

Two New Species of *Jasminum* (Oleaceae) from Peninsular Thailand

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ABSTRACT

Two new species from the Peninsular Region of Thailand, *Jasminum peninsulare* Kiew from Ranong, Phangnga, and Pattani Provinces and *J. ranongense* Kiew from Ranong Province, are described and illustrated. Previously, they had both been confused with *J. kedahense* (King & Gamble) Ridl. from Malaysia and included under this name in the Flora of Thailand.

KEYWORDS: New species, Oleaceae, *Jasminum*, Peninsular Thailand, Malaysia.

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INTRODUCTION

Green (2000) in his account of the Oleaceae in Flora of Thailand described some Thai specimens as *Jasminum kedahense* (King & Gamble) Ridl. Examination of the specimens at BK, BKF and K identified by him shows that they comprise two distinct species, both different from Malaysian *J. kedahense* (King & Gamble) Ridl. The specimens with tripliveined leaves illustrated in Flora of Thailand Figure 31 (Green, 2000) are here described as *J. ranongense* Kiew, and those listed by Kerr (1939) under *J. smilacifolium* Griff. ex C.B. Clarke and *J. subtriplinerve* Blume that were included in *J. kedahense* by Green (2000) are here described as *J. peninsulare* Kiew. *Jasminum kedahense* does not occur in Thailand.

These new species bring the total number of jasmines recorded for Thailand to 34 species. Thirty one were included in Green's 2000 account, Srisanga *et al.* (2004) reported *J. rufohirtum* Gagnep. as a new record, and Chalermglin & Kiew (2013) described *J. bhumibolianum* Chalermglin as a new species. Further additions to the Thai jasmine flora can be expected as botanical exploration of poorly known areas proceeds and also because Green for some taxa adopted a very broad interpretation.

NEW SPECIES

***Jasminum peninsulare* Kiew, sp. nov.**— *J. kedahense* auct. non (King & Gamble) Ridl.: Green, Fl. Thailand 7(2): 337. 2000. *pro parte*.— *J. smilacifolium* auct. non Griff. ex C.B. Clarke: Kerr, Fl. Siam. Enum. 2: 406. 1939.— *J. subtriplinerve* auct. non Blume: Kerr, Fl. Siam. Enum. 2: 407. 1939.

It is different from *J. kedahense* in being glabrous (not densely tomentose), its leaves less coriaceous, the margin is not thickened and recurved, and the apex is attenuate (not acute to acuminate), the inflorescence is a few-flowered cyme (not a many-flowered corymbose cyme), the calyx lobes subulate (not filiform), and the fruit lobes smaller (8×6 mm vs. 15×10 mm). From *J. adenophyllum* Wall. ex C.B. Clarke, it is distinct in its leaves with 2–3 pairs of lateral veins that lack domatia (not 4–5 pairs of veins with domatia), in the longer corolla tube 22–30 mm and wider corolla lobes $13\text{--}18 \times 4\text{--}6$ mm (not with a tube 9–20 mm and lobes $15\text{--}20 \times 2\text{--}3.5$ mm). Type: Thailand, Phangnga Province, Khao Katakwan, ca 1000 m, climbing on low herbage on peak, 8 Mar. 1930, *Kerr 18458* (holotype **K**; isotype **BK**). Fig. 1.

Woody climber. *Twigs* terete, glabrous, light brown, ca 5 mm thick. *Leaves*: unifoliolate, glabrous;

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petioles twisted, slender, 0.7–2 cm long; lamina broadly ovate, (6.5–)9–14.5 × (4–)5–7.5 cm, thinly coriaceous, sometimes bullate, base rounded, margin not recurved, apex attenuate, tip mucronate; venation pinnate, lateral veins 2(–3) on either side of the midrib, ascending strongly and forming a submarginal vein ca 5–7 mm from margin, slightly prominent above, prominent beneath; intercostal venation obscure; without domatia. *Inflorescences* terminal on side shoots, few-flowered cymes, peduncle 1.7–2.3 cm long; bracts leafy, 23 × 9 mm, caducous. *Flowers*: pedicels 3–4 mm long; calyx glabrous, tube funnel-shaped, 2–3 mm long, lobes 5–7, subulate, 5–9 mm long; corolla white, glabrous, tube 22–30 mm long, ca 3 mm wide, lobes 7–9, oblong, 13–18 × 4–6 mm, apex acute, tip apiculate; stamen: filaments ca 1 mm long (in short-styled flower); anthers ellipsoid, ca 7 mm long, connective broad, apex mucronate; ovary globose, ca 1 mm diam, glabrous, style (in short-styled flower) ca 4 mm long, stigma spear-shaped, ca 5 mm long. *Fruits*: lobes ellipsoid, ca 8 × 6 mm; fruit stalk 5–7 mm long.

Thailand.—PENINSULAR: Ranong [Khao Pota Luang Kao (Kao Pawta Luang Keo) ca 1300 m, flowers white, climbing on bushes on ridge, 2 Feb. 1929 *Kerr 16966* (BK, K); *ibid*, ca 1300 m, flowers white, climbing in open evergreen forest, 1 Feb. 1929 *Kerr 17539* (K)]; Phangnga [Khao Katakwan, ca 1000 m, climbing on low herbage on peak, 8 Mar. 1930, *Kerr 18458* (BK, K)]; Pattani [Khao Kalakiri ca 800 m, woody climber, flowers white, evergreen forest, 2 Apr. 1918 *Kerr 14989* (BK, K)].

Distribution.— Endemic in Peninsular Thailand (Pattani, Phangnga and Ranong Provinces).

Ecology.— Open evergreen forest, on ridges or summits at 800–1300 m elevation.

Etymology.— It is named for the region where it occurs.

Conservation status.— DD (Data Deficient). The species has not been collected for eighty years.

Notes.— Kerr (1939) identified *Kerr 14989* and *Kerr 16966* as *J. smilacifolium* and *Kerr 17539* and *Kerr 18458* as *J. subtriplinerve*. Neither of these species occurs in Thailand (Green, 2000). *Jasminum peninsulare* has pinnate venation and is distinct from both *J. smilacifolium* (from Peninsular Malaysia and Sumatra) and *J. subtriplinerve* (from India and Sikkim), those species having tripliveined leaves.

While these Thai specimens superficially resemble *J. kedahense* in leaf shape (they have ovate leaves), they are, as Green (2000) noted, different in being glabrous. In addition they also differ in leaf texture, inflorescence type and fruit size, so are here recognised as a distinct new species.

Among the Thai species with leaves with pinnate venation, *J. peninsulare* most resembles *J. adenophyllum* in its few-flowered inflorescences, glabrous calyx with filiform lobes longer than the tube, but is distinct from this species in its leaves that have fewer veins and no domatia and its larger corollas with broader lobes.

***Jasminum ranongense* Kiew, sp. nov.**— *J. kedahense* auct. non (King & Gamble) Ridl.: Green, Fl. Thailand 7(2): 337. 2000, fig. 31.

Among Thai jasmines with tripliveined leaves, few-flowered inflorescences and calyx lobes 5–12 mm long, *J. ranongense* is most similar to *J. nervosum* Lour., but differs in its 3–5-flowered cymes (not 1-(rarely 3-flowered) cymes) and longer corolla tube 22–25 mm with broader lobes 17–19 × 4–4.5 mm (not with a corolla tube 12–20 mm long and lobes 12–20 mm × 1.5–2 mm). Type: Thailand, Ranong Province, Khao Pota Luang Kao (Khao Pawta Luangkaeo), shrubby ridge on top area alt. 1200–1300 m. 60 cm shrub, 10 Dec. 1979, *Shimizu, Toyokuni, Koyama, Yahara & Niyomdhan T 26883* (holotype BKF). Fig. 2.

Woody climber to 60 cm, main stem to 4–5 mm diam., young stems minutely pubescent, soon becoming glabrous, drying brown, 2–3 mm diam. *Leaves*: petioles 1.5–1.7 cm long, slender, 1–1.3 mm thick; lamina narrowly to broadly lanceolate, 9.5–11.5 × 2.7–4.7 cm, base cuneate or rounded, margin slightly thickened, apex in narrow leaves long attenuate, in broader leaves less so, glabrous, slightly or moderately coriaceous; venation tripliveined, with one basal pair of main veins arising ca 4–5 mm above base, with 3–4 pinnate veins on both sides of the midrib in the upper third of the lamina, veins impressed above, slightly prominent beneath; intercostal veins obscure; without domatia. *Inflorescences* terminal on slender side shoots, few-flowered cymes with 3–5 flowers, glabrous; peduncle 0.8–4 cm long, bracts narrowly lanceolate, ca 5 mm long. *Flowers*: pedicels 5–8 mm; calyx glabrous, tube 2–3 mm,



Figure 1. The holotype specimen, Kerr 18458, of *Jasminum peninsulare* Kiew, from Khao Katakawm, Phangnga Province. (Image reproduced with the consent of the Royal Botanic Gardens, Kew).



Figure 2. *Jasminum ranongense* Kiew. Flowering branch (*Shimizu et al. T 26883*); fruiting branch (*Niyomdham & Kubat 1427*). (Figure 31, Fl. Thailand 7(2): 338. 2000), reproduced with permission from the Forest Herbarium, Department of National Parks, Wildlife and Plant Conservation, Bangkok).

lobes narrowly lanceolate, 6–8 mm long; corolla white; tube 22–25 mm long, lobes 7–8, lanceolate, 17–19 × 4–4.5 mm, apex narrowed to an apiculum ca 2 mm long. *Fruit* (only one lobe developed) 12–14 × 9–10 mm.

Thailand.— PENINSULAR: Ranong [Mueang Chon Tin Mine, Khao Pota Luang Kaeo ca 1300 m. climber fruits green, evergreen forest, *Niyomdham & Kubat 1427* (BKF)]; *ibid* (Khao Pawta Luangkaeo), shrubby ridge on top area alt. 1200–1300. 60 cm shrub, 10 Dec. 1979, *Shimizu et al. T 26883* (BKF).

Distribution.— Endemic in Thailand, rare and known only from Ranong Province (Khao Pota Luang Kaeo).

Ecology.— Evergreen forest, sometimes on ridges at 1200–1300 m elevation.

Etymology.— Named for the province where the two specimens were collected.

Conservation.— DD (Data Deficient). The species has not been collected for twenty years.

Notes.— Figure 31 in Green (2000) (Fig. 2 here) illustrates specimens held in BKF: *Shimizu et al. T 26883* with flowers and *Niyomdham & Kubat 1427* with fruits. They are completely different from Malaysian *J. kedahense*. *Jasminum ranongense* is a slender, glabrescent climber to 60 cm (not a robust bushy, densely tomentose climber to 2 m tall as in *J. kedahense*), it has tripliveined, narrower lanceolate leaves, 9.5–11.5 × 2.7–4.7 cm (not pinnate, ovate leaves, 8–12 × 4–6 cm), few-flowered cymes (not many-flowered corymbose cymes), and the corolla is smaller with the tube 22–25 mm long and lobes 17–19 × 4–4.5 mm (not with a tube 25–30 mm long and broader lobes 14–19 × 5–6 mm).

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REFERENCES

- Chalermglin, P. & R. Kiew. 2013. A new species of *Jasminum* (Oleaceae) from Thailand. *Blumea* 58: 80–81.
- Green, P.S. 2000. Oleaceae. *Flora of Thailand* 7(2): 271–340.
- Kerr, A.F.G. 1939. Oleaceae. *Florae Siamensis Enumeratio* 2: 395–421.
- Srisanga, P., C. Trisonthi & P.S. Green. 2004. *Jasminum rufohirtum* Gagnep. (Oleaceae) a new record for Thailand. *Thai Forest Bulletin (Botany)* 32: 146–148.