

The Krishna Fig in Chota Nagpur Plateau, West Bengal, India

Ficus krishnae C. DC. belongs to the section Urostigma, Moraceae family, is native to India and has been introduced in Sri Lanka (POWO 2024). In India, the plant is well recognized as the Krishna Fig. It is linked to two myths that explain the origin of its cup-shaped leaves. It is believed that the Hindu deity Rama created this species, and its unusual cup-shaped leaves have led to its veneration as a holy tree in India (Tiwari et al. 2015). Another popular tale is that Lord Krishna created this plant having cup-shaped leaves so that makkhan could be taken (Candolle 1902). The species is named honouring Lord Krishna for that reason. The curious species was initially noticed by David Pain year 1896 in a private garden near Calcutta and introduced it in Royal Botanical Garden, Calcutta (now AJC Bose Indian Botanic Garden, Howrah, West Bengal), by the help of stem cuttings taken from the original plant (Prain 1906). The Calcutta Garden later distributed the stem-cuttings of this species to other gardens throughout India (Vaid 1963).

Taxonomist have variously treated the Krishna Fig, some as a distinct species and others as a variety of *Ficus benghalensis* based on its morphological and floral characteristics (Chaudhary et al. 2012). The taxonomic position of *F. krishnae* remains unresolved despite the fact that it differs from *F. benghalensis* in many respects, including morphology, anatomy, chromosomes, genome size, pollination vector, ITS-2, cpDNA, and other molecular markers

(Candolle 1906; Prain 1906; Joshi & Raghuvanshi 1970; Ohri & Khoshoo 1987; Priyadarsanan 1999; Tiwari et al. 2015; Mahima et al. 2021; Anilkumar et al. 2023). No prior documentation of *F. krishnae* plant growing wild on the Chota Nagpur Plateau was found.

The plant specimen was collected from the Ajodhya Hill forest, Purulia District, West Bengal (23.3589° N, 86.1975° E) on 18 December 2023. The new geographic record of the plant species was initially identified by observing the leaves. No other species in *Ficus* genus has cup like leaves. The species' identity characters were verified by consulting reliable literatures (Prain 1906; Tiwari et al. 2015). The purpose of providing these field images is to aid in identification and to offer evidence of the species collected. The herbarium specimens were deposited in Banwarilal Bhalotia College herbarium, Asansol.

Taxonomy

Ficus krishnae C. DC., Bull. Herb. Boiss., Ser. 2, 2: 760. 1902; Curtis's Bot. Mag. 132: t. 8092. 1906. *F. benghalensis* var. *krishnae* (C. DC.) Corner, Gard. Bull. Singapore 21 (1): 14. 1965.

Local names: Makkhan Katori (Hindi), Krishna Bot (Bengali).

Medium size tree, 18–20 m tall, sometimes with arial roots; bark light-greyish, stems 1.25 m in diameter. Pubescent present over the young

branches, petioles and figs. Leaf scar present over the young branches; latex white, bud scale 36–62 mm long, cone-shaped cap, pointed at the tip, silky pubescent outside, smooth and shining inside. Leaves simple, alternate, coriaceous, glossy, lamina 6.8–12.6 x 1.8–8.2 cm, typically cup-shaped at the base beneath, ovate to obovate, acute when young and obtuse with age, mostly twisted and turn along the leaf edges, fine hairs on upside and fluffy on the downside of leaves, 4–8 nerved from the base, and 5–8 (or perhaps 9) pairs of nerves present on either side of midrib, the size and shape of the cup vary; petioles 5.3–9.6 cm long, white downy, almost circular with petiolule base. Figs are green while younger, axial positioned, present generally in pairs sometimes single, sessile, three orbicular bracts present at base, almost spherical, base-emarginated, notched apex having three lunar shaped bract around ostiolum, woolly, diameter 1.78 cm, bracts found in the ostiole's lumen.

Both the male and gall flowers are transparent linear-stalked; many sterile bracts, colourless, measuring 1.85–2.2 mm in length, with an obtuse base and entire margins, attached at the base of the flower pedicel, located within figs. Male flowers are colourless, mostly present at ostia, three ellipsoid free tepals are seen, one smooth stamen present, perianth is longer (1.75–4 mm) than the filaments (0.6–1.3 mm), which are linked to the posterior side of the egg-shaped anthers. Female flowers exist all around inside thalamus, stalked 0.9–1.10 mm long, tepals are smooth, 1.3–1.8 mm long, butter knife shaped, pointed at tip, and 3–4 in numbers, ovary globular and sessile, gracilis

style 1.2–2.0 mm long, straight plumeous stigma present. Gall flowers 3.0–4.10 mm long, tepals three, exist all around inside thalamus, slightly altered from female flowers, reddish-brown in colour.

Flowering & fruiting: November to March.

Distribution: India (planted in various gardens in the states of Karnataka, Kerala, Uttar Pradesh, Uttarakhand, and West Bengal), now in Chota Nagpur Plateau. As a decorative plant in Pakistan, Sri Lanka, and Malesia (Tiwari et al. 2015).

Uses: Ayurvedic medicine uses the plant to treat ulcers, leprosy, dysentery, syphilis, and inflammation. Different plant parts of *F. krishnae* have been researched for antibacterial, anti-oxidant, anti-diabetic, anti-inflammatory, anticancer, and immunomodulatory properties (Kumar et al. 2021).

Specimen examined: INDIA. West Bengal: Howrah, AJCB Indian Botanic Garden, CNH, near Roxburgh's building, 25.v.2012, J.V. Sudhakar 126320 (MH).

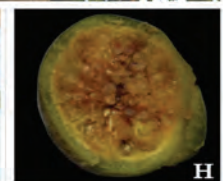
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Herbarium sheet of a *Ficus krishnae* twig collected from Ajodhya Hill forest, Purulia. © Animesh Mondal.

A twig of *Ficus krishnae* tree collected from Ajodhya Hill forest, Purulia. © Animesh Mondal.



Ficus krishnae plant parts:
A—Tree | B—Leaves of different ages | C—Bud scale | D—Tree bark | E—Venation on upper side of a leaf | F—Leaf base & Figs | G—Vertical section of a fig.
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