

## Species richness and distribution of marine spider crabs (Majoidea) in Thailand

Kamonchanok Wongissarakul<sup>1\*</sup>, Pattanee Jantrarotai<sup>2</sup> and Puntip Wisespongpan<sup>3</sup>

<sup>1</sup>Thailand Natural History Museum, National Science Museum, Khlong Luang District, Pathum Thani, Thailand

<sup>2</sup>Department of Zoology, Faculty of Science, Kasetsart University, Chatuchak District, Bangkok, Thailand

<sup>3</sup>Department of Marine Science, Faculty of Fisheries, Kasetsart University, Chatuchak District, Bangkok, Thailand

\*Corresponding author e-mail: kamonchanok@nsm.or.th

**Abstract:** The spider crabs are classified into Superfamily Majoidea. Species richness of spider crab in Thailand were studied by collected specimens from local fishing boat along the coast of the Gulf of Thailand. Some specimens were also examined from museums and institutes collection during September 2013 to December 2018. A total of 811 specimens were identified into 4 families, 21 genera and 40 species. Family Epialtidae were found the highest number of spider crab species, comprising of 23 species (57.5%). The species richness of spider crab from the Andaman Sea was higher than from the Gulf of Thailand at 35 and 19 species, respectively. There were two new records of Thailand: *Tiarinia angusta* and *Tylocarcinus styx*. Furthermore, the results from this study indicated that the richness of marine spider crab species was diversified due to habitat variation in marine ecosystem.

**Keywords:** Majoidea, Marine environment, Species diversity, Spider crab, Thailand.

### Introduction

Among the brachyuran superfamilies, the spider crabs (superfamily Majoidea) are one of the most diverse group. Recently, the number of extant species of spider crabs comprised of over 800 species around the world (Ng et al., 2008; Davie et al., 2015). Spider crabs distribute in all oceans especially in the Indo-West Pacific region. Spider crabs are also called decorator crabs or masking crabs because they use various materials from their environment such as pieces of algae, sponges, small pebbles and bits of shell decorate themselves with hook-setae for camouflage and food reserve (Guinot et al., 1995; Guinot & Wicksten, 2015). Some spider crabs is popular for the live-seafood trade such as snow crabs or queen crabs (*Chionoecetes opilio*) and Atlantic spider crabs (*Maja brachydactyla*) (Ng, 1998; Marques et al., 2010). Most species of spider crabs play an important role as omnivorous, scavenger, consumer and prey in marine ecosystem (Warner, 1977).

In the past, the identification key of spider crabs was complicated and confused because there were more than ten subfamilies in family Majidae (Rathbun, 1925; Garth, 1958; Griffin & Tranter, 1986; Stevcic, 1994). Moreover, there are widely different in morphological characters within family and subfamilies. Therefore, the genus of spider crabs has been frequently transferred among families or subfamilies. As a result, it is a great practical problem when using the identification keys. Later for clarifying the taxonomy of spider crabs, they were classified based on their larval and more adult characters such as eyestalk and basal antenna characters. Finally, spider crabs are classified in superfamily Majoidea with six families (Ng et al., 2008).

The previous studies of marine crabs in Thailand mostly focus on the commercial crabs such as Grapsid crabs (Mutchacheep, 1973) and Portunid crabs (Naiyanetr, 1997 and Viruhpintu, 1989). For the spider crabs, there are a few studies on spider crab diversity in Thailand with a great confusion in classification and numbers of species because they are very diversified and the classification status have changed for a many time. The latest spider crabs classification in Thailand (Naiyanetr, 2007), has been reported in only one family (16 genera, 32 species) which is an outdated data and uncertainly about the species name. Therefore, the purpose of this study is to clarify and updated classification and provide the distribution of marine spider crabs in Thailand.

### Materials and Methods

#### Specimens collection

Specimens were collected from the gill nets, which fishing by local fishing boat of the fishery villages. The sampling sites comprised of six stations along the Inner coast, Eastern coast and Upper coast of the Gulf of Thailand (Figure 1, Table 1) during September 2013 to January 2015. All specimens were preserved in 70% ethanol and deposited in the Crustacean Collection, Zoological Museum, Department of Zoology, Faculty of Science, Kasetsart University (ZMKUcru).

The specimens in museum collection and institution collection were also examined in order to complete overview of marine spider crabs in Thailand viz. follow; The Phuket Marine Biological Center (PMBC) where specimens were collected in Andaman sea and from BIOSHELF project (Aungtonya et al, 2000), Marine crabs

laboratory in Marine Science Department, Faculty of Fisheries, Kasetsart University (MSCI), Thailand Natural History Museum (THNHM) and Princess Maha Chakri Sirindhorn Natural History Museum (PSUZYC).

### Taxonomic identification

The spider crabs in this study were identified and described based on the mature specimens. The classification of families and the status of species followed the checklist by Ng et al. (2008). The identification key to species were followed Alcock (1895), Griffin (1974), Sakai (1938, 1965), Guinot & Forges (1985), Griffin & Tranter (1986), Wagner (1986), Dai & Yang (1991), Poore (2004), Davie (2011) and Ng & Forges (2015).

## Result & Discussion

### Species richness of spider crabs

A total of 811 specimens of marine spider crab were identified in superfamily Majoidea with four families, five subfamilies, 21 genera and 40 species, as present in Table 2. There were two species, *Tiarinia angusta* and *Tylocarcinus styx* are supposed to new record in Thailand. From field collection, spider crabs were identified into three families, six genera and 12 species; *Schizophrys aspera*, *Prismatopus halimoides*, *P. aculeatus*, *Micippa thalia*, *M. philyra*, *Hyastenus aries*, *H. hilgendorfi*, *H. diacanthus*, *Doclea armata*, *D. canalifera*, *D. rissoni* and *Camposcia retusa*. The spider crab species was consistent with many previous studies (Wisessongpand et al., 2010; 2013; 2016; Kaewgunha & Tangkrock-olan, 2007; Singlaem et al., 2013 and Khanadee et al., 2014) because we collected specimens from the same areas. However, the number of spider crab species in this study was higher than the previous studies because we collected specimens from many areas and collected periods longer than those of studies.

The family with the highest number of spider crab species was Epiplatidae which contained 23 species (57.5% of total). Spider crabs in genus *Doclea* had the highest number of species which composed of six species. We found two species, *D. canalifera* and *D. canaliformis* that have never been reported in the decapod checklist of Thailand (Naiyanetr, 2007). In this study, *D. canalifera* was dominant species and its distribution was in the Inner, Eastern and Upper coast of Gulf of Thailand, which was supported by several previous studies (Rathbun, 1910; Wagner, 1986; Griffin & Tranter, 1986; Dai & Yang, 1991). On the other hand, *D. canaliformis* was an uncommon species and its distribution was only in the Gulf of Thailand (Wagner, 1986). In family Epiplatidae, we reclassified *D. alcocki* to *D. muricata* from the PMBC collection which previously were reported by Ng & Davie (2002) and Naiyanetr (2007). *D. ovis* resembled to *D. canaliformis* in morphological characters. However, the character of the first male gonopod and gonopore were practically used for species identification.

For the family Hymenosomatidae, we found only one genus and one species, *E. magnum*. This species was known as the endemic species in the mangal area of Ranong province, Andaman Sea, which corresponded to the report by Ng & Chuang (1996) and Naiyanetr (2007). Therefore, the management of this mangroves area is seriously point for the long term protection and conservation of this species.

In this study, we did not found two specimens, *Rochinia pulchra* and *Hoplophrys oatesii*, which were recorded by Promdam (2009) and Jaingam (2013) that these specimens were preserved in PMBC and MSCI, respectively. Furthermore, we did not found *Paratymolus pubescens* and *P. vannus* (family Inachidae) which was agreed with Singlaem et al (2013) and Khanadee et al. (2014) studies but differed from Rathbun (1910) who recorded these two species from Chanthaburi coast, Eastern Gulf of Thailand. This may be because these two species were restrictly distributed in rocky bottom and coral reef (Griffin & Tranter 1986), where these habitats were good refuge for spider crabs and it is the area that difficult to collect the specimens.

As result, there were the numbers of spider crab species more than Naiyanetr's report in the decapod checklist of Thailand (Naiyanetr, 2007). According to Naiyanetr (2007), he reported that there were 32 spider crab species while this study found 40 species. The spider crab species that were not previously reported as follow; *Paramaja gibba*, *Tiarinia angusta*, *Micippa platipes*, *Tylocarcinus styx*, *Naxioides taurus*, *Hyastenus borradailei*, *Phalangipus filiformis*, *Doclea canaliformis*, *D. canalifera*, *D. muricata*, *Huenia heraldica*, *Xenocarcinus depressus*, *X. tuberculatus*, *X. conicus*, *Oncinopus araneus*, *Pleistacantha rubida*, *Platymaia alcocki* and *Cystomaia suhmii*. The increasing in number of spider crab species in this study was because we collected specimens from several field areas especially in the Eastern Gulf of Thailand where there was less information about spider crab species. Moreover, this study also reexamined spider crab specimens from several museum collections. The MSCI, THNHM and PSUZYC collections contain most of spider crab specimens collected from various types of fishing gears throughtout the coast of the Gulf of Thailand and Andaman Sea, and including the coral reefs. Those specimens were also collected by SCUBA diving, from the gill nets which vertically placed near the coral reefs or rocky shores, and by the trawl nets, traps or crab dredges. On the other hand, the PMBC collection contains most of the spider crab specimens came from the coast and the deep-water in Andaman Sea by using traps (Aungtonya et al., 2000). Therefore, the specimens from this study came from different habitats and from various types of fishing gears which lead to the discovery of many spider crab species including new habitats and new localities of spider crab distribution.

## Geographic distribution

Within the geographic area of this study, the number of marine spider crab species that occurrence in Andaman Sea was higher those of the Gulf of Thailand, 35 species found in the Andaman Sea and 19 species in the Gulf of Thailand. Among these, there were 21 species only in Andaman Sea, 5 species only in Gulf of Thailand and 14 species in both areas (Table 2.). As a result, the number of spider crab species in Andaman Sea had a considerably more than the Gulf of Thailand due to their geographical differences (Jaingam et al., 2007). Therefore, Andaman Sea should be promoted as Biodiversity Important Area (BIA) for further conservation and protection of marine crab species in Thailand.

In this study, the intertidal zone had the highest number of spider crab species (22 species) due to the diversity of habitats that suitable for spider crabs which was to many studies. For example, *Doclea* spp. lived on muddy bottom of the nearshore (Wagner, 1986 and Dai & Yang, 1991), *Phalangipus* spp. lived on sandy to muddy-sandy bottom of the offshore (Griffin, 1973). While *Xenocarcinus depressus*, *X. tuberculatus*, *X. conicus*, *Huenia heraldica* and *Menaethius monoceros* lived in the coral reef by associated with the other marine organisms such as sponges, gorgonians, sea whips, corallines, and algae (Griffin & Tranter, 1986; Jaingam, 2013). Moreover, there were some spider crab species such as *S. aspera*, *Prismatopus* spp., *Micippa* spp. and *Camposcia retusa* lived by decorating themselves with a piece of sponges, coral, algae or pebbles for camouflage, defence, shelter and/or food supply (Jaingam et al., 2008; Wisespongpan et al., 2012). In addition, spider crabs can be used as an indicator species of coral reef ecosystem such as *Xenocarcinus* spp and *Huenia heraldica*. Therefore, the revised and updated classification of spider crabs in Thailand are important for the further study of spider crab diversity due to they are species assemblages in most marine ecosystems, resulting in the complexity of the food chain and finally lead to the stable of marine ecosystems.

## Conclusion

The species richness of marine spider crab was found in the Andaman Sea higher than in the Gulf of Thailand especially in the intertidal zone where there were the variety of habitat environments such as muddy bottom, sandy-muddy bottom and coral reef. The highest number species was belonging to family Epialtidae by contain 23 species. In this family, spider crab genus *Doclea* was highest species richness, which composed of six species. There are two species, *Tiarinia angusta* and *Tylocarcinus styx* are supposed to be new records in Thailand. The habitat of most spider crab species, are in marine environment except the Hymenosomatid crab (Brackish-water environment). In order to fulfill information of the crab biodiversity in Thailand, we should be studying in Brackish-water and freshwater areas. This study provides an updated classification of marine spider crabs in Thailand for further spider crab identification, which it is importance for measuring the diversity of marine crabs in the future.

## Acknowledgement

This study supported by Faculty of Science Kasetsart University Postgraduate Studentship (ScKUPGS) and funding source for graduate students of Zoology Department, Faculty of Science, Kasetsart University. We would like to thank Mr. Rueangrit Promdam of the Princess Maha Chakri Sirindhorn Natural History Museum for lending materials and give important spider crab data for this study. We sincere thanks also goes to Prof. Peter Ng Kee Lin of Lee Kong Chian Natural History Museum at Singapore, for his valuable suggestion and information of the spider crab identification. We would like to express my gratitude to all curators of Reference Collection at Phuket Marine Biological Center for provided me of this opportunity and for helping in laboratory facilities during the examination under their care.

## References

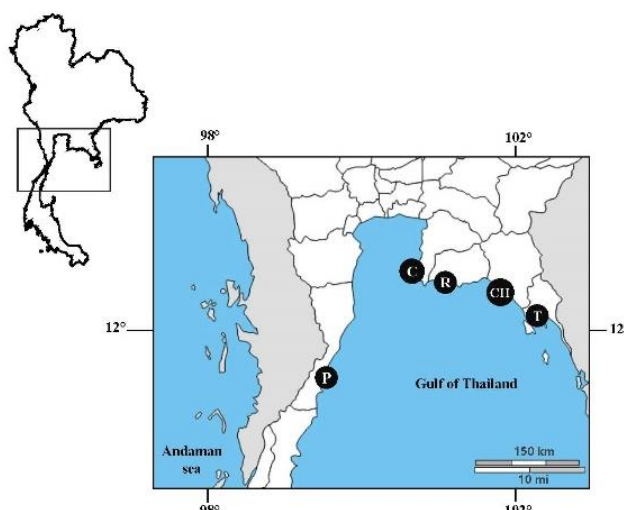
- Alcock, A. 1895. Materials for a carcinological fauna of India, 1: The Brachyura Oxyrhyncha. Journal of the Asiatic Society of Bengal 64: 157-291.
- Aungtonya, C., Thaipal, S., and Tendal, O. 2000. A preliminary report on the Thai-Danish bioshelf surveys (1996–2000) of the west coast of Thailand, Andaman sea. Research bulletin. Phuket Marine Biological Center 6: 53-76.
- Dai, A., and Yang, S. 1991. Crabs of the China seas (English ed). China Ocean Press; Belin; New York: Springer-Verlag, Beijing. 682 pp.
- Davie, P. J. F. 2011. A new species and new records of *Oncinopus* (Crustacea: Brachyura: Inachidae) from northern Australia. Records of the Museums and Art Galleries of the Northern Territory 27: 123-133.
- Davie, P.J.F., Guinot, D. and Ng, P.K.L. 2015. Systematics and classification of Brachyura. In: Castro, P., Davie, P.J.F., Guinot, D., Schram, F. and Von Vaupel Klein, C. (Eds.), Treatise on Zoology – Anatomy, Taxonomy, Biology – The Crustacea, complementary to the volumes translated from the French of the *Traité de Zoologie*, 9(C) (I), Decapoda: Brachyura (Part 2): 1049–1130.



- Garth, J. S. 1958. Brachyura of the Pacific coast of America. Oxyrhyncha. Allan Hancock Pacific Expeditions, 21, part 1: i–xii, 1–499; part 2: 677–854.
- Guinot, D., and Forges, B. R. D. 1985. Crustacés Décapodes: Majidae (genres *Platymaia*, *Cyrtomaia*, *Pleistacantha*, *Sphenocarcinus* et *Naxioides*). Mémoires du Muséum d'Histoire Naturelle. Série A. Zoologie, 133: 83-179.
- Guinot, D., Doumenc, D., and Chintiroglou, C. C. 1995. A review of the carrying behaviour in brachyuran crabs, with additional information on the symbioses with sea anemones. Raffles Bulletin of Zoology, 43: 377-416.
- Guinot, D. and Wicksten, M.K. 2015. Camouflage: carrying behaviour, decoration behaviour, and other modalities of concealment in Brachyura, pp. 583–638, fig. 1-11 (Chapter 71-11). In: Castro P., Davie P.J.F., Guinot D., Schram F.R. and Von Vaupel Klein J.C. (eds.), Decapoda: Brachyura (Part 1), Treatise on Zoology – Anatomy, Taxonomy, Biology, vol. 9C-I. Brill, Leiden and Boston.
- Griffin, D. J. G. 1973. A revision of the spider crabs of the genus *Phalangipus* (Crustacea, Brachyura, Majidae). Journal of Natural History 7: 165-207.
- Griffin, D. J. G. 1974. Spider crabs (Crustacea: Brachyura: Majidae) from the International Indian Ocean Expedition, 1963-1964. Smithsonian Contributions to Zoology: 1-35.
- Griffin, D.J. and Tranter, H.A. 1986. The Decapoda Brachyura of the Siboga expedition. Part VIII: Majidae. Siboga Expédition 39(C4): 1–335, 22 plates.
- Jaingam, W., Wisespongpan, P., and Thamrongnawasawat, T. 2007. Species Diversity of Crabs from Bottom Gill Net Fisheries in Thailand, Proceedings of 45<sup>th</sup> Kasetsart University Annual Conference, Bangkok, 30 January-2<sup>nd</sup> - February 2007, Bangkok, Thailand p. 603-624.
- Jaingam, W., Wisespongpan, P., and Thamrongnawasawat, T. 2008. Relationship between crabs and associated organisms in coral reef at Mu Ko Surin National Park, Proceedings of 46<sup>th</sup> Kasetsart University Annual Conference, Bangkok, 29 January-1<sup>st</sup> February 2007, Bangkok, Thailand p. 492-502.
- Jaingam, W. 2013. Species richness of crabs in coral reef, Mu Ko Surin National Park, Phangnga province. M. Sc Thesis, Kasetsart University, Bangkok.
- Kaewgunha, N. and Tangkrock-olan, N. 2007. Species of Marine crabs found at Ang-sila and Laem Cha-bang Fishing Ports, Chonburi Province. Burapha Science Journal 12(1): 63-72.
- Khanadee, U., Boonaum, K., Prommasuk, J., Kunsook, C. 2014. Species diversity of bycatch from the crab gill net fishery in Kung Krabaen Bay, Chanthaburi Province, Proceeding of the 2<sup>nd</sup> PKRU conference, Phuket, May 8<sup>th</sup> – 9<sup>th</sup>, 2014, Phuket, Thailand p. 307-319.
- Mutchacheep, S. 1973. Grapsid crabs in the Gulf of Thailand. M. Sc Thesis, Chulalongkorn University, Bangkok.
- Marques, A., Teixeira, B., Barrento, S., Anacleto, P., Carvalho, M. and Nunes, M. 2010. Chemical composition of Atlantic spider crab *Maja brachydactyla*. Journal of Food Composition and Analysis, 23: 230-237.
- Naiyanetr, P. 1997. Taxonomic study of marine crabs family Portunidae in the Gulf of Thailand. M. Sc Thesis, Kasetsart University, Bangkok.
- Naiyanetr, P. 2007. Checklist of crustacean fauna in Thailand (Decapoda and Stomatopoda). Office of environment Policy and Planning. OEPP Biodiversity, 5: 161 pp.
- Ng, P. K. L., and Chuang, C. T. N. 1996. The hymenosomatidae (crustacea: decapoda: brachyura) of Southeast Asia, with notes on other species. The Raffles Bulletin of Zoology, Supplement, 3: 1-82.
- Ng, P. K. L. 1998. Crabs 1046-1156. In Carpenter, K.E. and V.H. Niem (eds). FAO species identification guide for fishery purposes. The living marine resources of the Western Central Pacific. Vol. 2. Cephalopods, crustaceans, holothurians and sharks. Rome, FAO. 687-1396.
- Ng, P. K. L., and Davie, P. J. F. 2002. A checklist of the brachyuran crabs of phuket and western thailand. Phuket marine biological center special publication, 23: 369-384.
- Ng, P. K. L., Davie, P. J. F., and Guinot, D. 2008. Systema Brachyurorum: Part I. An annotated checklist of extant brachyuran crabs of the world. The Raffles Bulletin of Zoology, 17: 1-286.
- Ng, P. K. L., and Forges, B. R. D. 2015. Revision of the spider crab genus *Maja* Lamarck, 1801 (Crustacea: Brachyura: Majoidea: Majidae), with descriptions of seven new genera and 17 new species from the Atlantic and Indo-West Pacific. Raffles bulletin of Zoology, 63: 110-225.
- Promdam, R. 2009. New records on Brachyuran crabs from the Thai-Danish BIODIVERSITY Project, in the Andaman Sea, Thailand, Seminar of the Department of Marine and Coastal Resources Seminar, Ratchaburi, August 23<sup>th</sup> -25<sup>th</sup>, 2009, Ratchaburi, Thailand (Poster presentation).
- Poore, G. C. B. 2004. Marine Decapod Crustacea of Southern Australia: A Guide to Identification. Collingwood, Victoria, Australia: CSIRO Pub., 617 pp.
- Rathbun, M. J. 1910. The Danish Expedition to Siam 1899-1900. V. Brachyura. Konelige Danske Videnskabernes Selskat, Naturvidenskabelige Matematiske Afhandlinger 5(4): 301–367.
- Rathbun, M. J. 1925. The spider crabs of America. Bulletin of the United States National Museum. i–xx, 1-613, 153 figs, 283 pls.
- Sakai, T. 1938. Studies on the crabs of Japan III. Brachygnatha, Oxyrhyncha. 193–364 pp.
- Sakai, T. 1965. The crabs of Sagami Bay collected by His Majesty the Emperor of Japan. Tokyo, Maruzen Co. Ltd. 206 pp., 100 plates.



- Singlaem, C., Somya, S., Surawut, S., Kunsook, C. 2013. Species diversity of marine crab in Kung krabaen bay, Chanthaburi province, Proceedings of 6<sup>th</sup> Thai resources, Plant Genetic Conservation Project: 21-23 December 2013, Kanchanaburi, Thailand, 312-319.
- Stevcic, Z., 1994. Contributions to the re-classification of the family Majidae. *Periodicum Biologorum*, 96(4): 419-420
- Viruhpintu, S. 1989. Taxonomy of Portunid crabs in Thailand. M. Sc. Thesis, Chulalongkorn University, Bangkok.
- Wagner, H. P. 1986. A revision of the genus *Doclea* Leach, 1815 (Crustacea, Brachyura, Majidae). *Bulletin du Muséum national d'histoire naturelle* 8: 893-953.
- Warner, G. F. 1977. *The biology of crabs*. New York: Van Nostrand Reinhold. 202 pp.
- Wispongpan, P., Jaingam, W., Poddamrong, A., and Srichomngam, W. 2010. Biodiversity of crabs on coastal habitats of Prachuapkhirikhan province, Proceedings of the 48<sup>th</sup> Kasetsart University Annual Conference: 3-5 February 2010, Bangkok, Thailand, 435-446.
- Wispongpan, P., Aungkuldee, P., Thamrongnawasawat, T., and Khaodon, K. 2012. Distribution and life history of rough spider crab (*Schizophrys aspera*) in coral reef at Mu Koh Lan, Choburi, Proceedings of the 50<sup>th</sup> Kasetsart University Annual Conference: 31 January-2 February 2012, Bangkok, Thailand, 525-533.
- Wispongpan, P., Sirivirintarat, T., Jaingam, W., Inbumrung, K., and Srichomngam, W. 2013. Diversity of crabs from bottom gill net, Rayong province, Proceedings of 51<sup>st</sup> Kasetsart University Annual Conference: 5-7 February 2013, Bangkok, Thailand, 422-429.
- Wispongpan, P., Wongissarakul, K., Jaingam, W., & Khaodon, K. 2016. Species Richness and Abundance of Crabs from Bottom Gill Net in Choburi Province, Proceedings of the 54<sup>th</sup> Kasetsart University Annual Conference: 2-5 February 2016, Bangkok, Thailand., 938-946.



**Figure 1.** Map showing collection localities. (C = Chonburi; R = Rayong; CH = Chanthaburi; T = Trat; P = Prachuapkhirikhan Province).

**Table 1.** Sampling sites for this study.

Sampling site		Station	Latitude	Longitude
Region	Province			
Inner coast	Chonburi	North Pattaya	12°57'26N	100°53'02E
		South Pattaya	12°55'30N	100°52'5E
Eastern coast	Rayong	Suan-son beach	12°37'58N	101°28'42E
	Chanthaburi	Chao-Lao beach	12°32'11N	101°55'43E
	Trat	Laem-Ngob	12°10'08N	102°23'55E
Upper coast	Prachuapkhirikhan	Bang-Kum	11°33'56N	99°39'43E
		Laem-Kum beach	11°28'4N	99°37'20E

**Table 2.** Species richness and geographic distribution with habitat noted. (GT = Gulf of Thailand, AS = Andaman Sea).

Superfamily Majoidea (Samouelle, 1819)			Geographic distribution		Habitat Noted
Family	Subfamily	Species	GT	AS	
Hymenosomatidae		<i>Elamena magnum</i> Ng & Chuang, 1996	-	√	Mangal
Majidae	Majinae	<i>Paramaja gibba</i> (Alcock, 1895)	-	√	Deep-water
		<i>Schizophrys aspera</i> (H. Milne Edwards, 1834)	√	√	Coral reef
		<i>Prismatopus halimoides</i> (Miers, 1879)	√	√	Intertidal/Coral reef
		<i>P. aculeatus</i> (H. Milne Edwards, 1834)	√	√	Intertidal/Coral reef
		<i>P. longispinus</i> (De Haan, 1839)	-	√	Offshore
Mithracinae		<i>Tiarinia angusta</i> Dana, 1851	-	√	Coral reef
		<i>Micippa thalia</i> (Herbst, 1803)	√	√	Intertidal/Coral reef
		<i>M. platipes</i> Rüppell, 1830	-	√	Intertidal/Coral reef
		<i>M. philyra</i> (Herbst, 1803)	√	-	Intertidal/Coral reef

Epialtidae	Pisinae	<i>Tylocarcinus styx</i> (Herbst, 1803)	-	√	Coral reef	
		<i>Naxioides taurus</i> (Pocock, 1890)	-	√	Offshore	
		<i>Hyastenus planasius</i> (Adams & White, 1848)	-	√	Intertidal	
		<i>H. aries</i> (Latreille, 1825)	√	√	Intertidal/Coral reef	
		<i>H. borradailei</i> (Rathbun, 1907)	-	√	Coral reef	
		<i>H. hilgendorfi</i> De Man, 1887	√	√	Intertidal/Coral reef	
		<i>H. diacanthus</i> (De Haan, 1839)	√	-	Intertidal/Coral reef	
		<i>Phalangipus hystrix</i> (Miers, 1886)	-	√	Offshore	
		<i>P. indicus</i> (Leach, 1815)	-	√	Offshore	
		<i>P. filiformis</i> Rathbun, 1916	√	√	Offshore	
		<i>P. longipes</i> (Linnaeus, 1758)	-	√	Offshore	
		<i>Doclea armata</i> De Haan, 1839	√	√	Intertidal	
		<i>D. canaliformis</i> Ow-Yang in Lovett, 1981	√	-	Intertidal	
		<i>D. canalifera</i> Stimpson, 1857	√	-	Intertidal	
		<i>D. ovis</i> (Fabricius, 1787)	√	√	Intertidal	
		<i>D. muricata</i> (Herbst, 1788)	-	√	Intertidal	
		<i>D. rissoni</i> Leach, 1815	√	√	Intertidal	
		Tychinae	<i>Criocarcinus superciliosus</i> (Linnaeus, 1758)	-	√	Intertidal/Coral reef
		Epialtinae	<i>Huenia heraldica</i> (De Haan, 1837)	-	√	Coral reef
			<i>Menaethius monoceros</i> (Latreille, 1825)	√	√	Rocky shore/Coral reef
<i>Xenocarcinus depressus</i> Miers, 1874	-		√	Coral reef		
<i>X. tuberculatus</i> White, 1847	√		-	Coral reef		
<i>X. conicus</i> (A. Milne-Edwards, 1865)	-		√	Coral reef		
Inachidae	<i>Oncinopus aranea</i> (De Haan, 1839)	-	√	Coral reef		
	<i>Achaeus brevirostris</i> (Haswell, 1879)	√	√	Coral reef		
	<i>A. lacertosus</i> Stimpson, 1858	√	√	Coral reef		
	<i>Camposcia retusa</i> (Latreille, 1829)	√	√	Coral reef		
	<i>Pleistacantha rubida</i> (Alcock, 1895)	-	√	Deep-water		
	<i>Platymaia alcocki</i> Rathbun, 1918	-	√	Deep-water		
	<i>Cystomaia suhmii</i> Miers, 1885	-	√	Deep-water		