

Actephila saccata (Phyllanthaceae), a new species from Thailand

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ABSTRACT

A new species of *Actephila* is proposed, *A. saccata*, typical for which are the large flowers with big sepals, the somewhat intermittent growth, short petioles, thin pedicels and fruits that basally envelop the sepals and disc, pushing these downwards.

KEYWORDS: *Actephila*, endemic, Euphorbiaceae *s.l.*, Phyllanthaceae, Thailand.

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INTRODUCTION

The genus *Actephila* Blume (Phyllanthaceae, formerly Euphorbiaceae), with ca 25 species, ranges from India to South-East Asia through Malesia to the Solomon Islands and Australia (Heijkoop & Welzen, in press). In Thailand it is mainly found in the Southwestern and Peninsular, with a few specimens in the Southeastern, Northern and Northeastern. During a revision of the genus *Actephila* for Malesia by Heijkoop & Welzen (in press), several Thai specimens appeared to mismatch with *A. javanica* Miq. and *A. excelsa* (Dalzell) Müll. Arg. (according to Heijkoop & Welzen synonyms of each other). The

petioles are short, but the leaves often are relatively large, the pedicels are very slender, also in fruit, and apically hardly thickened, the sepals are large, and the fruit base pushes the disc and sepals downwards, enveloping them. Chayamarit (2005) may not have seen the deviating specimens, thus the Flora of Thailand treatment of the Euphorbiaceae lacks this new species. However, the length of the sepals as in the description of *A. excelsa*³ indicates that (some of) the specimens might have been analysed for the Flora. The new species can be keyed out in the Flora of Thailand (Chayamarit, 2005) as follows: between 1(b) and 3(a) add:

3¹ Pedicels slender, apically not thickening. Sepals 5.5–7 mm long. Fruit base enveloping the reflexed disc and sepals **5. A. saccata**
3² Pedicels apically thickening. Sepals 1.3–5³ mm long. Fruit base ending above disc and sepals (sepals can be reflexed but are not enveloped by fruit base)

DESCRIPTION

Actephila saccata Welzen & Heijkoop, **sp. nov.**

Resembling *Actephila excelsa* but fruits basally pushing disc and sepals downwards and largely enveloping these; sepals and flowers larger, pedicel thinner, and petioles always short and completely

pulvinate. Type: *Middleton et al. 2399* (holotype **L!**; isotypes **A, BKF, E**), Thailand, Prachuap Khiri Khan, Kui Buri, Kui Buri National Park, trail above park headquarters, 12°03'10" N, 99°36'80" E. Fig. 1.

Shrublets to shrubs, up to 1.5 m high; branches with intermittent growth (long internodes interchanging with several short ones, therefore leaves

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³ The measurements are taken from the description of *A. excelsa* (including *A. javanica*) in the manuscript by Heijkoop & Welzen, to be published in *Blumea* and on www.nationaalherbarium.nl/thaieuph.

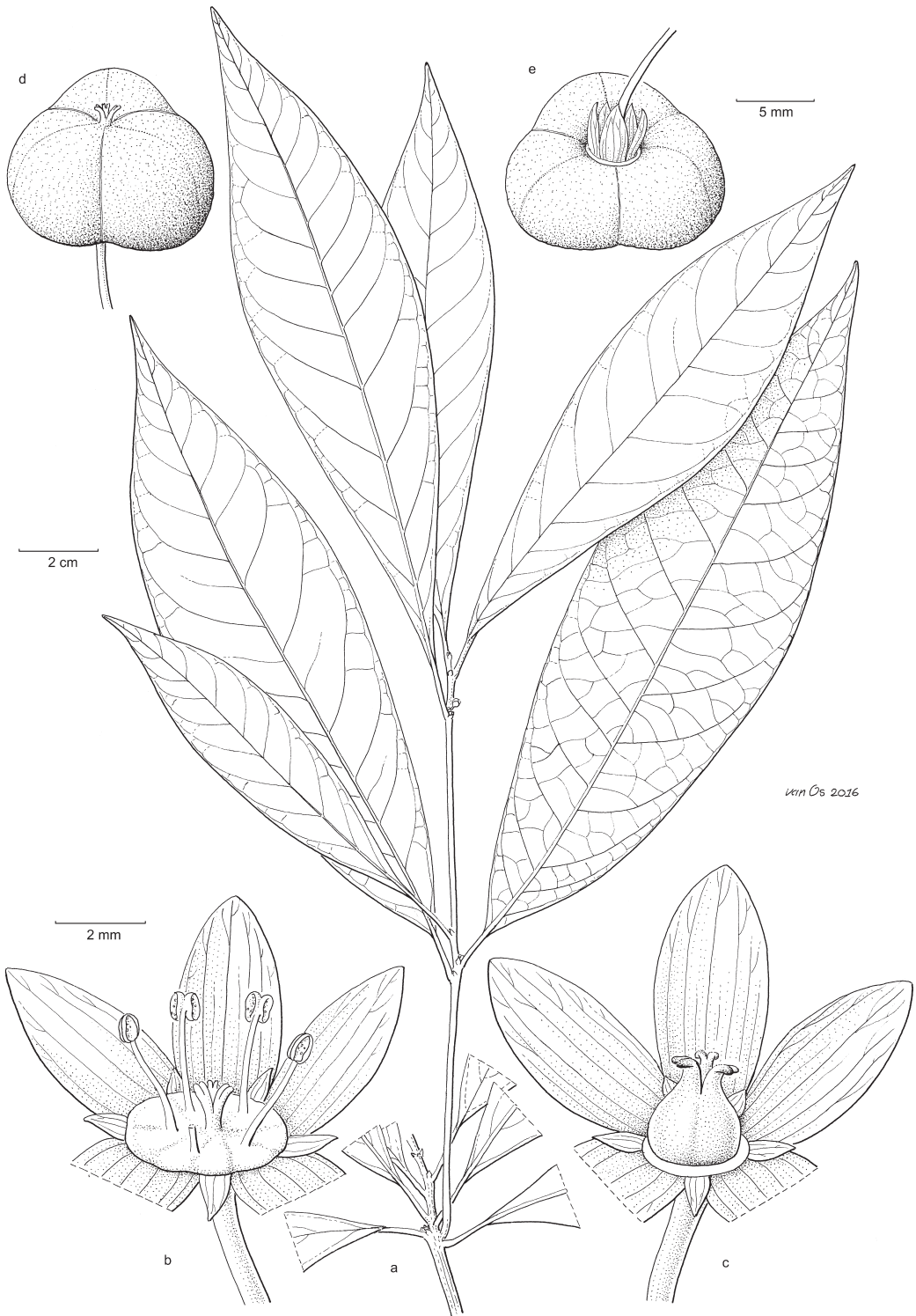


Figure 1. *Actephila saccata* Welzen & Heijkoop; (a) Habit showing flushes in growth; (b) staminate flower (one stamen and top parts of two sepals removed); (c) pistillate flower (top parts of two sepals removed); (d) fruit in apical-lateral view; (e) fruit in basal-lateral view showing saccate base [a, b: Middleton *et al.* 4091; c: Kerr 15344; d, e: Middleton *et al.* 2399; all L]. Drawn by Jan van Os, 2016.

in groups), flowering branches 1–4.5 mm diam, subglabrous to puberulous towards apex, glabrescent. *Indumentum*: most parts subglabrous to somewhat hairy when young. *Stipules* ovate to deltoid to triangular, 1.5–3 by 1–1.7 mm, slightly sericeous outside to glabrous when older, base often more persistent. *Leaves* simple, alternate to subopposite, in groups separated by long internodes; petioles 3–10 mm long, glabrous to slightly hairy, brown, completely pulvinate; blade obovate, 7.5–21 by 1.7–7 cm, 2.5–3.6 times as long as wide, papyraceous, base attenuately decurrent into petiole, base tip slightly obtuse, margin flat, apex cuspidate, surfaces glabrous, adaxially dark green, abaxially pale green; nerves 11–17 per side up to apex sinus. *Flowers* solitary, axillary, all parts greenish white, on brachyblasts after several seasons; pedicels at most slightly widening towards apex, glabrous; sepals: apex obtuse; petals: apex rounded, entire; disc a wide, not very thin ring. *Staminate flowers* ca 14 mm diam; pedicels broken, more than 2 mm long; sepals ovate to oblong, ca 5.5 by 3–4 mm; petals obovate, ca 2 by 0.8 mm; stamens free, ca 2.5 mm long, anthers ca 0.8 by 1 mm, (light) yellow. *Pistillate flowers* ca 13 mm diam; pedicel 14–15 mm long, < 1 mm thick; sepals obovate, 6–7 by 3.5–4.5 mm; petals obovate, ca 2 by 0.8 mm; disc ca 1 mm broad, ca, 0.5 mm thick, pushed downward by fruit wall; ovary ca 2 by 3 mm, glabrous, stigmas ca 1 mm long. *Fruits* ca 16 mm diam, ca 11 mm high, pendent, green (immature), basal part developing over disc and sepals, pushing these down; pedicels elongating up to 36 mm long, < 1 mm diam, glabrous; sepals not elongating, reflexed, dark green, outside sometimes slightly sericeous, often glabrous; fruit wall somewhat knobbly, lines of dehiscence distinct, thin, glabrous (to slightly sericeous); columella ca 5 mm long, slender, less than 1 mm thick, basally somewhat thickened but not completely covering disc and base of sepals, fibrous after dehiscence. *Seeds* 9–10 mm long, 8–9 mm wide, 6–7 mm high.

Thailand.— SOUTH-WESTERN: Prachuap Khiri Khan [Kui Buri National Park, Amphoe Pran Buri,

Kui Buri National Park, trail from headquarters, 12°03' N, 99°37' E, 120 m, 20 Aug. 2002, *Middleton et al.* 1239 (L); same locality, trail above park headquarters, 12°03'10" N, 99°36'80" E, 165 m, 23 Jan. 2004, *Middleton et al.* 2399 (A, BKF, E, L)]. PENINSULAR: Nakhon Si Thammarat [Kao Oktalu, 200 m, 21 Apr. 1928, *Kerr* 15344 (L); Kao Hua Têk, 50 m, 2 May 1930, *Kerr* 19281 (L)]; Trang [Wang Wiset, Aotong subdistrict, Khao Pra Bang Khram Wildlife Sanctuary, Roi Chan Phan Wang Waterfall, 7°53'56" N, 99°19'01" E, 200 m, 2006, *Middleton et al.* 4091 (L)].

Distribution.— Endemic in Thailand.

Ecology.— Evergreen and secondary forest, probably only on limestone. Altitude: 50–200 m.

Phenology.— Flowering in April; fruiting in January, May, August.

Etymology.— The epithet refers to the base of the fruit extending over the disc and partly the sepals, pushing these downwards.

IUCN status.— DD (Data deficient).

Note.— Typical for this species are the fruits of which the base extends downwards, pushing the disc and sepals downwards and enveloping these partly. Also typical are the large flowers on thin pedicels with big sepals that do not enlarge in fruit. Unlike *A. excelsa*, the pedicels remain slender in fruit and the leaves always have short petioles.

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