



The Journal of Threatened Taxa (JoTT) is dedicated to building evidence for conservation globally by publishing peer-reviewed articles online every month at a reasonably rapid rate at [www.threatenedtaxa.org](http://www.threatenedtaxa.org). All articles published in JoTT are registered under [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/) unless otherwise mentioned. JoTT allows unrestricted use, reproduction, and distribution of articles in any medium by providing adequate credit to the author(s) and the source of publication.

## Journal of Threatened Taxa

Building evidence for conservation globally

[www.threatenedtaxa.org](http://www.threatenedtaxa.org)

ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

### SHORT COMMUNICATION

#### CHECKLIST OF BRACHYURAN MANGROVE CRABS OF KERALA, INDIA

Kurian Mathew Abraham & Apreshgi Kolothuthara Prakashan

26 November 2020 | Vol. 12 | No. 15 | Pages: 17153–17160

DOI: [10.11609/jott.4429.12.15.17153-17160](https://doi.org/10.11609/jott.4429.12.15.17153-17160)



For Focus, Scope, Aims, Policies, and Guidelines visit <https://threatenedtaxa.org/index.php/JoTT/about/editorialPolicies#custom-0>

For Article Submission Guidelines, visit <https://threatenedtaxa.org/index.php/JoTT/about/submissions#onlineSubmissions>

For Policies against Scientific Misconduct, visit <https://threatenedtaxa.org/index.php/JoTT/about/editorialPolicies#custom-2>

For reprints, contact [ravi@threatenedtaxa.org](mailto:ravi@threatenedtaxa.org)

The opinions expressed by the authors do not reflect the views of the Journal of Threatened Taxa, Wildlife Information Liaison Development Society, Zoo Outreach Organization, or any of the partners. The journal, the publisher, the host, and the partners are not responsible for the accuracy of the political boundaries shown in the maps by the authors.

Member



Publisher & Host







## Checklist of brachyuran mangrove crabs of Kerala, India

Kurian Mathew Abraham<sup>1</sup> & Apreshgi Kolothuthara Prakasan<sup>2</sup>

<sup>1,2</sup>Department of Aquatic Biology and Fisheries, University of Kerala, Thiruvananthapuram, Kerala 695581, India.

<sup>1</sup> kurianma@gmail.com (corresponding author), <sup>2</sup> apreshgikp@yahoo.co.in

**Abstract:** Checklist of brachyuran mangrove crabs from Kerala, western coast of India is presented in this paper with re-validation of nomenclature since many of the crab species have been renamed so far, and no reports have been published from mangroves of Kerala. A total of 18 true mangrove crabs were identified from different mangroves associated with estuaries along the western coastline of Kerala State, of which four crab genera were renamed and revalidated and all species were photo-documented during the present study. The paper enlists the taxonomic account of the true mangrove crabs known so far from Kerala mangrove ecosystems.

**Keywords:** Brachyura, checklist, Kerala, mangrove crab, Crustacea, Portunidae, Grapsidae, Sesarmidae, Ocypodidae.

Brachyurans are the most promising and prominent group of crabs, because of their great diversity; comprising of about 6,793 species, 1,721 genera, and 93 families recorded globally (Ng et al. 2008). Brachyuran crabs perform a significant role in the mangrove ecosystems and are commercially valuable with high culture and fattening potential (Tan & Ng 1994). Mangrove ecosystems warrant more attention as it is diminishing day by day, especially along Kerala coastline and its importance protecting the environment from natural catastrophes are increasing. Mangroves are fragile ecosystem having highly variable conditions of life style, which make them profusely rich in biodiversity

(Kathiresan & Qasim 2005). The ecosystem value of mangroves overwhelms any other ecosystem as it gives very many services, including biodiversity richness. Distribution studies of brachyuran crabs, especially the mangrove crab in Indian mangroves are scanty (Joel et al. 1985) and the available literature discusses the distribution of both marine and estuarine/mangrove crabs together.

Literature regarding crabs of mangrove ecosystems of Kerala was comparatively meager apart from that of few individual report and citations of each crab species. Kathirvel (2008) reported 990 species of marine brachyuran crabs belonging to 281 genera and 36 families from Indian waters. Thirty-six brachyuran crab species were identified from Pichavaram mangroves by Soundarapandian et al. (2008). A study reveals that 33 mangrove crab species belonging to the family Grapsidae and Ocypodidae were available from the state of Tamil Nadu (Wilson & Ravichandran 2013). A comprehensive approach to document the diversity and abundance of true mangrove crabs were lacking especially from Kerala, which was considered to be one of the crab-rich states (Rajesh et al. 2017). The first publication in this respect was by Pillai (1951), who provided an account of the brachyuran crabs of Travancore. In a report on

**Editor:** Anonymity requested.

**Date of publication:** 26 November 2020 (online & print)

**Citation:** Abraham, K.M. & A.K. Prakasan (2020). Checklist of brachyuran mangrove crabs of Kerala, India. *Journal of Threatened Taxa* 12(15): 17153–17160. <https://doi.org/10.11609/jott.4429.12.15.17153-17160>

**Copyright:** © Abraham & Prakasan 2020. Creative Commons Attribution 4.0 International License. JoTT allows unrestricted use, reproduction, and distribution of this article in any medium by providing adequate credit to the author(s) and the source of publication.

**Funding:** None.

**Competing interests:** The authors declare no competing interests.

**Acknowledgements:** The second author acknowledge the E-grants fellowship from Government of Kerala. Lab and other facilities are provided by Department of Aquatic Biology and Fisheries, University of Kerala, Thiruvananthapuram. Also, thanks to prof. A. Biju Kumar for the help rendered in crab identification and critically evaluating this article. Thanks are also due to prof. Peter K.L. Ng (National University of Singapore) and prof. Christoph D. Schubart (University of Regensburg, Germany) for the confirmation of few species.

mangroves and their faunal associates, Radhakrishnan et al. (2006) provided a list of 25 species of crustaceans, including 20 species of brachyuran crabs associated with marine, estuarine and mangroves of Kerala. Devi et al. (2015) recorded 24 species of crabs belonging to 16 genera and eight families from the Cochin backwaters of Kerala. A preliminary study on true mangrove crabs reported 14 crabs from various mangrove habitats of Kerala (Apreshgi 2014) and Apreshgi & Abraham (2019) observed 12 species from Puthuvype mangrove belt at Ernakulam, Kerala. Recently Ng & Devi (2020) reported a new tree spider crab, *Leptarma biju* from mangrove area of Chithari River, Kasargode District, Kerala. The brachyuran diversity of Kerala coastline mangrove ecosystem has not been documented and the present study presents the check list of the brachyuran crabs and photo-documents the diversity along with revalidation of crab nomenclature.

#### MATERIALS AND METHODS

A survey of crabs of different estuarine mangrove ecosystems along the western coastline of Kerala was carried out from June 2016 to May 2017. Crabs were collected live by handpicking, opening of burrows, bait trap and normal traditional trap kept overnight. Collected specimens were preserved in alcohol (70%) after anaesthetization and ice killing. Crab specimens were collected from a total of 14 mangrove locations from nine districts of Kerala State (Fig. 1). The collected specimens were washed thoroughly in situ and photo-documented without much disturbance to obtain natural colour and morphology. Specimens were brought to the laboratory for further identification and after specimen confirmation, specimens of three species (*Austruca annulipes*, *Austruca perplexa*, and *Parasesarma bengalense*) were submitted in the repositories of Department of Aquatic Biology and Fisheries, University of Kerala, Thiruvananthapuram, (Voucher numbers DABFUK-AR-BR-52,53; DABFUK-AR-BR-54,55; DABFUK/AR-BR-72, 73 respectively). Identification and classification were done using standard keys and publications (Pillai 1951; Sakai 1976; Sethuramalingam & Khan 1991; Roy & Das 2000; Roy 2008). Ng et al. (2008) was followed for classification and validity of the names of the brachyuran crabs were cross-checked with information from World Register of Marine Species (WoRMS 2020; <http://www.marinespecies.org>) and conservation status of each species was verified from the IUCN Red List of threatened species (IUCN 2017).

#### RESULTS AND DISCUSSION

A total of 18 species of true mangrove crabs under four families (Portunidae, Grapsidae, Sesarmidae, and Ocypodidae) and 11 genera were identified and documented in the present study. Highest number species was recorded from the family Sesarmidae (seven species) followed by Portunidae and Ocypodidae with four species each and Grapsidae with three species (Table 1 & Images 1–18). *Scylla serrata*, *Scylla olivacea*, and *Thalamita crenata* were the economically valuable crab species. Among different species, *Parasesarma bengalense* was reported for the first time from the western coast of India and *Clistocoeloma lanatum* was reported for the first time from Kerala mangroves. *Pseudosesarma glabrum* was one of the rare species and was recently reported from Cochin in southwestern India (Ng et al. 2017). *Parasesarma plicatum* was the common crab species encountered throughout west coastline mangrove ecosystems of Kerala.

Pillai (1951) and Chhapgar (1957) reported the occurrence of crabs from mangrove habitats around Travancore and Bombay respectively without much of its taxonomic identity. After a long gap, Krishnamurthy & Jeyaseelan (1981) reported the presence of 20 species of crabs from Pichavaram mangroves, which includes true mangrove as well as estuarine crabs. There are several taxonomic works on the brachyuran crabs of estuarine and mangrove ecosystems of India (Chakraborty et al. 1986; Mandal & Nandi 1989; Chakraborty & Chaudhury 1992; Roy & Das 2000; Radhakrishnan et al. 2006). A total of 55 species of brachyuran crabs represented under 31 genera have been reported earlier from different mangrove habitats of India (Roy & Das 2000). But none of the above reports exclusively documented mangrove crabs, in fact they included estuarine, marine forms in addition to mangrove crabs. Eighteen species of brachyuran crabs under nine genera and four families were identified exclusively from Sunderban mangrove ecosystems (Chakraborty & Chaudhury 1992). Mangrove fauna of Andaman & Nicobar Islands (Das & Roy 1989) enlisted 31 species of crabs from Andaman mangals and briefly dealt with zonation and annual breeding pattern of some of the crabs.

Even though nomenclature of many crabs has been changed by different taxonomists, genus name of four crabs has been changed or revalidated recently; *Perisesarma bengalense* has been changed to *Parasesarma* (WoRMS 2020), genus *Uca* has been renamed as *Austruca* for *Uca annulipes* and *Uca perplexa* and for *Uca vocans* renamed as *Gelasimus vocans* (WoRMS 2020). Many taxa belonging to the

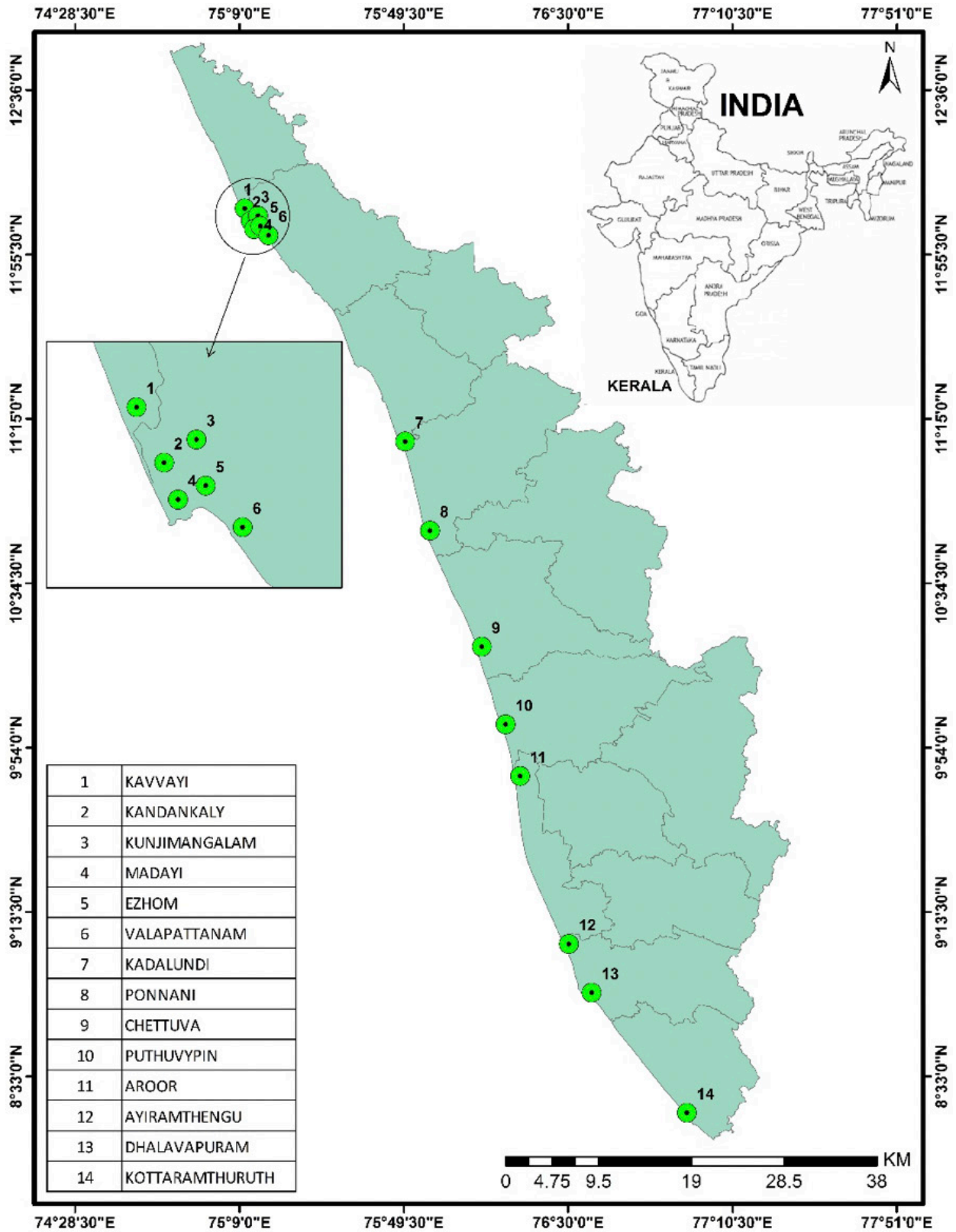


Figure 1. The sampling locations of mangrove crabs from Kerala.

**Table 1. Checklist of mangrove brachyuran crabs from Kerala.**

Family	Scientific name/Revalidated name	Original name/Synonym	Common name	Image no.
Portunidae	<i>Scylla olivacea</i> (Herbst, 1796)	<i>Cancer olivacea</i> Herbst, 1796	Orange Mud Crab	Image 1
	<i>Scylla serrata</i> (Forskål, 1775)	<i>Cancer serrata</i> Forskål, 1775	Green Mud Crab	Image 2
	<i>Scylla tranquebarica</i> (Fabricius, 1798)	<i>Cancer tranquearica</i> Fabricius, 1798	Mangrove Mud Crab	Image 3
	<i>Thalamita crenata</i> Ruppell, 1830	<i>Thalamita crenata</i> Ruppell, 1830	Crenate Swimming Crab	Image 4
Grapsidae	<i>Metopograpsus latifrons</i> (White, 1847)	<i>Grapsus latifrons</i> White, 1847	Purple-Claw Mudflat Crab	Image 5
	<i>Metopograpsus messor</i> (Forskål, 1775)	<i>Cancer messor</i> Forskål, 1775	Messor's Shore-Crab	Image 6
	<i>Metopograpsus thukuhar</i> (Owen, 1839)	<i>Grapsus thukuhar</i> Owen, 1839	Thukuhar Shore-Crab	Image 7
Sesarmidae	<i>Clistocoeloma lanatum</i> (Alcock, 1900)	<i>Sesarma lanatum</i> Alcock, 1900	Far Bodied Mudflat Crab	Image 8
	<i>Neosarmatium malabaricum</i> (Henderson, 1893)	<i>Sarmatium malabaricum</i> Henderson 1893	Violet Mudflat Crab	Image 9
	<i>Parasesarma bengalense</i> (Davie, 2003)*	<i>Perisesarma bangalense</i> Davie, 2003	Bengal Mangrove Crab	Image 10
	<i>Parasesarma pictum</i> (De Haan, 1835)	<i>Grapsus (Pachysoma) pictum</i> DeHaan, 1835	Mangrove Mudflat Crab	Image 11
	<i>Parasesarma plicatum</i> (Latreille, 1803)	<i>Ocypode plicatum</i> Latreille, 1803	Orange-claw Marsh Crab	Image 12
	<i>Perisesarma dussumieri</i> (Edwards, 1853)	<i>Sesarma dussumieri</i> , Edwards, 1853	Yellow-claw Mudflat Crab	Image 13
	<i>Pseudosesarma glabrum</i> Ng, 2017	<i>Pseudosesarma glabrum</i> , Ng, 2017	Glabrous Mangrove Crab	Image 14
Ocypodidae	<i>Austruca annulipes</i> (Edwards, 1837)*	<i>Gelasimus annulipes</i> Edwards, 1837	Ring-legged Fiddler Crab	Image 15
	<i>Austruca perplexa</i> (Edwards, 1852)*	<i>Gelasimus perplexa</i> H. Edwards, 1837	Perplexing Fiddler Crab	Image 16
	<i>Gelasimus vocans</i> (Linnaeus, 1758)*	<i>Cancer vocans</i> Linnaeus, 1758	Calling Fiddler Crab	Image 17
	<i>Macrophthalmus (Mareotis) depressus</i> (Ruppell, 1830)	<i>Macrophthalmus depressus</i> , Ruppell, 1830	Cream-claw Mud Crab	Image 18

genus *Perisesarma* have been changed to *Parasesarma* (Shahdadi & Schubart 2018), however, *Perisesarma dussumieri*, without any name changes is the type species of the genus *Perisesarma* owing to its original characters of the genus (Shahdadi & Schubart 2018). All the crabs documented in the present study were listed as 'Least Concern' status of IUCN Red list of the threatened species (IUCN 2017), which may be due to lack of baseline data about abundance and distribution the true mangrove crabs.

## CONCLUSION

The present investigation revealed 18 true brachyuran mangrove crab species along estuarine mangroves of western coast of Kerala. Family Sesarmidae constitute the major diversity (seven species) followed by Portunidae (four species) and Ocypodidae (four species), and least in Grapsidae (three species) of mangrove crabs. Among the 18 brachyuran crabs, four crabs have been revalidated by change in genus or species name and provided in a checklist along with photo-documentation of true mangrove crabs of Kerala estuarine systems.

## REFERENCES

- Alcock, A. (1900). Materials for a carcinological fauna of India. No. 6. The Brachyura Catometopa or Grapsoidea. *Journal of the Asiatic Society of Bengal* 69(2): 279–456.
- Apreshgi, K.P. (2014). Diversity of Brachyuran crabs of selected mangrove ecosystems of Kerala. MPhil Dissertation, University of Kerala.
- Apreshgi, K.P. & K.M. Abraham (2019). Brachyuran crab diversity in an isolated mangrove patch of the Cochin backwater, central Kerala, India. *Journal of Aquatic Biology and Fisheries* 7(1&2): 8–14
- Chakraborty, S.K. & A. Chaudhury (1992). Ecological studies on the zonation of brachyuran crabs in a virgin mangrove island of Sunderbans, India. *Journal of the Marine Biological Association of India* 34(1&2): 189–194.
- Chakraborty, S.K., A. Chaudhury & M. Deb (1986). Decapod brachyuran crabs from Sunderbans mangrove estuarine complex India. *Journal of the Bengal Natural History Society* 5(1): 55–68.
- Chhappgar, B.F. (1957). On the Marine Crabs (Decapoda Brachyura) of Bombay State. Part I. *Journal of the Bombay Natural History Society* 54(2): 399–439.
- Das, A.K. & M.K.D. Roy (1989). A general account of the mangrove fauna of Andaman and Nicobar Islands. Fauna and conservation areas: 4. Published by the Director, Zoological Survey of India, Kolkata, India, 173pp.
- Davie, J.F. (2003). A new species of *Perisesarma* (Crustacea: Brachyura: Sesarmidae) from the Bay of Bengal. *The Raffles Bulletin of Zoology* 51(2): 387–391.
- de Haan, W. (1835). Crustacea In: von Siebold PF (ed) Fauna Japonica sive Descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum in India Batava imperium tenent, suscepto, annis 1823- 1830 collegit, notis, observationibus



Image 1. *Scylla olivacea*



Image 2. *Scylla serrata*



Image 3. *Scylla tranquebarica*



Image 4. *Thalamita crenata*



Image 5. *Metopograpsus latifrons*



Image 6. *Metopograpsus messor*

© Apreshgi K.P.



Image 7. *Metopograpsus thukuhar*

© Apreshgi K.P.



Image 8. *Clistocoeloma lanatum*

© Apreshgi K.P.



Image 9. *Neosarmatium malabaricum*

© Apreshgi K.P.



Image 10. *Parasarma bengalense*

© Apreshgi K.P.



Image 11. *Parasarma pictum*

© Apreshgi K.P.



Image 12. *Parasarma plicatum*





Image 13. *Perisesarma dussumieri*



Image 14. *Pseudosesarma glabrum*



Image 15. *Austruca annulipes*



Image 16. *Austruca perplexa*



Image 17. *Gelasimus vocans*



Image 18. *Macrophthalmus (Mareotis) depressus*

- et adumbrationibus illustravit P.F. de Siebold. *Conjunctis studiis C.J. Temminck et H. Schlegel pro Vertebratis et W. de Haan pro Invertebratis elaborata Regis auspiciis edita*. Leiden, Lugundi-Batavorum. Decas II, 25–64, pls 9–15, 17, C, D. (For dates see Sherborn and Jentink, 1895; Holthuis, 1953 and Holthuis and T. Sakai, 1970).
- Devi, P.L., A. Joseph & S.A. Khan (2015)**. Diversity of Brachyuran Crabs of Cochin Backwaters, Kerala, India. *Marine faunal diversity in India* 5: 75–87.
- Edwards, H.M. (1837)**. Histoire Naturelle des Crustacés, comprenant l'anatomie, la physiologie et la classification de ces animaux. Librairie de Roret, Paris, 2, 532 pp., Atlas, 32 pp., pl. 1–42pp.
- Edwards, H.M. (1852)**. Observations sur les affinités zoologiques et la classification naturelle des Crustacés. *Annales des Sciences Naturelles, Zoologie*, 18: 109–166 (pls. 3–4)
- Edwards, H.M. (1853)**. Memoire sur la Famille des Ocyropidiens. *Annales des Sciences Naturelles, Zoologie*, 20(3e série): 163–228
- Fabricius, J.C. (1798)**. *Supplementum Entomologiae Systematicae*. ProftetStorch. *Hafniae* (= Copenhagen), 572pp.
- Forsk., P. (1775)**. Descriptiones Animalium Avium, Amphibiorum, Piscium, Insectorum, Vermium; quae in Itinere orientali observavit. Petrus Forskål. Post Mortem Auctoris editit Carsten Niebuhr. Adjunctae materiae Medica Kahirina. Hauniae, Heineck et Faber. <https://doi.org/10.5962/bhl.title.2154>
- Henderson, J.R. (1893)**. A Contribution to Indian Carcinology. *Transaction of the Linnaean Society, London, Series 2 (Zoology)* 5: 325–458.
- Herbst, J.F.W. (1796)**. Versuche einer Naturgeschichte der Krabben und Krebsenebsteiner systematischen Beschreibung ihrer verschiedenen Arten. 2: 1–226.
- IUCN (2017)**. The IUCN Red List of Threatened Species. Version 2017-3. Available online at <http://www.iucnredlist.org>. Accessed on 25 July, 2020.
- Joel, D.R., P.J.S. Raj & R. Raghavan (1985)**. Distribution and zonation of shore crabs in the Pulicat lake. *Proceedings of the Indian Academy of Animal Sciences* 95: 437–445
- Kathiresan, K. & S.Z. Qasim (2005)**. *Biodiversity of Mangrove Ecosystems*. Hindustan Publishing Corporation, New Delhi, 251pp.
- Kathirvel, M. (2008)**. Biodiversity of Indian marine brachyuran crabs. *Rajiv Gandhi Chair Special Publication 7*: 67–78.
- Krishnamurthy, K. & M.J. Jeyaseelan (1981)**. Early life history of fishes from Pichavaram mangrove ecosystem of India. *Rapports et procès-verbaux des Réunions, Conseil Permanent International pour l'exploration de la Mer* 178: 416–423.
- Latreille, P. (1803)**. Histoire naturelle, générale et particulière, des crustacés et des insectes: Vol. 3. F. Dufart, 468pp.
- Linnaeus, C. (1758)**. *Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis*. Tomus I. Editio decima, reformata. Holmiae [= Stockholm]: L. Salvii, 824pp.
- Mandal, A.K. & N.C. Nandi (1989)**. *Fauna of Sundarban Mangrove Ecosystem*. Zoological Survey of India West Bengal, India, 116pp.
- Ng, P.K.L., D. Guinot & P.J.F. Davie (2008)**. Systema Brachyurorum: Part I. An annotated checklist of extant brachyuran crabs of the world. *Raffles Bulletin of Zoology (Supplement)* 17: 1–296.
- Ng, P.K.L., V. Rani & S.B. Nandan (2017)**. A new species of *Pseudosesarma* Serene & Soh, 1970 (Crustacea: Brachyura: Sesarmidae) from Cochin in southwestern India. *Zootaxa* 4311(2): 263–270.
- Ng, P.K.L. & S.S. Devi (2020)**. A New Tree-spider Crab of the Genus *Leptarma* (Brachyura, Sesarmidae) from Mangroves in Kerala, India. *Crustaceana* 93(7): 759–768. <https://doi.org/10.1163/15685403-bja10030>
- Owen, R. (1839)**. Crustacea In: The zoology of captain Beechey's voyage; compiled from the collections and notes made by captain Beechey, the officers and naturalist of the expedition, during a voyage to the Pacific and Bering Straits performed in His Majesty's ship Blossom, under command of captain F.W. Beechey, R.N.F.R.S. in the years 1825, 26, 27, and 28: 77–92. (H.G. Bohn, London).
- Pillai, N.K. (1951)**. Decapoda (Brachyura) from Travancore. *Bulletin of the Central Research Institute, University of Travancore, Trivandrum* 2, series C(1): 1–4.
- Radhakrishnan, C., K.C. Gopi & M.J. Palot (2006)**. Mangroves and their faunal associates in Kerala with special reference to Northern Kerala, India. *Records of the Zoological Survey of India Occasional Paper* 246: 1–81.
- Rajesh, L., S. Raj, S.K. Pati & A.B. Kumar (2017)**. The freshwater crabs (Decapoda: Brachyura) of Kerala, India. *Journal of Aquatic Biology and Fisheries* 5: 132–153.
- Roy, M.K.D. & A.K. Das (2000)**. Taxonomy, ecobiology and distribution pattern of the Brachyuran Crabs of mangrove ecosystem in Andaman Islands. *Records of Zoological Survey of India, Occasional Paper No. 185*: 1–211, pls. 1–21, text figs. 1–5
- Roy, M.K.D. (2008)**. An annotated checklist of mangrove and coral reef inhabiting brachyuran crabs of India. *Records of Zoological Survey of India, Occasional Paper No. 289*: 1–212
- Rüppell, W.P.E.S. (1830)**. Beschreibung und Abbildung von 24 Arten kurzschwänzigen Krabben, als Beitrag zur Naturgeschichte des rothen Meeres. Frankfurt a.m., H.L. Brönnner, 1–28pp.
- Sakai, T. (1976)**. Crabs of Japan and the Adjacent Seas. Kodansha, Tokyo, vol. 1 [English text], xxix+773pp.; vol. 2 [Japanese text], 461 pp.; vol. 3 [plates], 16 pp., pls. 1–251
- Sethuramalingam, S. & S.A. Khan (1991)**. Brachyuran crabs of Parangipettai Coast. Centre of Advanced study in Marine Biology, Annamalai University, 92pp.
- Shahdadi, A. & C.D. Schubart (2018)**. Taxonomic review of *Perisesarma* (Decapoda: Brachyura: Sesarmidae) and closely related genera based on morphology and molecular phylogenetics: new classification, two new genera and the questionable phylogenetic value of the epibranchial tooth. *Zoological Journal of the Linnean Society* 182(3): 517–548.
- Soundarapandian, P., N.J. Samuel, S. Ravichandran & T. Kannupandi (2008)**. Biodiversity of Crabs in Pichavaram Mangrove Environment, South East Coast of India. *International Journal of Zoological Research* 4(2): 113–118.
- Tan, C.G.S. & P.K.L. Ng (1994)**. An annotated checklist of mangrove brachyuran crabs from Malaysia and Singapore. *Hydrobiologia* 285: 75–84.
- White, A. (1847)**. *List of the specimens of Crustacea in the collection of the British Museum*. British Museum, London, viii+143pp.
- Wilson, S.F. & S. Ravichandran (2013)**. Diversity of Brachyuran Crabs in the Mangrove Environment of Tamil Nadu. *World Journal of Fish and Marine Sciences* 5(4): 441–444.
- WoRMS (2020)**. *Parasesarma bengalense* (Davie, 2003), Accessed at: <http://www.marine-species.org/aphia.php?p=taxdetails&id=1061900> on 23 July 2020; *Austruca annulipes* (H. Milne Edwards, 1837). Accessed at: = 955178 on 23 July 2020; *Austruca perplexa* (H. Milne Edwards, 1852). Accessed at: <http://www.marine-species.org/aphia.php?p=taxdetails&id=955187> on 23 July 2020; *Gelasimus vocans* (Linnaeus, 1758). Accessed at: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=955174> on 23 July 2020





www.threatenedtaxa.org

PLATINUM  
OPEN ACCESS



The Journal of Threatened Taxa (JoTT) is dedicated to building evidence for conservation globally by publishing peer-reviewed articles online every month at a reasonably rapid rate at [www.threatenedtaxa.org](http://www.threatenedtaxa.org). All articles published in JoTT are registered under [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/) unless otherwise mentioned. JoTT allows unrestricted use, reproduction, and distribution of articles in any medium by providing adequate credit to the author(s) and the source of publication.

ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

November 2020 | Vol. 12 | No. 15 | Pages: 17063–17170

Date of Publication: 26 November 2020 (Online & Print)

DOI: 10.11609/jott.2020.12.15.17063-17170

## Articles

**Status of Nahan's Partridge *Ptilopachus nahani* (Dubois, 1905) (Aves: Galliformes: Odontophoridae) in Uganda**

– Eric Sande, Sisiria Akoth, Ubaldo Rutazaana & William Olupot, Pp. 17063–17076

**Fish diversity in streams/rivers of Kalakad-Mundanthurai Tiger Reserve, Tamil Nadu, India**

– K. Kannan & J.A. Johnson, Pp. 17077–17092

**Gastrointestinal helminth and protozoan infections of wild mammals in four major national parks in Sri Lanka**

– Chandima Sarani Sepalage & Rupika Subashini Rajakaruna, Pp. 17093–17104

## Review

**Appraising carnivore (Mammalia: Carnivora) studies in Bangladesh from 1971 to 2019 bibliographic retrieves: trends, biases, and opportunities**

– Muntasir Akash & Tania Zakir, Pp. 17105–17120

## Communications

**Diversity of scorpions (Arachnida: Scorpiones) in Polonnaruwa Archaeological Reserve, Sri Lanka**

– Kumudu B. Wijesooriya, Lakshani S. Weerasekara & Kithsiri B. Ranawana, Pp. 17121–17128

**A faunistic survey of tiger beetles (Coleoptera: Carabidae: Cicindelinae) in Chakrashila Wildlife Sanctuary and adjoining riverine ecosystem in Assam, India**

– Kushal Choudhury, Chandan Das & Amar Deep Soren, Pp. 17129–17137

**Occurrence of the *Aporrectodea caliginosa caliginosa* (Savigny, 1826) (Annelida: Clitellata: Haplotaxida) from Kashmir Valley, Jammu & Kashmir, India**

– Ishtiyahq Ahmed Najjar, Anisa B. Khan & Abdul Hai, Pp. 17138–17146

## Short Communications

**Avian congregation sites in the Gulf of Kachchh, Gujarat, India**

– Jigar D. Joshi, Sandeep B. Munjpara, Kinjal Joshi, Harshad Salvi & R.D. Kamboj, Pp. 17147–17152

**Checklist of brachyuran mangrove crabs of Kerala, India**

– Kurian Mathew Abraham & Apreshgi Kolothuthara Prakasan, Pp. 17153–17160

## Notes

**A new country record of Smooth-backed Gliding Gecko *Gekko lionotum* (Annandale, 1905) (Squamata: Gekkonidae) from Bangladesh**

– M. Rashedul Kabir Bhuiyan, M. Fazle Rabbe, Mohammad Firoj Jaman, Ananda Kumar Das & Samiul Mohsanin, Pp. 17161–17164

***Amblyomma gervaisi* (Ixodida: Ixodidae: Amblyomma) infestation in a Rat Snake from northwestern Himalayan region: a case study**

– Aman D. Moudgil, Ankur Sharma, Adarsh Kumar, Amit Singla & Surender Bansal, Pp. 17165–17167

**Parasitic enteritis in the free-ranging Common Myna *Acridotheres tristis* (Aves: Passeriformes: Sturnidae)**

– Rakesh Kumar, Aman Dev Moudgil, Sameeksha Koundal, Rajendra Damu Patil & Rajesh Kumar Asrani, Pp. 17168–17170

Member



Publisher & Host

