

The native taxa of Arecaceae in India: a review

S. Mehmud^{1*}, H. Roy²

¹ University of Science & Technology Meghalaya, Techno City, Kling Road, Baridua, Ri-Bhoi, Meghalaya-793101, India
E-mail: mehmudselim@gmail.com; ORCID iD: <https://orcid.org/0000-0001-8731-2223>

² Cotton University, Panbazar, Guwahati-781001, Assam, India
E-mail: dr.himuroy@gmail.com; ORCID iD: <https://orcid.org/0000-0001-8902-636X>

* Corresponding author

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Summary. The present review study is an attempt to assemble and scrutinize major taxonomic and floristic works on the family Arecaceae and present revised information both on diversity and geography of the family in India. The study enumerates total 85 native taxa (84 species and one subspecies) belonging to 19 genera of Arecaceae in the country, where the genus *Calamus* is represented by 35 taxa (34 species and one subspecies), and remaining genera by less than ten species each. The present list of accepted species includes synonyms, data on their distribution, ecology (forest types, elevation) and status in the country. Among these 85 taxa, 21 species are currently considered under five different categories of IUCN, i.e. twelve species are attributed to Least Concern category, five to Vulnerable, three to Near Threatened, and one species to Endangered and Extinct in the Wild respectively. Total eleven species are endemic to India where one species is distributed in Peninsular India, one in Peninsular and Nicobar Islands, one in Kerala, Tamil Nadu, Karnataka and Maharashtra, two in Nicobar Islands, two in Andaman Islands, two in Andaman and Nicobar Islands, and two in Western Ghats. Majority of the species were found to be confined to evergreen and rain forests. The species occur from lowlands to 2400 m elevation. Common cultivated taxa are excluded here.

Обзор пальм (Arecaceae) Индии

С. Мехмуд¹, Х. Рой²

¹ Мегалайский университет науки и технологии, Техносити, Клинг Роуд, д. Баридуа, округ Ри-Бхои, штат Мегалайя, 793101, Индия

² Университет хлопка, Хем Баруах Роуд, Панбазар, г. Гувахати, штат Ассам, 781001, Индия

Ключевые слова: аборигенный вид, индийские пальмы, список, местообитание, МСОП, распространение, эндемик.

Аннотация. Настоящее исследование представляет собой попытку обзора основных таксономических и флористических работ по семейству Аrecaceae Индии. Полученная информация представлена в виде списка естественно произрастающих в стране родов и видов пальм с указанием синонимов, распространения, экологии (приуроченности к тому или иному типу леса и высоте), эндемизма и природоохранного статуса в стране. Выявлено 85 таксонов (84 вида и один подвид), принадлежащих к 19 родам Аrecaceae, крупнейшим из которых является род *Calamus*, представленный тридцатью четырьмя видами и одним подвидом, а все остальные роды – менее чем десятью видами. Четверть (21 вид) индийских пальм в настоящее время имеет различный природоохранный статус МСОП: двенадцать видов относятся к категории наименее уязвимых, пять – к уязвимым, три – к находящимся в состоянии, близком к угрожаемому, и по одному виду – к находящимся под угрозой исчезновения и вымершим в дикой природе соответственно. Одиннадцать видов эндемичны для

Индии, из которых один распространен на материковой части Индии, один – на материке и Никобарских островах, один – в штатах Керала, Тамил Наду, Карнатака и Махараштра, два – на Никобарских островах, два – на Андаманских островах, два – на Андаманских и Никобарских островах и два – в Западных Гатах. Большинство видов обитает в вечнозеленых и тропических лесах от низин до 2400 м над ур. м. Обычные культивируемые таксоны в список не включены.

Introduction

Globally palms are found to be economically very important after grasses (Renuka, Sreekumar, 2012). In India, significant taxonomic works were contributed by many workers to explore the family Arecaceae Bercht. et J. Presl (Griffith, 1845, 1850; Anderson, 1871; Hooker, 1894; Beccari, 1902, 1908, 1911, 1918; Blatter, 1926; Basu, 1984, 1989, 1992; Renuka, 1987a, 1987b, 1990, 1999; Lakshmana, Renuka, 1990; Basu, Chakraverty, 1994; Biswas, Dayal, 1995; Negi, 1996; Ram, Tandon, 1997; Renuka, Vijayakumaran, 1994a, 1994b; Kulkarni, Mulani, 2004; Singh et al., 2004; Meitam, Sharma, 2005; Henderson, 2007, 2009, 2020; Henderson A., Henderson F., 2007; Jacob et al., 2008; Devi et al., 2010; Renuka et al., 2010; Renuka, Sreekumar, 2012; Barooah, Ahmed, 2014; Mondal, Chowdhury, 2018, 2019; Mondal et al., 2019, 2020, 2021; Deka et al., 2020; Mao, Dash, 2020; Mehmud, Roy, 2021a). The native species in India are mainly distributed in three geographical regions viz. Andaman and Nicobar Islands, Peninsular India and Northern India (Renuka, Sreekumar, 2012) and the total number of species of the family reported in the country varies in different studies. According to Kulkarni and Mulani (2004), 96 palm species under 20 genera were indigenous to India. In contrast, Henderson (2009) reported 71 native species in India and 29 in Andaman and Nicobar Islands, resulting in a total of 88 species. Renuka and Sreekumar (2012) mentioned 105 species under 22 genera in India, out of which the genus *Calamus* L. was most diverse (46 species). Mao and Dash (2020) enlisted 110 taxa (106 species and four infraspecific taxa) under 20 genera from the country. But many names that were reported in these studies were merged and/or mentioned as synonyms of other species (Renuka, Sreekumar, 2012; Sreekumar, Henderson, 2014; Henderson, 2020; Mehmud, Roy, 2021b, 2022a, 2022b) therefore a review was required to assess the actual diversity of native taxa occurring in India. The present review study is an attempt to compile relevant information.

Materials and Methods

Relevant taxonomic literature of the family Arecaceae is reviewed and all the accepted names are

included in the present study. Voucher specimens have been examined at different herbaria (acronyms ASSAM, ARUN, CAL, GUBH); images of specimens from K, NYBG, A, P, K, L, BR, etc. available online were also accessed.

Results and Discussions

In the present study, a total of 85 native taxa belonging to 19 genera are recorded. The names of genera are arranged alphabetically. Present review resulted in a compilation of 34 species and one subspecies under *Calamus*; seven species under *Phoenix* L.; five species each under *Arenga* Labill. ex DC., *Pinanga* Blume, *Trachycarpus* H. Wendl. and *Wallichia* Roxb.; four species under *Caryota* L.; three species each *Corypha* L. and *Korthalsia* Blume; two species each under *Bentinckia* Berry, *Licuala* Wurmbe and *Plectocomia* Mart. et Blume; and remaining genera *Areca* L., *Hyphaene* Gaertn., *Livistona* R. Br., *Myrialepis* Becc., *Nypa* Steck., *Rhopaloblaste* Scheff. and *Salacca* Reinw. are represented by single species each. The common cultivated species like *Areca catechu* L., *Cocos nucifera* L. and *Borassus flabellifer* L. are excluded from the present study. Accepted taxa, their distribution in India (with states) and in the world, habitat and forest types in India, elevation (elev.) and status [endemicity in India and/or IUCN category (IUCN. URL: www.iucnredlist.org)] are provided.

Areca L., 1753, Sp. Pl.: 1189.

1. *A. triandra* Roxb. ex Buch.-Ham., 1824, Mem. Wern. Nat. Hist. Soc. 5: 310.

Distribution: India [Andaman and Nicobar Islands (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); northeastern India (Renuka, Sreekumar, 2012); Assam, Meghalaya, Sikkim (Henderson, 2009); Assam (Mao, Dash, 2020)], Bangladesh, Cambodia, Thailand, Myanmar, Vietnam (Henderson, 2009; Renuka, Sreekumar, 2012).

Habitat : Common in lowland and montane rain forests; elev.: 1500 m (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

Arenga Labill. ex DC., 1800, Bull. Sci. Soc. Philom. Paris 2: 162.

2. *A. micrantha* C. F. Wei, 1988, Acta Phyto. Sin. 36: 404.

Distribution: India [Arunachal Pradesh, Sikkim, West Bengal (Henderson, 2009; Renuka, Sreekumar, 2012)], Bhutan, China (Renuka, Sreekumar, 2012).

Habitat: Evergreen montane forests; elev.: 1500–2000 m (Renuka, Sreekumar, 2012).

Status: Endangered (IUCN).

3. *A. obtusifolia* Mart., 1838, Hist. Nat. Palm. 3: 191.

Distribution: India [Arunachal Pradesh (Renuka, Sreekumar, 2012; Mao, Dash, 2020; Pillai et al., 2020)], Java, Malaysia, Sumatra, Thailand (Renuka, Sreekumar, 2012).

Habitat: Evergreen and secondary forests; elev.: 500–700 m (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

4. *A. pinnata* (Wurmb.) Merr., 1917, Interpr. Herb. Amboin. 119.

Distribution: India [Andaman Islands (Renuka, Sreekumar, 2012; Mao, Dash, 2020); Assam (Mao, Dash, 2020; Pillai et al., 2020)], Indonesia, Malaysia, Philippines (Renuka, Sreekumar, 2012).

Habitat: Rain forest (Pillai et al., 2020); elev. 500 m (Renuka, Sreekumar, 2012).

Note: The species was not found in Assam (Mehmud, Roy, 2021a).

5. *A. westerhoutii* Griff., 1845, Calcutta J. Nat. Hist. 5: 474.

Distribution: India [Arunachal Pradesh, Manipur (Renuka, Sreekumar, 2012; Mao, Dash, 2020); Assam (Barbhuiyan, 2014; Mehmud, Roy, 2021a)], China, Cambodia, Myanmar, Laos, Thailand (Renuka, Sreekumar, 2012).

Habitat: Lowland of evergreen forest (Renuka, Sreekumar, 2012); elev.: 600–1400 m (Henderson, 2009).

Status: Least Concern (IUCN).

6. *A. wightii* Griff., 1845, Calcutta J. Nat. Hist. 5: 475.

Distribution: India [Coimbatore (Griffith, 1845); Peninsular India (Renuka, Sreekumar, 2012); Karnataka, Kerala, Maharashtra, Tamil Nadu (Henderson, 2009; Mao, Dash, 2020)].

Habitat: Lowland, steep and montane evergreen forests; elev.: 800–1000 m (Renuka, Sreekumar, 2012).

Status: Endemic to Peninsular India (Renuka, Sreekumar, 2012); Vulnerable (IUCN).

Bentinckia Berry, 1832, Fl. Ind. ed. 1832, 3: 621.

7. *B. condapanna* Berry ex Roxb., 1832, Fl. Ind. ed. 1832, 3: 621.

Distribution: India [Kerala and Tamil Nadu (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)].

Habitat: Montane rain forests (Henderson, 2009; Renuka, Sreekumar, 2012); elev.: 1000–1400 m (Henderson, 2009).

Status: Endemic to Peninsular India and Nicobar Islands (Irwin et al., 2021); Vulnerable (IUCN).

8. *B. nicobarica* (Kurz) Becc., 1885, Ann. Jard. Bot. Buitenzorg 2: 165.

Distribution: India [Nicobar Island (Henderson, 2009; Renuka, Sreekumar, 2012); Andaman and Nicobar Islands (Mao, Dash, 2020)].

Habitat: Lowland evergreen forest; elev.: 100–150 m (Renuka, Sreekumar, 2012).

Status: Endemic to Nicobar Islands (Renuka, Sreekumar, 2012); Vulnerable (IUCN).

Calamus L., 1753, Sp. Pl.: 325.

9. *C. acanthospathus* Griff., 1845, Calcutta J. Nat. Hist. 5: 39.

Distribution: India [Assam, Arunachal Pradesh, Sikkim, Meghalaya, Manipur, Nagaland (Henderson, 2009; Renuka, Sreekumar, 2012), West Bengal (Henderson, 2009), northeastern India (Henderson, 2020), Assam and Sikkim (Mao, Dash, 2020)], Bhutan, China, Laos, Myanmar, Thailand, Tibet, Vietnam (Henderson, 2020).

Habitat: Lowland or montane rain forest; elev.: 800–2500 m (Renuka, Sreekumar, 2012).

10. *C. andamanicus* Kurz., 1874, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 43: 211.

Distribution: India [Andaman and Nicobar Islands (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Mao, Dash, 2020; Henderson, 2020); Nicobar Island (Renuka, Sreekumar, 2012)].

Habitat: Lowland rain forest; elev.: 50–200 m (Renuka, Sreekumar, 2012).

Synonym: *C. semirectus* Renuka et Vijayak. (Sreekumar, Henderson, 2014; Henderson, 2020).

Status: Endemic to Andaman and Nicobar Islands (Renuka, Sreekumar, 2012).

11. *C. arborescens* Griff., 1845, Calcutta J. Nat. Hist. 5: 33.

Distribution: India [Manipur (Singh et al., 2004; Meitam, Sharma, 2005); West Bengal (Mondal et al., 2021)], Myanmar, Thailand (Henderson, 2020).

Habitat: Subtropical forest of Eastern Himalaya; elev.: 300–350 m (Mondal et al., 2021).

12. *C. baratangensis* Renuka, Vijayak., 1994, Rheedeia 4: 141.

Distribution: India [Andaman Island (Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Henderson, 2020; Mao, Dash, 2020), Nicobar (Mao, Dash, 2020)].

Habitat: Lowland evergreen forest; elev.: 100 m (Renuka, Sreekumar, 2012).

Synonym: *C. basui* Renuka et Vijayak. (Sreekumar, Henderson, 2014; Henderson, 2020).

Status: Endemic (Renuka, Sreekumar, 2012).

13. *C. brandisii* Becc., 1894, Fl. Brit. Ind. 6: 448.

Distribution: India [Kerala, Tamil Nadu (Basu, 1992; Renuka et al., 2010; Renuka, Sreekumar, 2012; Henderson, 2009, 2020; Mao, Dash, 2020); Karnataka (Henderson, 2009; Mao, Dash, 2020)].

Habitat: Montane forests; elev.: 1000–2000 m (Renuka, Sreekumar, 2012).

Status: Endemic to Western Ghats (Renuka, Sreekumar, 2012).

14. *C. dilaceratus* Becc., 1902, Rec. Bot. Surv. India 2: 198.

Distribution: India [Nicobar Island (Basu, 1992; Henderson, 2009, 2020; Renuka et al., 2010; Renuka, Sreekumar, 2012)].

Habitat: Lowland rain forest; elev.: 100–200 m (Renuka, Sreekumar, 2012).

Status: Endemic to Nicobar Island (Renuka, Sreekumar, 2012).

15. *C. erectus* Roxb., 1832, Fl. Ind. 3: 774.

Distribution: India [Assam, Arunachal Pradesh, Meghalaya, Tripura, Sikkim, West Bengal (Henderson, 2009; Renuka, Sreekumar, 2012); Manipur (Basu, 1992; Meitam, Sharma, 2005; Henderson, 2009); northeastern India (Henderson, 2020)], Bangladesh, Bhutan, China, Nepal, Laos, Myanmar, Thailand (Henderson, 2020).

Habitat: Evergreen forest; elev.: up to 1200 m (Renuka, Sreekumar, 2012).

Synonym: *C. erectus* var. *schizospathus* (Griff.) Becc. (Renuka, Sreekumar, 2012; Henderson, 2020), *C. pseudoerectus* S. Mondal, S. K. Basu et M. Choudhury (Henderson, 2020),

Note: Based on fruits, *C. pseudoerectus* was described from Eastern Himalaya of India (Mondal et al., 2019) and similar types of fruits of *C. erectus* were observed in Dima Hasao district of Assam (Mehmud, Roy, 2021c).

16. *C. flagellum* Griff. ex Mart., 1853, Hist. Nat. Palm. 3: 333.

Distribution: India [Assam, Arunachal Pradesh, Meghalaya, West Bengal, Manipur (Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Sikkim (Henderson, 2009; Renuka et al., 2010); northeastern India (Henderson, 2020)], Bangladesh, China, Tibet, Laos, Myanmar, Thailand, Vietnam (Henderson, 2020).

Habitat: Evergreen forests; elev.: 800–1200 m (Renuka, Sreekumar, 2012).

17. *C. floribundus* Griff., 1845, Calcutta J. Nat. Hist. 5: 56.

Distribution: India [Assam, Arunachal Pradesh, Meghalaya, Tripura, Nagaland (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Manipur, West Bengal (Henderson, 2009);

northeastern India (Henderson, 2020)], Bangladesh, Myanmar (Henderson, 2020).

Habitat: Lowland evergreen forests; elev.: 1000 m (Renuka, Sreekumar, 2012).

18. *C. gamblei* Becc., 1894, Fl. Brit. Ind. 6: 448.

Distribution: India [Tamil Nadu, Kerala, Karnataka (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Henderson, 2020; Mao, Dash, 2020)].

Habitat: Evergreen forests; elev.: 500–1000 m (Renuka, Sreekumar, 2012).

Synonym: *C. dransfieldii* Renuka, *C. lacciferus* Lakshmana et Renuka, *C. neelagiricus* Renuka, *C. prasinus* Lakshmana et Renuka, *C. renukae* Jacob, Mohanan et Kariyappa, *C. shendurunii* Anto, Renuka et Sreekumar (Sreekumar, Henderson, 2014; Henderson, 2020).

Status: Endemic to Western Ghats (Renuka, Sreekumar, 2012).

19. *C. gracilis* Roxb., 1832, Fl. Ind. 3: 781.

Distribution: India [Andhra Pradesh (Mao, Dash, 2020), Arunachal Pradesh, Meghalaya, Assam (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020); northeastern India (Henderson, 2020)], Bangladesh, China, Myanmar, Laos (Henderson, 2020).

Habitat: Evergreen forests; elev.: 1000–1500 m (Renuka, Sreekumar, 2012). In Assam the species was recorded in 40–671 m elevation (Mehmud, Roy, 2021a).

20. *C. guruba* Buch-Ham. ex Mart., 1838, Hist. Nat. Palm. 3: 211.

Distribution: India [Assam, West Bengal, Odisha, Nagaland, Manipur, Meghalaya (Henderson, 2009; Renuka, Sreekumar, 2012); Bihar, Sikkim, Tripura (Henderson, 2009); northeastern India (Henderson, 2020); Assam Meghalaya, Odisha, West Bengal (Mao, Dash, 2020)].

Habitat: Montane rain forest and scrub forests; elev.: up to 1200 m (Renuka, Sreekumar, 2012).

21. *C. henryanus* Becc., 1902, Rec. Bot. Surv. India 2: 199.

Distribution: India [Assam (Mehmud, Roy, 2020, 2021a) and Tripura (Mehmud, Roy, 2022c)], Myanmar, China, Thailand, Laos, Vietnam (Henderson, 2020).

Habitat: Lowland and montane rain forests; elev.: 100–1500 m (Henderson, 2020).

22. *C. hookerianus* Becc., 1908, Ann. Roy. Bot. Gard. (Calcutta) 11(1): 226.

Distribution: India [Tamil Nadu, Kerala (Basu, 1992; Renuka et al., 2010; Henderson, 2020); Karnataka, Tamil Nadu, Kerala (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)].

Habitat: Evergreen forest; elev.: 1000 m (Renuka, Sreekumar, 2012).

23. *C. inermis* T. Anders., 1871, J. Linn. Soc. 11: 11.

Distribution: India [West Bengal, Sikkim, Meghalaya (Basu, 1992); Sikkim (Renuka et al., 2010); Assam (Basu, 1992; Mehmud, Roy, 2021a); northeastern India (Henderson, 2020)], Bhutan, China, Laos, Myanmar, Thailand, Vietnam (Henderson, 2020).

Habitat: Lowland or montane forest; elev.: 100–2000 m (Henderson, 2020).

Synonym: *C. nambariensis* Becc. (Henderson, 2020), *C. nambariensis* Becc. subsp. *arunachalensis* Deka, Borthakur et Tanti and *C. nambariensis* Becc. subsp. *nambariensis* var. *hoollongapariensis* Deka, Borthakur et Tanti (Mehmud, Roy, 2022b).

24. *C. kingianus* Becc., 1908, Ann. Roy. Bot. Gard. (Calcutta) 11(1): 197.

Distribution: India [Assam (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020; Mehmud, Roy, 2021a), Meghalaya (Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020) and Arunachal Pradesh [voucher examined at ARUN (acc. no. 13395)]; northeastern India (Assam) (Henderson, 2020)], Myanmar (Henderson, 2020).

Habitat: Lowland rain forests; elev.: 500 m (Renuka, Sreekumar, 2012).

25. *C. lakshmanae* Renuka, 1990, J. Econ. Taxo. Bot. 14: 703.

Distribution: India [Kerala, Karnataka (Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Henderson, 2020; Mao, Dash, 2020)].

Habitat: Evergreen forests; elev.: 1000 m (Renuka, Sreekumar, 2012).

26. *C. latifolius* Roxb., 1814, Hort. Bengal.: 73.

Distribution: India [Assam, Arunachal Pradesh, Meghalaya, West Bengal, Sikkim (Basu, 1992; Renuka et al., 2010; Renuka, Sreekumar, 2012); Odisha (Renuka, Sreekumar, 2012); Nagaland (Basu, 1992; Renuka et al., 2010), Andaman and Nicobar Islands (Basu, 1992; Mao, Dash, 2020); Andaman Island and eastern and northeastern India (Henderson, 2020)], Bangladesh, Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam (Henderson, 2020).

Habitat: Lowlands and evergreen forests; elev.: to 1000 m (Renuka, Sreekumar, 2012).

Synonym: *C. latifolius* var. *marmoratus* Becc. and *C. palustris* Griff. (Henderson, 2020).

Note: Mehmud and Roy (2021a) reported the species from Assam but the in the present study the species is kept under doubtful distribution.

27. *C. leptospadix* Griff., 1845, Calcutta J. Nat. Hist. 5: 49.

Distribution: India [Assam, Arunachal Pradesh, Meghalaya, West Bengal, Sikkim, Manipur, Nagaland (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012); Assam (Mehmud, Roy, 2021a); Tripura (Deb, 1983; Henderson, 2009); northeastern India (Henderson, 2020)], Bhutan, Myanmar (Henderson, 2020).

Habitat: Lowland or montane rain forests; elev.: to 1400 m (Renuka, Sreekumar, 2012).

Synonym: *C. mahanandensis* S. Mondal, S. K. Basu et M. Chowdhury (Mehmud, Roy, 2022a).

Note: In “Flora of Tripura” Deb (1983) cited a specimen having collection number “Deb 27024” for *C. leptospadix* but this specimen was belonged to *C. henryanus*, one voucher specimen (barcode CAL0000031027) housed at CAL (Mehmud, Roy, 2022c) and another at ASSAM (acc. no. 28334).

28. *C. longisetus* Griff., 1845, Calcutta J. Nat. Hist. 5: 36.

Distribution: India [Andaman (Basu, 1992; Renuka et al., 2010; Renuka, Sreekumar, 2012); Manipur (Renuka et al., 2010); Andaman and Nicobar Islands (Henderson, 2009); Nicobar Islands (Henderson, 2020)], Myanmar, Thailand, and Peninsular Malaysia (Henderson, 2020).

Habitat: Lowland evergreen forests at low elevation (Renuka, Sreekumar, 2012).

29. *C. meghalayensis* Henderson, 2007, Taiwania 52(2): 155.

Distribution: India [Assam (Bora et al., 2012; Mehmud, Roy, 2021a) and Meghalaya (Basu, 1992; Henderson A., Henderson F., 2007; Henderson 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012), northeastern India (Henderson, 2020)].

Habitat: Lowland evergreen forest (Henderson, 2020).

30. *C. melanochaetes* (Blume) Miq., 1868, De palmis archipelagi Indici observations novae: 28.

Distribution: India [Andaman Islands, Assam, Meghalaya, Sikkim and West Bengal (Renuka, Sreekumar, 2012), Andaman Islands, northeastern India (Henderson, 2020)], Aru Islands, Borneo, Cambodia, China, Flores, Java, Laos, Malaysia, Myanmar, Philippines, Singapore, Sumatra, Sumbawa, Thailand, Vietnam, Wetar (Henderson, 2020).

Habitat: Lowland or montane forest; elev.: 4–1900 m (Henderson, 2020).

Synonym: *Daemonorops aurea* Renuka et Vijayak, *D. jenkinsiana* (Griff.) Mart., *D. kurziana* Hook. f. ex Becc., *D. manni* Becc., *D. rarispinosa* Renuka et Vijayak., *D. wrightmyoensis* Renuka et Vijayak. (Renuka, Sreekumar, 2012), *D. teraiensis* S. Mondal et M. Chowdhury (Henderson, 2020).

- 31. *C. metzianus*** Schlttdl., 1855, *Linnaea* 26: 727.
Distribution: India [Tamil Nadu, Kerala, Karnataka (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Henderson, 2020; Mao, Dash, 2020)], Sri Lanka (Henderson, 2020).
Habitat: Lowland or open areas, coasts; elev.: 50–100 m (Renuka, Sreekumar, 2012).
- 32. *C. nagbettai*** R. R. Fernandez et Dey, 1970, *Indian Forester* 96: 223.
Distribution: India [Karnataka (Basu, 1992; Henderson, 2020); Karnataka, Kerala (Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020)].
Habitat: Evergreen forests; elev.: up to 1000 m (Renuka, Sreekumar, 2012).
- 33. *C. nicobaricus*** Becc., 1894, *Fl. Brit. Ind.* 6: 446.
Distribution: India [Andaman and Nicobar Islands (Basu, 1992; Mao, Dash, 2020); Nicobar Island (Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Henderson, 2020)].
Habitat: Scrub forests at low elevation (Renuka, Sreekumar, 2012).
Synonym: *C. pseudorivalis* Becc. (Henderson, 2020).
- 34. *C. pseudotenuis*** Becc., 1894, *Fl. Brit. Ind.* 6: 445.
Distribution: India [Tamil Nadu (Basu, 1992); Karnataka, Kerala, Tamil Nadu (Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Andhra Pradesh (Henderson, 2009); Goa, Maharashtra (Mao, Dash, 2020).
Habitat: Lowland or montane forests; elev.: up to 1500 m (Renuka, Sreekumar, 2012).
- 35. *C. pseudotenuis*** subsp. *karnatakensis* (Renuka et Lakshmana) A. J. Hend., 2020, *Phytotaxa* 445(1): 366.
Distribution: Karnataka, Kerala (Renuka et al., 2010); Karnataka, Maharashtra (Mao, Dash, 2020).
Habitat: Lowland rain forest; elev.: 350–1000 (Henderson, 2020).
Synonym: *C. karnatakensis* Renuka et Lakshmana and *C. stoloniferus* Renuka (Henderson, 2020).
- 36. *C. rheedei*** Griff., 1845, *Calcutta J. Nat. Hist.* 5: 73.
Distribution: India [Kerala, Karnataka, Tamil Nadu (Basu, 1992; Renuka et al., 2010; Renuka, Sreekumar, 2012); Kerala, Tamil Nadu (Henderson, 2009), Kerala (Henderson, 2020; Mao, Dash, 2020)].
Habitat: Lowland evergreen forests (Renuka, Sreekumar, 2012).
Synonym: *C. travancoricus* Bedd. ex Becc. (Sreekumar, Henderson, 2014; Henderson, 2020).
- 37. *C. rotang*** L., 1753, *Sp. Pl.*: 325.
Distribution: India [Andhra Pradesh, Tamil Nadu, Kerala (Basu, 1992; Henderson, 2009; Mao, Dash, 2020); Andhra Pradesh, Tamil Nadu (Renuka et al., 2010; Renuka, Sreekumar, 2012); Maharashtra (Mao, Dash, 2020)], Sri Lanka (Henderson, 2020).
Habitat: Wet places, stream or disturbed areas; elev.: 60 m (Henderson, 2020).
- 38. *C. tenuis*** Roxb., 1832, *Fl. Ind.* 3: 780.
Distribution: India [Assam, Bihar, Uttarakhand, West Bengal, Uttar Pradesh, Meghalaya, Mizoram, Tripura, Nagaland, Arunachal Pradesh (Henderson, 2009; Renuka, Sreekumar, 2012); Odisha (Renuka, Sreekumar, 2012); Manipur and possibly Madhya Pradesh (Henderson, 2009); eastern, northern, and northeastern India (Henderson, 2020)], Bangladesh, Nepal, Myanmar (Henderson, 2020).
Habitat: Moist, damp or flooded areas; elev.: up to 300 m (Renuka, Sreekumar, 2012).
Synonym: *C. delessertianus* Becc. (Sreekumar, Henderson, 2014; Henderson, 2020).
Status: Least Concern (IUCN).
- 39. *C. thwaitesii*** Becc., 1894, *Fl. Brit. Ind.* 6: 441.
Distribution: India [Kerala, Tamil Nadu, Karnataka, Goa, Maharashtra (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Andhra Pradesh (Henderson, 2009); Kerala, Tamil Nadu, Karnataka, Goa (Henderson, 2020)], Sri Lanka (Henderson, 2020).
Habitat: Evergreen, semi-evergreen, moist deciduous forests; elev.: 100–900 m (Renuka, Sreekumar, 2012).
- 40. *C. unifarius*** H. Wendl., 1859, *Bot. Zeitung* (Berlin) 17: 158.
Distribution: India [Nicobar Island (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Henderson, 2020)], Bali, Java, Sumatra (Henderson, 2020).
Habitat: Lowland rain forests; elev.: up to 300 m (Renuka, Sreekumar, 2012).
Synonym: *C. unifarius* var. *pentong* Becc. (Henderson, 2020).
- 41. *C. vattayila*** Renuka, 1987, *Curr. Sc.* 56: 1013.
Distribution: India [Kerala, Karnataka, Tamil Nadu (Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Henderson, 2020; Mao, Dash, 2020)].
Habitat: Lowland evergreen forests; elev.: 500–800 m (Renuka, Sreekumar, 2012).
Synonym: *C. pseudofeanus* Basu (Sreekumar, Henderson, 2014; Henderson, 2020).
- 42. *C. viminalis*** Willd., 1799, *Sp. Pl. ed. 4, 2*: 203.
Distribution: India [West Bengal, Bihar, Odisha,

Andhra Pradesh, Sikkim, Tripura (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Jharkhand (Henderson, 2009); Andaman Islands (Renuka, Sreekumar, 2012), Andaman and Nicobar Islands (Mao, Dash, 2020); Assam (Barooah, Ahmed, 2014); Andaman Islands, eastern India (Henderson, 2020)], Bangladesh, Bali, Cambodia, China, Java, Krakatoa, Laos, Malaysia, Myanmar, Thailand, Vietnam (Henderson, 2020).

Habitat: Lowland rain forests or deciduous forests; elev.: 500–600 m (Renuka, Sreekumar, 2012).

Note: The species was not reported from Assam by Mehmud and Roy (2021a).

43. *C. wightii* Griff., 1850, Palms Brit. E. Ind. t. 216C.

Distribution: India [Kerala, Karnataka, Tamil Nadu (Henderson, 2009; Renuka, Sreekumar, 2012; Henderson, 2020; Mao, Dash, 2020)].

Habitat: Evergreen forests; elev.: 1300–2000 m (Renuka, Sreekumar, 2012).

Caryota L., 1753, Sp. Pl.: 1189.

44. *C. maxima* Blume, 1838, Hist. Nat. Palm 3: 195.

Distribution: India [Assam, Arunachal Pradesh, Sikkim (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Bhutan, China, Laos, Myanmar, Thailand (Renuka, Sreekumar, 2012).

Habitat: Lowland to montane rain forests (Henderson, 2009; Renuka, Sreekumar, 2012); elev.: 250–1500 m (Renuka, Sreekumar, 2012).

Note: The species was not reported from Assam by Mehmud and Roy (2021a).

45. *C. mitis* Lour., 1790, Fl. Cochinch.: 569.

Distribution: India [Andaman and Nicobar Islands (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Cambodia, Myanmar, Thailand, Vietnam (Renuka, Sreekumar, 2012).

Habitat: Lowland rain forest; elev.: up to 500 m (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

46. *C. obtusa* Griff., 1845, Calcutta J. Nat. Hist. 5: 480.

Distribution: India [Assam, Arunachal Pradesh, Manipur (Renuka, Sreekumar, 2012); Arunachal Pradesh, Manipur (Henderson, 2009); Assam, Arunachal Pradesh (Mao, Dash, 2020)], China, Laos, Myanmar (Renuka, Sreekumar, 2012).

Habitat: Montane rain forests; elev.: 1000 m (Renuka, Sreekumar, 2012) to 1400–1800 (Henderson, 2009).

47. *C. urens* L., 1753, Sp. Pl.: 1189.

Distribution: India [Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu (Henderson, 2009); Common in India (Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Malaysia, Myanmar, Sri Lanka (Renuka, Sreekumar, 2012).

Habitat: Moist lowland or submontane forests (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

Corypha L., 1753, Sp. Pl.: 1187.

48. *C. taliera* Roxb., 1820, Pl. Coromandel 3: 51.

Distribution: India [West Bengal (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Bangladesh (Renuka, Sreekumar, 2012).

Habitat: Disturbed areas at low elevation (Henderson, 2009; Renuka, Sreekumar, 2012).

Status: Extinct in the Wild (IUCN).

49. *C. umbraculifera* L., 1753, Sp. Pl.: 1178.

Distribution: India [Kerala, Tamil Nadu, Karnataka, Maharashtra (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Assam (Mehmud, Roy, 2021a); Tripura (Deb, 1983)], Sri Lanka (Renuka, Sreekumar, 2012).

Habitat: Evergreen forests; elev.: 50–1000 m (Renuka, Sreekumar, 2012).

50. *C. utan* Lam., 1786, Encycl. 2: 131.

Distribution: India [West Bengal, Andaman Islands (Renuka, Sreekumar, 2012); Andaman and Nicobar Islands (Henderson, 2009; Mao, Dash, 2020); West Bengal (Mao, Dash, 2020)], Australia, Malaysia, Myanmar, Indonesia, Philippines, New Guinea (Renuka, Sreekumar, 2012).

Habitat: Grasslands, low lying places, savannas; elev.: 300 m (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

Hyphaene Gaertn., 1790, Fruct. Sem. Pl. 2: 13.

51. *H. dichotoma* (White) Furtado, 1970, Bull. Singapore 25: 301.

Distribution: India [Gujarat, Maharashtra (Henderson, 2009); West Coast of India (Renuka, Sreekumar, 2012)].

Habitat: Sand dunes or dry areas at low elevation (Henderson, 2009; Renuka, Sreekumar, 2012).

Status: Near Threatened (IUCN).

Korthalsia Blume, 1843, Rumphia 2: 166.

52. *K. echinometra* Becc., 1884, Malesia 2: 66.

Distribution: India [Nicobar Islands], Indonesia, Malaya Peninsula, Singapore (Basu, 1992).

Habitat: Moist coastal areas (Basu, 1992).

53. *K. laciniosa* (Griff.) Mart., 1845, Hist. Nat. Palm 3: 211.

Distribution: India [Andaman and Nicobar Islands (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Indonesia, Indochina, Philippines, Malaya, Myanmar (Renuka, Sreekumar, 2012).

Habitat: Lowland or montane rain forest or dryer forest (Henderson, 2009) to evergreen forests (Renuka, Sreekumar, 2012); elev.: up to 600 m (Renuka, Sreekumar, 2012).

54. *K. rogersii* Becc., 1918, Ann. Roy. Bot. Gard. (Calcutta) 12(2): 131.

Distribution: India [Andaman Islands (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012); Andaman and Nicobar Islands (Mao, Dash, 2020)].

Habitat: Lowland rain forest in low elevation (Henderson, 2009).

Status: Endemic (Renuka, Sreekumar, 2012).

Licuala Wurmbr., 1780, Verh. Batav. Genootsch. Kunsten 2: 469.

55. *L. peltata* Roxb. ex Buch.-Ham., 1826, Mem. Wern. Nat. Hist. Soc. 5: 313.

Distribution: India [Assam, Sikkim, Meghalaya, Tripura, Andaman and Nicobar Islands (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Jharkhand, Odisha (Henderson, 2009); Mizoram, Manipur (Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Bangladesh, Myanmar (Renuka, Sreekumar, 2012).

Habitat: Lowland rain forests; elev.: up to 500 m (Henderson, 2009; Renuka, Sreekumar, 2012).

56. *L. spinosa* Thunb., 1780, Verh. Batav. Genootsch. Kunsten 2: 474.

Distribution: India [Andaman Islands (Henderson, 2009; Renuka, Sreekumar, 2012); Andaman and Nicobar Islands (Mao, Dash, 2020)], Cambodia, Malaysia, Myanmar, Philippines, Thailand, Vietnam (Renuka, Sreekumar, 2012).

Habitat: Mangrove and scrub forests at low elevation (Renuka, Sreekumar, 2012).

Livistona R. Br., 1810, Prodr.: 267.

57. *L. jenkinsiana* Griff., 1845, Calcutta J. Nat. Hist. 5: 334.

Distribution: India [Assam, Sikkim, Arunachal Pradesh, (Henderson, 2009; Renuka, Sreekumar, 2012); Nagaland (Henderson, 2009); Assam, Arunachal Pradesh, Gujrat, West Bengal (Mao, Dash, 2020); Meghalaya (Renuka, Sreekumar, 2012)], Bangladesh, Bhutan, China, Myanmar, Thailand, Vietnam (Renuka, Sreekumar, 2012).

Habitat: Moist deciduous forests; elev.: 1000 m (Renuka, Sreekumar, 2012).

Myrialepis Becc., 1893, Fl. Brit. India 6: 480.

58. *M. paradoxa* (Kurz.) Dransf., 1982, Kew Bull. 37: 242.

Distribution: India [specific location or State not mentioned (Ram, Tandon, 1997); Manipur (Devi et al., 2010)]; Myanmar, Thailand, Cambodia, Laos, Vietnam (Henderson, 2009).

Habitat: Lowland to montane rain forest; elev.: up to 1600 m (Henderson, 2009).

Nypa Steck., 1757, Sagu: 15.

59. *N. fruticans* Wurmbr., 1779, Verh. Batav. Genootsch. Kunsten 1: 349.

Distribution: India [West Bengal, Andaman and Nicobar Islands (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Andhra Pradesh, Odisha (Mao, Dash, 2020)], Bangladesh, Cambodia, China, Japan, Myanmar, Sri Lanka, Vietnam (Renuka, Sreekumar, 2012).

Habitat: Mangrove forests at low elevation (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

Phoenix L., 1753, Sp. Pl.: 1188.

60. *P. acaulis* Roxb., 1820, Pl. Coromandel 3: 69.

Distribution: India [Assam, West Bengal, Punjab, Uttar Pradesh (Henderson, 2009; Renuka, Sreekumar, 2012); Meghalaya, Bihar, Sikkim, possibly Rajasthan (Henderson, 2009); Odisha, (Renuka, Sreekumar, 2012); throughout India (Mao, Dash, 2020)], Nepal, Myanmar (Renuka, Sreekumar, 2012).

Habitat: Scrublands, open areas; elev.: 500–1000 m (Renuka, Sreekumar, 2012).

Note: Barrow (1998) mentioned the species is native to Sub-Himalayan belt of north India, in the study the specimens were examined from Meghalaya (erroneously reported Khasia Hills in Assam) and Uttar Pradesh. The species was not reported from Assam by Mehmud and Roy (2021a).

61. *P. andamanensis* S. Burrow, 1998, Kew Bull. 53: 558.

Distribution: India [Andaman Islands (Barrow, 1998; Henderson, 2009; Renuka, Sreekumar, 2012); Andaman and Nicobar Islands (Mao, Dash, 2020)].

Habitat: Lowland rain forests; elev.: 500–750 m (Renuka, Sreekumar, 2012).

62. *P. loureiroi* Kunth, 1893, Enum. Pl. 3: 257.

Distribution: India [Andhra Pradesh, Assam, Nagaland, Bihar, Himachal Pradesh, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Sikkim, Tamil Nadu, Uttar Pradesh, West Bengal (Barrow, 1998; Henderson, 2009); Jammu and Kashmir (Henderson, 2009)], Bangladesh, Bhutan, Nepal (Renuka, Sreekumar, 2012).

Habitat: Open scrublands, grasslands; elev.: up to 1500 m (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

Note: Barrow (1998) reported the occurrence of the species from Jaintia Hills of Assam, but Jaintia Hills is currently located in Meghalaya. The species was not reported from Assam by Mehmud and Roy (2021a).

63. *P. paludosa* Roxb., 1832, Fl. Ind. ed. 1832, 3: 789.

Distribution: India [West Bengal, Odisha, Andaman and Nicobar Islands (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Assam (Mao, Dash, 2020)], Indochina, Malay Peninsula, Sumatra (Renuka, Sreekumar, 2012).

Habitat: Mangrove swamps at low elevation (Renuka, Sreekumar, 2012).

Status: Near Threatened (IUCN).

Note: The species prefer mangrove and estuarine coastal swamps areas (Barrow, 1998) but this type of habitat is not present in Assam (Barooah, Ahmed, 2014) and the species was not reported from Assam (Mehmud, Roy, 2021a).

64. *P. pusilla* Gaertn., 1788, Fruct. Sem. Pl. 1: 24.

Distribution: India [Tamil Nadu, Kerala (Barrow, 1998; Henderson, 2009; Mao, Dash, 2020; Renuka, Sreekumar, 2012); Andhra Pradesh (Henderson, 2009; Mao, Dash, 2020)], Sri Lanka (Renuka, Sreekumar, 2012).

Habitat: Disturbed areas at low elevation (Renuka, Sreekumar, 2012).

65. *P. rupicola* T. Anders., 1869, J. Linn. Soc. Bot. 11: 13.

Distribution: India [Arunachal Pradesh, Assam, Sikkim, West Bengal (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Bhutan, Nepal (Renuka, Sreekumar, 2012).

Habitat: Wet forests, open areas, steep rocky slopes; elev.: 500–1200 m (Renuka, Sreekumar, 2012).

Status: Near Threatened (IUCN).

Note: According to Barrow (1998) the species is distributed in West Bengal, and examined voucher were from Meghalaya (erroneously reported Shillong in Assam), Sikkim and West Bengal. Occurrence of the species was not recorded in Assam (Mehmud, Roy, 2021a).

66. *P. sylvestris* (L.) Roxb., 1832, Fl. Ind. 3: 787.

Distribution: India [Common (Griffith, 1845; Barrow, 1998; Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Bangladesh, Bhutan, Myanmar, Nepal, Pakistan (Renuka, Sreekumar, 2012).

Habitat: Common in low elevation (Renuka, Sreekumar, 2012).

Pinanga Blume, 1839, Rumphia 2: 76.

67. *P. dicksonii* (Roxb.) Blume, 1839, Rumphia 2: 77.

Distribution: India [Kerala, Tamil Nadu, Karnataka, Maharashtra (Henderson, 2009; Renuka, Sreekumar, 2012); throughout India (Mao, Dash, 2020)].

Habitat: Lowland rain forests; elev. 250–1000 m (Renuka, Sreekumar, 2012).

Status: Endemic (Renuka, Sreekumar, 2012).

68. *P. gracilis* Bl., 1839, Rumphia 2: 77.

Distribution: India [Assam, Tripura, Arunachal Pradesh, Manipur, Nagaland (Henderson, 2009;

Renuka, Sreekumar, 2012; Mao, Dash, 2020); Meghalaya (Henderson, 2009; Mao, Dash, 2020); Sikkim (Henderson, 2009)], Bangladesh, Bhutan, China (Renuka, Sreekumar, 2012).

Habitat: Lowland or montane rain forests; elev.: 1200 m (Renuka, Sreekumar, 2012).

69. *P. griffithii* Becc., 1886, Malesia 3: 117.

Distribution: India [Assam (Henderson, 2009); Assam, Meghalaya, Arunachal Pradesh (Renuka, Sreekumar, 2012); Meghalaya (Mao, Dash, 2020)], Myanmar (Renuka, Sreekumar, 2012).

Habitat: Moist forests at low elevation (Renuka, Sreekumar, 2012).

70. *P. manii* Becc., 1889, Malesia 3: 178.

Distribution: India [Andaman and Nicobar Islands (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)].

Habitat: Lowland rain forests; elev.: 100–250 m (Renuka, Sreekumar, 2012).

Status: Endemic (Renuka, Sreekumar, 2012).

71. *P. sylvestris* (Lour.) Hodel, 1998, Palm J. 139: 55.

Distribution: India [Meghalaya (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Assam (Renuka, Sreekumar, 2012; Mehmud, Roy, 2021a)], Cambodia, China, Thailand, Myanmar (Renuka, Sreekumar, 2012).

Habitat: Lowland and moist hill forest; elev.: 500–1800 (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

Plectocomia Mart. et Blume, in J. J. Roemer & J. A. Schultes, 1830, Syst. Veg. 7(2): 1333.

72. *P. assamica* Griff., 1845, Calcutta J. Nat. Hist. 5: 97.

Distribution: India [Arunachal Pradesh, Assam (Basu, 1992; Henderson, 2009; Renuka et al., 2010; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Meghalaya (Basu, 1992; Henderson, 2009; Renuka et al., 2010); Mizoram (Bora, Hans, 2017)], Myanmar (Renuka, Sreekumar, 2012).

Habitat: Lowland evergreen forests; elev.: 200–700 m (Renuka, Sreekumar, 2012).

Synonym: *P. bractealis* Griff. and *P. khasyana* Griff. (Renuka, Sreekumar, 2012).

73. *P. himalayana* Griff., 1845, Calcutta J. Nat. Hist. 5: 100.

Distribution: India [Arunachal Pradesh (Basu, 1992); Sikkim, West Bengal (Basu, 1992; Henderson, 2009; Renuka, Sreekumar, 2012); Manipur (Bora et al., 2012a)], Bhutan, China, Laos, Thailand (Renuka, Sreekumar, 2012).

Habitat: Montane evergreen forests; elev.: 1500–2000 m (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

Rhopaloblaste Scheff., 1876, Ann. Jard. Bot. Buitenorg. 1: 137.

74. **R. augusta** (Kurz) H. E. Moore, 1970, Principes 14: 79.

Distribution: India [Nicobar Islands (Banka, Baker, 2004; Henderson, 2009; Renuka, Sreekumar, 2012); Andaman and Nicobar Islands (Mao, Dash, 2020)].

Habitat: Scrub or moist or moist hill valley; elev.: 50–200 m (Renuka, Sreekumar, 2012).

Status: Vulnerable (IUCN).

Salacca Reinw., 1828, Syll. Pl. Nov. 2: 3.

75. **S. secunda** Griff., 1845, Calcutta J. Nat. Hist. 5: 12.

Distribution: India [Assam, Arunachal Pradesh, Nagaland (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Myanmar (Renuka, Sreekumar, 2012).

Habitat: Lowland rain forest; elev.: 600–800 m (Renuka, Sreekumar, 2012).

Trachycarpus H. Wendl., in Hooker, 1894, Fl. Brit. Ind. 6: 435.

76. **T. fortunei** (Hook.) H. Wendl., 1861, Bull. Soc. Bot. France 8: 429.

Distribution: India [Sikkim (Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Bhutan, China, Myanmar, Nepal, Vietnam (Renuka, Sreekumar, 2012).

Habitat: Steep rocky areas; elev.: 100–2000 m (Renuka, Sreekumar, 2012).

77. **T. latisectus** Spanner, H. J. Noltie et M. Gibbons, 1997, Edinburgh J. Bot. 54: 257.

Distribution: India [Sikkim and West Bengal (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)].

Habitat: Open rocky grassy slopes; elev.: up to 2000 m (Renuka, Sreekumar, 2012).

78. **T. martianus** (Wall.) H. Wendl., 1861, Bull. Soc. Bot. Fr. 8: 429.

Distribution: India [Meghalaya, Nagaland, Manipur (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Sikkim (Kholia, 2012); Assam (Mehmud, Roy, 2022d)], Myanmar, Nepal (Renuka, Sreekumar, 2012).

Habitat: Montane forest; elev.: 1500–2000 m (Renuka, Sreekumar, 2012). In Assam the species was recorded at 439 m elevation (Mehmud, Roy, 2022d).

79. **T. oreophilus** M. Gibbons et Spanner, 1997, Principes 41: 205.

Distribution: India [Manipur (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Thailand (Renuka, Sreekumar, 2012).

Habitat: Steep slopes on grassland; elev.: 1600–2100 m (Renuka, Sreekumar, 2012).

80. **T. takil** Becc., 1905, Webbia 1: 52.

Distribution: India [Uttarakhand (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Kumaon (Renuka, Sreekumar, 2012), Nagaland (Rongsensashi, 2010)].

Habitat: Montane forests; elev.: 1500–2400 m (Renuka, Sreekumar, 2012).

Wallichia Roxb., 1820, Pl. Coromandel 3: 91.

81. **W. caryotoides** Roxb., 1820, Pl. Coromandel 3: 91.

Distribution: India [Arunachal Pradesh, Tripura (Henderson, 2007; Renuka, Sreekumar, 2012; Mao, Dash, 2020)], Bangladesh, China, Myanmar, Thailand (Henderson, 2007).

Habitat: Tropical moist forests; elev.: up to 1500 m (Renuka, Sreekumar, 2012).

82. **W. disticha** T. Anders., 1871, J. Linn. Soc., Bot. 11: 6.

Distribution: India [Sikkim, West Bengal, Assam, Arunachal Pradesh, Meghalaya (Henderson, 2007, 2009)], Bangladesh, Bhutan, China, Laos, Myanmar, Thailand (Henderson, 2007).

Habitat: Lowland to montane rain forests; elev.: 1000–1200 m (Renuka, Sreekumar, 2012).

83. **W. nana** Griff., 1845, Calcutta J. Nat. Hist. 5: 488.

Distribution: India [Arunachal Pradesh, Assam, Meghalaya (Henderson, 2007, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Sikkim (Renuka, Sreekumar, 2012; Mao, Dash, 2020)].

Habitat: Lowland rain forests at low elevation (Renuka, Sreekumar, 2012).

Synonym: *Didymosperma gracilis* Hook.f. (Mehmud, Roy, 2021b).

84. **W. oblongifolia** Griff., 1845, Calcutta J. Nat. Hist. 5: 486.

Distribution: India [All the eight states of northeastern India (Henderson, 2007, 2009; Renuka, Sreekumar, 2012); Uttarakhand (Henderson, 2009)], Bangladesh, Bhutan, Nepal, Myanmar (Henderson, 2007; Renuka, Sreekumar, 2012).

Habitat: Lowland or montane rain forests; elev.: 300–1200 m (Renuka, Sreekumar, 2012).

85. **W. triandra** (J. Joseph) S. K. Basu, 1976, Principes 20: 120.

Distribution: India [Arunachal Pradesh (Henderson, 2009; Renuka, Sreekumar, 2012; Mao, Dash, 2020); Assam (Renuka, Sreekumar, 2012; Mao, Dash, 2020)], China (Henderson, 2007).

Habitat: Montane rain dense forests; elev.: 1000–2000 m (Renuka, Sreekumar, 2012).

Status: Least Concern (IUCN).

Note: The species was not reported from Assam (Mehmud, Roy, 2021a).

Conclusions

The study focused to analyze previous and recent studies on palm research especially taxonomy and diversity of native taxa, their range of distribution in different states of the country and updated accordingly. As the native palms were gradually decreasing in India (Renuka, Sreekumar, 2012) therefore, the present review will help locating the habitat specificity of different taxa needed for conservation strategies and other research program related to the family in future. In addition, the

study is also providing a brief report on literature accumulated and highlighted palm research especially in India.

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