A new description of *Diospyros coaetanea* (Ebenaceae)

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ABSTRACT. Following the discovery of female and fruiting specimens of *Diospyros coaetanea*, 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 coaetanea* 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. coaetanea* is presented here.


Deciduous tree, up to 20 m high. Bark scaly, grey or black, inner bark reddish. Leaves elliptic or oblong, ± 20 by 7 cm, base acute, apex acute, subcoriaceous to coriaceous, glabrous on upper surface, pubescent on lower surface; lateral veins in ± 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.


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Distribution.— Endemic to Thailand.

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

Vernacular.— Lam ta khwai (ล่ําตาควาย) (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  
16. Fruiting calyx 4-merous  
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*

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**REFERENCE**

Figure 1. *Diospyros coaetanea* 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.