

A new description of *Diospyros coetanea* (Ebenaceae)

SUTEE DUANGJAI* & CHAMLONG PHENGLAI**

ABSTRACT. Following the discovery of female and fruiting specimens of *Diospyros coetanea*, the description and keys to this species are emended.

The genus *Diospyros* L. (Ebenaceae) was treated for the Flora of Thailand by Phengklai (1981). The description of *Diospyros coetanea* H.R. Fletcher was based on specimens with male flowers only. During recent fieldwork by Sutee Duangjai in Kanchanaburi, Nakhon Ratchasima and Saraburi, female and fruiting specimens were discovered. Using this material an emended description of *D. coetanea* is presented here.

Diospyros coetanea H.R. Fletcher, Kew Bull. 1937: 383; in Fl. Siam. En. 2: 366. 1938; C. Phengklai in Fl. Thailand 2 (4): 385, Fig. 56. 1981. Type: Thailand, Mae Hong Son, Kerr 5466 (holotype BM). Figs. 1–2.

Deciduous tree, up to 20 m high. *Bark* scaly, grey or black, inner bark reddish. *Leaves* elliptic or oblong, $\pm$ 20 by 7 cm, base acute, apex acute, subcoriaceous to coriaceous, glabrous on upper surface, pubescent on lower surface; lateral veins in $\pm$ 20 pairs, arched and anastomosing well away from the margin, inconspicuous on upper surface, prominent on lower surface; scalariform veins inconspicuous on lower surface; petiole 7–10 mm long, glabrous. *Male flowers* cymose or paniculate, 4(–5)-merous; pedicel 2–3 mm long, glabrous. *Calyx* campanulate, 6–10 mm long; lobes as long as calyx-tube, blackish-tomentose on both sides. *Corolla* tubular, 15–17 mm long, 5 mm in diam., divided to one-fifth, tomentose outside, glabrous inside. *Stamens* 10–16, glabrous. *Rudimentary ovary* pilose at apex. *Female flowers* solitary, 4–5-merous; pedicel 2–3 mm long. *Calyx* campanulate, 6–10 mm long; lobes as long as calyx-tube, blackish-tomentose on both sides. *Corolla* urceolate, 5–17 mm long, 8 mm in diam., divided to one-quarter, tomentose outside, glabrous inside. *Staminodes* 6–10, glabrous. *Ovary* ovoid, tomentose on top, 8-locular; style solitary; stigmas 4. *Fruit* a berry, 5.5–7.5 by 3.5–5 cm, succulent, glabrous, rounded or depressed at both ends, fruiting calyx divided to middle, tomentose on both sides, apex of calyx lobes acuminate; lobes not reflexed or plicate or undulate, without nerves; fruit-stalk 9–15 by 7–9 mm; endosperm smooth.

Thailand.— NORTHERN: Mae Hong Son, Lampang, Phitsanulok; EASTERN: Nakhon Ratchasima [Sakaerat, *S. Duangjai* 9 (BKF)]; SOUTH-WESTERN: Kanchaburi [Thong Pha Phum, *S. Duangjai* 10 (BKF)]; CENTRAL: Saraburi [Phu Khae, *S. Duangjai* 11 (BKF)]; SOUTH-EASTERN: Chachoengsao.

*Department of Forest Biology, Faculty of Forestry, Kasetsart University, Chatuchak, Bangkok 10900, Thailand.

**The Forest Herbarium, National Park, Wildlife and Plant Conservation Department, Chatuchak, Bangkok 10900, Thailand.

Distribution.— Endemic to Thailand.

Ecology.— In mixed deciduous forest. Flowering March–May, fruiting March–August.

Vernacular.— Lam ta khwai (ลำตาขาว) (Northern).

Uses.— The fruits are edible.

The key to *Diospyros* based on female specimens in the Flora of Thailand is emended as follows:

- 23. Stigmata 4
 - 24. Calyx divided to one fifth or a half; corolla-lobes villous or tomentose outside; leaves glabrous
 - 24a. Corolla campanulate; corolla-lobes villous outside; calyx divided to one-fifth **26. *D. areolata***
 - 24b. Corolla urceolate; corolla-lobes tomentose outside; calyx divided to a half **56. *D. coaetanea***
 - 24. Calyx divided to base or nearly so; corolla-lobes glabrous or only hairy along mid-line outside; leaves hairy **29. *D. glandulosa***

We have also emended the key to fruiting specimens as follows:

- 15. Fruit up to 1 cm across
 - 16. Fruiting calyx 3-merous **3. *D. ferrea***
 - 16. Fruiting calyx 4-merous **10. *D. buxifolia***
- 15. Fruit 1.5–7.5 cm across
 - 17. Fruiting calyx not dilated
 - 17a. Apex of fruiting calyx-lobes acute; fruit up to 5 cm across; fruit-stalk up to 4 mm across **54. *D. pendula***
 - 17b. Apex of fruiting calyx-lobes acuminate; fruit 5.5–7.5 cm across; fruit-stalk 7–9 mm across **56. *D. coaetanea***
 - 17. Fruiting calyx dilated between lobes **55. *D. wallichii***

ACKNOWLEDGEMENT

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REFERENCE

- Phengklai, C. 1981. Ebenaceae. In: Smitinand, T. & Larsen, K. (eds), Flora of Thailand 2(4): 281–392.

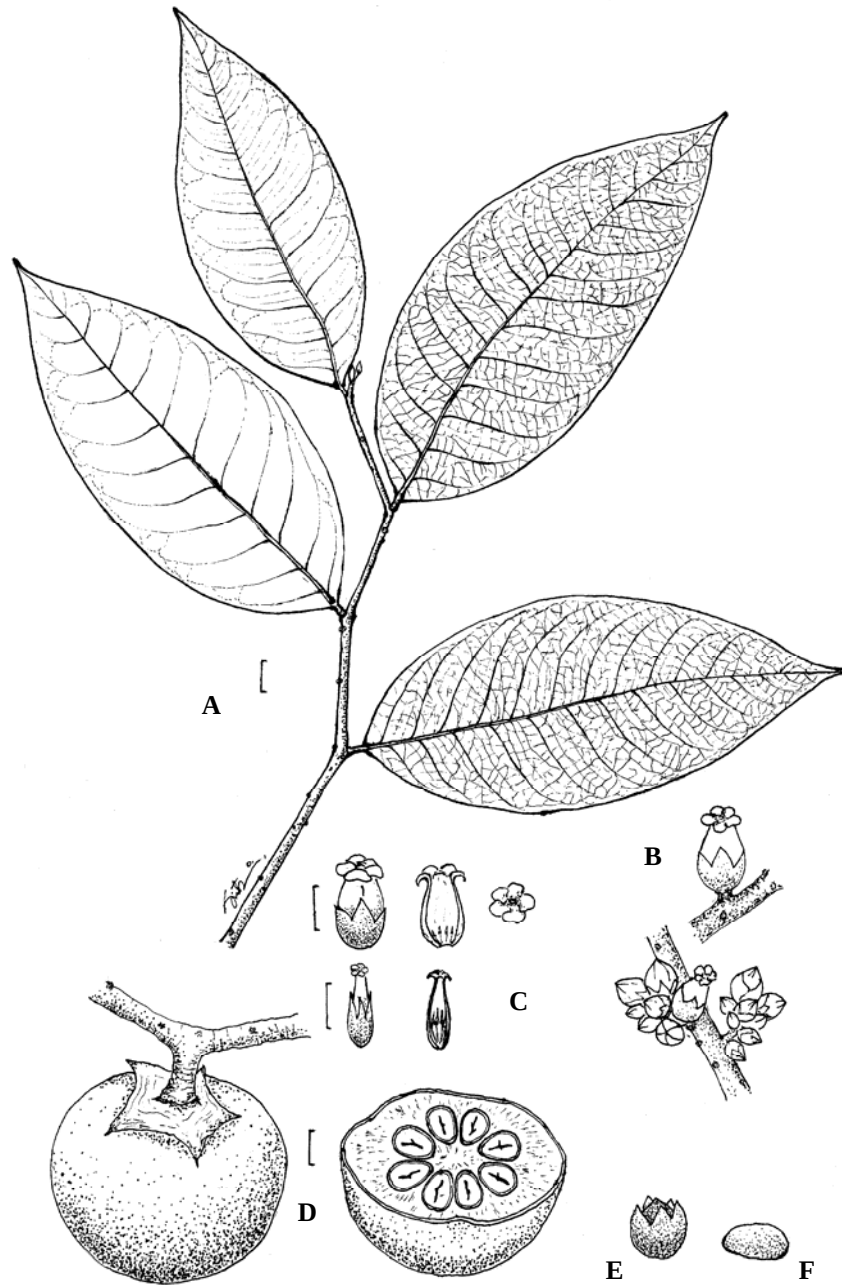


Figure 1. *Diospyros coactanea* H.R. Fletcher: A. habit; B. female flower; C. male flower; D. fruit; E. young fruit; F. seed. Scale bars = 1 cm. A from Duangjai 11 (BKF), B-E, F from Duangjai 10 (BKF), C from Duangjai 9 (BKF). Drawn by J. Boonchern.



Figure 2. *Diospyros coaetanea* H.R. Fletcher: A. leaves; B. male flowers; C. female flower; D. fruit.