Sustainable Marine Structures
https://journals.nasspublishing.com/index.php/sms

RESEARCH ARTICLE

Global Distribution of Brachyuran Crabs in Mangroves

Wah Wah Min[1*], K. Kathiresan[2]

1. Center of Excellence for Ecoinformatics, Walailak University, Nakhon Si Thammarat, 80161, Thailand
2. Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai, 608502, India

Abstract: The present work has compiled a total of 389 brachyuran crab species belonging to 188 genera and 38 families to be present in mangrove forests across 122 countries/territories in 10 sub-regions of two global hemispheres *viz*., Indo-West Pacific (IWP) and Atlantic East Pacific (AEP). The mangrove crabs are highly diverse in the IWP as compared to AEP. They exceed 100 species in nine countries of the IWP *viz.*, Indonesia, India, Japan, Thailand, Australia, Singapore, Philippines, Malaysia, and China. The least number of mangrove crab species (> 10) are found to be present in 38 countries under the AEP. Four countries/territories do not have any record of mangrove crabs. Sesarmidae is the predominant family of mangrove crabs, followed by Ocypodidae and Portunidae. The present work also has brought out 818 synonyms, which otherwise interfere with the preparation of a checklist for an exact number of crab species. It is a matter of necessity to conserve the crabs, which are keystone species of the mangrove ecosystems.

Keywords: Mangroves; Brachyuran crabs; Keystone species; Species diversity; Occurrence and distribution; Checklist; Synonyms; Sesarmidae; Ocypodidae; Portunidae; IUCN; Indo-West Pacific; Atlantic East Pacific hemisphere

1. Introduction

Mangrove crabs are the "keystone" species of mangrove forest ecosystems, amazingly adapted to the fluctuating conditions and distributed in tropical and warm temperate latitudes lying between 32^0N and 38^0S [1,2]. They play a vital role in the structure and function of mangroves by processing the litter, producing the organic matter, releasing the nutrients, aerating the soil by bioturbation, determining the mangrove community structure by seed predation, creating the microhabitat for other fauna, serving as the food source to juvenile fishes, and contributing to the mangrove secondary production by faeces that form the basis of a coprophagous food chain [3,4,5].

The mangrove crabs are commercially valuable for

*Corresponding Author:
Wah Wah Min,
Center of Excellence for Ecoinformatics, Walailak University, Nakhon Si Thammarat, 80161, Thailand
Email: drwarwarmin@gmail.com

Received: 22 January 2024; **Revised:** 10 March 2024; **Accepted:** 21 March 2024; **Published Online:** 30 March 2024

Citation: Min, W.W., Kathiresan, K., 2024. Global Distribution of Brachyuran Crabs in Mangroves. Sustainable Marine Structures. 6(1), 33–70. http://dx.doi.org/10.36956/sms.v6i1.1023

DOI: http://dx.doi.org/10.36956/sms.v6i1.1023

human consumption especially the species of *Scylla, Portunus* and *Charybdis* belonging to family-Portunidae. *Scylla* species are mud crabs typically associated with mangroves in estuaries and sheltered coastal habitats in soft muddy bottoms where they dig deep burrows, while *Portunus* and *Charybdis* colonize in the coastal subtidal areas and are adapted to swimming with the last pair of pereiopods modified into flattened paddles. Sesarmidae are generally not commercially valuable; but, ecologically important for the productivity of mangrove and estuarine habitats [1,3].

Jones [1] was the first to provide a comprehensive review of mangrove crabs, describing the occurrence of 61 genera and sub-genera. This account is, however, grossly outdated. The checklists of mangrove crabs are available, but scattered from India [6–9], Brazil [10], Malaysia, Singapore [11], Australia [12] and America [13]. However, there is no consolidated account of the global distribution of mangrove crabs. Moreover, the species diversity of mangrove crabs in terms of the number of species is often varying, which is due to the presence of a large number of synonyms. Above all, most of the mangrove crab species are not properly assessed for IUCN categorization due to data deficits on their distribution.

A database on spatial distributions of mangrove crabs will be useful for updating the biodiversity as new taxa are increasingly described. Even after many taxonomic revisions [14–16], there are still several ambiguities and taxonomic issues that call for further studies on the mangrove crabs [17]. The database is also important in the present context of mangrove habitat loss. Even a small-scale change in the mangrove ecosystem affects the macro-faunal diversity and might even lead to the local extinction of a few species [18]. The mangrove crab checklist will be useful to assess the man-made pressures on biodiversity and also for sustainable management [19,20]. The global distribution, species richness and endemicity of mangrove crabs need to be understood for better biodiversity assessment and conservation prioritization. Hence, the present work has compiled baseline data for the global distribution of mangrove crabs to find out knowledge gaps for their conservation.

2. Materials and Methods

The present study collated data on the brachyuran crabs of mangrove habitats by using the Google search engine and literature databases 'Google Scholar', 'PubMed', 'Web of Science' and 'ScienceDirect'. The publications were searched by using key terms such as 'Mangrove crabs', 'Brachyuran crabs', 'Distribution & Occurrence of crabs', 'Keystone species', 'Crab Synonyms', 'Sesarmidae', 'Ocypodidae', 'Portunidae', 'IUCN Redlist'. Further search was made with the above-said terms in combination with Indo-West Pacific, and Atlantic East Pacific. Thus, the brachyuran crab species were searched extensively from the scientific literature for their occurrence in mangrove forests of different study areas/countries/sub-regions. Their distribution and synonyms were analysed from websites such as WoRMS—World Register of Marine Species (www.marinespecies.org) and GBIF Global Biodiversity Information Facility (www.gbif.org). The data are tabulated for the family, species, number of species and synonyms, frequency of occurrence in different countries and sub-regions. The ranges of species numbers are marked on the map for their global distribution. To find out the relationship between crab species diversity and mangroves, the data on plant species diversity or mangrove cover were obtained from the World Atlas of Mangroves [21].

3. Results and Discussion

Brachyuran crabs are the most diverse group of crustaceans due to their occurrence in almost all marine and terrestrial habitats in the world, and they are represented by 6,793 species under 1271 genera and 92 families [17]. As per our present compilation, the global mangrove habitats are represented by 389 species of brachyuran crabs belonging to 188 genera and 38 families across 122 countries/territories. Thus the mangrove habitats support 5.72% of species, 14.79% of genera and 41.3% of families belonging to brachyuran crabs that occur totally in all habitats on the earth.

Globally the mangrove crabs are distributed in two hemispheres viz., the Atlantic East Pacific and the Indo-West Pacific under 10 sub-regions viz., Eastern and Southern Africa, Middle East, South Asia, South-East Asia, East Asia, Australia and New Zealand, Pacific islands, North and Central America, South America, and West and Central Africa.

Crabs are highly diverse in the Indo-West Pacific (IWP) as compared to the Atlantic East Pacific hemisphere (AEP) (Figure 1, Figure 2). Among the countries, nine countries are represented with mangrove crabs exceeding 100 species. The countries are Indonesia (196 spp.), India (189), Japan (160), Thailand (153), Australia (146), Singapore (143), Philippines

(143), Malaysia (127), and China (116 spp.); and all these countries belong to the IWP. The lowest numbers of mangrove crab species (< 10) are in record of 38 countries under the AEP, in contrast to only 10 countries under the IWP. Similarly, the range of species is high in different sub-regions of the IWP. In contrast to these, the range of species is relatively low in different sub-regions of the AEP: 2–9 in West & Central Africa, 8–35 in South America, and 0–69 in North and Central America (Table 1). This is by Abele [22] who has recorded only 5 crab species associated with American mangroves.

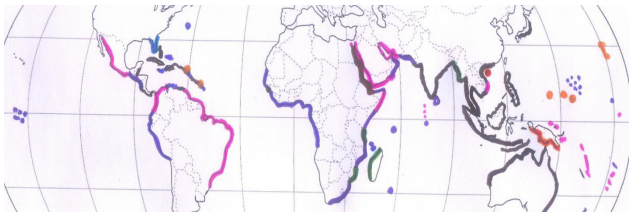

Figure 1. Global distribution of mangrove crabs (Black = >100 species, Red = 81–100, Green = 61–80, Purple = 41–60, Pink = 21–40, Brown = 11–20, Blue = 1–10, Orange = 0 species).

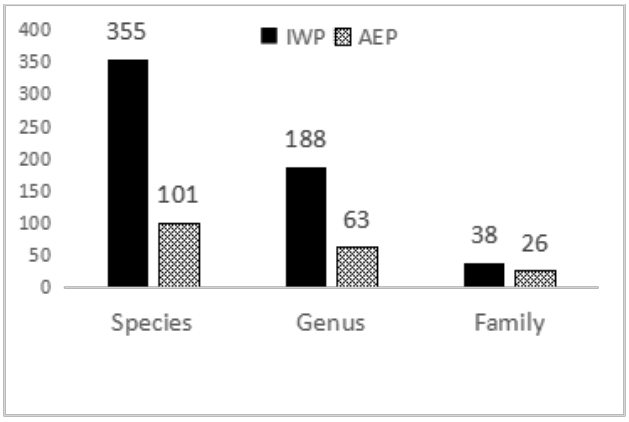

Figure 2. Number of crab species, genera and families distributed in hemispheres of Indo-West Pacific (IWP) and Atlantic East Pacific (AEP).

South East Asia which occupies 34.4% of the total global mangrove area is represented with the highest crab diversity. Indonesia is the country with the largest mangrove cover in the world, holding the highest number of 196 crab species. This supports the observation that the species richness of mangrove crabs is parallel to the area of mangrove forest cover or mangrove tree species [9,11].

We have also observed a significant correlation between mangrove crab diversity and mangrove plant diversity or mangrove area (Figure 3). However, such a relationship awaits confirmation by undertaking comprehensive surveys of mangrove crab assemblages over wider latitudinal gradients. India with the 10th largest mangrove area in the world is recorded with the second highest number of 189 crab species, and this is due to intensive surveys carried out in the country [8]. Hence, many studies are required for the preparation of comprehensive checklists of mangrove crabs in different countries. This deserves much attention in the present context of worldwide loss of mangroves, especially in Southeast Asia due to various stressors such as land conversion, increasing sea level rise, subsidence of coast-land by extraction of oil, gas and water, accompanied by land erosion and saltwater intrusion as well as the decline of sediment supply for mangrove colonisation as a result of damming of rivers and sediment mining.

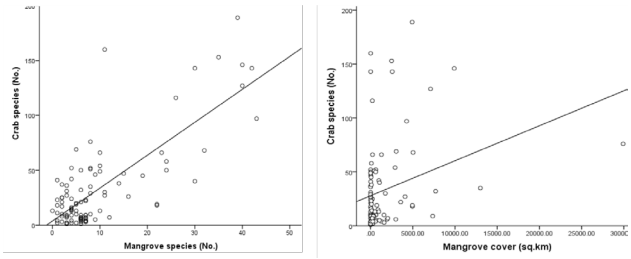

Figure 3. Relationship between mangrove crab species diversity and mangrove plant species (correlation coefficient '*r*' = 0.9; $p < 0.01$) diversity or mangrove cover ($r = 0.6$; $p < 0.01$).

The present work has brought out synonym names, which otherwise interfere with the preparation of a checklist for the exact number of crab species in mangroves of different countrises and the whole world. The mangrove crabs have a total of 818 synonyms for 318 species, and they do not have any synonyms for 71 species (Table 1). The mangrove crabs have more synonyms than brachyuran crabs in all habitats of the Earth, and the latter is represented with 1,907 synonyms for 6,793 species [17]. In other words, each mangrove crab species has 2.57 synonyms in the present work, whereas each global brachyuran species has only 0.28 synonyms, and thus the synonyms are 9.2 fold greater in mangrove crabs than all the brachyurans on the Earth. Gelasimus vocan has the highest number of 12 synonyms, found in 33 countries. This is followed by three species—Ocypode ceratophthalmus, Portunus pelagicus and Paraleptuca crassipes—which have the second largest number of 9 synonyms in 45, 35 and 27 countries respectively. This is further followed by 8 synonyms for six species—Grapsus tenuicrustatus, Pachygrapsus transverses, Portunus sanguinolentus, Tachypleus gigas, Leptograpsus variegates, and Gon-

eplax rhomboides in 43, 40, 35, 8, 7, and 7 countries respectively (Table 1).

The occurrence and distribution of mangrove crabs vary in different sub-regions. Charybdis (Charybdis) hellerii is the only species reported to occur in all the 10 sub-regions. This is followed by six crab species, distributed in 9 sub-regions and they are Cardisoma carnifex, Grapsus albolineatus, Grapsus tenuicrustatus, Coenobita rugosus, Plagusia squamosa and Carpilius convexus. In addition, the mangrove crabs also vary in different countries. Only two crab species are reported to be present in the maximum number of 45 countries, and they are Grapsus albolineatus and Ocypode ceratophthalmus (horned ghost crab). This is followed by Thalamita crenata (mangrove swimming crab or spiny rock crab), Grapsus tenuicrustatus, Carpilius convexus (Stone crab) and Coenobita rugosus occurring in 44, 43, 43, and 41 countries respectively (Table 1). These species are active with excellent vision, air breathing or burrowing and flexible in feeding habits, and also adapted to any coastal habitats such as intertidal areas, mangrove mudflats, rocky shores, open mudflats, sandy shores and coral reefs. Hence these crab species are widely distributed among the mangrove-lined countries.

Some crab species are of restricted occurrence. As many as 55 species are confined to only one country and 90 species to a single sub-region (Table 1). These crab species deserve immediate attention for IUCN categorisation to save the species if they are endemic/endangered. It should be noted that four territories/countries do not have any record of mangrove crab species, and they are Hawaii and Tokelau located in the Pacific Islands, and St Lucia and British Virgin Island (UK) situated in North and Central America (Table 1). These territories/countries need to undertake immediate surveys and inventorization of the mangrove crabs.

The predominant family of mangrove crabs is Sesarmidae with 85 species, followed by Ocypodidae (45 spp.), Portunidae (35 spp.), macrophthalmidae (22 spp.), Camptandriidae (22 spp.), Varunidae (21 spp.), Graspidae (18 spp.), Dotillidae (18 spp.), Pilumnidae (15 spp.), Xanthidae (15 spp.) and Leucosiidae (14 spp.) (Table 1). This is in agreement with the observation that two families—Grapsidae including sub-family Sesarmidae and Ocypodidae account for over 80% of crab species diversity in the world mangroves [23].

The largest crab group in mangroves is sesarmids with a total diversity of 85 species (Table 1). The sesarmids have been recorded in Peninsular Malaysia and Singapore [11], Australia [12], Hong Kong [3], and Indo-Malaysia [1] with high species diversity of 44, 37, 26 and 25 species respectively. Hence the sesarmids attain extreme diversity in Indo-Pacific mangroves. A wide occurrence of the sesarmids in mangroves can be attributed to several reasons. The sesarmids are mostly dark brown in colour and mimic the organic-rich mangrove soil and the barks of trees, in addition to their burrow hiding and tree climbing behaviours, making them escape from predatory attacks. The sesarmids prefer shade under complex structures of mangrove vegetation for wetter and cooler conditions, and hence they colonise the mature forest with closed canopy. The sesarmids do not migrate to the open sea for spawning and larval development but are confined to mangrove/estuarine areas. The sesarmids prefer to consume cellulose-rich mangrove detritus and litter due to the presence of cellulose-digesting enzymes in their guts. In addition, they are also flexible in food consumption of different food sources, such as mud, bacteria or dead animals [16].

Table 1. Occurrence and distribution of crab species and their number of synonyms under different brachyuran crab families in different countries/sub-regions.

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
Sesarmidae (85 spp.)		1–7	1–28	0–6	
1	*Aratus pisonii* (H. Milne Edwards, 1837)	2	28	1	*Sesarma pisonii* H. Milne Edwards, 1837.
2	*Armases ricordi* (H. Milne Edwards, 1853)	2	19	4	*Sesarma guerini* H. Milne Edwards, 1853; *Sesarma miniata* de Saussure, 1857 ; *Sesarma ricordi* H. Milne Edwards, 1853; *Sesarma ricordi var. terrestris* Verrill, 1908.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
3	*Armases magdalense* Rathbun, 1918	1	1	1	*Sesarma* (*Holometopus*) *magdalenense* Rathbun, 1918 (basionym).
4	*Armases gorei* (Abele, 1981)	2	2	1	*Sesarma gorei* Abele, 1981.
5	*Armases angustipes* (Dana, 1852)	2	2	2	*Sesarma* (*Holometopus*) *miersii iheringi* Rathbun, 1918; *Sesarma angustipes* Dana, 1852.
6	*Armases miersii* (Rathbun, 1897)	2	10	1	*Sesarma* (*Holometopus*) *miersii* Rathbun, 1897 (basionym).
7	*Armases rubripes* (Rathbun, 1897)	2	6	2	*Sesarma rubripes* Rathbun, 1897; *Sesarma trapezium* Dana, 1852.
8	*Armases elegans* (Herklots, 1851)	2	7	2	*Sesarma* (*Chiromantes*) *elegans* Herklots, 1851; *Sesarma* (*Holometopus*) *elegans* Herklots, 1851.
9	*Armases cinereum* (Bosc, 1802)	2	9	2	*Grapsus cinereus* Bosc, 1802. *Sesarma cinereum* Bosc, 1802.
10	*Sesarma curacaoense* De Man, 1892	2	11	0	-
11	*Sesarma rhizophorae* Rathbun, 1906	2	5	1	*Sesarma* (*Sesarma*) *rhizophorae* Rathbun, 1906 (basionym).
12	*Sesarma rubinofforum,* Abele, 1973	2	2	0	-
13	*Sesarma rectum* Randall, 1840	2	6	3	*Sesarma eydouxi* H. Milne Edwards, 1853; *Sesarma mulleri* A. Milne- Edwards, 1869; *Sesarma recta* Randall, 1840 (basionym).
14	*Sesarma crassipes* Cano, 1889	2	3	0	-
15	*Sesarma reticulatum* (Say, 1817)	2	5	2	*Grapsus limosus* Rafinesque, 1817; *Ocypode* (*Sesarma*) *reticulatum* Say, 1817.
16	*Guinearma kamermani* (De Man, 1883)	1	4	3	*Perisesarma kamermani* (de Man, 1883) ; *Sesarma* (*Chiromantes*) *kamermani* de Man, 1883; *Sesarma* (*Perisesarma*) *kamermani* (de Man, 1883).
17	*Guinearma alberti* (Rathbun, 1921)	1	6	3	*Perisesarma alberti* (Rathbun, 1921); *Sesarma* (*Chiromantes*) *alberti* Rathbun, 1921; (basionym) *Sesarma* (*Perisesarma*) *alberti* (Rathbun, 1921).
18	*Guinearma huzardi* (Desmarest, 1825)	2	14	4	*Grapsus huzardi* Desmarest, 1825; *Perisesarma huzardi* (Desmarest, 1825); *Sesarma* (*Perisesarma*) *huzardi* Desmarest, 1825; *Sesarma africana* H. Milne Edwards, 1837.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
19	*Parasesarma guttatum* (A Milne Edwards, 1869)	4	9	3	*Chiromanthes guttatum* A. Milne Edwards, 1869; *Perisesarma guttatum* A. Milne Edwards, 1869; *Sesarma guttatum* A. Milne Edwards, 1869.
20	*Parasesarma samawati* (Gillikin & Schubart, 2004)	1	1	1	*Perisesarma samawati* Gillikin & Schubart, 2004.
21	*Parasesarma leptosoma* (Hilgendorf, 1869)	5	13	2	*Parasesarma leptosomum* Hilgendorf, 1896; *Sesarma leptosoma* Hilgendorf, 1869 (basionym).
22	*Parasesarma Plicatum* (Latreille, 1803)	5	13	2	*Cancer quadratus* Fabricius, 1798; *Ocypode plicatum* Latreille, 1803; *Sesarma plicatum* Latreille, 1803.
23	*Parasesarma pictum* (De Haan, 1835 [in De Haan, 1833–1850])	2	6	2	*Grapsus* (*Pachysoma*) *pictum* De Haan, 1835 [in De Haan, 1833–1850]; *Sesarma rupicola* Stimpson, 1858.
24	*Parasesarma bidens* (De Haan, 1835 [in De Haan, 1833–1850])	7	17	3	*Grapsus* (*Pachysoma*) *bidens* De Haan, 1835 [in De Haan, 1833–1850]; *Perisesarma bidens* (De Haan, 1835 [in De Haan, 1833–1850]) ; *Sesarma bidens* (De Haan, 1835 [in De Haan, 1833–1850]).
25	*Parasesarma eumolpe* (de Man, 1895 [in de Man, 1895–1898])	2	5	2	*Perisesarma eumolpe* (de Man, 1895 [in de Man, 1895–1898]); *Sesarma* (*Perisesarma*) *eumolpe* de Man, 1895 [in de Man, 1895–1898] (basionym).
26	*Parasesarma indiarum* (Tweedie, 1940)	5	8	3	*Perisesarma indiarum* (Tweedie, 1940); *Sesarma* (*Perisesarma*) *indica* de Man, 1902; *Sesarma bidens indiarum* Tweedie, 1940 (basionym).
27	*Parasesarma onychophorum* (de Man, 1895 [in de Man, 1895–1898])	2	6	2	*Perisesarma onychophorum* (de Man, 1895 [in de Man, 1895–1898]) ; *Sesarma* (*Perisesarma*) *onychophora* de Man, 1895 [in de Man, 1895–1898] (basionym).
28	*Parasesarma semperi* (Bürger, 1893)	2	2	2	*Perisesarma semperi* (Bürger, 1893); *Sesarma semperi* Bürger, 1893.
29	*Parasesarma batavianum* (de Man, 1890)	2	3	1	*Sesarma batavianum* de Man, 1890.
30	*Parasesarma calypso* de Man, 1895	2	5	1	*Sesarma* (*Parasesarma*) *calypso* de Man, 1895 [in de Man, 1895–1898] (basionym).
31	*Parasesarma lanchesteri* (Tweedie, 1936)	1	1	3	*Perisesarma lanchesteri* (Tweedie, 1936); *Sesarma* (*Parasesarma*) *calypso lanchesteri* Tweedie, 1936 (basionym); *Sesarma lanchesteri* Tweedie, 1936.
32	*Parasesarma melissa* (de Man, 1888 [in de Man, 1887–1888])	1	3	1	*Sesarma melissa* de Man, 1888 [in de Man, 1887–1888] (basionym).
33	*Parasesarma rutilimanum* (Tweedie, 1936)	1	1	2	*Sesarma* (*Parasesarma*) *rutilimana* Tweedie, 1936 (basionym); *Sesarma rutilimanum* Tweedie, 1936.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
34	*Parasesarma darwinense* (Campbell, 1967)	4	4	2	*Perisesarma darwinense* (Campbell, 1967); *Sesarma* (*Chiromantes*) *darwinensis* Campbell, 1967.
35	*Parasesarma lenzii* (de Man, 1895 [in de Man, 1895–1898])	4	7	2	*Sesarma* (*Parasesarma*) *lenzii* de Man, 1895 [in de Man, 1895–1898] (basionym); *Sesarma lenzii* de Man, 1895 [in de Man, 1895–1898].
36	*Parasesarma messa* (Campbell, 1967)	1	1	2	*Perisesarma messa* (Campbell, 1967); *Sesarma* (*Chiromantes*) *messa* Campbell, 1967.
37	*Parasesarma erythodactylum* (Hess, 1865)	2	3	2	*Sesarma erythodactyla* Hess, 1865 (basionym); *Sesarma erythrodactylum* (Hess, 1865).
38	*Neosarmatium africanum* Ragionieri, Fratini & Schubart, 2012	1	3	0	-
39	*Neosarmatium smithi* (H. Milne Edwards, 1853)	4	11	2	*Sesarma smithi* H. Milne Edwards, 1853; *Sesarma smithii* H. Milne Edwards, 1853.
40	*Neosarmatium meinerti* (de Man, 1887)	5	20	1	*Sesarma meinerti* de Man, 1887.
41	*Neosarmatium malabaricum* (Henderson, 1893)	2	2	2	*Sarmatium indicum var. malabaricum* Henderson, 1895 (basionym); *Sarmatium malabaricum* Henderson, 1893.
42	*Neosarmatium laeve* (A. Milne Edwards, 1869)	2	2	4	*Neosarmatium aequifrons* (Rathbun, 1914); *Neosarmatium ambonensis* Serène & Moosa, 1971; *Sesarma* (*Sesarma*) *aequifrons* Rathbun, 1914; *Sesarma laeve* A. Milne Edwards, 1869.
43	*Neosarmatium trispinosum* Davie, 1994	2	4	0	-
44	*Sarmatium crassum* Dana, 1851	5	11	0	-
45	*Sarmatium striaticarpus* Davie, 1992	1	1	0	-
46	*Sarmatium germaini* (A. Milne Edwards, 1869)	3	4	1	*Sesarma germaini* A. Milne Edwards, 1869.
47	*Sarmatium germaini* (A. Milne-Edwards, 1869)	3	4	1	*Sesarma germaini* A. Milne- Edwards, 1869.
48	*Chiromantes eulimene* (de Man in Weber, 1897)	1	4	3	*Holometopus eulimene* (de Man, 1898); *Sesarma* (*Sesarma*) *eulimene* de Man, 1897; *Sesarma eulimene* de Man, 1897.
49	*Chiromantes ortmanni* (Crosnier, 1965)	1	6	5	*Holometopus ortmanni* (Crosnier, 1965); *Sesarma* (*Holometopus*) *ortmanni* Crosnier, 1965 (basionym); *Sesarma erythodactyla var. africana* Ortmann, 1894; *Sesarma erythrodactylum africanum* Ortmann, 1894; *Sesarma ortmanni* Crosnier, 1965.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
50	*Sesarmops impressus* (H. Milne Edwards, 1837)	7	14	5	*Sesarma frontale* A. Milne- Edwards, 1869; *Sesarma impressum* (H. Milne Edwards, 1837); *Sesarma impressus* H. Milne Edwards, 1837; *Sesarma similis* Hess, 1865;
42	*Neosarmatium laeve* (A. Milne Edwards, 1869)	2	2	4	*Neosarmatium aequifrons* (Rathbun, 1914); *Neosarmatium ambonensis* Serène & Moosa, 1971; *Sesarma* (*Sesarma*) *aequifrons* Rathbun, 1914; *Sesarma laeve* A. Milne Edwards, 1869.
43	*Neosarmatium trispinosum* Davie, 1994	2	4	0	-
44	*Sarmatium crassum* Dana, 1851	5	11	0	-
45	*Sarmatium striaticarpus* Davie, 1992	1	1	0	-
46	*Sarmatium germaini* (A. Milne Edwards, 1869)	3	4	1	*Sesarma germaini* A. Milne Edwards, 1869.
47	*Sarmatium germaini* (A. Milne-Edwards, 1869)	3	4	1	*Sesarma germaini* A. Milne- Edwards, 1869.
48	*Chiromantes eulimene* (de Man in Weber, 1897)	1	4	3	*Holometopus eulimene* (de Man, 1898); *Sesarma* (*Sesarma*) *eulimene* de Man, 1897; *Sesarma eulimene* de Man, 1897.
49	*Chiromantes ortmanni* (Crosnier, 1965)	1	6	5	*Holometopus ortmanni* (Crosnier, 1965); *Sesarma* (*Holometopus*) *ortmanni* Crosnier, 1965 (basionym); *Sesarma erythodactyla var. africana* Ortmann, 1894; *Sesarma erythrodactylum africanum* Ortmann, 1894; *Sesarma ortmanni* Crosnier, 1965.
50	*Sesarmops impressus* (H. Milne Edwards, 1837)	7	14	5	*Sesarma frontale* A. Milne- Edwards, 1869; *Sesarma impressum* (H. Milne Edwards, 1837); *Sesarma impressus* H. Milne Edwards, 1837; *Sesarma similis* Hess, 1865;
42	*Neosarmatium laeve* (A. Milne Edwards, 1869)	2	2	4	*Neosarmatium aequifrons* (Rathbun, 1914); *Neosarmatium ambonensis* Serène & Moosa, 1971; *Sesarma* (*Sesarma*) *aequifrons* Rathbun, 1914; *Sesarma laeve* A. Milne Edwards, 1869.
43	*Neosarmatium trispinosum* Davie, 1994	2	4	0	-
44	*Sarmatium crassum* Dana, 1851	5	11	0	-
45	*Sarmatium striaticarpus* Davie, 1992	1	1	0	-
46	*Sarmatium germaini* (A. Milne Edwards, 1869)	3	4	1	*Sesarma germaini* A. Milne Edwards, 1869.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
47	*Sarmatium germaini* (A. Milne-Edwards, 1869)	3	4	1	*Sesarma germaini* A. Milne- Edwards, 1869.
48	*Chiromantes eulimene* (de Man in Weber, 1897)	1	4	3	*Holometopus eulimene* (de Man, 1898); *Sesarma* (*Sesarma*) *eulimene* de Man, 1897; *Sesarma eulimene* de Man, 1897.
49	*Chiromantes ortmanni* (Crosnier, 1965)	1	6	5	*Holometopus ortmanni* (Crosnier, 1965); *Sesarma* (*Holometopus*) *ortmanni* Crosnier, 1965 (basionym); *Sesarma erythodactyla var. africana* Ortmann, 1894; *Sesarma erythro-dactylum africanum* Ortmann, 1894; *Sesarma ortmanni* Crosnier, 1965.
50	*Sesarmops impressus* (H. Milne Edwards, 1837)	7	14	5	*Sesarma frontale* A. Milne- Edwards, 1869; *Sesarma impressum* (H. Milne Edwards, 1837); *Sesarma impressus* H. Milne Edwards, 1837; *Sesarma similis* Hess, 1865; *Sesarmops impressum* (H. Milne Edwards, 1837).
51	*Sesarmops intermedius* (De Haan, 1835 [in De Haan, 1833–1850])	2	4	1	*Grapsus* (*Pachysoma*) *intermedius* De Haan, 1835[in De Haan, 1833–1850].
52	*Sesarmoides longipes* (Krauss, 1843)	2	3	1	*Grapsus* (*Sesarma*) *longipes* Krauss, 1843 (basionym).
53	*Sesarmoides kraussi* (de Man, 1888 [in de Man, 1887–1888])	4	7	1	*Sesarma Kraussi* de Man, 1888 [in de Man, 1887–1888] (basionym).
54	*Sesarmoides borneensis* (Tweedie, 1950)	2	3	1	*Sesarma Kraussi borneensis* Tweedie, 1950 (basionym).
55	*Clistocoeloma villosum* (A. Milne-Edwards, 1869)	4	10	1	*Sesarma villosum* A. Milne Edwards, 1869.
56	*Clistocoeloma merguiense* de Man, 1888 [in de Man, 1887–1888]	5	10	1	*Clistocoeloma Merguiensis* de Man, 1888 [in de Man, 1887–1888] (basionym).
57	*Clistocoeloma lanatum* (Alcock, 1900)	3	3	1	*Sesarma lanatum* Alcock, 1900.
58	*Clistocoeloma suvaense* Edmondson, 1951	1	1	0	-
59	*Selatium brockii* (de Man, 1887)	5	9	3	*Selatium brocki* (de Man, 1887); *Sesarma brocki* de Man, 1887; *Sesarma brockii* de Man, 1887.
60	*Selatium elongatum* (A. Milne Edwards, 1869)	4	7	2	*Sesarma elongatum* A. Milne Edwards, 1869; *Sesarma latifemur* Alcock, 1900.
61	*Episesarma mederi* (H. Milne Edwards, 1853)	3	8	3	*Sesarma mederi* A. Milne Edwards, 1853(basionym); *Sesarma taeniolata* Miers, 1877; *Sesarma taeniolata* White, 1847.
62	*Episesarma versicolor* (Tweedie, 1940)	2	6	1	*Sesarma versicolor* Tweedie, 1940 (basionym).
63	*Episesarma chentongense* (Serène & Soh, 1967)	1	1	1	*Sesarma* (*Sesarma*) *chentongense* Serène & Soh, 1967.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
64	*Episesarma palawanense* (Rathbun, 1914)	1	2	1	*Sesarma* (*Sesarma*) *palawanense* Rathbun, 1914 (basionym).
65	*Episesarma singaporense* (Tweedie, 1936)	1	2	1	*Sesarma* (*Sesarma*) *singaporensis* Tweedie, 1936 (basionym).
66	*Episesarma lafondii* (Hombron & Jacquinot, 1846)	2	5	1	*Sesarma lafondii* Hombron & Jacquinot, 1846.
67	*Muradium tetragonum* (Fabricius, 1798)	1	1	2	*Cancer fascicularis* Herbst, 1799; *Cancer tetragonum* Fabricius, 1798.
68	*Labuanium rotundatum* (Hess, 1865)	3	9	6	*Sarmatium faxoni* Rathbun, 1906; *Sesarma* (*Episesarma*) *rotundata* (Hess, 1865); *Sesarma dentifrons* A. Milne Edwards, 1869; *Sesarma gardineri* Borradaile, 1900; *Sesarma oceanica* de Man, 1889; *Sesarma rotundatum* Hess, 1865 (basionym).
69	*Labuanium politum* (de Man, 1888 [in de Man, 1887–1888])	1	3	1	*Sesarma polita* de Man, 1888 [in de Man, 1887–1888] (basionym).
70	*Metasesarma obesum* (Dana, 1851)	7	27	6	*Holometopus obesus* (Dana, 1851); *Metasesarma granularis* Heller, 1862; *Metasesarma rousseauxi* H. Milne Edwards, 1853; *Metasesarma rugulosa* Heller, 1865; *Sesarma obesum* Dana, 1851; *Sesarma rousseauxi.*
71	*Nanosesarma andersoni* (de Man, 1888 [in de Man, 1887–1888])	4	7	1	*Sesarma andersoni* de Man, 1888 [in de Man, 1887–1888] (basionym).
72	*Nanosesarma batavicum* (Moreira, 1903)	2	5	1	*Sesarma batavica* Moreira, 1903 (basionym).
73	*Nanosesarma minutum* (de Man, 1887)	5	11	4	*Nanosesarma gordoni* De Man, 1887; *Sesarma* (*Sesarma*) *gordoni* Shen, 1935; *Sesarma barbimanum* Cano, 1889; *Sesarma minutum* de Man, 1887.
74	*Nanosesarma edamense* (de Man, 1887)	1	1	1	*Sesarma edamensis* de Man, 1887.
65	*Episesarma singaporense* (Tweedie, 1936)	1	2	1	*Sesarma* (*Sesarma*) *singaporensis* Tweedie, 1936 (basionym).
66	*Episesarma lafondii* (Hombron & Jacquinot, 1846)	2	5	1	*Sesarma lafondii* Hombron & Jacquinot, 1846.
67	*Muradium tetragonum* (Fabricius, 1798)	1	1	2	*Cancer fascicularis* Herbst, 1799; *Cancer tetragonum* Fabricius, 1798.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
68	*Labuanium rotundatum* (Hess, 1865)	3	9	6	*Sarmatium faxoni* Rathbun, 1906; *Sesarma* (*Episesarma*) *rotundata* (Hess, 1865); *Sesarma dentifrons* A. Milne Edwards, 1869; *Sesarma gardineri* Borradaile, 1900; *Sesarma oceanica* de Man, 1889; *Sesarma rotundatum* Hess, 1865 (basionym).
69	*Labuanium politum* (de Man, 1888 [in de Man, 1887–1888])	1	3	1	*Sesarma polita* de Man, 1888 [in de Man, 1887–1888] (basionym).
70	*Metasesarma obesum* (Dana, 1851)	7	27	6	*Holometopus obesus* (Dana, 1851); *Metasesarma granularis* Heller, 1862; *Metasesarma rousseauxi* H. Milne Edwards, 1853; *Metasesarma rugulosa* Heller, 1865; *Sesarma obesum* Dana, 1851; *Sesarma rousseauxi.*
71	*Nanosesarma andersoni* (de Man, 1888 [in de Man, 1887–1888])	4	7	1	*Sesarma andersoni* de Man, 1888 [in de Man, 1887–1888] (basionym).
72	*Nanosesarma batavicum* (Moreira, 1903)	2	5	1	*Sesarma batavica* Moreira, 1903 (basionym).
73	*Nanosesarma minutum* (de Man, 1887)	5	11	4	*Nanosesarma gordoni* De Man, 1887; *Sesarma* (*Sesarma*) *gordoni* Shen, 1935; *Sesarma barbimanum* Cano, 1889; *Sesarma minutum* de Man, 1887.
74	*Nanosesarma edamense* (de Man, 1887)	1	1	1	*Sesarma edamensis* de Man, 1887.
75	*Nanosesarma nunongi* Tweedie, 1951	2	2	0	-
76	*Nanosesarma pontianacense* (de Man, 1895 [in de Man, 1895–1898])	1	2	1	*Sesarma* (*Episesarma*) *pontianacensis* de Man, 1895 [in de Man, 1895–1898] (basionym).
77	*Fasciarma fasciatum* (Lanchester, 1900)	2	5	3	*Perisesarma fasciatum* (Lanchester, 1900); *Sesarma* (*Chiromantes*) *siamense* Rathbun, 1909; *Sesarma fasciatum* Lanchester, 1900 (basionym).
78	*Pseudosesarma edwardsi* (de Man, 1888 [in de Man, 1887–1888])	5	11	3	*Sesarma* (*Sesarma*) *edwardsi* (de Man, 1888 [in de Man, 1887–1888]); *Sesarma edwardsi* de Man, 1888 [in de Man, 1887–1888] (basionym); *Sesarma edwardsii* de Man, 1888 [in de Man, 1887–1888].
79	*Pseudosesarma bocourti* (A. Milne Edwards, 1869)	2	4	2	*Sesarma bocourti* A. Milne Edwards, 1869; *Sesarma cheiragona* Targioni Tozzetti, 1877.
80	*Pseudosesarma crassimanum* (De Man, 1888)	2	3	1	*Sesarma crassimanum* De Man, 1888.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
81	*Perisesarma dusumieri* (H. Milne Edwards, 1853)	1	3	1	*Sesarma dussumieri* H. Milne Edwards, 1853.
82	*Perisesarma tuerkayi* Shahdadi, Davie & Schubart, 2017	1	1	0	-
83	*Tiomanium indicum* (H. Milne Edwards, 1837)	3	4	2	*Sesarma* (*Sesarma*) *tiomanense* Rathbun, 1913; *Sesarma indicum* H. Milne Edwards, 1837.
84	*Neosesarma gemmiferum* (Tweedie, 1936)	1	1	1	*Sesarma gemmiferum* Tweedie, 1936.
85	*Haberma tingkok* Cannicci & P.K.L. Ng, 2017	1	1	0	-
Ocypodidae (45 spp.)		1–8	1–45	0–12	
86	*Leptuca leptodactyla* (Rathbun, in Rankin, 1898)	2	11	3	*Uca* (*Leptuca*) *leptodactyla* Rathbun in Rankin, 1898; *Uca leptodactyla* Rathbun in Rankin, 1898 (basionym); *Uca leptostyla* Nutting, 1919.
87	*Minuca rapax* (Smith, 1870)	3	20	4	*Gelasimus palustris* H. Milne Edwards, 1852; *Gelasimus rapax* Smith, 1870 (basionym); *Uca* (*Minuca*) *rapax* (Smith, 1870); *Uca pugnax brasiliensis* de Oliveira, 1939.
88	*Leptuca thayeri* (Rathbun, 1900)	2	15	3	*Minuca thayeri* (Rathbun, 1900); *Uca* (*Minuca*) *thayeri* Rathbun, 1900; *Uca thayeri* Rathbun, 1900.
89	*Minuca vocator* (Herbst, 1804)	2	18	5	*Cancer vocator* Herbst, 1804; *Uca* (*Minuca*) *vocator* (Herbst, 1804); *Uca lanigera* von Hagen, 1968; *Uca murifecenta* Crane, 1943; *Uca salsisitus* de Oliveira, 1939.
90	*Ucides cordatus* (Linnaeus, 1763)	2	17	4	*Cancer cordatus* Linnaeus, 1763; *Cancer uca* Linnaeus, 1767; *Ocypode fossor* Latreille, 1802; *Uca pilosipes* Gill, 1859.
91	*Uca maracoani* (Latreille, 1802)	2	10	2	*Ocypode maracoani* Latreille, 1802; *Uca* (*Uca*) *maracoani* (Latreille, 1802).
92	*Leptuca cumulanta* (Crane, 1943)	2	7	1	*Uca* (*Leptuca*) *cumulanta* Crane, 1943.
93	*Minuca victoriana* (von Hagen, 1987)	1	1	1	*Uca* (*Minuca*) *victoriana* von Hagen, 1987.
94	*Minuca mordax* (Smith, 1870)	3	14	2	*Gelasimus mordax* Smith, 1870 (basionym); *Uca* (*Minuca*) *mordax* (Smith, 1870).
95	*Leptuca uruguayensis* (Nobili, 1901)	1	1	2	*Uca* (*Leptuca*) *uruguayensis* Nobili, 1901; *Uca olympioi* de Oliveira, 1939.
96	*Minuca burgersi* (Holthuis, 1967)	3	24	4	*Gelasimus affinis* Streets, 1872; *Uca* (*Minuca*) *burgersi* Holthuis, 1967; *Uca burgersi* Holthuis, 1967 (basionym); *Uca panema* Coelho, 1972.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
97	*Paraleptuca chlorophthalmus* Milne Edwards, 1837)	4	13	4	*Gelasimus chlorophthalmus* H. Milne Edwards, 1837; *Uca* (*Paraleptuca*) *chlorophthalmus* (H. Milne Edwards, 1837); *Uca* (*Paraleptuca*) *chlorophthalmus chlorophthalmus* (H. Milne Edwards, 1837); *Uca amazonensis* Doflein, 1899.
98	*Cranuca inversa* (Hoffmann, 1874)	3	12	4	*Gelasimus inversus* Hoffmann, 1874 (basionym); *Gelasimus smithii* Kingsley, 1880; *Uca* (*Cranuca*) *inversa* (Hoffmann, 1874); *Uca* (*Cranuca*) *inversa* (Hoffmann, 1874).
99	*Austruca annulipes* (H. Milne Edwards, 1837)	7	30	5	*Gelasimus annulipes* H. Milne Edwards, 1837 (basionym); *Gelasimus porcellanus* White, 1847; *Uca* (*Austruca*) *annulipes* (H. Milne Edwards, 1837); *Uca* (*Paraleptuca*) *annulipes* (H. Milne Edwards, 1837); *Uca consobrinus* Verwey, 1930.
100	*Gelasimus tetragonon* (Herbst, 1790)	7	32	7	*Cancer tetragonon* Herbst, 1790; *Gelasimus affinis* Guérin, 1829; *Gelasimus duperreyi* Guérin, 1829; *Gelasimus variatus* Hess, 1865 ; *Uca* (*Gelasimus*) *tetragonon* (Herbst, 1790); *Uca affinis* Guérin, 1829; *Uca duperreyi* Guérin, 1829.
101	*Tubuca urvillei* (H. Milne Edwards, 1852)	5	12	2	*Gelasimus urvillei* H. Milne Edwards, 1852; *Uca* (*Tubuca*) *urvillei* (H. Milne Edwards, 1852).
102	*Gelasimus vocans* (Linnaeus, 1758)	8	33	12	*Cancer vocans* Linnaeus, 1758; *Gelasimus cultrimanus* White, 1847; *Gelasimus marionis* Desmarest, 1823; *Gelasimus nitidus* Dana, 1851; *Uca* (*Gelasimus*) *vocans* (Linnaeus, 1758); *Uca* (*Gelasimus*) *vocans excisa* (Nobili, 1906); *Uca* (*Gelasimus*) *vocans* (Linnaeus, 1758); *Uca* (*Thalassuca*) *vocans* *Uca marionis* (Desmarest, 1823); *Uca marionis cultrimana* (White, 1847); *Uca marionis excisa* Nobili, 1906; *Uca marionis f. excisa* Nobili, 1906.
103	*Ocypode ceratophthalmus* (Pallas, 1772)	8	45	9	*Cancer arenarius* Toreen in Osbeck, 1765; *Cancer caninus* Herbst, 1782; *Cancer ceratophthalmus* Pallas, 1772; *Cancer francisci* Curtiss, 1938; *Ocipode urvillii* Guérin, 1829; *Ocypoda Macleayana* Hess, 1865; *Ocypode brevicornis var. longicornuta* Dana, 1852; *Ocypode longicornuta* Dana, 1852; *Ocypode urvillei* Guérin, 1838.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
104	*Ocypode saratan* (Forskål, 1775)	2	10	3	*Cancer saratan* Forskål, 1775; *Ocypode aegyptiaca* Gerstaecker, 1856; *Ocypode aegyptica* Gerstaecker, 1856.
105	*Austruca perplexa* (H. Milne Edwards, 1852)	6	15	5	*Gelasimus annulipes var. albimana* H. Milne Edwards, 1852; *Gelasimus perplexa* H. Milne Edwards, 1837; *Uca* (*Austruca*) *annulipes var. orientalis* Nobili, 1901; *Uca* (*Austruca*) *perplexa* (H. Milne Edwards, 1837); *Uca* (*Paraleptuca*) *perplexa* (H. Milne Edwards, 1837).
106	*Austruca iranica* (Pretzmann, 1971)	2	5	1	*Uca* (*Austruca*) *iranica* Pretzmann, 1971.
107	*Austruca sindensis* (Alcock, 1900)	2	3	3	*Gelasimus sindensis* Alcock, 1900; *Uca* (*Austruca*) *sindensis* (Alcock, 1900); *Uca* (*Paraleptuca*) *sindensis* (Alcock, 1900).
108	*Austruca lactea* (De Haan, 1835 [in De Haan, 1833–1850])	6	17	6	*Gelasimus forceps* H. Milne Edwards, 1837; *Ocypode* (*Gelasimus*) *lactea* De Haan, 1835 [in De Haan, 1833–1850]; *Uca* (*Austruca*) *lactea* (De Haan, 1835 [in De Haan, 1833–1850]); *Uca* (*Paraleptuca*) *lactea* (De Haan, 1835 [in De Haan, 1833–1850]); *Uca* (*Paraleptuca*) *lactea annulipes* (H. Milne Edwards, 1837); *Uca orientalis* Nobili, 1901.
109	*Austruca triangularis* (A. Milne Edwards, 1873)	6	16	4	*Gelasimus triangularis* A. Milne Edwards, 1873 (basionym); *Gelasimus triangularis var. variabilis* de Man, 1891; *Uca* (*Austruca*) *triangularis* (A. Milne-Edwards, 1873); *Uca* (*Paraleptuca*) *triangularis* (A. Milne-Edwards, 1873).
110	*Leptuca pugilator* (Bosc, 1802)	2	3	3	*Ocypoda pugilator* Bosc, 1801; *Ocypode citharoedicus* Say, 1817 ; *Uca* (*Leptuca*) *pugilator* (Bosc, 1801).
111	*Ocypode cordimana* Latreille, 1818	7	36	1	*Cancer roberti* Curtiss, 1938.
112	*Ocypode macrocera* H. Milne Edwards, 1852	4	6	1	*Ocypoda portonovoensis* Prem Kumar, 1964 (junior synonym).
113	*Ocypode platytarsis* H. Milne Edwards, 1852	2	3	0	-
114	*Tubuca acuta* (Stimpson, 1858)	2	4	2	*Gelasimus acutus* Stimpson, 1858 (basionym); *Uca* (*Tubuca*) *acuta* (Stimpson, 1858).
115	*Tubuca dussumieri* (H. Milne Edwards, 1852)	6	16	5	*Gelasimus caerulens* Adams, in Belcher, 1848; *Gelasimus dubius* Stimpson, 1858 ; *Gelasimus dussumieri* H. Milne Edwards, 1852; *Uca* (*Deltuca*) *dussumieri* *Uca* (*Tubuca*) *dussumieri* (H. Milne Edwards, 1852).

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
116	*Tubuca rosea* (Tweedie, 1937)	2	7	2	*Gelasimus roseus* Tweedie, 1937 (basionym); *Uca* (*Tubuca*) *rosea* (Tweedie, 1937).
117	*Uca* (*Paraleptuca*) *bengali* Crane, 1975	2	3	2	*Uca bengali* Crane, 1975; *Ausrruca bengali* Crane, 1975.
118	*Tubuca coarctata* (H. Milne Edwards, 1852)	5	10	6	*Gelasimus coarctata* H. Milne Edwards, 1852; *Gelasimus thomsoni* Kirk, 1881; *Uca* (*Tubuca*) *coarctata* (H. Milne Edwards, 1852); *Uca ischnodactylus* Nemec, 1939; *Uca mearnsi* Rathbun, 1913; *Uca rathbunae* Pearse, 1912.
119	*Tubuca paradussumieri* (Bott, 1973)	3	9	2	*Uca* (*Deltuca*) *dussumieri spinata* Crane, 1975; *Uca* (*Tubuca*) *paradussumieri* Bott, 1973.
120	*Tubuca forcipata* (Adams & White, 1849)	3	8	4	*Gelasimus forcipatus* Adams & White, 1849; *Uca* (*Tubuca*) *forcipata* (Adams & White, 1849); *Uca manii* Rathbun, 1909 ; *Uca rubripes* Estampador, 1937.
121	*Tubuca rhizophorae* (Tweedie, 1950)	1	2	2	*Uca* (*Tubuca*) *rhizophorae* Tweedie, 1950; *Uca rhizophorae* Tweedie, 1950 (basionym).
122	*Tubuca bellator* (White, 1847)	3	5	5	*Gelasimus bellator* White, 1847; *Gelasimus signatus var. angustifrons* de Man, 1891; *Uca* (*Australuca*) *bellator* (White, 1847); *Uca bellator* (White, 1847); *Uca brevifrons var. delicata* Maccagno, 1928.
123	*Gelasimus jocelynae* (Shih, Naruse & P.K.L. Ng, 2010)	3	8	1	*Uca* (*Gelasimus*) *jocelynae* Shih, Naruse & P.K.L. Ng, 2010 (basionym).
124	*Paraleptuca crassipes* (White, 1847)	6	27	9	*Gelasimus crassipes* White, 1847; *Gelasimus gaimardi* H. Milne Edwards, 1852; *Gelasimus latreillei* H. Milne Edwards, 1852; *Gelasimus pulchellus* Stimpson, 1858; *Uca* (*Paraleptuca*) *chlorophthalmus crassipes* Adams & White, 1848; *Uca* (*Paraleptuca*) *crassipes* (White, 1847); *Uca gaimardi* (H. Milne Edwards, 1852); *Uca latreillei* (H. Milne Edwards, 1852); *Uca novaeguineae* Rathbun, 1913.
125	*Tubuca seismella* (Crane, 1975)	2	2	1	*Uca* (*Australuca*) *seismella* Crane, 1975.
126	*Tubuca flammula* (Crane, 1975)	2	2	1	*Uca* (*Tubuca*) *flammula* Crane, 1975.
127	*Tubuca signata* (Hess, 1865)	2	3	4	*Gelasimus signata* Hess, 1865; *Gelasimus signatus* Hess, 1865 (basionym); *Uca* (*Australuca*) *bellator minima* Crane, 1975; *Uca* (*Australuca*) *signata* (Hess, 1865).
128	*Tubuca longidigitum* (Kingsley, 1880)	1	1	2	*Gelasimus longidigitum* Kingsley, 1880; *Uca longidigitum* (Kingsley, 1880).

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
129	*Gelasimus vomeris* (McNeill, 1920)	4	10	2	*Uca* (*Gelasimus*) *vomeris* McNeill, 1920; *Uca marionis var. vomeris* McNeill, 1920 (basionym).
130	*Tubuca polita* (Crane, 1975)	2	2	1	*Uca* (*Australuca*) *polita* Crane, 1975.
Gecarcinidae (6 spp.)		1–9	1–42	1–6	
131	*Cardisoma guanhumi* Latreille in Latreille, Le Peletier, Serville & Guérin, 1828	5	33	4	*Cancer guanhumi* Berthold, 1827; *Cardisoma diurnum* Gill, 1862; *Cardisoma quadrata* de Saussure, 1857; *Ocypoda gigantea* de Fréminville, 1835.
132	*Cardisoma carnifex* (Herbst, 1796)	9	42	6	*Cancer carnifex* Herbst, 1796; *Cancer tahiticus* Curtiss, 1938; *Cancer urvillei* H. Milne Edwards, 1853; *Cardisoma aspasia* Adams in Belcher, 1848; *Cardisoma obesum* Dana, 1851; *Perigrapsus excelsus* Heller, 1862 (junior synonym).
133	*Barytelphusa cunicularis* (Westwood, 1836)	1	1	1	*Thelphusa cunicularis* Westwood, 1836.
134	*Cylindrotelphusa steniops* (Alcock, 1909)	1	1	1	*Gecarcinucus steniops* Alcock, 1909.
135	*Sartoriana spinigera* (Wood Mason, 1871)	1	4	4	*Paratelphusa spinigera* Wood Mason, 1871; *Parathelphusa spinigera* Wood Mason, 1871; *Telphusa spinigera* Wood Mason, 1871; *Thelphusa spinigera* White, 1847.
136	*Spiralothelphusa hydrodroma* (Herbst, 1794)	1	2	1	*Cancer hydrodroma* Herbst, 1794.
Grapsidae (18 spp.)		1–9	1–45	0–8	
137	*Goniopsis cruentata* (Latreille, 1803)	3	33	2	*Grapsus* (*Goniopsis*) *cruentata* Latreille, 1803; *Grapsus longipes* Randall, 1840;
138	*Pachygrapsus gracilis* (Saussure, 1857)	2	5	2	*Grapsus guadulpensis* Desbonne in Desbonne & Schramm, 1867; *Metopograpsus gracilis* de Saussure, 1857(basionym).
139	*Pachygrapsus transverses* (Gibbes, 1850)	8	40	8	*Goniograpsus innotatus* Dana, 1851; *Grapsus declivifrons* Heller, 1862; *Grapsus transversus* Gibbes, 1850 (basionym); *Leptograpsus rugulosus* H. Milne Edwards, 1853; *Metopograpsus dubius* Saussure, 1858; *Metopograpsus miniatus* de Saussure, 1857; *Pachygrapsus advena* Catta, 1876; *Pachygrapsus intermedius* Heller, 1862.
140	*Goniopsis pulchra* (Lockington, 1877)	2	8	1	*Goniograpsus pulchra* Lockington, 1877.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
141	*Goniopsis pelii* (Herklots, 1851)	1	14	2	*Grapsus* (*Grapsus*) *pelii* Herklots, 1851; *Grapsus* (*Grapsus*) *simplex* Herklots, 1851.
142	*Grapsus fourmanoiri* Crosnier, 1965	1	8	0	-
143	*Metopograpsus messor* (Forskål, 1775)	8	36	4	*Cancer messor* Forskål, 1775; *Eurycarcinus messor* (Forskål, 1775); *Grapsus* (*Pachygrapsus*) *aethiopicus* Hilgendorf, 1869; *Grapsus gaimardi* Audouin, 1826.
144	*Metopograpsus oceanicus* (Hombron & Jacquinot, 1846 [in Hombron & Jacquinot, 1842–1854])	6	14	3	*Eurycarcinus oceanicus* (Hombron & Jacquinot, 1846) ; *Grapsus* (*Grapsus*) *sulcifer* Herklots, 1861; *Grapsus oceanicus* Hombron & Jacquinot, 1846 [in Hombron & Jacquinot, 1842–1854] (basionym).
145	*Metopograpsus thukuhar* (Owen, 1839)	8	36	4	*Grapsus thukuhar* Owen, 1839 (basionym); *Metopograpsus eydouxi* H. Milne Edwards, 1853; *Metopograpsus intermedius* H. Milne Edwards, 1853; *Pachygrapsus parallelus* Randall, 1840.
146	*Grapsus albolineatus* Latreille in Milbert, 1812	9	45	6	*Cancer strigosus* Herbst, 1799; *Grapsus* (*Goniopsis*) *flavipes* MacLeay, 1838; *Grapsus albolineatus* Lamarck, 1818; *Grapsus longipes* Stimpson, 1858; *Grapsus peroni* H. Milne Edwards, 1853; *Grapsus strigosus* Herbst, 1799.
147	*Grapsus intermedius* de Man, 1888	4	8	0	-
148	*Grapsus tenuicrustatus* (Herbst, 1783)	9	43	8	*Cancer ballantei* Curtiss, 1938; *Cancer tenuicrustatus* Herbst, 1783; *Grapsus gracilipes* H. Milne Edwards, 1853; *Grapsus gracillimus* Sendler, 1923; *Grapsus hirtus* Randall, 1840; *Grapsus pharaonis* H. Milne Edwards, 1853; *Grapsus rude* H. Milne Edwards, 1837; *Grapsus rudis* H. Milne Edwards, 1853.
149	*Metopograpsus frontalis* Miers, 1880	5	10	2	*Metopograpsus messor gracilipes* de Man, 1891; *Metopograpsus messor var. frontalis* Miers, 1880 (basionym).
150	*Metopograpsus latifrons* (White, 1847)	6	18	5	*Grapsus* (*Grapsus*) *dilatatus* De Haan in Herklots, 1861; *Grapsus* (*Grapsus*) *dilatatus* de Man, 1879; *Grapsus latifrons* White, 1847; *Metopograpsus maculatus* H. Milne Edwards, 1853; *Metopograpsus pictus* A. Milne-Edwards, 1867.
151	*Pachygrapsus propinquus* de Man, 1908	1	1	0	-
152	*Metopograpsus quadridentatus* Stimpson, 1858	4	9	2	*Grapsus* (*Grapsus*) *plicatus* Herklots, 1861; *Pachygrapsus quadratus* Tweedie, 1936.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
153	*Helice formosensis* Rathbun, 1931	1	2	1	*Helice tridens formosensis* Rathbun, 1931 (basionym).
154	*Leptograpsus variegatus* (Fabricius, 1793)	6	7	8	*Cancer variegatus* Fabricius, 1793; *Grapsus personatus* Lamarck, 1818; *Grapsus planifrons* Dana, 1851; *Grapsus strigilatus* White, 1842; *Leptograpsus ansoni* H. Milne Edwards, 1853; *Leptograpsus gayi* H. Milne Edwards, 1853; *Leptograpsus verreauxi* H. Milne Edwards, 1853; *Sesarma pentagona* Hutton, 1875.
Panopeidae (4 spp.)		2–4	7–26	1–4	
155	*Eurytium limosum* (Say, 1818)	2	16	1	*Cancer limosa* Say, 1818.
156	*Panopeus herbstii* H. Milne Edwards, 1834	4	26	4	*Eupanopeus herbstii* H. Milne Edwards, 1834; *Eupanopeus herbstii herbstii* H. Milne
149	*Metopograpsus frontalis* Miers, 1880	5	10	2	*Metopograpsus messor gracilipes* de Man, 1891; *Metopograpsus messor var. frontalis* Miers, 1880 (basionym).
150	*Metopograpsus latifrons* (White, 1847)	6	18	5	*Grapsus* (*Grapsus*) *dilatatus* De Haan in Herklots, 1861; *Grapsus* (*Grapsus*) *dilatatus* de Man, 1879; *Grapsus latifrons* White, 1847; *Metopograpsus maculatus* H. Milne Edwards, 1853; *Metopograpsus pictus* A. Milne-Edwards, 1867.
151	*Pachygrapsus propinquus* de Man, 1908	1	1	0	-
152	*Metopograpsus quadridentatus* Stimpson, 1858	4	9	2	*Grapsus* (*Grapsus*) *plicatus* Herklots, 1861; *Pachygrapsus quadratus* Tweedie, 1936.
153	*Helice formosensis* Rathbun, 1931	1	2	1	*Helice tridens formosensis* Rathbun, 1931 (basionym).
154	*Leptograpsus variegatus* (Fabricius, 1793)	6	7	8	*Cancer variegatus* Fabricius, 1793; *Grapsus personatus* Lamarck, 1818; *Grapsus planifrons* Dana, 1851; *Grapsus strigilatus* White, 1842; *Leptograpsus ansoni* H. Milne Edwards, 1853; *Leptograpsus gayi* H. Milne Edwards, 1853; *Leptograpsus verreauxi* H. Milne Edwards, 1853; *Sesarma pentagona* Hutton, 1875.
Panopeidae (4 spp.)		2–4	7–26	1–4	
155	*Eurytium limosum* (Say, 1818)	2	16	1	*Cancer limosa* Say, 1818.
156	*Panopeus herbstii* H. Milne Edwards, 1834	4	26	4	*Eupanopeus herbstii* H. Milne Edwards, 1834; *Eupanopeus herbstii herbstii* H. Milne

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
149	*Metopograpsus frontalis* Miers, 1880	5	10	2	*Metopograpsus messor gracilipes* de Man, 1891; *Metopograpsus messor var. frontalis* Miers, 1880 (basionym).
150	*Metopograpsus latifrons* (White, 1847)	6	18	5	*Grapsus* (*Grapsus*) *dilatatus* De Haan in Herklots, 1861; *Grapsus* (*Grapsus*) *dilatatus* de Man, 1879; *Grapsus latifrons* White, 1847; *Metopograpsus maculatus* H. Milne Edwards, 1853; *Metopograpsus pictus* A. Milne-Edwards, 1867.
151	*Pachygrapsus propinquus* de Man, 1908	1	1	0	-
152	*Metopograpsus quadridentatus* Stimpson, 1858	4	9	2	*Grapsus* (*Grapsus*) *plicatus* Herklots, 1861; *Pachygrapsus quadratus* Tweedie, 1936.
153	*Helice formosensis* Rathbun, 1931	1	2	1	*Helice tridens formosensis* Rathbun, 1931 (basionym).
154	*Leptograpsus variegatus* (Fabricius, 1793)	6	7	8	*Cancer variegatus* Fabricius, 1793; *Grapsus personatus* Lamarck, 1818; *Grapsus planifrons* Dana, 1851; *Grapsus strigilatus* White, 1842; *Leptograpsus ansoni* H. Milne Edwards, 1853; *Leptograpsus gayi* H. Milne Edwards, 1853; *Leptograpsus verreauxi* H. Milne Edwards, 1853; *Sesarma pentagona* Hutton, 1875.
Panopeidae (4 spp.)		2–4	7–26	1–4	
155	*Eurytium limosum* (Say, 1818)	2	16	1	*Cancer limosa* Say, 1818.
156	*Panopeus herbstii* H. Milne Edwards, 1834	4	26	4	*Eupanopeus herbstii* H. Milne Edwards, 1834; *Eupanopeus herbstii herbstii* H. Milne Edwards, 1834; *Galene hawaiensis* Dana, 1852; *Panopeus herbstii f. typica* Rathbun, 1930.
157	*Panopeus americanus* de Saussure, 1857	2	7	1	*Panopeus areolatus* Benedict & Rathbun, 1891.
158	*Rhithropanopeus harrisii* (Gould, 1841)	4	9	3	*Panopeus wurdemannii* Gibbes, 1850; *Pilumnus harrisii* Gould, 1841; *Pilumnus tridentatus* Maitland, 1874.
Portunidae (35 spp.)		2–10	2–44	0–9	
159	*Callinectes exasperatus* (Gerstaecker, 1856)	2	16	3	*Callinectes tumidus* Ordway, 1863; *Lupa trispinosa* Leach, 1816; *Lupea exasperatus* Gerstaecker, 1856.
160	*Scylla serrata* (Forskål, 1775)	8	37	4	*Achelous crassimanus* MacLeay, 1838; *Cancer serrata* Forskål, 1775; *Lupa lobifrons* H. Milne Edwards, 1834; *Scylla tranquebarica var. oceanica* Dana, 1852.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
161	*Thalamita crenata* Rüppell, 1830	8	44	3	*Talamita crenata* Rüppell, 1830 (basionym); *Thalamita kotoensis* Tien, 1969; *Thalamita prymna var. crenata* Rüppell, 1830.
162	*Charybdis* (*Charybdis*) *affinis* Dana, 1852	4	8	1	*Charybdis barneyi* Gordon, 1930.
163	*Charybdis* (*Charybdis*) *annulata* (Fabricius, 1798)	7	18	2	*Portunus annulata* Fabricius, 1798; *Portunus annulatus* Weber, 1795.
164	*Charybdis* (*Charybdis*) *callianassa* (Herbst, 1789)	5	11	1	*Cancer callianassa* Herbst, 1789.
165	*Charybdis* (*Charybdis*) *feriata* (Linnaeus, 1758)	7	23	7	*Cancer cruciata* Herbst, 1794; *Cancer crucifer* Fabricius, 1792; *Cancer feriata* Linnaeus, 1758; *Cancer sexdentatus* Herbst, 1783; *Charybdis cruciata* (Herbst, 1794); *Charybdis sexdentata* (Herbst, 1783); *Portunus crucifer* Fabricius, 1798.
166	*Charybdis* (*Charybdis*) *granulata* (De Haan, 1833 [in De Haan, 1833–1850])	6	9	2	*Charybdis* (*Charybdis*) *moretonensis* Rees & Stephenson, 1966; *Portunus* (*Charybdis*) *granulata* De Haan, 1833 [in De Haan, 1833–1850].
167	*Charybdis* (*Charybdis*) *hellerii* (A. Milne Edwards, 1867)	10	35	4	*Charybdis merengiensis* (de Man); *Charybdis merguiensis* de Man, 1887; *Charybdis vannamei* Ward, 1941; *Goniosoma hellerii* A. Milne Edwards, 1867.
168	*Charybdis* (*Charybdis*) *lucifera* (Fabricius, 1798)	7	10	2	*Goniosoma quadrimaculatum* A. Milne Edwards, 1861; *Portunus lucifera* Fabricius, 1798.
169	*Charybdis* (*Charybdis*) *miles* (De Haan, 1835 [in De Haan, 1833–1850])	5	10	2	*Charybdis* (*Gonioneptunus*) *investigatoris* Alcock, 1899; *Portunus* (*Charybdis*) *miles* De Haan, 1835 [in De Haan, 1833–1850].
170	*Charybdis* (*Charybdis*) *orientalis* Dana, 1852	7	12	1	*Goniosoma dubium* Hoffman, 1874.
171	*Charybdis* (*Charybdis*) *riversandersoni* Alcock, 1899	5	7	0	_
172	*Charybdis* (*Charybdis*) *rostrata* (A. Milne Edwards, 1861)	2	4	1	*Goniosoma rostratum* A. Milne Edwards, 1861 (basionym).
173	*Charybdis* (*Charybdis*) *variegata* (Fabricius, 1798)	6	16	3	*Charybdis* (*Goniosoma*) *variegata* Fabricius, 1798); *Charybdis variegata* (Fabricius, 1798); *Portunus variegata* Fabricius, 1798.
174	*Charybdis* (*Goniohellenus*) *acutifrons* (de Man, 1879)	2	2	2	*Charybdis* (*Goniosupradens*) *acutifrons* (de Man, 1879); *Goniosoma acutifrons* de Man, 1879.
175	*Charybdis* (*Goniohellenus*) *hoplites* (Wood Mason, 1877)	3	8	2	*Archias sexdentatus* Paulson, 1875; *Goniosoma hoplites* Wood Mason, 1877.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
176	*Charybdis* (*Goniohellenus*) *truncata* (Fabricius, 1798)	6	17	1	*Portunus truncata* Fabricius, 1798.
177	*Charybdis* (*Goniohellenus*) *vadorum* Alcock, 1899	3	9	1	*Charybdis* (*Goniohellenus*) *sinensis* Gordon, 1930.
178	*Lissocarcinus arkati* Kemp, 1923	5	6	0	–
179	*Lupocycloporus gracilimanus* (Stimpson, 1858)	5	12	3	*Achelous whitei* A. Milne-Edwards, 1861; *Amphitrite gracilimanus* Stimpson, 1858 (basionym); *Portunus* (*Lupocycloporus*) *gracilimanus* (Stimpson, 1858).
180	*Podophthalmus vigil* (Fabricius, 1798)	8	25	2	*Podophthalmus spinosus* Lamarck, 1801; *Portunus vigil* Fabricius, 1798.
181	*Monomia gladiator* (Fabricius, 1798)	6	14	1	*Portunus* (*Monomia*) *gladiator* Fabricius, 1798.
182	*Portunus pelagicus* (Linnaeus, 1758)	7	35	9	*Cancer cedonulli* Herbst, 1794; *Cancer pelagicus* Forskål, 1775; *Cancer pelagicus* Linnaeus, 1758; *Lupa pelagica* (Linnaeus, 1758); *Neptunus pelagicus* (Linnaeus, 1758); *Portunus* (*Portunus*) *pelagicus* (Linnaeus, 1758); *Portunus* (*Portunus*) *pelagicus var. sinensis* Shen, 1932; *Portunus denticulatus* Marion de Procé, 1822; *Portunus pelagicus var. sinensis* (Shen, 1932).
183	*Portunus pubescens* (Dana, 1852)	7	11	3	*Lupa pubescens* Dana, 1852; *Neptunus tomentosus* Haswell, 1881; *Portunus* (*Portunus*) *pubescens* (Dana, 1852).
184	*Portunus sanguinolentus* (Herbst, 1783)	8	35	8	*Callinectes alexandri* Rathbun, 1907; *Cancer gladiator* Fabricius, 1793; *Cancer raihoae* Curtiss, 1938; *Cancer sanguinolentus* Herbst, 1783; *Lupa sanguinolentus* (Herbst, 1783); *Portunus* (*Portunus*) *sanguinolentus* (Herbst, 1783); *Portunus* (*Portunus*) *sanguinolentus sanguinolentus* (Herbst, 1783); *Portunus sanguinolentus sanguinolentus* (Herbst, 1783).
185	*Xiphonectes hastatoides* (Fabricius, 1798)	8	21	3	*Neptunus* (*Hellenus*) *hastatoides* (Fabricius, 1798); *Neptunus* (*Hellenus*) *hastatoides var. unidens* Laurie, 1906; *Portunus* (*Xiphonectes*) *hastatoides* Fabricius, 1798.
186	*Xiphonectes pulchricristatus* (Gordon, 1931)	6	13	3	*Neptunus* (*Hellenus*) *alcocki* Gordon, 1930; *Neptunus* (*Hellenus*) *pulchricristatus* Gordon, 1931; *Portunus* (*Xiphonectes*) *pulchricristatus* (Gordon, 1931).
187	*Scylla olivacea* (Herbst, 1796)	4	10	1	*Cancer olivacea* Herbst, 1796.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
188	*Scylla tranquebarica* (Fabricius, 1798)	5	9	6	*Amphitrite media* Stimpson, 1858; *Callinectes alcocki* P. S. Chen, 1933; *Callinectes platei* P. S. Chen, 1933; *Cancer defensor* Fabricius, 1787; *Cancer tranquebarica* Fabricius, 1798; *Portunus tranquebaricus* Latreille in Milbert, 1812.
189	*Thalamita admete* (Herbst, 1803)	8	39	5	*Cancer admete* Herbst, 1803; *Portunus integifrons* Marion de Procé, 1822; *Thalamita admete var. edwardsi* Borradaile, 1900; *Thalamita dispar* Rathbun, 1914; *Thalamita edwardsi* Borradaile, 1900.
190	*Thalamita chaptalii* (Audouin, 1826)	7	23	3	*Portunus chaptalii* Audouin, 1826 (basionym) *Thalamita chaptali* (Audouin & Savigny, 1817); *Thalamita holdsworthi* Miers, 1884.
191	*Thalamita prymna* (Herbst, 1803)	8	37	4	*Cancer prymna* Herbst, 1803; *Thalamita crassimana* Dana, 1852; *Thalamita gurjanovae* Tien, 1969;*Thalamita prymna var. annectans* Laurie, 1906.
192	*Thalamita danae* Stimpson, 1858	8	28	2	*Thalamita prymna var. proxima* Montgomery, 1931; *Thalamita stimpsoni* A. Milne Edwards, 1861 (basionym).
193	*Scylla paramamosain* Estampador, 1950	3	7	0	-
Pinnotheridae (5 spp.)		1-2	1-3	0-2	
194	*Austinixa leptodactyla* (Coelho, 1997)	1	1	1	*Pinnixa leptodactyla* Coelho, 1997.
195	*Arcotheres sinensis* (Shen, 1932)	2	2	1	*Pinnotheres sinensis* Shen, 1932 (basionym).
196	*Nepinnotheres cardii* (Bürger, 1895)	1	1	2	*Pinnotheres cardii* Bürger, 1895 (basionym); *Pinnotheres socius* Lanchester, 1902.
197	*Pinnotheres mactricola* Alcock, 1900	1	1	0	-
198	*Scleroplax granulata* Rathbun, 1894	2	3	1	*Scleroplax granulatus* Rathbun, 1894 (basionym).
Macrophthalmidae (22 spp.)		1–8	1–21	0–5	
199	*Macrophthalmus depressus* Rüppell, 1830	5	16	2	*Macrophthalmus affinis* Guérin-Méneville, 1838; *Macrophthalmus depressus* Rüppell, 1830 (basionym).
200	*Macrophthalmus grandidieri* A. Milne Edwards, 1867	2	6	0	–
201	*Macrophthalmus milloti* Crosnier, 1965	5	6	1	*Macrophthalmus milloti* Crosnier, 1965 (basionym).

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
202	*Macrophthalmus parvimanus* Guérin, 1834	3	4	4	*Aërope bidens* Leach in White, 1847; *Macrophthalmus parvimanus* Guérin, 1832; *Macrophthalmus parvimanus kempi* Gravely, 1927; *Ocypoda microcheles* Bosc, 1801.
203	*Ilyograpsus paludicola* (Rathbun, 1909)	5	5	1	*Camptandrium paludicola* Rathbun, 1909 (basionym).
204	*Macrophthalmus* (*Macrophthalmus*) *telescopicus* (Owen, 1839)	8	15	4	*Gelasimus telescopicus* Owen, 1839; *Macrophthalmus compressipes* Randall, 1840 ; *Macrophthalmus podophthalmus* Eydoux & Souleyet, 1842; *Macrophthalmus verreauxi* H. Milne Edwards, 1848.
205	*Chaenostoma boscii* (Audouin, 1826)	6	14	3	*Macrophthalmus* (*Chaenostoma*) *boscii* Audouin, 1826; *Macrophthalmus Boscii* Audouin, 1826 (basionym); *Macrophthalmus Franchettii* Maccagno, 1936.
206	*Macrophthalmus* (*Macrophthalmus*) *abbreviatus* R.B. Manning & Holthuis, 1981	4	7	2	*Macrophthalmus dilatatus* De Haan, 1835 [in De Haan, 1833–1850] ; *Ocypode* (*Macrophthalmus*) *dilatata* De Haan, 1835 [in De Haan, 1833–1850].
207	*Macrophthalmus* (*Macrophthalmus*) *brevis* (Herbst, 1804)	4	8	5	*Cancer brevis* Herbst, 1804; *Macrophthalmus carinimanus* H. Milne Edwards, 1837; *Macrophthalmus dilatatus carens* Lanchester, 1900; *Macrophthalmus simdentatus* Shen, 1936 ; *Macrophthalmus travancorensis* N.K. Pillai, 1951.
208	*Macrophthalmus* (*Macrophthalmus*) *convexus* Stimpson, 1858	6	21	2	*Macrophthalmus convexus* Stimpson, 1858 (basionym); *Macrophthalmus inermis* A. Milne Edwards, 1867.
209	*Macrophthalmus* (*Macrophthalmus*) *crassipes* H. Milne Edwards, 1852	3	4	0	_
210	*Macrophthalmus* (*Macrophthalmus*) *transverses* (Latreille, 1817)	2	4	1	*Goneplax transversus* Latreille, 1817.
211	*Macrophthalmus* (*Mareotis*) *crinitus* Rathbun, 1913	3	5	1	*Macrophthalmus crinitus* Rathbun, 1913 (basionym).
212	*Macrophthalmus* (*Mareotis*) *pacificus* Dana, 1851	4	7	1	*Macrophthalmus bicarinatus* Heller, 1862 (junior synonym).
213	*Macrophthalmus* (*Mareotis*) *teschi* Kemp, 1919	2	4	1	*Macrophthalmus teschi* Kemp, 1919 (basionym).
214	*Macrophthalmus* (*Mareotis*) *tomentosus* Eydoux & Souleyet, 1842	2	6	0	_

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
208	*Macrophthalmus* (*Macrophthalmus*) *convexus* Stimpson, 1858	6	21	2	*Macrophthalmus convexus* Stimpson, 1858 (basionym); *Macrophthalmus inermis* A. Milne Edwards, 1867.
209	*Macrophthalmus* (*Macrophthalmus*) *crassipes* H. Milne Edwards, 1852	3	4	0	_
210	*Macrophthalmus* (*Macrophthalmus*) *transverses* (Latreille, 1817)	2	4	1	*Goneplax transversus* Latreille, 1817.
211	*Macrophthalmus* (*Mareotis*) *crinitus* Rathbun, 1913	3	5	1	*Macrophthalmus crinitus* Rathbun, 1913 (basionym).
212	*Macrophthalmus* (*Mareotis*) *pacificus* Dana, 1851	4	7	1	*Macrophthalmus bicarinatus* Heller, 1862 (junior synonym).
213	*Macrophthalmus* (*Mareotis*) *teschi* Kemp, 1919	2	4	1	*Macrophthalmus teschi* Kemp, 1919 (basionym).
214	*Macrophthalmus* (*Mareotis*) *tomentosus* Eydoux & Souleyet, 1842	2	6	0	_
208	*Macrophthalmus* (*Macrophthalmus*) *convexus* Stimpson, 1858	6	21	2	*Macrophthalmus convexus* Stimpson, 1858 (basionym); *Macrophthalmus inermis* A. Milne Edwards, 1867.
209	*Macrophthalmus* (*Macrophthalmus*) *crassipes* H. Milne Edwards, 1852	3	4	0	_
210	*Macrophthalmus* (*Macrophthalmus*) *transverses* (Latreille, 1817)	2	4	1	*Goneplax transversus* Latreille, 1817.
211	*Macrophthalmus* (*Mareotis*) *crinitus* Rathbun, 1913	3	5	1	*Macrophthalmus crinitus* Rathbun, 1913 (basionym).
212	*Macrophthalmus* (*Mareotis*) *pacificus* Dana, 1851	4	7	1	*Macrophthalmus bicarinatus* Heller, 1862 (junior synonym).
213	*Macrophthalmus* (*Mareotis*) *teschi* Kemp, 1919	2	4	1	*Macrophthalmus teschi* Kemp, 1919 (basionym).
214	*Macrophthalmus* (*Mareotis*) *tomentosus* Eydoux & Souleyet, 1842	2	6	0	_

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
215	*Macrophthalmus* (*Paramareotis*) *erato* de Man, 1887 [in de Man, 1887–1888]	4	9	1	*Macrophthalmus erato* de Man, 1887 [in de Man, 1887–1888].
216	*Venitus dentipes* (Lucas in Guerin Meneville, 1836)	3	3	5	*Macrophthalmus dentipes* Lucas, 1836; *Macrophthalmus guerini* H. Milne Edwards, 1852; *Macrophthalmus pectinipes* Guérin- Méneville, 1838; *Macrophthalmus rouxii* Lucas, 1836; *Macrophthalmus simplicipes* Guérin- Méneville, 1838.
217	*Macrophthalmus* (*Paramareotis*) *quadratus* A. Milne Edwards, 1873	4	6	1	*Macrophthalmus quadratus* A. Milne Edwards, 1873 (basionym).
218	*Macrophthalmus latreillii* (Desrnarest, 1822)	7	16	0	_
219	*Apograpsus paantu* (Naruse & Kishino, 2006)	1	1	1	*Ilyograpsus paantu* Naruse & Kishino, 2006.
220	*Ilyograpsus nodulosus* T. Sakai, 1983	2	2	0	_
Dotillidae (18 spp.)		1–3	1–8	0–1	
221	*Dotilla fenestrata* Hilgendorf, 1869	2	6	1	*Dotilla clepsydra* Stebbing, 1917.
222	*Dotilla blandfordi* Alcock, 1900	1	2	0	-
223	*Ilyoplax frater* (Kemp, 1919)	1	1	1	*Tympanomerus frater* Kemp, 1919 (basionym).
224	*Scopimera crabicauda* Alcock, 1900	1	3	0	-
225	*Dotilla wichmanni* de Man, 1892	3	8	0	-
226	*Ilyoplax delsmani* de Man, 1926	2	5	0	-
227	*Ilyoplax lingulata* (Rathbun, 1909)	1	3	1	*Cleistostoma lingulatum* Rathbun, 1909 (basionym).
228	*Ilyoplax longicarpa* Tweedie, 1937	1	1	0	_
229	*Ilyoplax obliqua* Tweedie, 1935	1	2	0	_
230	*Ilyoplax orientalis* (de Man, 1888 [in de Man, 1887–1888])	2	5	1	*Dioxippe orientalis* de Man, 1888 [in de Man, 1887–1888] (basionym).
231	*Ilyoplax punctata* Tweedie, 1935	1	3	0	_
232	*Scopimera intermedia* Balss, 1934	2	5	1	*Sphaerapoeia collingwoodii* Collingwood, 1868.
233	*Shenius anomalus* (Shen, 1935)	1	1	1	*Camptandrium anomalum* Shen, 1935 (basionym).
234	*Ilyoplax strigicarpus* Davie, 1990	2	2	0	_

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
235	*Tmethypocoelis odonto-dactylus* Davie, 1990	2	2	0	_
236	*Tmethypocoelis choreutes* Davie & Kosuge, 1995	1	1	0	_
237	*Ilyoplax pusilla* (De Haan, 1835 [in De Haan, 1833–1850])	1	1	1	*Ocypode* (*Cleistostoma*) *pusilla* De Haan, 1835 [in De Haan, 1833–1850]
238	*Scopimera ryukyuensis* Wong, Chan & Shih, 2010	1	2	0	-
Varunidae (21 spp.)		1–7	1–32	0–3	
239	*Metaplax indica* H. Milne Edwards,1852	3	5	0	-
240	*Pseudograpsus interme-dius* Chhapgar, 1957	1	1	0	-
241	*Hemigrapsus oregonensis* (Dana, 1851)	2	3	1	*Pseudograpsus oregonensis* Dana, 1851.
242	*Metaplax crenulata* (Gerstaecker, 1856)	2	5	1	*Rhaconotus crenulata* Gerstaecker, 1856.
243	*Metaplax dentipes* (Heller, 1865)	2	3	1	*Helice dentipes* Heller, 1865.
244	*Metaplax distincta* H. Milne Edwards, 1852	2	3	0	-
245	*Metaplax elegans* de Man, 1888	3	11	1	*Metaplax crassipes* de Man, 1892.
246	*Metaplax intermedia* de Man, 1888	1	1	1	*Metaplax intermedius* de Man, 1888 [in de Man, 1887-1888] (basionym).
247	*Parapyxidognathus deianira* (de Man, 1888)	4	4	1	*Pyxidognathus deianira* de Man, 1888.
248	*Ptychognathus altimanus* (Rathbun, 1914)	4	8	1	*Varuna altimana* Rathbun, 1914 (basionym).
249	*Ptychognathus barbatus* (A. Milne-Edwards, 1873)	4	10	1	*Gnathograpsus barbatus* A. Milne Edwards, 1873 (basionym).
250	*Ptychognathus dentatus* de Man, 1892	2	3	1	-
251	*Ptychognathus onyx* Alcock, 1900	3	4	0	-
252	*Pyxidognathus fluviatilis* Alcock, 1900	1	1	0	-
253	*Varuna litterata* (Fabricius, 1798)	7	32	3	*Cancer litterata* Fabricius, 1798; *Cancer simmonsi* Curtiss, 1938; *Varuna tomentosa* Pfeffer, 1889.
254	*Metaplax sheni* Gordon, 1930	1	3	0	-
255	*Utica borneensis* de Man, 1895 [in de Man, 1895–1898]	3	5	0	-

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
256	*Varuna yui* Hwang & Takeda, 1986	3	8	0	-
257	*Metaplax longipes* Stimpson, 1858	2	2	1	*Metaplax takahashii* T. Sakai, 1939.
258	*Pseudohelice subquadrata* (Dana, 1851)	7	17	3	*Chasmagnathus subquadratus* Dana, 1851; *Helice leachi* Hess, 1865; *Helice Leachii* Hess, 1865.
259	*Paragrapsus laevis* (Dana, 1851)	1	1	2	*Chasmagnathus laevis* Dana, 1851; *Paragrapsus verreauxi* H. Milne Edwards, 1853.
Oziidae (4 spp.)		4–8	6–27	2–5	
260	*Epixanthus dentatus* (White, 1848)	6	17	3	*Epixanthus dilatatus* de Man, 1879; *Panopeus acutidens* Haswell, 1881; *Panopeus dentatus* White, 1848.
261	*Baptozius vinosus* (H. Milne Edwards, 1834)	4	6	2	*Rueppellia lata* A. Milne Edwards, 1873; *Rueppellia vinosus* H. Milne Edwards, 1834.
262	*Lydia annulipes* (H. Milne Edwards, 1834)	8	27	4	*Euruppellia annulipes* (H. Milne Edwards, 1834); *Euxanthus rugulosus* Heller, 1865; *Lydia danae* Ward, 1939; *Rueppellia annulipes* H. Milne Edwards, 1834.
263	*Ozius guttatus* H. Milne Edwards, 1834	5	17	5	*Cancer* (*Eudora*) *incisus* De Haan, 1833 [in De Haan, 1833–1850] ; *Ozius guttatus garciaensis* Ward, 1942; *Ozius speciosus* Hilgendorf, 1869; *Panopeus formio* Adams & White, 1849; *Panopeus formio* White, 1847.
Pilumnidae (15 spp.)		1–8	1–36	0–4	
264	*Eurycarcinus natalensis* (Krauss, 1843)	4	11	2	*Cancer* (*Galene*) *natalensis* Krauss, 1843 (basionym); *Eurycarcinus grandidierii* A. Milne Edwards, 1867.
265	*Eurycarcinus orientalis* A. Milne Edwards, 1867	3	9	0	-
266	*Benthopanope indica* (de Man, 1887 [in de Man, 1887-1888])	2	2	1	*Heteropanope indica* de Man, 1887 [in de Man, 1887-1888] (basionym).
267	*Heteropanope bengalensis* (Deb, 1999)	1	1	1	*Eurycarcinus bengalensis* Deb, 1999 (basionym).
268	*Heteropanope glabra Stimpson, 1858*	7	14	1	*Pilumnopeus maculatus* A. Milne Edwards, 1867.
269	*Heteropanope neolaevis Deb, 1995*	1	1	0	-
270	*Heteropilumnus angustifrons* (Alcock, 1900)	1	1	1	*Litochira angustifrons* Alcock, 1900.
271	*Heteropilumnus ciliatus* (Stimpson, 1858)	2	3	2	*Heteropanope cristadentatus* Shen, 1936; *Pilumnoplax ciliatus* Stimpson, 1858 (basionym).
272	*Pseudocryptocoeloma andamanicus* (Deb, 1989)	1	1	1	*Myopilumnus andamanicus* Deb, 1989 (basionym).
273	*Pilumnus cursor* A. Milne Edwards, 1873	5	11	0	-

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
274	*Pilumnus vespertilio* (Fabricius, 1793)	8	36	4	*Actaea dentata* Edmondson, 1935; *Cancer vespertilio* Fabricius, 1793; *Pilumnus mus* Dana, 1825; *Pilumnus ursulus* Adams & White, 1849.
275	*Typhlocarcinus nudus* Stimpson, 1858	3	5	0	-
276	*Aniptumnus quadridentatus* (de Man, 1895 [in de Man, 1895–1898])	1	2	3	*Parapilumnus quadridentatus* (De Man, 1895); *Pilumnopeus riui* Takeda, 2001; *Pilumnus* (*Parapilumnus*) *quadridentatus* de Man, 1895 [in de Man, 1895–1898] (basionym).
277	*Luteocarcinus*	1	2	0	-
267	*Heteropanope bengalensis* (Deb, 1999)	1	1	1	*Eurycarcinus bengalensis* Deb, 1999 (basionym).
268	*Heteropanope glabra Stimpson, 1858*	7	14	1	*Pilumnopeus maculatus* A. Milne Edwards, 1867.
269	*Heteropanope neolaevis Deb, 1995*	1	1	0	-
270	*Heteropilumnus angustifrons* (Alcock, 1900)	1	1	1	*Litochira angustifrons* Alcock, 1900.
271	*Heteropilumnus ciliatus* (Stimpson, 1858)	2	3	2	*Heteropanope cristadentatus* Shen, 1936; *Pilumnoplax ciliatus* Stimpson, 1858 (basionym).
272	*Pseudocryptocoeloma andamanicus* (Deb, 1989)	1	1	1	*Myopilumnus andamanicus* Deb, 1989 (basionym).
273	*Pilumnus cursor* A. Milne Edwards, 1873	5	11	0	-
274	*Pilumnus vespertilio* (Fabricius, 1793)	8	36	4	*Actaea dentata* Edmondson, 1935; *Cancer vespertilio* Fabricius, 1793; *Pilumnus mus* Dana, 1825; *Pilumnus ursulus* Adams & White, 1849.
275	*Typhlocarcinus nudus* Stimpson, 1858	3	5	0	-
276	*Aniptumnus quadridentatus* (de Man, 1895 [in de Man, 1895–1898])	1	2	3	*Parapilumnus quadridentatus* (De Man, 1895); *Pilumnopeus riui* Takeda, 2001; *Pilumnus* (*Parapilumnus*) *quadridentatus* de Man, 1895 [in de Man, 1895–1898] (basionym).
277	*Luteocarcinus sordidus* Ng, 1990	1	2	0	-
278	*Pilumnopeus marginatus* (Stimpson, 1858)	2	2	1	*Pilumnus marginatus* Stimpson, 1858 (basionym).
Coenobitidae (2 spp.)		7–9	26–41	2–4	
279	*Coenobita rugosus* H. Milne Edwards, 1837	9	41	4	*Cenobita rugosa* H. Milne Edwards, 1837 (basionym); *Coenobita rugosa* H. Milne Edwards, 1837; *Coenobita rugosa var. wagneri* Doflein, 1900; *Coenobita subrugosa* Neumann, 1878.
280	*Coenobita cavipes* Stimpson, 1858	7	26	2	*Cenobita cavipes* Stimpson, 1858; *Coenobita Baltzeri* Neumann, 1878.
Goneplacidae (1 spp.)					

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
281	*Goneplax rhomboides* (Linnaeus, 1758)	4	7	8	*Cancer angulata* Pennant, 1777; *Cancer rhomboides* Linnaeus, 1758; *Gelasimus bellii* Couch, 1838; *Goneplax angulata* (Pennant, 1777); *Goneplax rhomboidalis* Risso, 1827 in [Risso, 1826–1827]; *Ocypoda bispinosa* Lamarck, 1801 *Ocypoda unispinosa* Rafinesque, 1814; *Ocypode longimana* Latreille, 1803.
Scalopidiidae (1 spp.)					
282	*Scalopidia spinosipes* Stimpson, 1858	2	6	2	*Hypophthalmus leuchochirus* Richters in Lenz & Richters, 1881; *Scalopidia leuchochirus* (Richters, 1881).
Iphiculidae (2 spp.)		6–7	8–14	0–2	
283	*Iphiculus spongiosus* Adams & White, 1848	7	14	0	-
284	*Pariphiculus mariannae* (Herklots, 1852)	6	8	2	*Ilia mariannae* Herklots, 1852; *Pariphiculus rostratus* Alcock, 1896.
Leucosiidae (14 spp)		1–7	1–23	1–6	
285	*Arcania erinacea* (Fabricius, 1787)	2	3	1	*Cancer erinacea* Fabricius, 1787.
286	*Arcania septemspinosa* (Fabricius, 1787)	7	12	4	*Arcania siamensis* Rathbun, 1909; *Cancer hystrix* Fabricius, 1793; *Cancer septemspinosa* Fabricius, 1787; *Iphis longipes* Dana, 1852.
287	*Euclosiana rotundifrons* (Chopra, 1933)	1	1	2	*Euclosia rotundifrons* (Chopra, 1933); *Leucosia rotundifrons* Chopra, 1933.
288	*Ixa cylindrus* (Fabricius, 1777)	5	11	4	*Cancer cylindrus* Fabricius, 1777 ; *Ixa canaliculata* Leach, 1817; *Ixa cylindricus* (Fabricius, 1777); *Ixa megaspis* Adams & White, 1849.
289	*Ixa inermis* Leach, 1817	3	3	0	-
290	*Leucosia craniolaris* (Linnaeus, 1758)	7	12	6	*Cancer craniolaris* Linnaeus, 1758; *Leucosia obscura* Bell, 1855; *Leucosia obscura* White, 1847; *Leucosia pallida* Bell, 1855; *Leucosia parvimana* Stimpson, 1858 (basionym); *Leucosia perlata* De Haan, 1841 [in De Haan, 1833–1850].
291	*Myra elegans* Bell, 1855	5	8	0	-
292	*Myra fugax* (Fabricius, 1798)	7	23	6	*Cancer punctatus* Herbst, 1783; *Leucosia fugax* Fabricius, 1798 (Basionym); *Myra carinata* Bell, 1855; *Myra carinata* White, 1847; *Myra longimerus* Chen & Türkay, 2001; *Myra pentacantha* Alcock, 1896.
293	*Parilia alcocki* Wood-Mason in Wood Mason & Alcock, 1891	4	6	0	-

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
294	*Philyra globus* (Fabricius, 1775)	6	9	5	*Cancer globosus* Fabricius, 1793; *Cancer globus* Fabricius, 1775; *Leucosia globulosus* Bosc, 1801; *Philyra globulosa* H. Milne Edwards, 1837; *Philyra polita* Henderson, 1893 (junior synonym).
295	*Philyra sexangula* Alcock, 1896	1	2	0	-
296	*Seulocia rhomboidalis* (De Haan, 1841 [in De Haan, 1833–1850])	5	10	2	*Leucosia maculata* Stimpson, 1858 (basionym); *Leucosia rhomboidalis* De Haan, 1841 [in De Haan, 1833–1850].
297	*Praosia punctata* Tan & Ng, 1993	1	1	0	-
298	*Philyra nishihirai* Takeda & Nakasone, 1991	1	1	0	-
Epialtidae (7 spp.)		2–7	6–14	1–4	
299	*Doclea armata* De Haan, 1839 [in De Haan, 1833–1850]	2	7	2	*Doclea calcitrapa* White, 1847; *Doclea tetraptera* Walker, 1887 (junior synonym).
300	*Doclea canalifera* Stimpson, 1857	3	6	1	*Doclea japonica* Ortmann, 1893.
301	*Doclea muricata* (Herbst, 1787)	3	6	4	*Cancer muricata* Herbst, 1788; *Doclea hybridoidea* Bleeker, 1856; *Inachus hybridus* Fabricius, 1798; *Inachus hybridus* Weber, 1795.
302	*Doclea rissoni* Leach, 1815	2	6	4	*Doclea Andersoni* de Man, 1887 [in de Man, 1887-1888] ; *Doclea gracilipes* Stimpson, 1858; *Doclea sebae* Bleeker, 1856; *Doclea sinensis* Dai, 1981.
303	*Doclea ovis* (Fabricius, 1787)	4	9	1	*Cancer ovis* Fabricius, 1787.
304	*Hyastenus diacanthus* (De Haan, 1839)	7	14	1	*Pisa* (*Naxia*) *diacanthus* De Haan, 1839 [in De Haan, 1833–1850].
305	*Phalangipus longipes* (Linnaeus, 1758)	7	14	3	*Cancer arachnoides* Linnaeus, 1758; *Cancer lar* Fabricius, 1793; *Cancer longipes* Linnaeus, 1758.
Hymenosomitidae (8 spp.)		1–5	1–8	0–1	
306	*Elamena truncata* (Stimpson, 1858)	4	8	1	*Trigonoplax truncatus* Stimpson, 1858 (basionym).
307	*Hymenicoides carteri* Kemp, 1917	1	1	0	-
308	*Neorhynchoplax inachoides* (Alcock, 1900)	1	1	1	*Hymenicus inachoides* Alcock, 1900.
309	*Neorhynchoplax nasalis* (Kemp, 1917)	1	1	1	*Rhynchoplax nasalis* Kemp, 1917 (basionym).
310	*Neorhynchoplax octagonalis* (Kemp, 1917)	1	1	1	*Rhynchoplax octagonalis* Kemp, 1917 (basionym).

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
311	*Neorhynchoplax woodmasoni* (Alcock,1900)	1	1	1	*Hymenicus woodmasoni* Alcock, 1900.
312	*Trigonoplax unguiformis* (De Haan, 1839 [in De Haan, 1833–1850])	5	5	1	*Inachus* (*Elamene*) *unguiformis* De Haan, 1839 [in De Haan, 1833–1850].
313	*Neorhynchoplax mangalis* (P.K.L. Ng, 1988)	1	1	1	*Elamenopsis mangalis* P.K.L. Ng, 1988 (basionym).
Parthenopidae (3 spp.)		1–6	2–15	1–4	
314	*Cryptopodia angulata* H. Milne Edwards & Lucas, 1841	3	3	1	*Cryptopodia angulata var. cippifer* Alcock, 1895.
315	*Enoplolambrus pransor* (Herbst, 1796)	1	2	4	*Cancer pransor* Herbst, 1796; *Lambrus jourdainii* Brito Capello, 1871; *Lambrus tumidus* Lanchester, 1900; *Parthenope regina* Fabricius, 1798.
316	*Parthenope longimanus* (Linnaeus, 1758)	6	15	4	*Cancer longimanus* Linnaeus, 1758; *Lambrus* (*Lambrus*) *ornatus* Flipse, 1930; *Lambrus laevicarpus* Miers, 1879; *Parthenope longimana* (Linnaeus, 1764).
Galenidae (3 spp.)		1-5	2-5	2-4	
317	*Halimede fragifer* (De Haan, 1835 [in De Haan, 1833–1850])	1	2	4	*Cancer* (*Halimede*) *fragifer* De Haan, 1835 [in De Haan, 1833–1850]; *Halimede dofleini* Balss, 1922 *Medaeus nodosus* A. Milne Edwards, 1867; *Medaeus nodulosus* A. Milne Edwards, 1873; (incorrect spelling).
318	*Halimede tyche* (Herbst, 1801)	5	5	3	*Cancer tyche* Herbst, 1801; *Halimede hendersoni* Nobili, 1905; *Halimede thurstoni* Henderson, 1893.
319	*Parapanope euagora* de Man, 1895 [in de Man, 1895–1898]	3	5	2	*Hoploxanthus hextii* Alcock, 1898; *Parapanope singaporensis* P.K.L. Ng & Guinot in Guinot, 1985.
Xanthidae (15 spp.)		1–8	1–41	0–7	
320	*Actaeodes tomentosus* (H. Milne Edwards, 1834)	8	35	2	*Actaea tomentosa* (H. Milne Edwards, 1834); *Zozymus tomentosus* H. Milne Edwards, 1834.
321	*Atergatis floridus* (Linnaeus, 1767)	8	30	1	*Cancer floridus* Linnaeus, 1767.
322	*Atergatis integerrimus* (Lamarck, 1818)	7	22	3	*Atergatis subdivisus* White, 1848; *Cancer integerrimus* Lamarck, 1818; *Cancer laevis latipes* Seba, 1761.
323	*Atergatis subdentatus* (De Haan, 1835 [in De Haan, 1833–1850])	4	8	1	*Cancer* (*Atergatis*) *subdentatus* De Haan, 1835 [in De Haan, 1833–1850].
324	*Etisus laevimanus* Randall, 1840	8	32	5	*Chlorodopsis espinosus* Borradaile, 1902; *Etisus convexus* Stimpson, 1858; *Etisus macrodactylus* Bianconi, 1851; *Etisus macrodactylus* Lucas in Jacquinot & Lucas, 1853; *Etisus maculatus* Heller, 1861.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
325	*Demania armadillus* (Herbst, 1790 [in Herbst, 1782–1790])	1	1	3	*Cancer armadillus* Herbst, 1790 [in Herbst, 1782–1790] (basionym); *Demania bangladeshensis* P.K.L. Ng, Huda & Banu, 1987; *Demania indiana* Deb, 1987.
326	*Demania scaberrima* (Walker, 1887)	3	6	1	*Xantho scaberrimus* Walker, 1887 (basionym).
327	*Leptodius exaratus* (H. Milne Edwards, 1834)	7	41	4	*Cancer inaequalis* Audouin, 1826; *Chlorodius exaratus* H. Milne Edwards, 1834; *Leptodius lividus* Paulson, 1875; *Xantho exaratus* (H. Milne Edwards, 1834).
328	*Leptodius sanguineus* (H. Milne Edwards, 1834)	8	36	7	*Cancer eudora* Herbst, 1801; *Chlorodius edwardsii* Heller, 1861; *Chlorodius sanguineus* H. Milne Edwards, 1834; *Lagostoma nodosa* Randall, 1840 ; *Leptodius philippinensis* Ward, 1941; *Leptodius sanguineus philippinensis* Ward, 1941; *Xantho edwardsii* (Heller).
329	*Liagore erythematica* Guinot, 1971	1	1	0	-
330	*Macromedaeus crassimanus* (A. Milne Edwards, 1867)	7	15	2	*Leptodius crassimanus* (A.Milne Edwards, 1867); *Xantho crassimanus* A. Milne Edwards, 1867.
331	*Nectopanope rhodobaphes* Wood Mason in Wood Mason & Alcock, 1891	1	1	0	-
332	*Orphnoxanthus microps* (Alcock & Anderson, 1894)	1	1	1	*Xanthodes microps* Alcock & Anderson, 1894.
333	*Pilodius nigrocrinitus* Stimpson, 1858	5	13	1	*Chlorodopsis melanochirus* A. Milne Edwards, 1873 (junior synonym).
334	*Platypodia cristata* (A. Milne Edwards, 1865)	6	10	1	*Lophactaea cristata* A. Milne Edwards, 1865.
Plagusiidae (3 spp.)		3–9	3–35	2–6	
335	*Plagusia depressa* (Fabricius, 1775)	7	35	4	*Cancer depressa* Fabricius, 1775; *Plagusia depressa depressa* (Fabricius, 1775); *Plagusia gracilis* Saussure, 1858; *Plagusia sayi* De Kay, 1844.
336	*Plagusia squamosa* (Herbst, 1790)	9	31	6	*Cancer squamosa* Herbst, 1790; *Grapse tuberculatus* Latreille in Milbert, 1812; *Plagusia depressa squamosa* Lamarck.1818; *Plagusia depressa tuberculata* Lamarck, 1818; *Plagusia orientalis* Stimpson, 1858; *Plagusia tuberculata* Lamarck, 1818.
337	*Guinusia dentipes* (De Haan, 1835 [in De Haan, 1833–1850])	3	3	2	*Grapsus* (*Plagusia*) *dentipes* De Haan, 1835 [in De Haan, 1833–1850]; *Plagusia dentipes* (De Haan, 1835 [in De Haan, 1833–1850]).
Mictyridae (2 spp.)		1–5	1–10	0–1	

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
338	*Mictyris longicarpus* Latreille, 1806	5	10	1	*Ocypode* (*Mictyris*) *deflexifrons* De Haan, 1835 [in De Haan, 1833–1850].
339	*Mictyris guinotae* Davie, Shih & Chan, 2010	1	1	0	-
Camptandriidae (22 spp.)		1–3	1–7	0–4	
340	*Serenella leachii* (Audouin, 1826)	1	2	4	*Cleistostoma leachii* (Audouin, 1826); *Cleistostoma leachii var. penicillata* Paulson, 1875; *Macrophthalmus leachii* Audouin, 1826 (basionym); *Paracleistostoma leachii* (Audouin, 1826).
341	*Opusia indica* (Alcock, 1900)	2	2	1	*Tylodiplax indica* Alcock, 1900.
342	*Nasima dotilliformis* (Alcock, 1900)	2	3	2	*Cleistostoma dotilliformis* Alcock, 1900; *Clistostoma dotilliforme* Alcock, 1900.
343	*Baruna socialis* Stebbing, 1904	3	5	1	*Leipocten sordidulum* Kemp, 1915.
344	*Dotilla intermedia* de Man, 1888	2	3	1	*Dotilla clepsydrodactyla* Alcock, 1900.
345	*Dotilla myctiroides* (H. Milne Edwards, 1852)	2	7	1	*Doto myctiroides* H. Milne Edwards, 1852.
346	*Dotillopsis brevitarsis* (de Man, 1888 [in de Man, 1887–1888])	2	4	1	*Dotilla brevitarsis* de Man, 1888 [in de Man, 1887–1888] (basionym).
347	*Ilyoplax gangetica* (Kemp, 1919)	1	1	1	*Tympanomerus gangeticus* Kemp, 1919 (basionym).
348	*Ilyoplax stapletoni* (de Man, 1908)	2	3	1	*Tympanomerus stapletoni* de Man, 1908.
349	*Scopimera globosa* (De Haan, 1835 [in De Haan, 1833–1850])	2	5	2	*Ocypode* (*Scopimera*) *globosa* De Haan, 1835 [in De Haan, 1833–1850]; *Scopimera tuberculata* Stimpson, 1858.
350	*Scopimera investigatoris* Alcock, 1900	1	1	0	-
351	*Scopimera pilula* Kemp, 1919	2	3	0	-
352	*Scopimera proxima* Kemp, 1919	2	3	0	-
353	*Baruna trigranulum* (Dai & Song, 1986)	3	4	2	*Baruna mangromurphia* Harminto & P.K.L. Ng, 1991; *Leipocten trigranulum* Dai & Song, 1986.
354	*Moguai elongatum* (Rathbun, 1931)	2	3	1	*Camptandrium elongatum* Rathbun, 1931 (basionym).
355	*Ilyogynnis microcheirum* (Tweedie, 1937)	1	3	1	*Paracleistostoma microcheirum* Tweedie, 1937 (basionym).
356	*Paracleistostoma depressum* de Man, 1895 [in de Man, 1895–1898]	2	5	0	-
357	*Paracleistostoma wardi* (Rathbun, 1926)	1	1	1	*Cleistostoma wardi* Rathbun, 1926 (basionym).
358	*Tylodiplax tetralyphora* de Man, 1895	1	2	0	-

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
359	*Paracleistostoma longimanum* Tweedie, 1937	1	3	0	-
360	*Takedellus ambonense* (Serène & Moosa, 1971)	1	1	1	*Camptandrium ambonensis* Serène & Moosa, 1971 (basionym); *Camptandrium rathbunae* Takeda, 1971.
361	*Mortensenella forceps* Rathbun, 1909	2	3	0	-
Heloeciidae (1 spp.)					
362	*Heloecius cordiformis* (H. Milne Edwards, 1837)	2	2	4	*Gelasimus cordiformis* H. Milne Edwards, 1837; *Heloecius areolatus* Heller, 1862; *Heloecius inornatus* Dana, 1851; *Heloecius signatus* Hess, 1865.
Clappidae (2 spp.)		5–7	9–19	0–1	
363	*Calappa lophos* (Herbst, 1782)	7	19	1	*Cancer lophos* Herbst, 1782.
364	*Calappa pustulosa* Alcock, 1896	5	9	0	-
Matutidae (4 spp.)		4–7	7–30	1–7	
365	*Ashtoret lunaris* (Forskål, 1775)	7	30	4	*Cancer lunaris* Forskål, 1775; *Matuta banksi* Leach, 1817; *Matuta banksii* Leach, 1817; *Matuta lunaris* (Forskål, 1775).
366	*Ashtoret miersii* (Henderson, 1887)	4	7	1	*Matuta miersii* Henderson, 1887.
367	*Matuta planipes* Fabricius, 1798	7	16	7	*Cancer americanus* Seba, 1758; *Cancer lunaris* Herbst, 1783; *Matuta appendiculata* Bosc, 1830; *Matuta flagra* Shen, 1936; *Matuta laevidactyla* Miers, 1880; *Matuta lineifera* Miers, 1877; *Matuta rubrolineata* Miers, 1877.
368	*Matuta victor* (Fabricius, 1781)	7	27	5	*Cancer victor* Fabricius, 1781; *Matuta lesueurii* Leach, 1817; *Matuta peronii* Leach, 1817; *Matuta victrix* (Fabricius, 1781) ; *Matuta victrix crebripunctata* Miers, 1877.
Corystidae (1 spp.)					
369	*Jonas indicus* (Chopra, 1935)	1	1	1	*Gomeza indicus* Chopra, 1935.
Corpilidae (2 spp.)		8–9	29–43	2–5	
370	*Carpilius convexus* (Forskål, 1775)	9	43	5	*Cancer adspersus* Herbst, 1790; *Cancer convexus* Forskål, 1775; *Cancer petraeus* Herbst, 1801; *Cancer samuelis* Curtiss, 1938; *Carpilius lividus* Gibbes, 1850 (junior synonym).
371	*Carpilius maculatus* (Linnaeus, 1758)	8	29	2	*Cancer maculatus* Linnaeus, 1758; *Cancer nepotei* Curtiss, 1938.
Menippidae (2 spp.)		3–5	7–9	2–5	
372	*Menippe rumphii* (Fabricius, 17d98)	5	9	2	*Cancer rumphii* Fabricius, 1798; *Pseudocarcinus bellangerii* H. Milne Edwards, 1834.

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
373	*Myomenippe hardwickii* (Gray, 1831)	3	7	5	*Cancer hardwickii* Gray, 1831; *Menippe* (*Myomenippe*) *duplicidens* Hilgendorf, 1879; *Menippe granulosa* A. Milne Edwards, 1867; *Menippe granulosa* de Man, 1888; *Myomenippe hardwicki* (Gray, 1831).
Ethusidae (1 spp.)					
374	*Ethusa indica* Alcock, 1894	5	8	1	*Ethusa serenei* T. Sakai, 1983.
Eriphiidae (4 spp.)		4–6	14–41	2–7	
375	*Eriphia sebana* (Shaw & Nodder, 1803)	6	41	7	*Cancer sebana* Shaw & Nodder, 1803; *Cancer tearlachi* Curtiss, 1938; *Eriphia fordii* MacLeay, 1838; *Eriphia laevimana* Guérin, 1832; *Eriphia sebana hawaiiensis* Ward, 1939; *Eriphia trapeziformis* Hess, 1865; *Gecarcinus anisocheles* Latreille, 1818.
376	*Eriphia smithii* MacLeay, 1838	4	18	2	*Eriphia sebana smithii* McLeay, 1838; *Eriphia smithi* McLeay, 1838.
377	*Epixanthus dentatus* (White, 1848)	5	14	3	*Epixanthus dilatatus* de Man, 1879; *Panopeus acutidens* Haswell, 1881; *Panopeus dentatus* White, 1848.
378	*Epixanthus frontalis* (H. Milne Edwards, 1834)	6	25	2	*Epixanthus kotschii* Heller, 1861; *Ozius frontalis* H.Milne Edwards, 1834.
Dorippidae (4 spp.)		1–7	3–18	1–5	
379	*Dorippe quadridens* (Fabricius, 1793)	7	18	4	*Cancer quadridens* Fabricius, 1793; *Dorippe atropos* Lamarck, 1818; *Dorippe nodosa* Desmarest, 1817; *Dorippe rissoana* Desmarest, 1817.
380	*Dorippoides facchino* (Herbst, 1785)	5	11	5	*Cancer facchino* Herbst, 1785; *Dorippe astuta* Fabricius, 1798; *Dorippe facchino* (Herbst, 1785) ; *Dorippe facchino alcocki* Nobili, 1903; *Dorippe sima* H. Milne Edwards, 1837.
381	*Neodorippe callida* (Fabricius, 1798)	3	9	1	*Dorippe callida* Fabricius, 1798.
382	*Nobilum histrio* (Nobili, 1903)	1	3	1	*Dorippe histrio* Nobili, 1903.
Xenophthalmidae (1 spp.)					
383	*Xenophthalmus pinnotheroides* White, 1846	4	4	0	-
Limulidae (2 spp.)		3–4	7–8	1–8	
384	*Tachypleus gigas* (O. F. Müller, 1785)	4	8	8	*Limulus gigas* O.F. Müller, 1785 ; *Limulus heterodactylus* Latreille, 1802; *Limulus latreilli* Leach, 1819; *Limulus macleaii* Leach, 1819; *Limulus moluccanus* Latreille, 1802; *Limulus viriscens* Latreille, 1806 ; *Tachypleus heterodactylus* (Latreille, 1802); *Tachypleus hoeveni* Pocock, 1902.
385	*Carcinoscorpius rotundicauda* (Latreille, 1802)	3	7	1	*Limulus rotundicauda* Latreille, 1802 (Basionym).

Table 1 continued

No.	Name of Crab Species	No. of Sub-regions	No. of Countries	No. of Synonyms	Synonyms
Dromiidae (2 spp.)		5–6	12–14	1–2	
386	*Conchoecetes artificiosus* (Fabricius, 1798)	6	14	2	*Conchoeodromia alcocki* Chopra, 1934; *Dromia artificiosus* Fabricius, 1798.
387	*Lauridromia dehaani* (Rathbun, 1923)	5	12	1	*Dromia dehaani* Rathbun, 1923 (basionym).
Raninidae (2 spp.)		4–7	7–18	0–3	
388	*Notopus dorsipes* (Linnaeus, 1758)	7	18	3	*Cancer dorsipes* Linnaeus, 1758; *Dorippe dorsipes* (Linnaeus, 1758); *Ranilia dorsipes* (Linnaeus, 1758).
389	*Raninoides personatus* Henderson, 1888	4	7	0	-

The second largest crab group in mangroves is Ocypodidae, which are detritivors or deposit-feeders. The fiddler crabs and Uca species ingest about 500 g of soil per square metre per day and they are abundant at 70 per square metre in many Southeast Asian mangroves [21]. The fiddlers hide themselves in burrows to avoid submergence from high spring tides or floods and also to protect themselves from predation. Moreover, Uca species tolerate a broad range of temperatures across their geographical distribution and hence, they are abundant in open mudflats or open canopy areas [25].

The third largest group in mangroves is Portunidae. The Portunid genus Scylla is typically associated with mangroves, commonly occurring throughout tropical to warm temperate areas of the West Pacific and Indian Oceans, for the reason that the genus especially Scylla serrata is highly tolerant to warm and increasing temperatures. Most of the brachyuran crabs especially the Portunid genus Scylla complete their larval development in the open sea and return to mangroves or estuaries at the megalopal stage for settlement and recruitment to adult populations [26].

4. Conclusions

There are a total of 389 brachyuran crab species belonging to 188 genera and 38 families in mangrove forests, located across 122 countries/territories in 10 sub-regions of the world. The crabs are highly diverse in the Indo-West Pacific (IWP) as compared to the Atlantic East Pacific hemisphere (AEP). They exceed 100 species in nine countries of the IWP viz., Indonesia, India, Japan, Thailand, Australia, Singapore, Philippines, Malaysia, and China. Four countries/territories do not have any record of crabs, which requires undertaking a survey and inventorisation. There are 55 crab species of restricted occurrence, which deserve attention to find out its IUCN conservation status. Sesarmidae is the predominant family of mangrove crabs, followed by Ocypodidae and Portunidae. The present work has brought out as many as 818 synonym names, which otherwise interfere with the preparation of a checklist for the exact number of mangrove crab species in different countries. It is a matter of necessity to conserve crabs, which are the keystone species of the mangrove habitats.

Authors Contributions

Data & literature collection, analysis & writing—original draft preparation, W.W.M; supervision, discussion, final draft preparation K.K; Both authors have read and agreed to the published version of the manuscript.

Funding

DST-TWAS for Post-Doc. Fellowship(WWM; FR No. 3240306336).

Acknowledgement

The authors (WWM) are thankful to DST-TWAS for Post-Doc. Fellowship and to the authorities of Annamalai University for providing facilities.

Conflict of Interests

The authors do not have any conflict of interest.

References

[1] Jones, D.A., 1984. Hydrobiology of the Mangal. The Ecosystem of the Mangrove Forests. Publisher Springer: Dordrecht. pp. 89–109.

[2] Smith III, T.J., Boto, K.G., Frusher, S.D., et al, 1991. Keystone species and mangrove forest dynamics: The influence of burrowing by crabs on soil nutrient status and forest productivity. Estuarine, Coastal and Shelf Science. 33, 419–432. DOI: https://doi.org/10.1016/0272-7714(91)90081-L

[3] Lee, S.Y., 1998. Ecological role of grapsid crabs in mangrove ecosystems—a review. Marine and Freshwater Research. 49, 335–343. DOI: https://doi.org/10.1071/MF97179

[4] Wah Wah Min, Kathiresan, K., 2021. Burrow morphologies, crab characteristics and soil properties in different seasons across intertidal areas of a restored mangrove forest. Journal of Sea Research. 177, 102111. DOI: https://doi.org/10.1016/j.seares.2021.102111

[5] Min, W.W., Kathiresan, K., Balakrishnan, B., 2023. Crab species-specific excavation and architecture of burrows in restored mangrove habitat. Journal of Marine Sciences & Engineering. 11, 310. DOI: https://doi.org/10.3390/jmse11020310

[6] Sathish, C., Reddy, D.N., Bharti, V.S. et al., 2023. Diversity and distribution of mangrove associated crabs (Infraorder: Brachyura) of India and the relationship between mangroves and crabs. Thalassas. 39, 847–866. DOI: https://doi.org/10.1007/s41208-023-00578-x

[7] Ravichandran, S., Sylvester Fredrick. W., Ajmal Khan, S., et al., 2011. Diversity of mangrove crabs in South and South East Asia. Journal of Oceanography & Marine Environmental System. 1(1), 1–7.

[8] Faunal Diversity of Mangrove Ecosystem in India [Internet]. https://www.researchgate.net/publication/342199185_Faunal_Diversity_of_Mangrove_Ecosystem_in_India.

[9] Sathish, C., Reddy, D.N., Bharti, V.S. et al., 2023. Diversity and distribution of mangrove associated crabs (Infraorder: Brachyura) of India and the relationship between mangroves and crabs. Thalassas. 39, 847–866. DOI: https://doi.org/10.1007/s41208-023-00578-x

[10] Vergara-Filho, W.L., Alves, .R.P., et al., 1997. Diversity and distribution of crabs (Crustacea, Decapoda, Brachyura) in mangroves of Guanabara Bay, Rio de Janeiro, Brazil. Mangrove Ecosystem Studies in Latin America and Africa. Kjerfve, B., Lacerda, L.D., Diop, S. (Eds.), UNESCO, Paris, pp.155-162. Available from: https://api.semanticscholar.org/CorpusID:132675988

[11] Tan, C.G.S., Ng, P.K.L., 1994. An annotated checklist of mangrove brachyuran crabs from Malaysia and Singapore. Hydrobiologia. 285(1-3), 75–84. DOI: https://doi.org/10.1007/BF00005655

[12] Davie, P.J.F., 1982. A preliminary checklist of brachyura (Crustacea: Decapoda) associated with Australian mangrove forests. Operculum. 5, 204–207.

[13] Abele, L.G., 1992. A review of the grapsid crab genus sesarma (Crustacea: Decapoda: Grapsidae) in America, with the description of a new genus. Smithsonian Contributions to Zoology. 527, 1–60. DOI: https://doi.org/10.5479/si.00810282.527

[14] Davie, P.J.F., 1992. A new species and new records of intertidal crabs (Crustacea: Brachyura)from Hong Kong. J. Crust. Biol. 18, 57–63.

[15] Davie, P.J.F., 1994. Variations in diversity of mangrove crabs in tropical Australia. Memoirs of the Queensland Museum. 36(1), 55–58.

[16] Schubart, C.D., 2009. Mitochondrial DNA and decapod phylogenies; the importance of pseudogenes and primer optimization. Decapod Crustacean Phylogenetics. Taylor & Francis/CRC Press: Boca Raton, Florida. pp. 45–63.

[17] Ng, Peter K.L., Danièle Guinot, Davie Peter J.F., 2008. Systema Brachyurorum: Part I. An Annotated Checklist Of Extant Brachyuran Crabs Of The World. The Raffles Bulletin Of Zoology. 17, 1–286.

[18] Carugati, L., Gatto, B., Rastelli, E., et al., 2018. Impact of mangrove forests degradation on biodiversity and ecosystem functioning. Scientific Reports, 8. DOI: https://doi.org/10.1038/s41598-018-31683-0

[19] Cannicci, S., Schubart, C.D., Innocenti, G., et al., 2017. A new species of the genus Parasesarma De Man 1895 from East African mangroves and evidence for mitochondrial introgression in sesarmid crabs. Zool. Anz. 269, 89–99. DOI: https://doi.org/10.1016/j.jcz.2017.08.002

[20] Vanessa, M.N., Ndongo, D., Martin, K., et al., 2018. Brachyuran crab diversity and abundance patterns in the mangroves of Cameroon. Regional Studies in Marine Science. 24, 324–335. DOI: https://doi.org/10.1016/j.rsma.2018.09.010

[21] Krauss, K.W., Friess, D.A. 2010. World atlas of mangroves. Wetlands. 31, 1003–1005. DOI: https://doi.org/10.1007/s13157-011-0224-1

[22] Abele, L.G., 1992. A Review of the grapsid crab

genus sesarma (Crustacea: Decapoda: Grapsidae) in America, with the description of a new genus. Smithsonian Contributions to Zoology. 527, 1–60. DOI: https://doi.org/10.5479/si.00810282.527

[23] Prosser Andrew J., 2004. Faunal community change following Mangrove Dieback in Moreton Bay, Australia [Bachelor thesis]. University of Queensland: Queensland.

[24] Anger, K., 2001. The biology of decapods crustacean larvae. Balkema Publishers: Lisse. pp. 417.

[25] Fusi, M., Giomi, F., Simone Babbini., et al., 2015. Thermal specialization across large geographical scales predicts the resilience of mangrove crab populations to global warming. Oikos. 124, 784–795. DOI: https://doi.org/10.1111/oik.01757

[26] Alberts-Hubatsch, H., Meynecke, J.O., Nordhaus, I., et al., 2016. Life-history, movement, and habitat use of Scylla serrata (Decapoda, Portunidae): Current knowledge and future challenges. Hydrobiologia. 763, 5–21. DOI: https://doi.org/10.1007/s10750-015-2393-z