
SHORT NOTE

***Ficus sarmentosa* var. *duclouxii* (Moraceae): A new record
for the Indian flora with lectotypification of the name**

Ficus sarmentosa var. *duclouxii* (Moraceae): Un nuevo registro
para la flora india con lectotipificación del nombre

Sreyoshee Sensarma

Department of Botany, North-Eastern Hill University, Shillong, India

<https://orcid.org/0009-0008-7806-7383>

N. Dhatchanamoorthy

National Herbarium of Medicinal Plants and Repository of Raw Drugs, University of Trans-Disciplinary Health Sciences
and Technology, Bengaluru, Karnataka, India

Corresponding author: dhatchumoorthy83@gmail.com, <https://orcid.org/0000-0001-7568-1224>

Kreni Lokho

Department of Botany, Asufii Christian Institute, Mao, Manipur, India

<https://orcid.org/0000-0003-3021-9719>

Shuai Liao

South China Botanical Garden, Chinese Academy of Sciences, Guangzhou, China

<https://orcid.org/0000-0002-3876-8002>

Abstract: *Ficus sarmentosa* Buch.-Ham. ex Sm. var. *duclouxii* (H.Lév. & Vaniot) Corner (Moraceae) is recorded here as new to India, representing a significant range extension. This paper includes comprehensive information regarding its identification, description, and geographical distribution as well as lectotypification of the name with nomenclatural notes. In addition, we provide detailed photographic illustrations of the plant and an artificial key, along with comparative accounts to delineate the Indian varieties of *Ficus sarmentosa*. Additionally, the name has been lectotypified to stabilize its precise application. The designation of the nomenclatural type is based on an assessment of the syntypes cited in the protologue and literature survey.

Keywords: India, lectotypification, liana, Manipur, nomenclature.

Resumen: *Ficus sarmentosa* Buch.-Ham. ex Sm. var. *duclouxii* (H.Lév. & Vaniot) Corner (Moraceae) se registra aquí como nueva especie para la India, lo que representa una extensión significativa de su área de distribución. Este trabajo incluye información completa sobre su identificación, descripción y distribución geográfica, así como la lectotipificación del nombre con notas nomenclaturales. Además, proporcionamos ilustraciones fotográficas detalladas de la planta y una clave artificial junto con comparaciones para delimitar las variedades indias de *Ficus sarmentosa*. Adicionalmente, el nombre ha sido lectotipificado para estabilizar su aplicación precisa. La designación del tipo nomenclatural se basa en una evaluación de los sintipos citados en el protólogo y en una revisión bibliográfica.

Palabras clave: India, lectotipificación, liana, Manipur, nomenclatura.

Associate editor: Rafael G. Albaladejo.

Received: 27-04-2025 / **Accepted:** 22-11-2025 / **Published:** 02-10-2026

Citation: Sensarma S, Dhatchanamoorthy N, Lokho K, Liao S (2026) *Ficus sarmentosa* var. *duclouxii* (Moraceae): A new record for the Indian flora with lectotypification of the name. *Anales del Jardín Botánico de Madrid* 83: e172. <https://doi.org/10.3989/ajbm.664>

Copyright: © 2026 CSIC. This is an open access article distributed under the terms of the Creative Commons Attribution 4.0 International (CC BY 4.0) License.

Supplementary information ↓

Ficus L. is a highly diversified genus ranging from trees to shrubs, climbers and creepers, with varying growth forms (free-standing, epiphytes, semi-epiphytes, rheophytes and lithophytes). This genus, with over 800 species, plays a significant role in maintaining the biodiversity and ecological balance of tropical and subtropical regions worldwide, especially in Indo-Malesia, Australia, Africa and the Americas, comprising c. 735 species (Berg & Corner 2005; POWO 2024). After working for 35 years, Corner (1965) produced a comprehensive and detailed checklist of all the species found in Asia and Australasia, providing correct names, synonyms and distribution. In recent years, the most comprehensive taxonomic account of the genus has been published by Berg & Corner (2005), who recognized 367 species while working on the *Ficus* of the Malesian region. In India, *Ficus* is represented by six subgenera, 96 species and 25 infraspecific taxa (Sudhakar *et al.* 2022). In his Species Plantarum, Linnaeus (1753) recognized and described the first seven species from all over the world. Roxburgh (1832), in “Flora Indica”, documented 55 species which were native to India. King (1887, 1888), in his systematic account of Indian *Ficus*, noted 113 species along with 47 infraspecific taxa in India. Several researchers have documented the species of *Ficus* in Northeast India in the regional floras and checklists, as well as at the global level. These include Kanjilal *et al.* (1940), Deb (1981), Joseph (1982), Balakrishnan (1983), Haridasan & Rao (1987), Chauhan (1996), Zhou & Gilbert (2003), Giri *et al.* (2008), Buragohain *et al.* (2014), Dhungana *et al.* (2015a, b), Mao & Gogoi (2016), Mao *et al.* (2016, 2017), Debbarma *et al.* (2020), Debbarma *et al.* (2022), and Lepcha & Sharma (2021). Shankar (2021) documented 65 *Ficus* taxa from Northeast India. More recently, Agrawala *et al.* (2023), documented 35 species of *Ficus* from different areas of Manipur. Sensarma *et al.* (2024) published a check list of the current distribution of *Ficus* in Manipur, which reported 32 species. *Ficus sarmentosa* Buch.-Ham. ex Sm. belongs to subgenus *Synoecia* Endl. section *Rhizocladus* Endl. subsection *Plagiostigma* Siebold & Zucc. Subgenus *Synoecia* Endl. is characterized by woody climbers, mainly lithophytes and figs that are not produced on distinct leafy branches. Section *Rhizocladus* Endl. displays axillary figs, basal bracts persistent or caducous and gall flowers scattered in the hypanthodium, whereas male flowers can be found near the ostiole or scattered. Subsection *Plagiostigma* Siebold & Zucc. is characterized by axillary figs with ostiolar male flowers, calyx lobes of the tepals that are red, glabrous or hairy at the apex, and oblong anthers. *Ficus sarmentosa* Buch.-Ham. ex Sm. is native to Nepal, Eastern Asia and some parts of China. *Ficus sarmentosa* was originally described by Smith on the basis of Buchanan’s manuscript. The species is highly distinguishable because the lower surface of the leaf blade is deeply foveolate. Also, some nomenclatural problems in the *Ficus sarmentosa* complex and the omission of certain species have been discussed by Zhang *et al.* (2023).

The present study aims to document *F. sarmentosa* var. *duclouxii* (H.Lév. & Vaniot) Corner as a new addition to the Indian flora from Manipur. It further intends to provide a detailed taxonomic account and lectotypification to ensure the precise application of the name.

Senapati is a district in Manipur, India, recognized for its distinct cultural and socioeconomic diversity, stunning landscapes with different flora, lush green hills, and a variety of indigenous groups. The beautiful green slopes of this area are complemented by lush woods and beautiful waterfalls. The district has an average elevation of 1,424 m above mean sea level and a total size of 3,271 km² (Agrawala *et al.* 2023). The district is located between latitudes 24° 37' N and 25° 37' N and longitudes 93° 29' E and 94° 15' E

(Fig. 1). Because of the high altitude, the district has pleasant summers (up to 35 °C) and winters with low temperatures of 3 °C. The district has a total forest cover of 2,136 km², or 65.32 % of its geographical area (Agrawala *et al.* 2023), with the rest being used for agriculture. The primary forest types are tropical semi-evergreen, tropical moist deciduous, subtropical broad-leaved hill forest, subtropical pine forest, and montane wet temperate forest. Mao Pung dong (24.37° N latitude and between 93.29° E to 94.15° E longitude) is a town in the Senapati district of Manipur, in the country's northeast. It is located on the border of Nagaland. This region is well-known for its cultural variety and importance as a commercial and transportation hub between Manipur and Nagaland. The Mao Pung in Manipur represents a rich tapestry of geographical diversity with its surrounding green forest and hill slope, cultural heritage, and economic activities, reflecting the unique characteristics of the northeastern region of India.

During floristic explorations, an interesting *Ficus* species was collected from Senapati district of Manipur. After critical examination in laboratory studies and a review of the literature, it was identified as *Ficus sarmentosa* Buch.-Ham. ex Sm. However, this was inconsistent with the known varieties of *F. sarmentosa* documented in India. Based on further literature (http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200006370), it was identified as *F. sarmentosa* Buch.-Ham. ex Sm. var. *duclouxii* (H.Lév. & Vaniot) Corner. Finally, this identification was confirmed by comparing the digital herbarium images available in E, A, US, P, K, and the website of JSTOR (<https://plants.jstor.org/>) as well as GBIF (https://www.gbif.org/occurrence/gallery?taxon_key=5930648). Examining the existing Indian literature revealed that this variety has not been documented previously in the country (Sudhakar *et al.* 2022; Agrawala *et al.* 2023). Hence, *F. sarmentosa* var. *duclouxii* (H.Lév. & Vaniot) Corner is reported here as a new occurrence in India, with description, taxonomic note and nomenclatural notes, along with the typification of the name and a plate to facilitate easy identification. Additionally, we offer an artificial key and a comparative account (Table 1) to distinguish all the varieties of *F. sarmentosa* growing in India.

Table 1. A comparative morphological account between varieties of *Ficus sarmentosa*.

Characters	<i>F. s. var. sarmentosa</i>	<i>F. s. var. impressa</i>	<i>F. s. var. nipponica</i>	<i>F. s. var. duclouxii</i>
Petiole length	0.5–1 cm	0.5–0.1 cm	0.5–0.1 cm	1–1.2 cm
Leaf blade	Ovate-oblong, pointed; secondary leaf veins slightly raised; adaxial surface smooth, downy; abaxial side glaucous	Elliptic, oblong with obtuse apex; secondary veins 6–8 on each side of mid-vein; adaxial surface smooth; abaxial side glaucous	Elliptic-lanceolate with obliquely acute or acuminate apex; lateral veins 6–11 pairs; abaxial side hairy	Elliptic-ovate, obtuse or mucronate at apex; secondary leaf veins are conspicuously raised; adaxial side smooth; abaxial side villous
Peduncle length	Up to 0.5–1.5 cm	Undetermined	< 0.4 cm	Sessile
Fruits	1.5–2 cm diam.; subglobose-globose; dark purplish at maturity, glabrous; apical pore concave	0.7–1 cm diam.; globular, reddish-brown at maturity, hairy when young; apical pore slightly concave	1–1.2 cm diam.; globose; reddish-brown at maturity, hairy; apical pore navel like, convex	2–4.5 cm diam.; globose; reddish when mature; apical pore slightly concave
Involucral bracts	Triangular 0.3 cm long; with scattered bristles	Ovate-obtuse, 0.1 cm long; absence of bristles	Triangular-ovate, 0.2–0.3 cm long; absence of bristles	Triangular, up to 0.6 cm long; absence of bristles

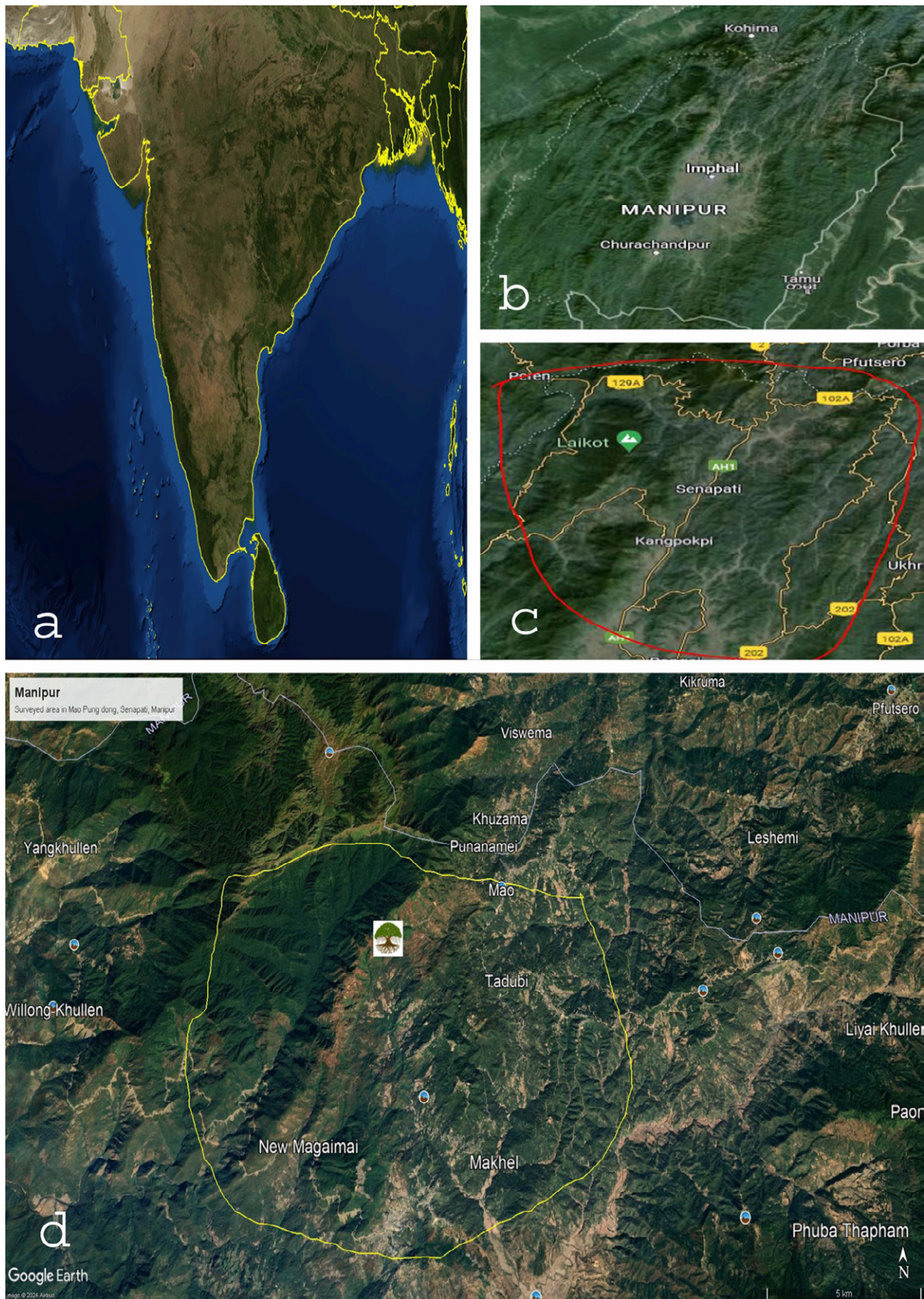


Figure 1. Locality information of *Ficus sarmentosa* var. *duclouxii*: **a**, satellite map of India; **b**, Manipur state; **c**, Senapati district; **d**, survey area (Mao Pung dong 24.37° N latitude and 93.29° E to 94.15° E longitude).

Ficus sarmentosa var. *duclouxii* is a combination published by Corner in 1960 based on the name *F. duclouxii* H.Lév. & Vaniot, described by Léveillé and Vaniot in 1907. Vaniot helped Léveillé study the flora of China (Léveillé, 1907). Rehder (1929) examined the specimens and synonymized the name *Ficus ducloxii* H.Lév. & Vaniot under the name *F. fovelata*. During the taxonomic study of this genus for the Indian flora, we found that the name *F. sarmentosa* var. *duclouxii* requires lectotypification in accordance with the Madrid Code (Turland *et al.* 2025). The lectotype of *F. sarmentosa* var. *duclouxii* was selected based on the analysis of their protologues and original herbarium material deposited in P, E, A, WU and K. The acronyms of the herbaria are from Thiers (2021–onward).

Ficus duclouxii H.Lév. & Vaniot was originally published based on the collections of Père François Ducloux and Julien Cavalerie, presently housed in the herbaria A, E and P, during March 1897. Subsequently, Corner (1960) transferred *F. duclouxii* H.Lév. & Vaniot as a variety of *F. sarmentosa* Buch.-Ham. ex Sm. and proposed the combination *Ficus sarmentosa* Buch.-Ham. ex Sm. var. *duclouxii* (H.Lév. & Vaniot) Corner.

Père François Ducloux (1864–1945) collected around Kunming, Yunnan, China, from 1897 to 1900. He sent approximately 250 plant specimens to different herbaria in Paris. Père Pierre Julien Cavalerie, a French missionary botanist (1869–1927), collected plants in southern Guizhou. He arrived in China in 1894 and worked there for many years (Kilpatrick 2014). Augustin Abel Hector Léveillé deposited the collections of French missionary botanists in E and published the collections of *Ficus* from Kouy-Tochou or Tou-Chan, China, with the help of E. Vaniot in *Memorias de la Real Academia de Ciencias y Artes de Barcelona* (Léveillé 1907). He also wrote his *Flore du Kouy Tcheou: copie conforme* (Léveillé 1915), which is a work lithographed from the handwritten manuscript, an example of publication in reproduced handwritten material, published before and hence effectively published (Art. 29.3; Turland *et al.* 2025). He printed about 18 copies and reported around 50 species of *Ficus* from Kouy-Tochou, based on specimens collected by different French missionary botanists (Léveillé 1915). Rehder (1929) examined the specimens and treated 37 specimens based on Léveillé's collection. He synonymized the name *Ficus ducloxii* H.Lév. & Vaniot under the name *F. fovelata*. Corner (1960) designated 16 names as new combinations under the section *Plagiostigma*, including the new combination *Ficus sarmentosa* Buch.-Ham. ex Sm. var. *duclouxii* (H.Lév. & Vaniot) Corner.

Taxonomic treatment

Ficus sarmentosa Buch.-Ham. ex Sm. var. ***duclouxii*** (H.Lév. & Vaniot) Corner, Gard. Bull. Singapore 18: 6 (1960) ≡ *F. duclouxii* H.Lév. & Vaniot, Mem. Real Acad. Ci. Barcelona 6: 149. 1907 – Lectotype (first-step, designated by Rehder 1929): China, Kouy-Tcheou, Yunnan, 6 Mar 1897, Ducloux 106, (E barcodes E00275296 [image!], E00275297 [image!]). **Lectotype (second step, designated here):** Ducloux 106 (E barcode E00275296 [image!]); isolectotypes: E barcode E00275297 [image!]; P barcode P06758740 [image!]; P barcode P00756568; A barcode A00046700 [image!]; Residual syntype: China, surroundings of Tou-Chan, Sep 1899, Cavalerie s.n. (E barcode E00275295 [image!]).

Description.—Lianas. Branches red, angular. Branchlets and young leaves hairy, with hairs densely scattered over the surface. Leaves elliptic to ovate, rounded-cuneate at base, obtuse or mucronate at apex; lateral veins 4–10 on each side of mid-vein, veins abaxially conspicuously raised, lamina 12–15 cm long; petiole 1–1.2 cm long, brown, hairy. Figs axillary on leafy or on leafless branchlets, solitary or occasionally paired, reddish when mature, globose, sometimes slightly depressed, 2–4.5 cm in diam., pubescent, or densely covered with brown hairs, ostiole slightly concave, sessile or pedunculate; peduncle 0.5–1.5 cm long or shorter; involucre bracts triangular, triangular-ovate, or ovate-lanceolate, 2–6 mm long, with scattered bristles. Male flowers near ostiole, pedicellate; calyx lobes 3 or 4, oblanceolate; stamens 2, filaments very short; anthers much longer than tepals, mucronate. Gall flowers pedicellate; calyx lobes 4, obovate-spatulate; ovary elliptic, style short, stigma shallowly funnel-form. Female flowers pedicellate; calyx lobes spatulate, ovary obovate, style subapical, stigma thin and long. Achenes ovoid-ellipsoid, with adherent liquid (Figs. 2, 3).



Figure 2. Habitat of *Ficus sarmentosa* var. *duclouxii* in Manipur, India.

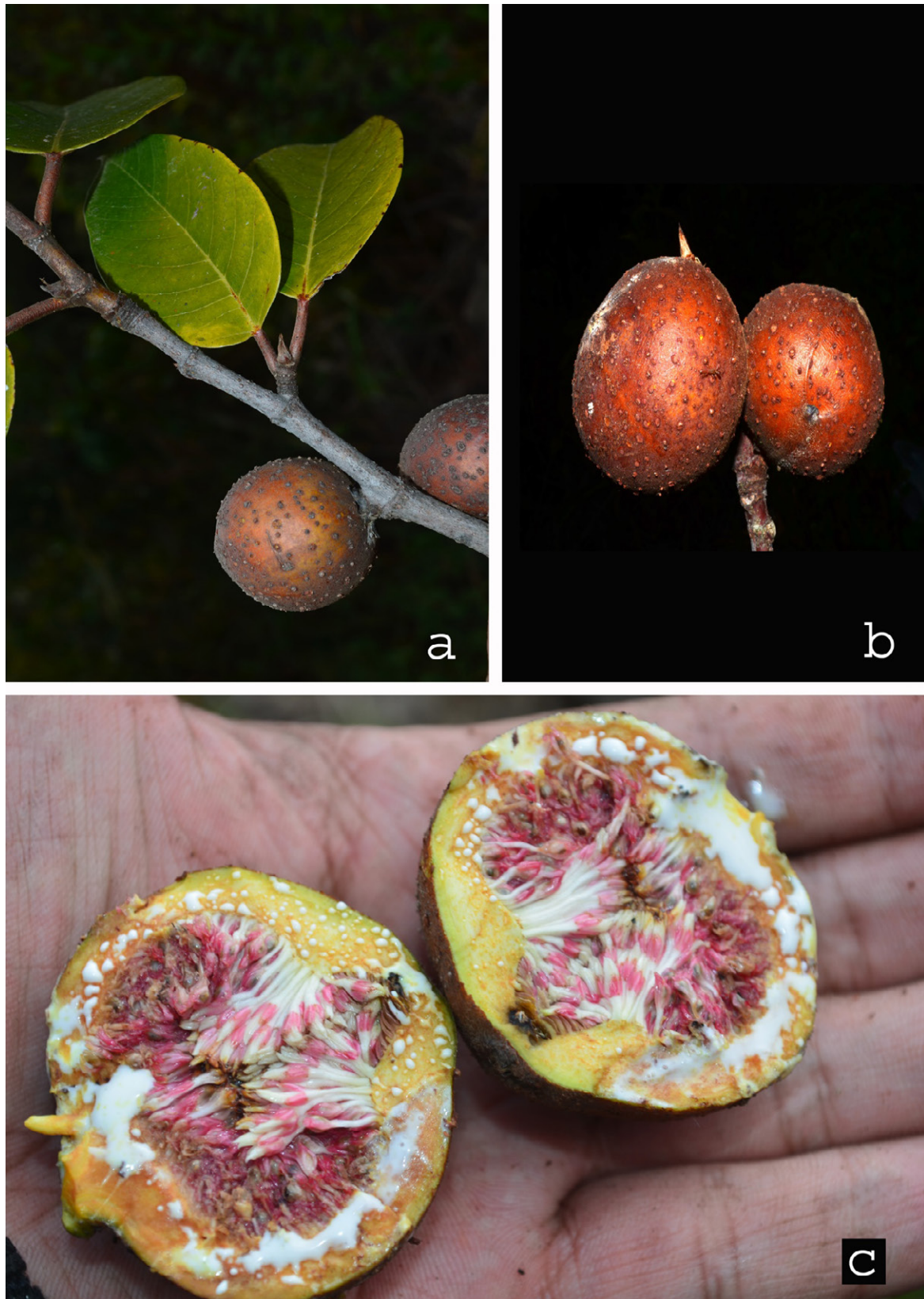


Figure 3. *Ficus sarmentosa* var. *duclouxii*: a, flowering twig; b, fruits (figs); c, section of fruits (figs) showing flowers.

Habitat and ecology.—In moist deciduous and semi-evergreen forests; growing with *Acer thomsonii* Miq. (Sapindaceae), *Capparis acutifolia* subsp. *sabiifolia* (Hook.f. & Thomson) M.Jacobs (Capparaceae), *Elaeocarpus* sp. (Elaeocarpaceae), *Myrsine semiserrata* Wall. (Primulaceae), *Tarenna wallichii* (Hook.f.) Ridl. (Rubiaceae) and *Trichodesma khasianum* C.B.Clarke (Boraginaceae).

Phenology.—Flowering and fruiting in February.

Uses.—Fruit is edible in Manipur State.

Distribution.—India (Manipur), China (Yunnan).

Additional specimens examined.—INDIA. Manipur, Senapati district, Mao Pung dong, 1,873 m, 23 Feb 2017, *N. Dhatchanamoothy* 120448 (FRLH) [Fig. 4]. CHINA. Yunnan, 18 Mar 1914, Handel-Mazzetti 719 (WU barcode WU0040099); Yunnan, 1914, Schneider 408 (K barcode K004534806); Yunnan, 18 Mar 1914, Handel-Mazzetti 719 (K barcode K004534805).

Nomenclatural notes.—**Corner (1960)** introduced the variety *Ficus sarmentosa* var. *duclouxii*, which was based on the earlier name *Ficus duclouxii* H.Lév. & Vaniot. However, in 1929 Rehder treated it as a synonym under the name *F. foveolata* Wallich. In the protologue of the basionym *F. duclouxii* two collections were cited (Ducloux 106 and Cavalerie s.n.) which can be considered syntypes. After conducting a critical literature survey, the authors found that **Rehder (1929)** cited the ‘type’ (Ducloux 106) and the co-type (Cavalerie s.n.) at **E. Corner (1960)**, who also cited Ducloux 106 as the ‘type’, but without stating the herbarium where the type was deposited, although this was not a mandatory requirement for effective typification at that time (see Art. 9.22, **Turland et al., 2025**). There are two collections of Ducloux 106 at E and it could not be ascertained which one was cited by **Rehder (1929)** as the type. Therefore, we have accepted that **Rehder (1929)** first inadvertently lectotypified the name, but this should be considered as a first-step lectotypification. The second step of lectotypification was performed by the authors (Lectotype: China, Kouy-Tcheou, Yunnan, 6 Mar 1897, Ducloux 106 (E00275296) (Fig. 5), and this specimen has been designated here as lectotype because the flowering twig is in good condition and exhibits all the characters of this species compared to other specimens. The rest of specimens can be designated as isolectotypes (E00275297, Fig. 6a; P06758740, Fig. 6b; P00756568, Fig. 6c), A00046700, Fig. 6d], while specimens of Cavalerie can be designated as residual syntypes (China, surroundings of Tou-Chan, Sep 1899, Cavalerie s.n. (E00275295, Fig. 7).

This variety is distinguished by its stem covered with brownish pubescent hairs, concave apical pore, globose figs approximately the size of walnuts, and figs adorned with several dark-colored bristles. While most specimens exhibit a distinct combination of these characteristics, some display intermediate traits or features that are challenging to interpret. The original collection, attributed to Francis Ducloux and numbered Ducloux 106, was collected from Kouy-Tcheou, Yunnan, China, in 1897, and deposited at the herbarium of the Royal Botanic Garden Edinburgh (E) and the herbarium of the Natural History Museum, Paris (P). The name *Ficus duclouxii* was given to honour Ducloux by Lévillé and Vaniot in 1907.

Identification key to the varieties of Ficus sarmentosa

1. Achenes ovoid–ellipsoid 2
– Achenes pyriform *F. sarmentosa* var. *nipponica*
2. Fruits (figs) with concave apical pore 3
– Fruits (figs) with convex apical pore *F. sarmentosa* var. *impressa*
3. Leaf blade veins abaxially slightly raised *F. sarmentosa* var. *sarmentosa*
– Leaf blade veins abaxially conspicuously raised *F. sarmentosa* var. *duclouxii*



Figure 4. Herbarium specimen of *Ficus sarmentosa* var. *duclouxii* from Manipur, India (N. Dhatchanamoorthy 120448, FRLH).



Figure 5. Lectotype of *Ficus sarmentosa* var. *duclouxii*, Kouy-Tcheou, Yunnan, 6 Mar 1897, Ducloux 106 (E00275296).



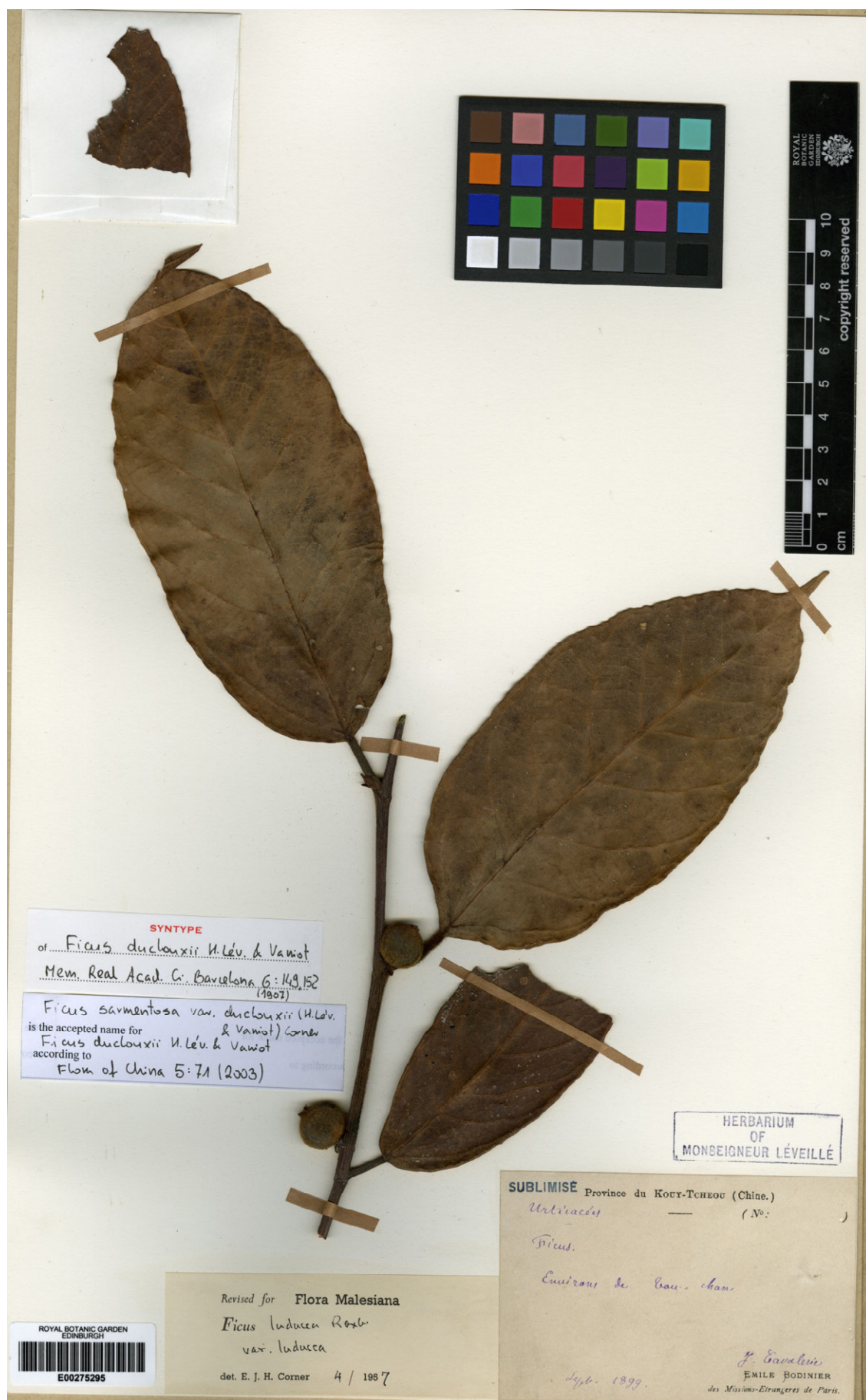


Figure 7. Residual syntype, China, surroundings of Tou-Chan, Sep1899, Cavalerie s.n. (E00275295).

Supplementary information ↑

Funding sources

Centres of Excellence (CoEs), Government of India.

Supplementary material

Not applicable.

Data availability

All the data used is available in the main text, figures and tables.

Acknowledgements

The authors are highly thankful to Dr. Subir Bandopadhyay, Retd. Scientist C, Botanical Survey of India for his help regarding the nomenclature. The authors thank Dr. J.V. Sudhakar, Department of Botany, S.R.K. Government Arts College, Yanam, Pondicherry University for his expert opinion. The authors are also thankful to the Curators and the Directors of E, A, US, P, K and the online websites of JSTOR and GBIF for facilitating access to digital images. We gratefully acknowledge the help of Divisional Forest Officers of Senapati district, Manipur. One of the authors (DM) is highly thankful to the local people of Mao Pung dong, Senapati district of state of Manipur; SSS is highly thankful to Dr. A.A. Mao, ex-Director, Botanical Survey of India, and to the Heads of the Offices of Central National Herbarium, Howrah and Eastern Regional Centre of BSI, Shillong for herbarium consultation and other facilities, as well as for their support and assistance in carrying out this research.

Authorship contribution statement

Sreyoshee Sensarma: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Visualization, Writing – original draft, Writing – review and editing.

N. Dhatchanamoorthy: Funding acquisition, Investigation, Methodology, Project administration, Resources, Supervision, Writing – review and editing.

Kreni Lokho: Conceptualization, Investigation, Methodology, Resources, Writing – review and editing.

Shuai Liao: Conceptualization, Formal analysis, Investigation, Visualization, Writing – review and editing.

Competing interests

The authors declare that there are no conflicts of interest related to this research.

Statement on the use of Artificial Intelligence

No artificial intelligence has been used for data curation.

REFERENCES

- Agrawala DK, Gogoi R, Dash SS, Jalal JS, Krishna G, Kumar A, Odyuo N, Sharma HN, Bhardwaj PK, Hepuni L, Kar A, Tham BBT, Meitei LR (2023) *Ficus*. In: Mao AA, Mukerjee PK (eds), *Flora of Manipur – A pictorial guide*: 432–435. Botanical Survey of India and Institute of Bioresources and Sustainable Development, Manipur.
- Balakrishnan NP (1983) *Flora of Jowai*. Botanical Survey of India, Kolkata.
- Berg CC, Corner EJJ (2005) Moraceae – *Ficus*. *Flora Malesiana Series I (Seed Plants)* 17(2). National Herbarium of the Netherlands, Leiden.
- Buragohain R (2014) *Studies on taxonomic diversity and socioeconomic value of Moraceae in Arunachal Pradesh*. Ph.D. dissertation, Department of Forestry, Northeastern Regional Institute of Science and Technology, Arunachal Pradesh.
- Chauhan AS, Singh KP, Singh DK (1996) *A contribution to the flora of Namdapha*. Botanical Survey of India, Calcutta.
- Corner EJJ (1960) Taxonomic notes on *Ficus* L. Asia and Australasia I–IV. *Garden Bulletin of Singapore* 17: 368–485.

- Corner EJH (1965) Check list of *Ficus* in Asia and Australasia with keys to identification. *Garden Bulletin of Singapore* 21(1): 1–186.
- Deb DB (1981) *Flora of Tripura State 1*: 207–222. Today and Tomorrow Printer and Publisher, New Delhi.
- Debbarma S, Banik B, Majumdar K, Dutta BK (2022) A new distributional record of *Ficus altissima* Blume (Moraceae) in Tripura: an occasionally confused fig species with *Ficus benghalensis* L. *Plant Science Today* 7(4): 658–662. <https://doi.org/10.14719/pst.2020.7.4.896>
- Debbarma S, Banik B, Baishnab B, Dutta BK, Majumdar K (2020) Diversity and distribution of figs in Tripura with four new additional records. *Journal of Threatened Taxa* 12(11): 16548–16570. <https://doi.org/10.11609/jott.4975.12.11.16548-16570>
- Dhungana P, Devi P, Borthakur SK (2015a) Morphology and distribution of the genus *Ficus* L. (Moraceae) in Upper Assam, India. *Pleione* 9(1): 1–17.
- Dhungana P, Devi P, Borthakur SK (2015b) *Ficus schefferiana* King (Moraceae) – a new distributional report from India. *Pleione* 9(2): 524–526.
- Giri GS, Pramanick A, Giri HJ (2008) *Materials for the flora of Arunachal Pradesh 2*: 388–407. Botanical Survey of India, Kolkata.
- Haridasan K, Rao RR (1987) *Forest flora of Meghalaya (Caprifoliaceae–Salicaceae) 2*: 816–835. Bishen Singh and Mahendra Pal Singh, Dehradun.
- Joseph J (1982) *Flora of Nongpoh and vicinity*. Forest Department Government of Meghalaya.
- Kanjilal UN, Kanjilal PC, De R, Das AK (1940) *Flora of Assam 4*: 232–266. Government Press, Shillong.
- Kilpatrick J (2014) *The discovery of Chinese plants by European missionaries*. Chicago, USA: The University of Chicago Press.
- King G (1887) The species of *Ficus* of the Indo-Malayan and Chinese countries. *Annals of Royal Botanic Garden* 1: 1–185.
- King G (1888) *Ficus* L. In: Hooker JD (ed), *The flora of British India* 5: 494–537. L. Reeve, London.
- Lepcha C, Sharma BK (2021) Diversity of *Ficus* L. (Moraceae) and its uses in Sikkim Himalayas (India). *International Journal of Botany and Research* 11(2): 39–56.
- Léveillé H (1907) Los *Ficus* de China. *Memorias de la Real Academia de Ciencias y Artes de Barcelona* 3(6): 141–155.
- Léveillé H (1915) *Flore du Kouy Tcheou: copie conforme*. Le Mans.
- Linnaeus C (1753) *Species plantarum*: 1513–1515. Laurentius Salvius, Stockholm.
- Mao AA, Gogoi R (2016) *Flora of Dziiko/Dzukou Valley 1*: 8–9. Botanical Survey of India, Kolkata.
- Mao AA, Sinha BK, Verma D, Sarma N (2016) *Check-list of flora of Meghalaya*. Meghalaya Biodiversity Board and Botanical Survey of India, Shillong.
- Mao AA, Odyuo N, Verma D, Singh P (2017) *Checklist of flora of Nagaland 1*: 117–118. Botanical Survey of India, Kolkata.
- POWO(2024) *Plants of the World Online*. Royal Botanic Gardens, Kew. Website: <http://www.plantsoftheworldonline.org/> [accessed: 18 Jun 2024].
- Rehder A (1929) Notes on the ligneous plants described by H. Léveillé from Eastern Asia. *Journal of the Arnold Arboretum* 10(2): 124–125. <https://doi.org/10.5962/p.333865>
- Roxburgh W (1832) *Flora indica 3*. Government Press, Serampore.
- Sensarma S, Deori C, Shankar U (2024) Current distribution of *Ficus* Tourn. ex L. (Moraceae) in eight states of Northeast India. In: *Diversity of Plants and Microbes: Conservation and Traditional Uses*, 117–124. Proceedings of National Seminar on Plant Taxonomy and Traditional Knowledge in the Himalayas and North-east India. Department of Botany, Rajiv Gandhi University; Bishen Singh Mahendra Pal Singh.

- Shankar U (2021) *Enumeration of the flora of Northeast India – one list of over 10,000 taxa of flowering plants. AFB Flora Series on Flowering Plants of the Indian Subcontinent 1*. Arshuma Famous Books, Agra.
- Sudhakar JV, Tiwari R, Sensarma S, Murthy GVS, Chaudhary LB, Sinha BK (2022) Moraceae: *Ficus* L. In: Pusalkar PK, Mao AA, Ingle P (eds), *Flora of India* 24: 231–437. Botanical Survey of India, Kolkata.
- Thiers B (2021–onward) Index Herbariorum: A global directory of public herbaria and associated staff. New York Botanical Garden’s Virtual Herbarium, New York. Website: <https://sweetgum.nybg.org/science/ih/> [accessed: 11 Jul 2024].
- Turland NJ, Wiersema JH, Barrie FR, Gandhi KN, Gravendyck J, Greuter W, Hawksworth DL, Herendeen PS, Kloppe RR, Knapp S, Kusber WH, Li DZ, May TW, Monro AM, Prado J, Price MJ, Smith GF, Zamora Señoret JC (2025) *International code of nomenclature for algae, fungi, and plants (Madrid Code)*. University of Chicago Press, Chicago and London.
- Zhou ZK, Gilbert MG (2003) Moraceae. In: Wu ZY, Raven PH, Hong DY (eds), *Flora of China* 5: 21–73. Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis.
- Zhang Z, Chen YJ, Mei L, Zou L, Zhang MJ, Li HQ, Zhang DS (2023) Phylogeny of the *Ficus sarmentosa* complex (Moraceae) uncovered an omitted species and the rank elevation of *F. pubigera* var. *maliformis*. *Phytotaxa* 579: 17–31.