

***Camellia bidouensis* - A new species of *Camellia* Section *Theopsis* (Theaceae) from Bidoup Nui Ba National Park in Vietnam**

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The Bidoup Nui Ba National Park is located in the northeast of Lamdong province, Vietnam. It is a national park of 64,000 hectares in area, holding 1,900 plant species.

At the present time, there are six species of *Camellia* genus distributed in Bidoup Nui Ba and the near areas: *C.inusitata*, *C.krempfii*, *C.quangcuongii*, *C.kissi*, *C.ligustrina*, and *C.sonhaiensis*. In recent surveys at December 2018 and April 2019, we collected specimens of an interesting plant within the *Camellia* genus. And after analyzing and comparing its morphological characteristics with closely similar species, we assert that this is a new species. The name of the new species is *Camellia bidouensis*.

***Camellia bidouensis* Truong, Luong & Tran, sp. nov. (Fig. 1, 2)**

Small to medium evergreen tree, 3–7 m tall, bark brown-gray; branches young pubescent and becoming glabrous.

Leaves stalked, broad ovate or elliptic, 8-12 cm long, 3.5-5.5 cm wide, thickly, coriaceous; apex acute to attenuate, base near rounded to obtuse, margins regularly serrate; dark green and shiny above, paler green below; glabrous on both faces; midribs and lateral veins sunken above, protruding below; secondary venation pinnate, with 7-11 pairs of veins; petiole falcate, slightly curved, round, thin, of the same pale blue-purple colour, 8-12 mm long, glabrous.

Flowers solitary or geminate, axillary, 2-2.5 cm diameter; pedicel 4-5 mm long, glabrous, light green to yellowish green; bracts 3-(4), scales, 2-3.5 mm long, 2.5-4 mm wide, grey, glabrous, deciduous.

Sepals 5, orbicular or subglobose, 4.5-5.5 mm long, 4-5 mm wide, pale green, glabrous, persistent.

Petals 5-6, pale yellow, purple stripes at the base, glabrous, the outer whorl 2-3 petals, subglobose to broadly obovate, 8-11 mm long, 7-12 mm wide; the inner whorl 3 petals, broadly obovate, 1-1.5 cm long, 0.7-1.2 cm wide, united with outermost filaments 1.5-3 mm at the base.

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Androecium numerous stamens in 3-4 circles, filaments 1.0-1.3 cm long, light yellow, glabrous, outer filament united for 3-4.5 mm from the base and form a cup; anthers yellow, ca.1.5 mm. Gynoecium 3 loculi, ovary ovate, 2.5-3 mm long, 1.5-2 mm wide, glabrous; style 3, free to the base, 2-3 mm long, glabrous.

Capsule curved to one side, asymmetrically ovoid, 1-(2) loculed with 1 seeded, columella nearly abortive, pericarp 1-1.5 mm thick, glabrous, 3-3.2 cm long, 2.4-2.8 cm wide. Seed ellipsoidal or subglobose, 3-3.5 cm long, 2-2.5 cm wide, glabrous.

Etymology: The specific epithet refers to the type location, Bidoup Nui Ba National Park, in Vietnam where the first species discovered.

Distribution and ecology: This species was found in the evergreen forest at altitudes of 1600m, trees scattered along the rocky mountains. The flower season from November to January of the next year, fruit season from April to June.

Typus: Vietnam, Lam Dong, Bidouop Nui Ba National Park, evergreen forest, at altitudes of 1600 m, Truong Quang Cuong, Luong Van Dung, Do Cong Thuan, Trinh Van Muoi, Tran Hoang Than DL.181201 (Holotypus, DLU), DL.190401 (Paratype, DLU).

Taxonomic remarks: *Camellia bidouensis* possesses some morphological characteristics common to the species belonging to Section *Theopsis* such as flowers axillary, solitary or paired, small. Bracteoles (2 or) 3-5(-8), persistent. Sepals 5, basally \pm connate. Petals 5(-7), white, basally connate and adnate with androecium. Stamens in 2 whorls, glabrous; outer filament whorl basal 2/3 usually connate into a tube. Gynoecium glabrous. Ovary 3(-5)-loculed. Capsule 1(-4)-loculed, usually 1-seeded, rarely more; columella nearly abortive; pericarp ca. 1 mm thick, leathery, splitting into 3 valves (Sealy 1958, Minh & Bartholomew 2007).

Therefore, *Camellia bidouensis* is classified into the section *Theopsis*. Among species within the Sect. *Theopsis* occurring in Vietnam and China, the morphologically closest species to this new species is *Camellia quangcuongii*. The main differences between the two species are young branches pubescent (*C.quangcuongii* young branches glabrous); leaf blade shape broad ovate or elliptic (*C.quangcuongii* leaf blade oblong-elliptic or ovate-lanceolate), abaxial glabrous (*C.quangcuongii* abaxial sparse hair); flower diameter 2-2.5 cm (*C.quangcuongii* flower diameter 4-5 cm), petal color cream with purple stripes at the base (*C.quangcuongii* petal color white).

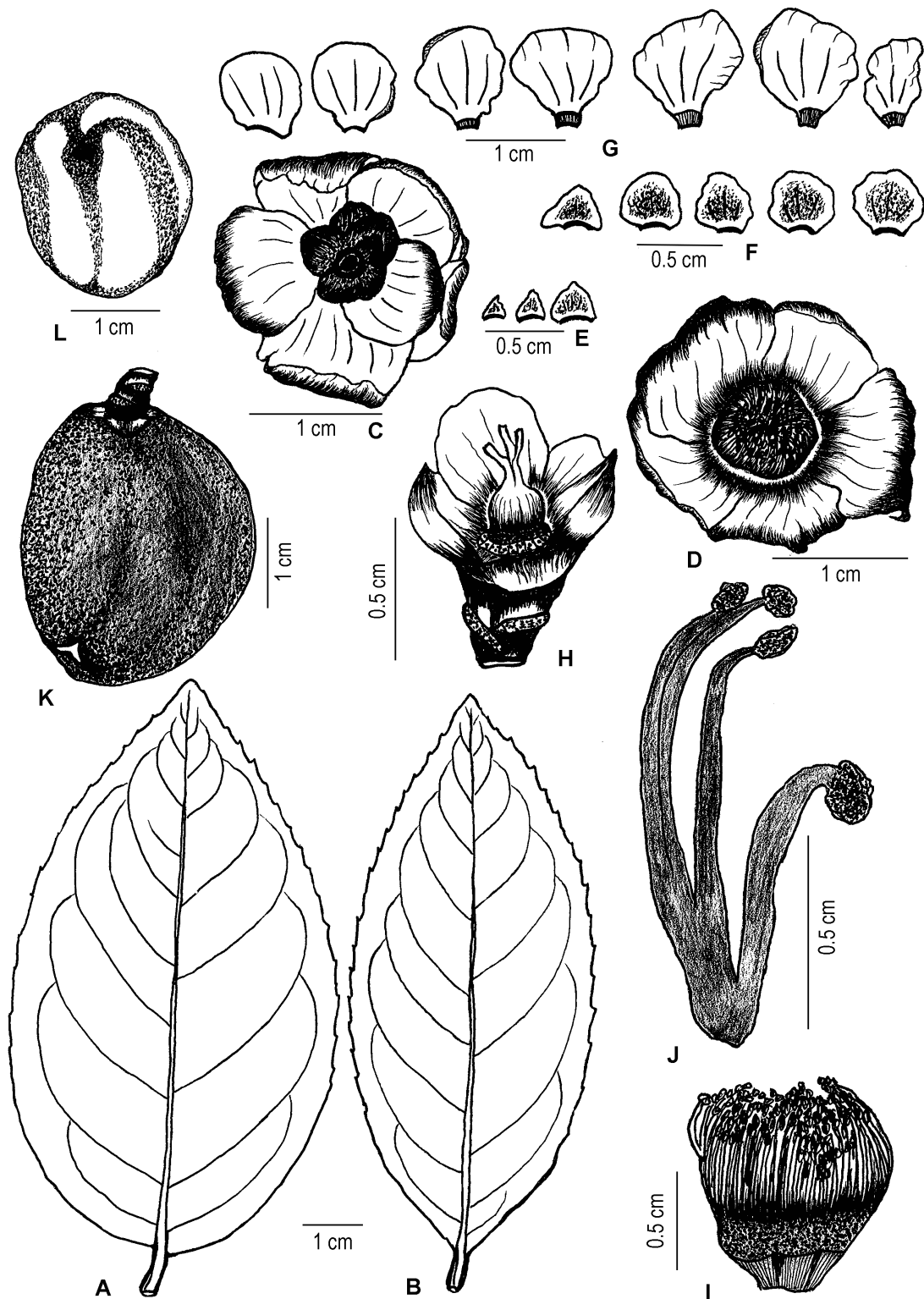


Figure 1. *Camellia bidoupensis*. **A, B.** Leaves; **C.** Flower (back view); **D.** Flower (top view); **E.** Bracts (inner surfaces shown); **F.** Sepals (inner surfaces shown); **G.** Petals (inner surfaces shown); **H.** Sepals and Gynoecium; **I.** Androecium; **J.** Stamens; **K.** Fruit; **L.** Seed. Drawn by Luong Van Dung.

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Figure 2. *Camellia bidoupensis*. **(a)** Flower; **(b)** Branch with fruits

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