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Ph: +91 9385339863 | www.threatenedtaxa.org

Email: sanjay@threatenedtaxa.org

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continued on the back inside cover

Caption: Large Indian Civet *Viverra zibetha*, Tricoloured Munia *Lonchura malacca* and *Hoya wightii* (Medium—pencil crayon on watercolour paper) © Supriya Samanta.



NOTE

Pentatropis R.Br. ex Wight & Arn. (Apocynaceae), a new generic record for Kerala, India

V. Ambika¹ , Jose Sojan² & V. Suresh³

^{1,3}Department of Botany, Government Victoria College (University of Calicut), Palakkad, Kerala, India.

²Department of Botany, Government College, Chittur (University of Calicut), Palakkad, Kerala, India.

¹ambikameenu123@gmail.com, ²sojanchakkalackal@gmail.com, ³sureshmagnolia@gmail.com (corresponding author)

The Genus *Pentatropis* R.Br. ex Wight & Arn. (Apocynaceae) comprises six species, with a distribution ranging from Africa & Madagascar through Arabia, India, Pakistan, Sri Lanka, to Australia (Jagtap & Singh 1999). In India it is represented by two species, viz., *P. capensis* and *P. nivalis*. The generic name *Pentatropis* is derived from Greek words *penta* meaning 'five' and *tropis* meaning 'a keel', referring to the shape of the corona (Jagtap & Singh 1999). The genus is characterized by slender twining herbs or undershrubs, semi succulent leaves, small purplish flowers with rotate corolla and corona of five erect laterally compressed processes with an upcurved spur at base (Gamble & Fischer 1936). *Pentatropis capensis* is highly medicinal and the whole plant is used as antifungal, antiseptic, coolant and useful in skin diseases (Pandey et al. 2005).

During the floristic survey of Palakkad Gap, Western Ghats, Kerala, the authors came across a population of *Pentatropis* near Kozhinjampara, Palakkad, Kerala, which lies on the eastern front of the Palakkad Gap. Specimens were collected in flowering and the identity of specimen was confirmed as *Pentatropis capensis* (L.f.) Bullock using pertinent literature and consultation of specimens available at global biodiversity information

facility (<https://www.gbif.org/>) and Kew science (<https://specimens.kew.org/>). The taxon was previously known in India from Karnataka, Tamil Nadu, Andhra Pradesh, Odisha, Maharashtra, and Gujarat (Matthew 1983; Pandey et al. 2005; Rao et al. 2016) but not reported from the state of Kerala (Vajravelu 1990; Sasidharan 2013). It is reported here as a new record for the state of Kerala. The description is given with notes and keys for easy identification.

Key to the *Pentatropis* in India

Flowers 3–4 per umbel, buds subglobose, corolla lobes 3.5–6 mm long, deltoid, not tailed; corona lobes acute at base, which curves outwards
..... *P. capensis*
Flowers 5–7 per umbel, buds acuminate, corolla lobes 8–13 mm long, with linear tail; corona lobes rounded at base *P. nivalis*

Pentatropis capensis (L.f.) Bullock, Kew Bull. 10(2): 284. 1955; Matthew, Fl. Tamil. Carn. 1: 955. 1983; Sharma et al., Fl. Karnataka 168. 1984; Singh, Fl. East. Karnataka 1: 414. 1988. *Cynanchum capense* L.f., Suppl. Pl. 168. 1781. *Pentatropis microphylla* (Roth.) Wight &

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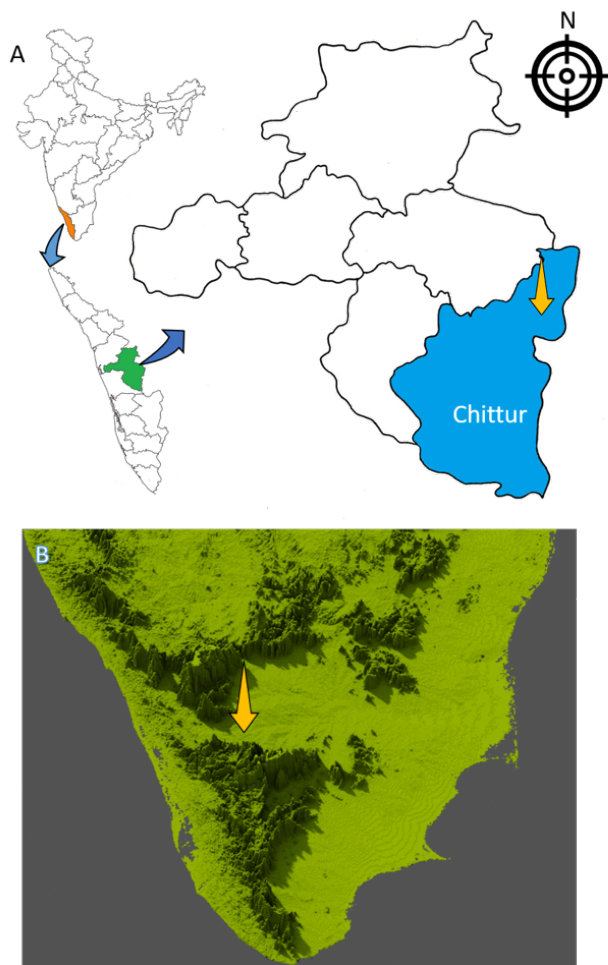


Image 1. a—Line map of the district showing the location of sighting *Pentatropis capensis* in the Chittur Taluk (Blue Shaded area). b—topographical map of south India showing the location of sighting *Pentatropis capensis* at the mouth of Palakkad Gap (Arrow).

Arn. in Wight, Contrib. 52. 1834; Hook.f., Fl. Brit. India 4: 20. 1883; Gamble, Fl. Pres. Madras 2: 587. 1957 (Repr. Ed.); Prain, Bengal plants 2: 512. 1963 (Repr. Ed.); Cooke, Fl. Pres. Bombay 2: 218. 1967 (Repr. Ed.). *Asclepias microphylla* Heyne ex Roth, Nov. Pl. Spec. 177. 1821. *Colostephanus capensis* (L.f.) Harv., Gen. S. Afr. Pl. 417. 1838. *Vincetoxicum capense* (L.f.) Kuntze, Revis. Gen. Pl. 2: 424. 1891. *Cynanchum acuminatum* Thunb., Observ. Cynanch. 5. 1821. *Cynoctonum capense* (L.f.) E. Mey., Comm. Pl. Afr. Austr. (Meyer) 216.

Herbaceous twiners. Stem slender, glabrous, greenish-purple. Leaves simple, opposite, ovate, 1–3.5 × 0.5–2.5 cm, base rounded or cordate, margin entire, apex obtuse mucronate, glabrous, semi-succulent, petiole 4–7 mm long. Flowers in axillary umbels, 3–4 flowers per umbel, greenish-purple colour, buds subglobose; pedicel filiform, 1.7 cm long. Calyx 5-partite, lobe elliptic-lanceolate, 1.5 mm long, hyaline at margin, acute at apex,



Image 2. *Pentatropis capensis*: a—Habit | b—Calyx | c—Flower LS | d—Pollinia | e—Ovary CS. © V. Suresh.

glabrous. Corolla rotate, lobes deltoid, 3.5–6 mm long, recurved at margin, apex acute, hairy, purple. Corona single, 5 erect laterally compressed processes with an upcurved spur at base. Pollinia pendulous, obovate, ca. 0.2 mm long, pollen-masses waxy, opaque without pellucid margin, glabrous, brown (Image 2; Figure 1). Follicles 3-angled, 6.5 cm long, lanceolate, beaked at apex, persistent with calyx. Seeds many, ovoid, 5 mm long, whitish at margin, end silky hairy, 2 cm long.

Specimen examined: Suresh GVCP-SV339 (Image 2) 14 October 2019, Kozhinjampara, Chittur, Palakkad district, Kerala state, India, 10.738°N, 76.820°E, 172m (Image 1, GVCH! Government Victoria College Herbarium - acronym submitted, not yet accepted).

Additional specimens examined: *Pentatropis capensis* (L.f.) Bullock:- BM001014189, January 1774, India, 22.883°N, 79.6162°E, Koenig s.n. (Isotype BM!); MO100951520, 14 September 1956, Yanam, Andhra Pradesh, 16.733°N, 82.213°E, Wagh 3863 (MO!); S10-25878, October 1981, Madras, near the Qutar minaret, Tamil Nadu, Fagerlind 9516 (S!).

Phenology: Flowering and fruiting: September to January.

Ecology: *Pentatropis capensis* is found growing on

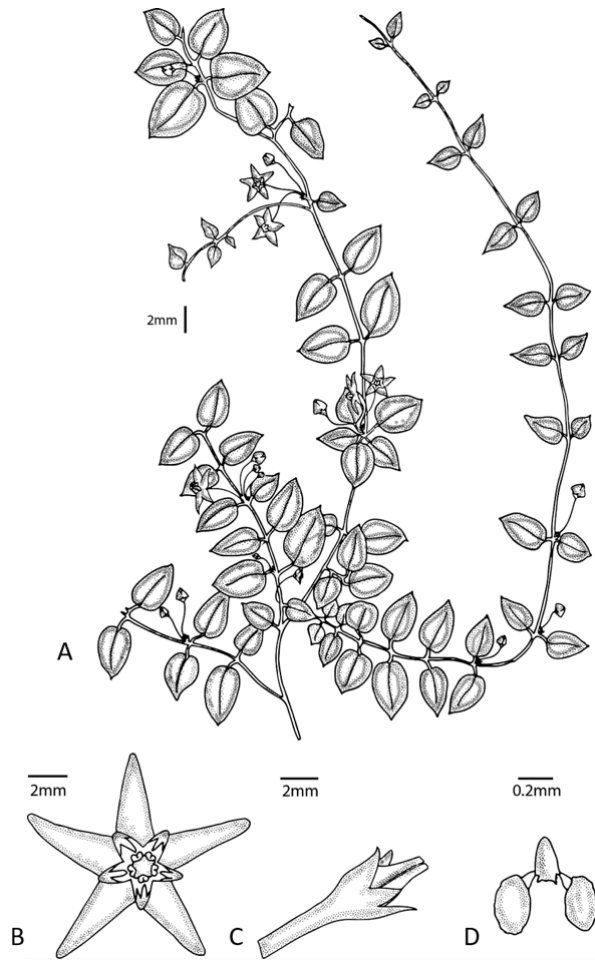


Figure 1. Illustration of *Pentatropis capensis* and its floral parts: **A—Habit** | **B—Flower** | **C—Pedicel with Calyx and Gynoecium** | **D—Pollinia.**

road sides in association with *Abutilon indicum* (L.) Sweet, *Calotropis procera* (Aiton) Dryand. and *Cardiospermum halicacabum* L. The species is well adapted to the arid climate of the Deccan and northwestern India.

Distribution: Bangladesh, India, Pakistan, Sri Lanka,

and Vietnam (POWO 2021); India (Karnataka, Tamil Nadu, Andhra Pradesh, Odisha, Gujarat (Pandey et al. 2005; Rao et al. 2016), and Kerala (Chittur, Kozhinjampara, reported here).

This species is widely distributed in arid to semiarid belts of central and peninsular India. It is a therophyte (therophytes are annual but this species is perennial) according to life form classification by Raunkiaer and it thrives in arid climate by bearing unfavourable dry seasons in dormant form (Raunkiaer 1934; Kambhar & Kotresha 2012).

In this report, a therophytic perennial species of *Pentatropis* genus (*P. capensis*) belonging to the family Apocynaceae was reported as a new record for the state of Kerala from the eastern part of the Palakkad Gap.

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Communications

Updated distribution of seven *Trichosanthes* L. (Cucurbitales: Cucurbitaceae) taxa in India, along with taxonomic notes

Kanakasabapathi Pradheep, Soyimchiten, Ganjalagatta Dasaiah Harish, Muhammed Abdul Nizar, Kailash Chandra Bhatt, Anjula Pandey & Sudhir Pal Ahlawat, Pp. 20143–20152

Dragonflies and Damselflies (Insecta: Odonata) of Aryanad Grama Panchayat, Kerala, India

– Reji Chandran & A. Vivek Chandran, Pp. 20153–20166

Checklist of Odonata (Insecta) of Doon Valley, Uttarakhand, India

– Kritish De, Sarika Bhatt, Amar Paul Singh, Manisha Uniyal & Virendra Prasad Uniyal, Pp. 20167–20173

Diversity of moths from the urban set-up of Valmiki Nagar, Chennai, India

– Vikas Madhav Nagarajan, Rohith Srinivasan & Mahathi Narayanaswamy, Pp. 20174–20189

Ichthyofaunal diversity with relation to environmental variables in the snow-fed Tamor River of eastern Nepal

– Jawan Tambahangfe, Jash Hang Limbu, Archana Prasad, Bhrarat Raj Subba & Dil Kumar Limbu, Pp. 20190–20200

Observations on the foraging behavior of Tricoloured Munia *Lonchura malacca* (Linnaeus, 1766) and its interaction with pearl millet fields in Villupuram District, Tamil Nadu, India

– M. Pandian, Pp. 20201–20208

Roosting patterns of House Sparrow *Passer domesticus* Linn., 1758 (Aves: Passeridae) in Bhavnagar, Gujarat, India

– Forum P. Patel & Pravinsang P. Dodia, Pp. 20209–20217

Review

Comprehensive checklist of algal class Chlorophyceae (sensu Fritsch, 1935) for Uttar Pradesh, India, with updated taxonomic status

– Sushma Verma, Kiran Toppo & Sanjeeva Nayaka, Pp. 20218–20248

View Point

Wildlife managers ignore previous knowledge at great risk: the case of Rivaldo, the iconic wild Asian Elephant *Elephas maximus* L. of the Sigur Region, Nilgiri Biosphere Reserve, India

– Jean-Philippe Puyravaud & Priya Davidar, Pp. 20249–20252

Short Communications

Diversity and distribution of macro lichens from Kalpetta Municipality of Wayanad District, Kerala, India

– Greeshma Balu, A.R. Rasmi, Stephen Sequeira & Biju Haridas, Pp. 20253–20257

Extended distribution of two endemic epiphytes from the Western Ghats to the Deccan Plateau

– Sonali Vishnu Deore, Mangala Dala Sonawane & Sharad Suresh Kambale, Pp. 20258–20260

Nomenclatural notes and report of *Boehmeria penduliflora* Wedd. ex D.G. Long from the Terai region of Uttar Pradesh, India

– Amit Gupta, Imtiaz Ahmad Hurreh, Aparna Shukla & Vijay V. Wagh, Pp. 20261–20265

New distribution record of a true coral species, *Psammocora contigua*

(Esper, 1794) from Gulf of Kachchh Marine National Park & Sanctuary, India

– R. Chandran, R. Senthil Kumaran, D.T. Vasavada, N.N. Joshi & Osman G. Husen, Pp. 20266–20271

A new species of flat-headed mayfly *Afronurus meenmutti* (Ephemeroptera: Heptageniidae: Ecdyonurinae) from Kerala, India

– Marimuthu Muthukatturaja & Chellaiah Balasubramanian, Pp. 20272–20277

Photographic record of Dholes preying on a young Banteng in southwestern Java, Indonesia

– Dede Aulia Rahman, Mochamad Syamsudin, Asep Yayus Firdaus, Herry Trisna Afriandi & Anggodo, Pp. 20278–20283

Latrine site and its use pattern by Large Indian Civet *Viverra zibetha* Linnaeus, 1758: record from camera trap

– Bhuwan Singh Bist, Prashant Ghimire, Basant Sharma, Chiranjeevi Khanal & Anoj Subedi, Pp. 20284–20287

Notes

Two additions to the flora of Kerala, India

– P. Murugan, Basil Paul & M. Sulaiman, Pp. 20288–20291

Pentatropis R.Br. ex Wight & Arn. (Apocynaceae), a new generic record for Kerala, India

– V. Ambika, Jose Sojan & V. Suresh, Pp. 20292–20294

New record of Kashmir Birch Mouse *Sicista concolor leathemi* (Thomas, 1893) (Rodentia: Sminthidae) in the Indian Himalaya

– S.S. Talmale, Avtar Kaur Sidhu & Uttam Saikia, Pp. 20295–20298

Breeding record of Black-headed Ibis *Threskiornis melanocephalus* (Aves: Threskiornithidae) at Mavoor wetland, Kozhikode District, Kerala, India

– C.T. Shifa, Pp. 20299–20301

Response

Crop and property damage caused by Purple-faced Langurs

Trachypithecus vetulus (Mammalia: Primates: Cercopithecidae)

– Vincent Nijman, Pp. 20302–20306

Reply

If habitat heterogeneity is effective for conservation of butterflies in urban landscapes of Delhi, India? Unethical publication based on data manipulation: Response of original authors

– Monalisa Paul & Aisha Sultana, Pp. 20307–20308

Book Review

Freshwater fishes of the Arabian Peninsula

– Rajeev Raghavan, Pp. 20309–20310

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