

## CRITICAL NOTES ON *LITSEA STOCKSII* (MEISN.) HOOK. F.

T. BHUINYA<sup>1</sup> AND PARAMJIT SINGH<sup>2</sup>

<sup>1</sup>Botanical Survey of India, Central National Herbarium, Howrah 711 103

<sup>2</sup>Botanical Survey of India, CGO Complex, 3rd MSO Building, Block F (5th & 6th Floor),  
Sector I, Salt Lake City, Kolkata 700 064

E-mail : pchanna@gmail.com

Detailed nomenclatural review has established *Litsea stocksii* (Meisn.) Hook.f. as the correct name for the common species of Western Ghats of Peninsular India. The recently established new names, *L. josephii* S.M. Almeida and *L. vartakii* M.R. Almeida have been proved to be superfluous and illegitimate.

*Litsea stocksii* (Meisn.) Hook.f. is a new combination based on an earlier legitimate name published at varietal level. Without taking this into consideration, some authors thought this name to be illegitimate as J.D. Hooker had included an earlier name in its synonymy. This led to creation of two new names for this species by two different authors in the recent past viz. *L. josephii* and *L. vartakii*. The present paper critically examines the problem and argues for the re-establishment of *L. stocksii* for this plant.

**I** *Litsea stocksii* (Meisn.) Hook. f. in Fl. Brit. India 5: 176. 1886.

This plant was already described by Meisner as *Cylicodaphne oblonga* Meisn. var. *stocksii* Meisn. (in DC., Prodr. 15(1): 205. 1864), based on Stocks' collection from Canara. J. D. Hooker raised this variety to the species level.

J. D. Hooker cited the following names as synonyms:

"*Tetranthera lanceaefolia*, Grah. Cat. Bomb. Pl. 174" (non Roxb. Fl. Indica, 3: 822. 1832). The following varietal names cited by Hooker do not matter as names have no priority outside their rank.

"? *T. glauca*, d. ? *laevigata*, Nees Syst. Laur. 677 ; Meisn. in DC. Prodr. 15(1).185 "

"*Cylicodaphne myristicaefolia* var. *acutata*, Meisn. (l. c.) 209 (the Canara plant only)."

He recognized following varieties with synonyms under *L. stocksii*:

### 1. *stocksii* proper

Basionym: *Cylicodaphne oblonga* var. *stocksii* Meisn. in DC., Prodr. 15(1): 205. 1864. (as *Tetranthera*). Type: Canara, Stocks.

### 2. var. *acutata* (Meisn.) Hook. f., Fl. Brit. India 5: 176. 1886.

Basionym: *Cylicodaphne myristicaefolia* var. *acutata* Meisn. in DC., Prodr. 15(1): 205. 1864. Type: Canara, Griffith.

3. var. **glabrescens** (Meisn.) Hook. f., Fl. Brit. India 5: 176. 1886.

Basionym: *Cylicodaphne wightiana* var. *glabrescens* Meisn. in DC., Prodr. 15(1): 205. 1864. Type: Canara, Stocks; Nilgiri Hills, at Villa Cadoo, Wight.

**II. *Tetranthera lanceaefolia*** sensu Graham, Cat. Bombay Pl. 174. 1839, non Roxb. (1832).

Graham in the Catalogue of Bombay Plants wrongly named his collection as "*Tetranthera lanceaefolia*? Roxb. Flora 3. p. 822". *Tetranthera lanceaefolia* Roxb. (Fl. Indica 3: 822. 1832) is a different plant, described by Hooker as *Litsea salicifolia* (Roxb. ex Nees) Hook. f., Fl. Brit. India 5: 168. 1886, distributed in "Northern and Eastern India, from Oude to Nepal to Sikkim (ascending to 6000 ft), Assam, Bengal, Chittagong and Pegu...." (Hooker, 1886).

*Tetranthera lanceaefolia* sensu Graham is neither *Litsea stocksii* nor *Tetranthera lanceaefolia* Roxb. (now *Litsea salicifolia*) and is more similar to a third element, *Actinodaphne angustifolia* Nees.

Cooke (1906) cited "*Tetranthera lanceaefolia* Graham" as a synonym for *Actinodaphne hookeri* Meisn., a later name for *Actinodaphne angustifolia* Nees. He clarified that Graham's plant "...is most certainly *Actinodaphne hookeri* with red (not purple) fruits...". Talbot (1911) also included "*Tetranthera lanceaefolia* Graham" as a synonym for *Actinodaphne hookeri* Meisn. It is a very common tree at Mahabaleshwar (Birdwood 1887).

**III. *Litsea vartakii*** M.R. Almeida in J. Bombay Nat. Hist. Soc. 86(2): 180. 1989.

M. R. Almeida (1989) proposed *Litsea vartakii* to replace *L. stocksii*, considering that "Hooker had cited *Tetranthera lanceaefolia*, an illegitimate name, as a synonym of *L. stocksii*".

**IV. *Litsea josephii*** S.M. Almeida, Fl. Sawantwadi 1: 364. 1990.

S. M. Almeida (1990) gave another new name to *Litsea stocksii* (Meisn.) Hook.f., citing the following as synonyms:

1. *Litsea stocksii* (Meisn.) Hook. f., Fl. Brit. India 5: 176. 1886; Gamble, Fl. Pres. Madras (repr. ed.) 2: 865. 1957; Cooke, Fl. Pres. Bombay 2: 539 1906 (repr. ed. 3: 33. 1958).
2. "*Tetranthera lanceaefolia* Graham, Cat. Bombay Pl. 174. 1839 (non Roxb. 1832)".
3. *T. oblonga* var. *stocksii* Meisn. in DC., Prodr. 15(1): 205. 1864.

Almeida (1990) states that "since J. D. Hooker (1886) cited *Tetranthera lanceaefolia* Graham, an illegitimate name, as a direct synonym for his new name, *L. stocksii* of J.D. Hooker also becomes illegitimate". Since, according to her as there is no validly published specific name for this taxon, she added to the confusion and named it as *Litsea josephii*, after Joseph Dalton Hooker.

Both *Litsea vartakii* and *L. josephii*, proposed as new names for *L. stocksii* are based on the wrong argument that *Tetranthera lanceaefolia* Graham is a later homonym of *T. lanceaefolia* Roxb. *Tetranthera lanceaefolia* Graham was never published and can not be an illegitimate name as Graham cited "*T. lanceaefolia* Roxb. Flora 3. p. 822" in the Catalogue of Bombay Plants. In fact Graham never intended to publish it and merely wrongly identified his own collection as *Tetranthera lanceaefolia* Roxb. Moreover, *Litsea stocksii* (Meisn.) Hook. f. is a new combination based on an earlier legitimate name published at varietal level viz. *Cylicodaphne oblonga* Meisn. var. *stocksii* Meisn.

The correct nomenclature of the species along with a short description and specimen examined follows:

***Litsea stocksii*** (Meisn.) Hook. f., Fl. Brit. India 5: 176. 1886; Gamble, Fl. Pres. Madras, Pt. 7: 1236. 1925 (repr. ed. 2: 865. 1957); T. Cooke, Fl. Pres. Bombay 2: 539 (repr. ed. 3: 33). 1905; Birdwood, Cat. Fl. Matheran & Mahabaleshwar 19. 1887; Talbot, For. Fl. Bombay 2: 395. 1911; Brandis, Indian Trees 539. 1906; Bourdillon, For. Trees Travancore 307. 1908; Kostermans, Bibl. Laur. 882. 1964. *Cylicodaphne oblonga* Meisn. var. *stocksii* Meisn. in DC., Prodr. 15(1):205. 1864. Type: *Stocks* (DC-G, microfiche!). *Litsea vartakii* M.R. Almeida in J. Bombay Nat. Hist. Soc. 86(2): 180. 1989, nom. superfl.. *Litsea josephii* S.M. Almeida, Fl. Sawantwadi 1: 364. 1990, nom. superfl.; Londhe in N.P. Singh & al., Fl. Maharashtra State, Dicot. 2: 831. 2001.

Evergreen trees, 10–20 m high; bark smooth; branchlets cylindric, woody, dark brown to black, glabrous. Leaves alternate, sometimes sub-opposite, 10–16 × 4–7.5 cm, elliptic-oblong to ovate-lanceolate, acute to acuminate at apex, slightly revolute at margin, cuneate at base, glabrous above, puberulous to glabrous and glaucous beneath, coriaceous, midvein prominent, secondary veins 8–12 pairs, obscure above, prominent beneath; petiole ca 1 cm long, stout, glabrous. Inflorescences of umbels, arranged in axillary racemes, 3–5 cm long; peduncle pubescent; bracts 4–6, whorled, concave, 5–6 × 3–4 cm, glabrous inside, hairy outside. Flowers 4–8 in each umbel; perianth lobes 6, ovate oblong, ca 2 × 1 mm, imbricate, glabrous on inside, densely silky tomentose on outside, yellowish white; tube turbinate, ca 1.5 mm long, silky tomentose. Male flowers: stamens 9–12, in 3 rows; filaments sparsely hairy; outer stamens 2–2.5 mm long, with 2 glands at the base of each stamen; glands sessile, white; inner stamens ca 0.4 mm long; anthers 4, ca 1 mm long; anther locules 4, the upper 2 smaller, introrse and lower 2 larger, partly latrorse; pistillode minute, rudimentary. Female flowers: staminodes 12, ca 2 mm long, sparsely hairy; carpel ca 2.5 mm long; stigma irregularly lobed, style ca 1 mm long, ovary ovoid, 1–1.5 mm long. Fruit a berry, ovoid to ellipsoid, 1–1.5 × 0.5–0.7 cm, dark purple; persistent perianth-tube enlarged, cup-shaped, 0.7–1 cm in diameter, covering almost three-fourth of the berry, glabrous; peduncle 0.5–1 cm long, thick, angular.

*Fl.*: August–December; *Fr.*: March–May.

*Specimen examined*: Karnataka: North Kanara-Devimone, 18-5-1896, W.A. Talbot 3511 (CAL) frt; North Kanara, Devimone, 15-5-1896, W.A. Talbot 3698 (CAL) frts; North Kanara, 20-5-1890, W. A. Talbot 3698 (BSI), frts; Kerala: Cannanore Dist., Chandanathode, 17-4-1966, J.L. Ellis 27099 (MH) frts; Palghat Dist., Silent Valley Reserve Forest, 11-10-1965, E. Vajravelu 6134 (MH) male fls; Cannanore Dist., Tirunelli R.F., 4-3-1979, V.S. Ramachandran 62106 (MH) frts; Palghat Dist., Panthenthode SVRF, N.C. Nair-81275 (MH) frts; Palghat Dist., Eastern slope SV Dam, 14-1-1980, N.C. Nair 65437 (MH) young frts; Palghat Dist., Above dam, SVRF, 9-4-1978, N.C. Nair 56706 (MH) frts; Palghat Dist., Way to Valiaparathode, SVRF, 7-10-1979, N.C. Nair 64378 (MH) male fls; Travancore, 4-4-1900, T.F. Bourdillon 1141 (CAL) frts; Travancore, Ariaukavu-Tirumalai, 22-3-1915, C.C. Calder-1418 (CAL) frts; Travancore, 1924, T.F. Bourdillon 1418 (CAL) frts; Travancore, Kalanpor, 3-12-1910, M. Rama Rao 314 (CAL) female fls; Travancore, 1924, T.F. Bourdillon s.n. (CAL) female fls; Maharashtra, Mahabaleshwar, Chinamalis fall, 5-4-1956, G.S. Puri 252 (BSI), frts; Mahabaleshwar, Arthur Seat, 7-4-1956, G.S. Puri 334 (BSI), frts; Bombay State, 5-4-1956, G.S. Puri 247 (BSI), frts; Mahabaleshwar, Mahad Road, 19-8-1966, B.M. Wadhwa 109643 (BSI), buds; Naeya, Koyna, 13-9-1978, R.K. Kachhar 154214 (BSI), buds; Shirshingi, Koyna, 5-9-1978, R.K. Kachhar 153697, 153697 (BSI), buds; Nauja, M.P. Nayar 153160 (BSI), frts; Bhimshankar, Poona, 31-3-1957, G.S. Puri 12667 (CAL) frts; Mahabaleshwar, 1883,

*T. Cooke* s.n. (CAL) female fls; Mahabaleshwar, 1883, *T. Cooke* s.n. (CAL) male fls; Tamil Nadu: Coimbatore Dist., Surrounding Waverly Estate, Anamalais, 10-3-1961, *J. Joseph* 12313 (MH) frts; Nilgiri Dist., Naduvattam, 28-11-1971, *N.C. Rathakrishnan* 39052 (MH) male fls; Nilgiri Dist., Naduvattam, 29-8-1970, *B.D. Sharma* 35908 (MH) male fls; Coimbatore Dist., Kavarkkal-Kadamparai, 20-11-1980, *M. Chandrabose* 69041 (MH) male fls; Coimbatore, Punachi & Monica, April-1903, *C.A. Barber* 5971 (CAL) frts; Anamalais, Parai, 7-11-1901, *C.A. Barber* 3970 (MH) male fls; Nilgiri Hills, Kodanad, 17-1-1921, *C. E. C. Fischer* 4593 (CAL) young frts; Anamalais, Iyerpadi, 20-10-1901, *C.A. Barber* 3829 (CAL) male fls.

**Habitat:** Semi evergreen and evergreen forests of Peninsular India.

**Distribution:** India: Karnataka – Western Ghats, Bababudan hills, North and South Kannada; Kerala – Thiruvananthapuram (Chemungi forest), Travancore (Peermade, Kanjirapally), Palghat; Maharashtra Mahabaleshwar, Matheran, Nauja, Shir-Shingi, Savantwadi, Kolhapur, Pune, Raigad, Ratnagiri, Satara, Sindhudurg. Tamil Nadu – Anamalai, Coimbatore, Nilgiri, Tiruchirapalli, Naduvattam, Sispara.

#### ACKNOWLEDGMENTS

The authors are thankful to the Director, Botanical Survey of India, Kolkata for encouragement and for the award of Research fellowship under “Flora of India Project” to one of us (TB). Thanks are also due to Joint Directors (CAL, MH, BSI) for herbarium facilities and Dr N. P. Balakrishnan, Coimbatore and van der Werff, Missouri Botanic Garden, for going through the manuscript and for critical comments.

#### REFERENCES

- ALMEIDA, S.M. Flora of Savantwadi, Maharashtra, India. Jodhpur. 1990.
- BIRDWOOD, H.M. A Catalogue of the Flora of Matheran and Mahabaleshwar. *J. Bombay Nat. Hist. Soc.* 10: 421. 1887.
- COOKE, T. The Flora of the Presidency of Bombay, 3:31–33. London. 1906.
- GAMBLE, J.S. A manual of Indian Trees, ed. 2. 569–570. London. 1902.
- GRAHAM, J. A catalogue of the plants growing in Bombay and its vicinity, 174–175. Bombay 1839.
- HOOKE, J.D. Laurineae. Flora of British India 5: 176, 177. London. 1886.
- TALBOT, W.A. Forest Flora of Bombay Presidency and Sind 2 : 392–396. Poona. 1911.