

A NEW COMBINATION IN *LITSEA* LAM. (LAURACEAE) FROM NORTH EASTERN INDIA

TRINA BHUINYA¹ AND PARAMJIT SINGH²

Central National Herbarium, Botanical Survey of India, Shibpur, Howrah 711103, India.

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Tetranthera khasyana Meisn. and *Cylicodaphne hookeri* Meisn. (excl. var. *siamensis* Meisn.) are the same species, with differences in the shape of berry and in the peduncles of the fruit and the umbel. Hooker (1886) treated the former plant as *Litsea khasyana* (Meisn.) Hook. f. and the latter as *L. khasyana* (Meisn.) Hook. f. var. *hookeri*. But another plant *Litsea khasyana* Meisn. already existed. Hence, Long (1984) adopted the name *Litsea hookeri* (Meisn.) Long for *Cylicodaphne hookeri* Meisn. Here, *Tetranthera khasyana* Meisn. is described as a new combination of *Litsea hookeri* (Meisn.) Long var. *khasyana* (Meisn.) T. Bhuinya & P. Singh. The plant is quite common in subtropical forests of Khasi Hills in Meghalaya, and Eastern Himalaya in Sikkim and West Bengal at 400 m to 900 m.

A key to the varieties of *Litsea hookeri* (Meisn.) Long is given below:

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|--|----------------------|
| 1. Berry ellipsoid; fruit and umbel peduncle slender | var. <i>hookeri</i> |
| - Berry depressed globose; fruit and umbel peduncle distinctly stout | var. <i>khasyana</i> |

A detailed taxonomic account along with illustration of the plant has been made based on herbarium materials.

Litsea hookeri (Meisn.) Long var. ***khasyana*** (Meisn.) T. Bhuinya & P. Singh *comb. nov.* *Tetranthera khasyana* Meisn. in DC., Prodr. 15(1): 185 (1864); *Litsea khasyana* (Meisn.) Hook. f., Fl. Brit. India 5: 164 (1886). *Nom. Illeg.* (non Meisn. 1864); Kanjilal *et al.*, Fl. Assam 4: 85 (1940). **(Fig. 1).**

Type: India: Meghalaya, Khasi Hills, *J. D. Hooker & T. Thomson* s.n. (*Holotype* - G-DC microfiche!)

Perennial, evergreen, dioecious tree, 8-12 m tall. Branchlets cylindrical, yellowish brown, puberulous when young, glabrous at maturity. Leaves 9.5-22.5 × 4.5-8.7 cm, alternate, elliptic-oblong, cuneate at base, entire, shortly acuminate at apex, coriaceous, dark green, glabrous, primary and secondary veins depressed above; beneath pale green, glabrous, except on veins, primary and secondary veins prominent, secondary veins 10-15 pairs, weak brochidodromous, tertiary veins alternate, percurrent, sinuous; petiole 1.5-2.0 cm long, cylindrical, puberulous. Umbellules 10-12 × 8-15 mm, axillary, solitary or in clusters of 3-5, 6-flowered, pedunculate, bracteate; peduncles 4-6 mm long, stout, swollen, yellowish brown, densely puberulous; bracts 6, outer two 4-6 × 6-7 mm, concave, coriaceous, yellowish green, densely puberulous outside, glabrous inside, inner four 4-6 × 5-6 mm, orbicular, membranous, gland-dotted, green, puberulous outside, glabrous inside. Flowers 3.5-4.0 × 3.0-3.5 mm, white; pedicels 1-2 mm long, stout, green,

¹Corresponding author. Email: trina.bhuinya@gmail.com

²Botanical Survey of India, C.G.O. Complex, Salt Lake City, Kolkata 700064, India.

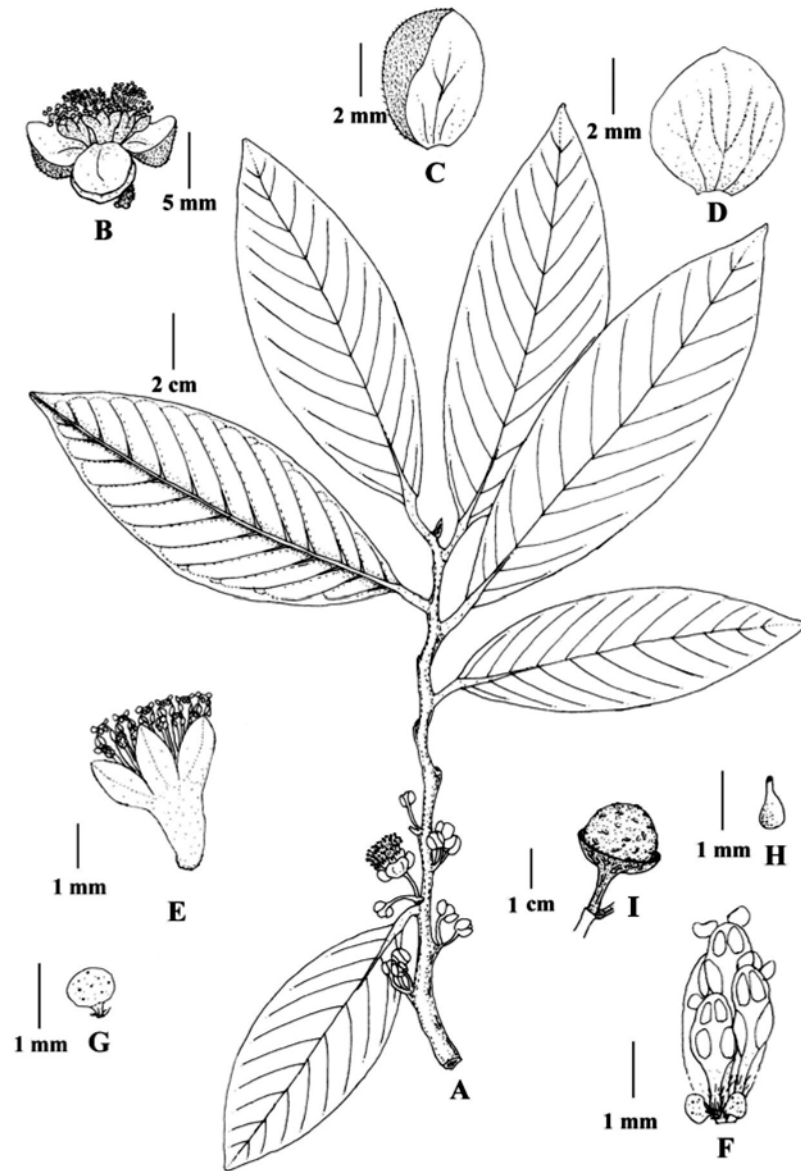


Fig. 1. *Litsea hookeri* (Meisn.) Long var. *khasyana* (Meisn.) T. Bhuinya & P. Singh *comb. nov.* A. Habit; B. Inflorescence; C. Outer bract; D. Inner bract; E. Flower; F. Tepal with stamens; G. Gland; H. Pistillode; I. Fruit. (A-G: G. King, acc. no. 386868; I: G. King, acc. no. 386888).

puberulous; perianth lobes 6, 2.5-3.0 × 1.5-2.0 mm, elliptic, gland-dotted, puberulous outside, glabrous inside except at base, perianth tube 1.0-1.5 mm long, funnel shaped, green, hairy inside, densely puberulous outside. Male flowers: stamens 12, in 4 rows, outer 2 rows 2.5-3.0 mm long, exserted, inner 2 rows 1.5-2.5 mm long, glandular; filaments slender, hairy at base; anthers 1.0-1.5 mm long, 4 celled, upper 2 cells introrse, lower 2 cells partly latrorse; glands 0.8-1.0 mm long, 2

each at base of inner rows of stamens, bean shaped, subsessile, hairy at base; pistillode 0.5 mm long. Female flowers: staminodes 12, in 4 rows, outer 2 rows 3.5-4.0 mm long, exerted, inner 2 rows 2.5-3.0 mm long, glandular, hairy at base; pistil 3-4 mm long; style 1.8-2.5 mm long, glabrous; stigma spreading, ovary 0.8-1.2 mm long, globose, glabrous. Berries 15-18 × 8-11 mm, depressed globose, green when young, purple at maturity, glabrous, seated on persistent perianth tube, perianth tube saucer shaped, 12-16 mm in diameter, entire, dark brown, glabrous; pedicle 5-8 mm long, stout, dark brown, puberulous; fruit peduncle 6-9 mm long, stout, swollen, yellowish brown, puberulous.

Flowering period: March to June. *Fruiting period:* May to September.

Conservation status: *Litsea hookeri* (Meisn.) Hook. f. was reported from Bhutan, Nepal and India (Arunachal Pradesh, Meghalaya, Sikkim and West Bengal) but till date *L. hookeri* var. *khasyana* was reported from India (Meghalaya, Sikkim and West Bengal) only. Hence the taxon is an addition to the recently published list of endemic species of *Litsea* Lam. in India (Bhuinya *et al.*, 2010). At present the plant is not under the threat of depletion, but the areas being popular tourist spots, are under extreme biotic pressure which may pose a threat to the existence of the species. Hence plant explorers from these areas including Bhutan, Nepal and Arunachal Pradesh (India) are urged to collect the plant and confirm its identity in order to determine its present status.

Specimens examined: India. Meghalaya, Khasi Hills, Kurz 386975, 386878, 386896 (CAL); Sikkim, G. King 215 (CAL); Sikkim, 3500 ft, 19.6.1876, G. King 386868 (CAL); West Bengal, Darjeeling district, Mungpoo, 11.12.1877, G. King 386885, 386886, 386889 (CAL); Darjeeling district, Banks of Teesta, 26.2.1876, G. King 386867, 386888 (CAL); Darjeeling district, Teesta, 22.2.1867, Anderson 386891 (CAL).

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References

- Bhuinya, T., Singh, P. and Mukherjee, S.K. 2010. An account of the species of *Litsea* Lam. (Lauraceae) endemic to India. *Bangladesh J. Plant Taxon.* **17**(2): 183-191
- Hooker, J.D. 1886. Lauraceae. *Flora of British India*. Vol. 5. London, p. 157.
- Long, D.G. 1984. Notes related to the Flora of Bhutan: VIII. Notes R. B. Gard. *Edinburgh* **41**(3): 510-511.

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