840. *Indian Journal of Geo-Marine Sciences*, 42(5): 659–664.
- [109] Trivedi, J.N., & Vachhrajani, K.D. (2012). An annotated checklist of brachyuran crabs of Gujarat, India. *Zoos' Print Journal*, 27(1), 1–11.
- [110] Trivedi, J.N., Trivedi, D.J., Vachhrajani, K.D., & Ng, P.K.L. (2018). An annotated checklist of the marine brachyuran crabs (Crustacea: Decapoda: Brachyura) of India. *Zootaxa*, 4502(1), 1–83.
- [111] Trivedi, Jigneshkumar. & Vachhrajani, Karesh. (2014). First record of brachyuran crab *Leptodius affinis* (De Haan, 1835) (Crustacean: Decapoda: Xanthidae) from the western coast of India. *Marine Biodiversity Records*, 8: 1–5.
- [112] Trivedi, J.N. & Vachhrajani KD (2016). On the identity of *Atergatis ocyroe* (Herbst, 1801) (Crustacean: Brachyura: Xanthidae) in Indian waters. *International Journal of Fauna and Biological Studies*, 3(2): 62–64.
- [113] Valarmathi, K. (2020). Arthropoda: Crustacea: Brachyura. In: Chandra, K., Raghunathan, C., & Mondal, T. (Eds.), *Faunal Diversity*

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- of Biogeographic Zones: Coasts of India. *Zoological Survey of India, Kolkata*, pp. 419–458.
- [114] Venkataraman, K. (2015). Threat to Diversity of Coral Reefs and Its Associated Brachyuran Crabs in Gulf of Mannar Marine Biosphere Reserve. *Journal of Environment and Sociobiology*, 12(1–2), 1–12.
- [115] Venkataraman, K., Raghunathan, C., & Sivaperuman, C. (2012). *Marine Faunal Diversity in India: Taxonomy, Ecology and Conservation*. Academic Press, Elsevier, London, 495 pp.
- [116] Warner, G. F. (1977). The biology of crabs. Van Nostrand Reinhold. 92 pp.
- [117] Warner, G.F. (1977). The biology of crabs. *Van Nostrand Reinhold Company, New York*, 202 pp.
- [118] Wells, F. E. (2002). Ecology of intertidal and shallow-water crabs. 102 pp.
- [119] White, A. (1848). Short descriptions of new or little-known Decapod Crustacea. *Proceedings of the Zoological Society of London*, 15(1847), 222–228.
- [120] Wong, Kingsley., Tao, Lily., and Lueng, Kenneth. (2021). Subtidal crabs of Hong Kong: Brachyura (Crustacea: Decapoda) from the benthic trawl surveys conducted by the University of Hong Kong, 2012 to 2018. *Regional Studies in Marine Science*, 48(6): 102013.
- [121] Yazdani, Maryam., Taheri, Mehrshad., Sanjani, Mohammad., & Seyfabadi, J., (2009). New observation of the two species, *Thalamita admete* and *Thalamita prymna* (Decapoda: Portunidae) from Chabahar Bay (Gulf of Oman). *Marine Biodiversity Records*, 2.

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