

Jasminum vietnamense (Oleaceae), a new species from Vietnam

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Jasminum vietnamense B.H. Quang & Joongku Lee, *sp. nova* (Oleaceae) from Quang Nam province of Vietnam is described and illustrated. It is morphologically similar to *J. adenophyllum*, *J. fuchsiifolium* and *J. pierranum*, but differs from them by having a comparatively smaller calyx tube, absence of domatia at vein axils of the leaf, and by considerably smaller bracts.

Jasminum in the family Oleaceae comprises about 200 species distributed in tropical and subtropical regions of South East Asia, Europe, Australia and Africa (Mabberley 2008). In Vietnam, the genus has been taxonomically studied by several authors (Pham 2003, Tran 2003) and is represented by 35 species (Bui *et al.* 2013, 2014). During a floristic exploration trip to Song Thanh Natural Reserve in Quang Nam Province of south Vietnam, an interesting species of *Jasminum* was encountered. After a thorough scrutiny of the available literature (Gagnepain 1933, Kobuski 1939, Kiew 1994, Chang *et al.* 1996, Pham 2003, Green 2000, 2003, Tran 2003, Chalermglin & Kiew 2013) and relevant specimens from various herbaria in Vietnam (HN, HNU, HNPM, VNM),

China (IBSC, KUN) and virtual herbaria such as E and K, it turned out to be an undescribed species. It belongs to the *Unifoliolata* group, and is morphologically close to *J. adenophyllum*, *J. fuchsiifolium* and *J. pierranum*, in having coriaceous leaves and simple axillary cymose inflorescence with 1–3 flowers.

***Jasminum vietnamense* B.H. Quang & Joongku Lee, *sp. nova* (Figs. 1 and 2)**

HOLOTYPE: Vietnam. Quang Nam Province: Nam Giang District, Tapoo Commune, 15°39'15.7"N, 107°36'22.2"E, alt. 384 m a.s.l., 8 March 2014 Bui Hong Quang 76 (HN; isotype KRIB). — PARATYPES: Vietnam. Quang Nam Province: Nam Giang District, Tapoo Commune, 15°39'15.7"N,

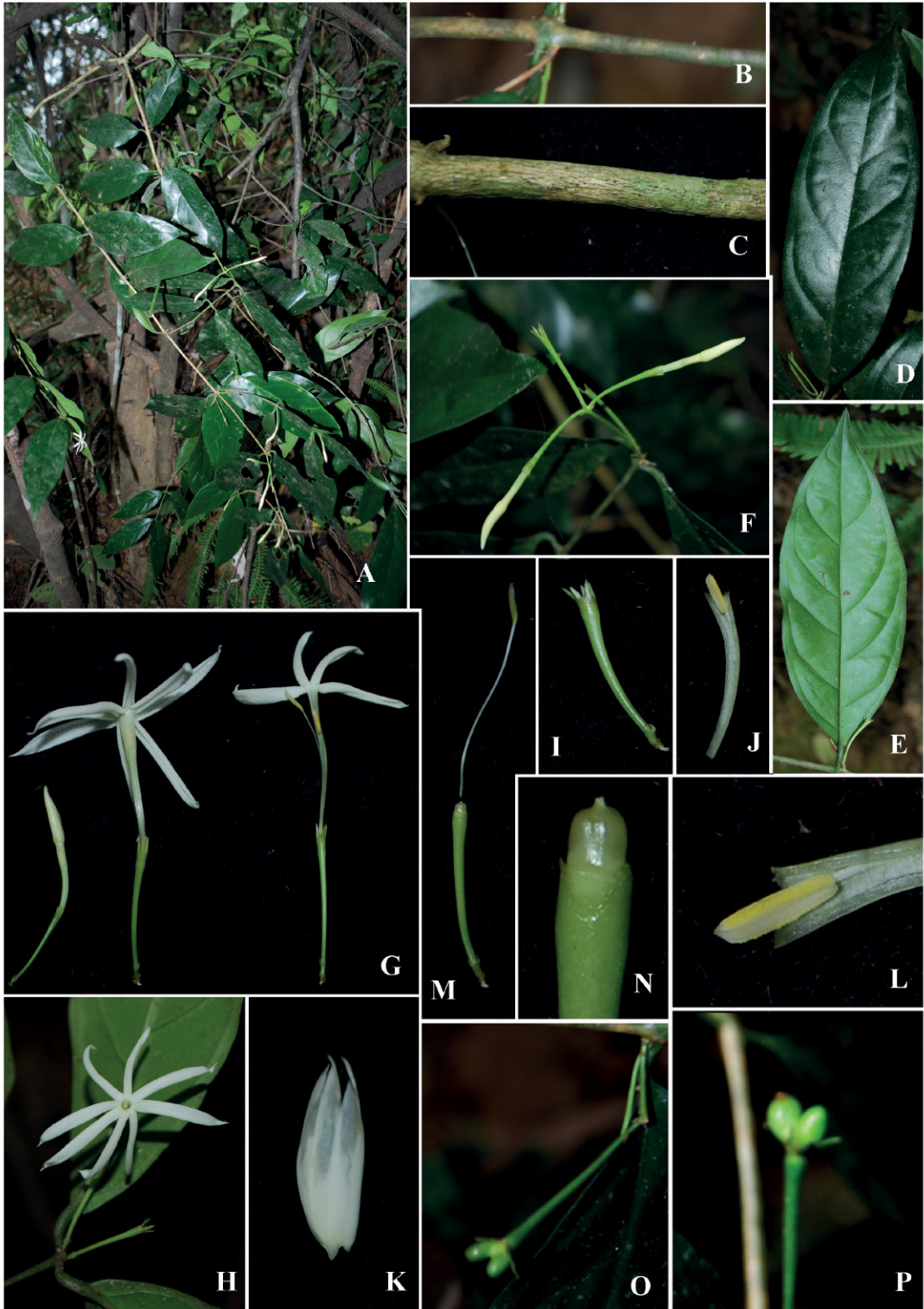


Fig. 1. *Jasminum vietnamense* (photos by Bui Hong Quang). — **A:** Habit. — **B** and **C:** Branchlets. — **D** and **E:** Adaxial and abaxial surface of leaf. — **F:** Inflorescence. — **G:** Corolla tube. — **H:** Flower. — **I:** Calyx. — **J:** Corolla tube. — **K:** Corolla lobes. — **L:** Anther. — **M:** Ovary, pistil. — **N:** Ovary. — **O** and **P:** Fruit.

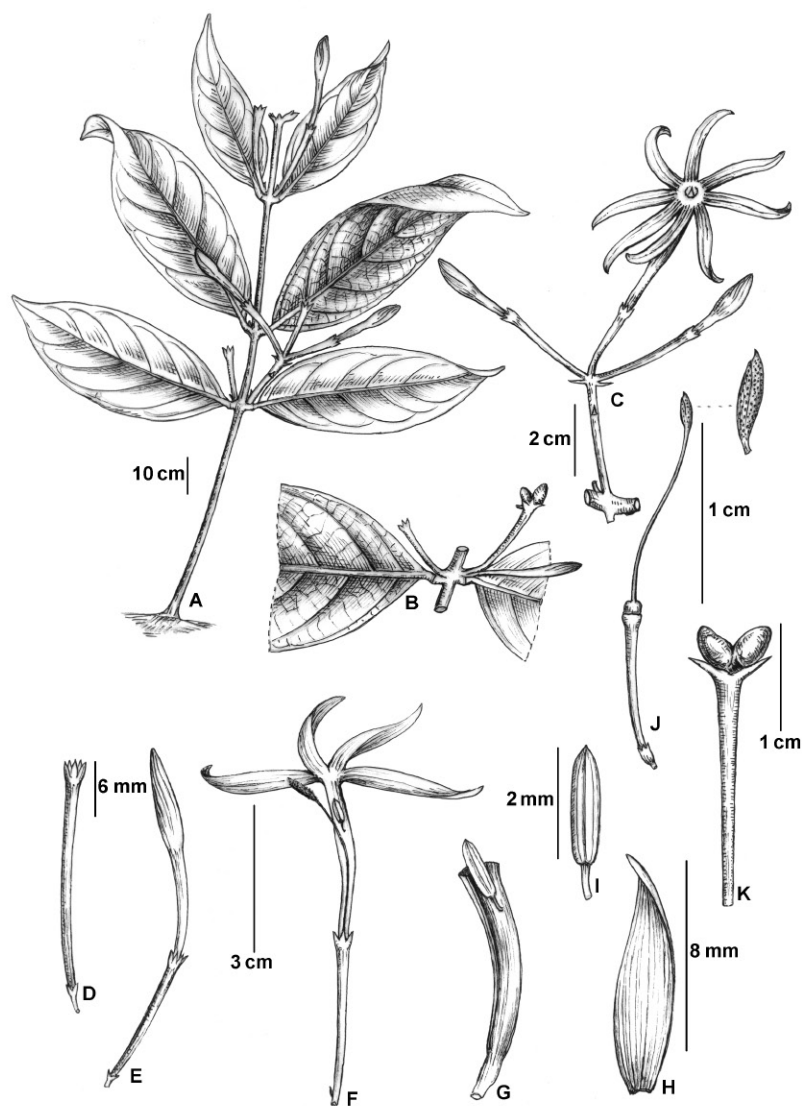


Fig. 2. *Jasminum vietnamense* (drawn from the holotype by Bui Hong Quang). — **A:** Habit. — **B:** Branchlets. — **C:** Inflorescence. — **D:** Calyx. — **E and F:** Flower. — **G:** Corolla tube. — **H:** Corolla lobes. — **I:** Anther. — **J:** Pistil. — **K:** Fruit.

107°37'22.4"E, alt. 400 m a.s.l., 15 April 2015 *T.T. Bach, V.T. Chinh, D.V. Hai, B.H. Quang, S.D. Thuong, PTV-1053* (HN!) and 15°39'24.33"N, 107°36'26.9"E, alt. ca. 400 m a.s.l. 31 January 2016, *Joongku Lee et al., JK-20161* (HN!).

ETYMOLOGY: This species is named after the country Vietnam where it was discovered.

Scandent shrubs, up to 2 m long. Branchlets terete, young twigs glabrous. Leaves opposite, simple; petiole 0.5–1 cm long, glabrous; blade elliptic-narrowly elliptic, adaxial surface dark green, abaxial pale green, ca. 8–10(15) × 3–5 cm, chartaceous, base cuneate, apex shortly acuminate, domatia at vein axils absent; primary veins

5–6 on each side of midrib, slightly raised above, obscure below. Inflorescence simple, terminal or sometimes axillary, glabrous, cymose, with 1–3 flowers, peduncle glabrous, ca. 1–2 cm; bracts linear, ca. 1–2 mm long, glabrous. Pedicel ca. 1–2 cm long, glabrous. Calyx campanulate, dark green, glabrous; tube 1–2 mm long, 0.5–1 mm wide; lobes 5, lobes teeth subuliform, 1–2 mm long. Corolla salverform, white, glabrous; tube slender, 1–1.5 cm long, 1.5 mm wide, lobes 8, narrow, 5–10 × 2–3 mm, apex acute. Stamens 2; filaments 0.5–1 mm long, glabrous. Anthers 1.5–2 mm long, with acute connective appendage

Table 1. Morphological comparison of *Jasminum vietnamense* with its morphologically closest allies. Information of *J. adenophyllum* and *J. pierranum* is based on Green (2000) and that of *J. fuchsiifolium* on Chang *et al.* (1996).

	<i>J. vietnamense</i>	<i>J. adenophyllum</i>	<i>J. fuchsiifolium</i>	<i>J. pierranum</i>
Young twigs	glabrous	glabrous or scattered puberulent	glabrous	glabrous
Leaves	elliptic–narrowly elliptic, 8–10(15) × 3–5 cm, chartaceous, base cuneate, apex shortly acuminate, domatia absent	elliptic–oblong elliptic 6–15 × 2–7 cm, base attenuate, grooved petiole, apex slightly acuminate, 3–4 tufted domatia at vein axils	ovate to ovate–lanceolate or narrowly elliptic, 5–17.5 × 1.3–4.5(6) cm, base rounded, truncate, or cuneate, apex acuminate or acute, domatia present in axils	elliptic–oblong to usually narrowly obovate or broadly oblanceolate, 4.5–6–12(18) × 1.7–2.5–5(7.5) cm, base rounded, apex acuminate, domatia present in axils
Primary veins	5–6 on each side of midrib	4–5 on each side of midrib	5–9 on each side of midrib	4 on each side of midrib
Inflorescence	terminal or sometimes axillary, glabrous, cymose, with 1–3 flowers; pedicel 1–2 cm long, glabrous	axillary, glabrous, cymose, with 1–3(5) flowers; pedicel 1–4 cm long, glabrous	axillary, in 3–6-flowered lax racemose cyme, or in 3-flowered umbellate cymes; pedicel 1–4 cm long	terminal or sometimes axillary, glabrous, cymose, with 1–9 or more flowers; pedicel ca. 3 cm long
Bracts	linear, ca. 1–2 mm long	linear, ca. 2 mm long	linear, 1–6 mm long	linear, 1–4 mm long
Calyx	tube 1–2 mm long, lobes 5, subuliform, 1–2 mm long	tube ca. 2 mm long, lobes 5, somewhat filiform, 5–14 mm long	tube 2–2.5 mm long, lobes 5, subulate or deltate, 2–3 mm long	tube 1.5–2 mm long, lobes 4, subulate to usually triangular, acute, 0.25–1 mm long
Corolla	white, tube 1–1.5 cm long, 8-lobed, lobes narrowly lanceolate, 5–10 × 2–3 mm	white, tube 0.9–1.5(2.0) cm long, 8–9-lobed, lobes narrowly, lanceolate, 15–20 × 2–3.5 mm	white, tube 1–1.4 cm, 5–6-lobed, lobes oblong to lanceolate, 7–9 mm long	yellow–white, tube 1.5–2.2 cm long, 5–6-lobed, lobes narrowly lanceolate, 9–12 × 1–2 mm
Fruit	ellipsoid, 0.6–1 × 4–7 mm	spheroidal, 7.0 × 5.0 mm	globose or ellipsoid, 6.0–10.0 × 5.0 mm	subglobose, 6.0 × 5.0 mm

ca. 0.2 mm. Ovary barrel-shaped, 0.2–0.5 mm, glabrous; style, 1–1.5 cm long, glabrous; stigma narrowly oblong, ca. 4 mm long, glabrous; ovules 2. Fruits ellipsoid, greenish, 0.6–1 × 4–7 mm. Flowering in March, fruiting in April.

Jasminum vietnamense can be distinguished from *J. adenophyllum*, *J. fuchsiifolium* and *J. pierranum* by several characters (Table 1). It was found growing on small hillocks in open secondary sub-tropical forest areas of Tapoo Commune in association with *Scaphium macropodium*, *Allophylus laxiflorus*, *Lasianthus chevelierii*, *Antidesma henryi*, *Gynochthodes proboscidea*, *Embelia ribes*, *Eurycoma longifolia*, *Miliusa elongata*, *Dendrocnide* sp., *Ardisia* sp., *Tabernaemontna*

buffalina, *Licuala robinsoniana*, *Syzygium pachysarcum*, *Selaginella* sp. and *Botrychium lanuginosum*, at 384–400 m a.s.l. We found only about 30 plants in the habitat which is prone to be affected by anthropogenic activities. Efforts to find the species in the surrounding areas were unsuccessful.

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