

Flora of Nam Kading National Protected Area IX: Two new species and seven new records of angiosperms for the flora of Laos

SHUICHIRO TAGANE^{1,*}, PHETLASI SOULADETH², DEUANTA KONGXAISAVATH²,
KEOODONE SOUVANNAKHOUMMANE³, PHONGPHAYBOUN PHONEPASEUTH⁴,
THYRAPHON VONGTHAVONE⁵, VAN-SON DANG⁶ & TAKENORI YAMAMOTO¹

ABSTRACT

Two new species, *Greenea laotica* (Rubiaceae) and *Palaquium laoticum* (Sapotaceae), are described based on specimens collected from the Nam Kading National Protected Area and its vicinity in central Laos. In addition, seven taxa of angiosperms are reported as new records for the flora of Laos: *Lonicera macrantha* (Caprifoliaceae), *Heritiera angustata*, *Heritiera parvifolia* (Malvaceae), *Olox imbricata* (Olacaceae), *Pellacalyx yunnanensis* (Rhizophoraceae), *Psychotria bonii* (Rubiaceae), and *Pouzolzia zeylanica* var. *calcicola* (Urticaceae). For each species, voucher specimens are cited, photographs are shown and additional information including geographical distribution, ecology and taxonomic notes are provided. Lectotype is proposed for *Olox imbricata*.

KEYWORDS: Bolikhamxai, Botanical inventory, Indochina, Khammouane, plant taxonomy.

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INTRODUCTION

Since 2016, we have carried out several botanical inventories in Nam Kading National Protected Area and its vicinity in central Laos, to elucidate the overall flora of this area. Our recent field expeditions and subsequent taxonomic studies have led us to the discovery of additional findings new to the flora of Laos, which we report below. The general information on our field activities, voucher specimens, and methodology of our taxonomic studies can be known in our previous publications (e.g. Souladeth *et al.*, 2017, 2019; Tagane *et al.*, 2018a, b; Phonepaseuth *et al.*, 2024).

NEW SPECIES

RUBIACEAE

Greenea laotica Soulad., Souvann. & Tagane, **sp. nov.**

Similar to *Greenea rivularis* Tange in having sessile flowers and a ring of stiff hairs inside the corolla tube, but distinguished by its smaller stipules (1–1.2 cm long in *G. laotica* vs 2–3 cm long in *G. rivularis*), shorter petioles (0.8–1.2 cm vs 3–6 cm long), smaller calyx lobes (ca 1 mm long vs 1.5–3 mm long), larger corolla (ca 12 mm long vs ca 7.2 mm long), longer filaments (ca 5 mm long vs ca 1.6

¹ The Kagoshima University Museum, Kagoshima University, 1-21-30 Korimoto, Kagoshima 890-0065, Japan.

² Faculty of Forest Science, National University of Laos, Dongdok Campus, Xaythany District, Vientiane Capital, Laos.

³ Faculty of Natural Science, National University of Laos, Dongdok Campus, Xaythany District, Vientiane Capital, Laos.

⁴ Faculty of Environmental Sciences, National University of Laos, Dongdok Campus, Xaythany District, Vientiane Capital, Laos.

⁵ Association for Community Development (ACD), Salavan Province, Laos.

⁶ Institute of Life Sciences, Vietnam Academy of Science and Technology, Vietnam.

* Corresponding author: stagane29@gmail.com

mm long), inside of corolla tube glabrous except for a ring of stiff hairs (vs with a ring of stiff hairs and hairy below a ring), and obtuse anthers apex (vs cuspidate). Type: Laos, Bolikhamxai Province, Pak Kading District, Ban Naphong, Nam Kading National Protected Area, 18.216958°N, 104.382452°E, alt. 550 m, 6 Nov. 2023, *P. Souladeth., T. Vongthavone, K. Souvannakhoummane & D. Kongxaisavath* Z702 [fl. and young fr.] (holotype **FOF** [FOF0005833!], isotypes **KAG** [KAG187124!], **VNM** [VNM00071532!]). Fig. 1.

Small tree to 3 m tall. *Young branches* strigose, hairs light brown or white faintly tinged with yellow, 0.4–1 mm long, old twigs grayish brown, glabrescent. *Leaves* opposite, decussate; blades oblanceolate to obovate, 21.7–35.5 × 6.6–10.4 cm, dark yellow-green, sparsely strigose adaxially, dull brownish yellow, glabrous except more or less dense strigose veinlets abaxially, apex acuminate, acumen up to 2.1 cm long, margin sparsely ciliate, base attenuate, midrib slightly prominent, concave adaxially, prominent abaxially, secondary veins 21–25 pairs, prominent abaxially, tertiary veins scalariform, prominent abaxially; petioles 0.8–1.2 cm long, strigose. *Stipules* triangular-lanceolate, 1–1.2 × 0.4–0.5 cm, connate for ca 1 mm from the base, adaxial surface strigose, denser along midveins, almost glabrous near the margin, abaxial surface glabrous except near the densely appressed hairy base, apex rounded. Inflorescences terminal, 17.5 × 12 cm, composed of helicoid cymes, each cyme with 3–6 sessile flowers, peduncle ca 5.5 cm long, appressed hairy. *Flowers* 5-merous, calyx tube 1.5–1.7 mm in diam., lobes narrowly triangular, ca 1 mm long, apex acute. *Corolla* white to pale light red, ca 12 mm long, tube ca 8 mm long, tubular-narrowly campanulate, diameter ca 1 mm at the basal 1/4, increasing to 2 mm at the mouth, outer surface strigose, inside with a ring of upward pointing stiff hairs inserted 2–3 mm above the base, otherwise glabrous; corolla lobes ovate-triangular, 3–4 × ca 2 mm, erect, apex acute, densely pilose inside, strigose outside. *Stamens* 5, inserted on the corolla tube, filaments ca 5 mm long, glabrous, basally connate to corolla tube, anthers 3.3–3.5 mm long, with a few hairs, apex obtuse, base bifid. *Ovary* densely strigose, 2-locular, style 12.5–13 mm long, thickened towards the apex, stigma equal to slightly exerted from the corolla,

bifurcate, 1.8–2 mm long, papillose on the adaxial surface. *Fruits* spherical, ca 4 mm in diam., strigose, calyx lobes persistent, reflexed.

Additional specimens examined.— LAOS. Bolikhamxai Province, Viengthong District, Ban Nadi, Nam Kading National Protected Area, 18.309030°N, 104.512040°E, alt. 515 m, 5 Sept. 2023, *Tagane et al.* Z388 [ster.] (**FOF** [FOF0005546], **KAG** [KAG186828], **VNM** [VNM00071904]); Khammouane Province, highway Khounkham village toward Vientiane, 18°22'N, 104°32'E, alt. 450 m, 14 Feb. 2002, *Soejarto et al.* 11901 [fr.] (L [L.2911585, L.2911586] photos seen); Khounkham District, Phou Pha Marn, 18.1786°N, 104.4862°E, alt. 460 m, 8 Mar. 2025, *Tagane et al.* Z2348 [fr.] (**FOF** [FOF0007598], **KAG** [KAG201070], **VNM** [VNM00074019]).

Distribution.— Laos (Bolikhamxai and Khammouane Provinces).

Ecology in Laos.— In seasonal evergreen broad-leaved forest mixed with bamboo, near streams, forest margin on limestone; alt. 450–550 m.

Vernacular name.— ພາຂວັນລາວ (Pha-khuan Lao). “Pha-khuan” refers to the shape of helicoid cymes that are similar to the shape of a tray prepared for a blessing ceremony in Lao; and “Lao” refers to the country name where we collected the type materials), suggested here.

Notes.— *Greenea* Wight & Arn. is a small genus consisting of nine species distributed in continental Southeast Asia extending to Sumatra (Tange, 2013; POWO, 2025). In Laos, only one species, *Greenea rivularis* Tange, was recorded from Tha Thom, Xaisomboun Province (former Xieng Khouang Province), the northern part of Central Laos (Tange, 2013; Newman *et al.*, 2017 onwards). *Greenia laotica* is easily distinguished from *G. rivularis* by the diagnostic characteristics mentioned above. It may also be similar to *G. vietnamensis* Tange endemic to Vietnam in having oblanceolate to obovate leaves and sessile flowers, but distinguishable by its abaxial leaf surface (glabrous when mature in *G. laotica* vs hirsute in *G. vietnamensis*), apex of stipule (rounded vs acute), hairs on axis of inflorescence (appressed hairy vs hirsute), narrower corolla (ca 2 mm in diam. at the mouth vs to 4.5 mm in diam. at the mouth), and longer styles (12.5–13 mm long vs ca 11 mm long).

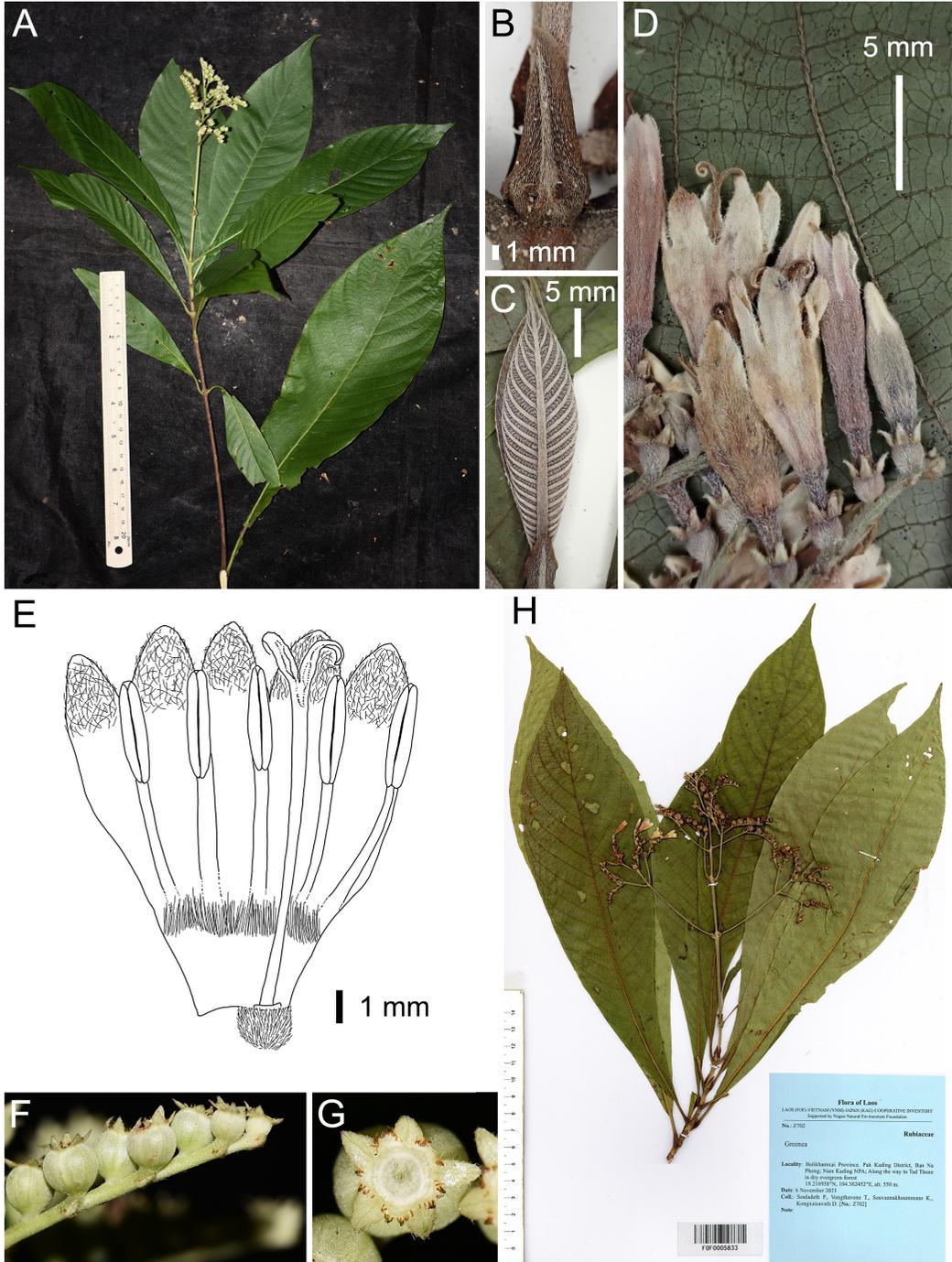


Figure 1. *Greenea laotica* Soulad, Souvann. & Tagane: A. branches with young fruits, B. stipule, C. young leaves, D. portion of inflorescence. E. calyx (sepal removed) and corolla (opened out), showing stamens and pistil. F. portion of infructescence. G. young fruit, top view. H. holotype (FOF0005833). B–E from Tagane *et al.* Z702 (KAG187124). E drawn by S. Tagane.

SAPOTACEAE

***Palaquium laoticum* Tagane & Soulad., sp. nov.**

Similar to *Palaquium hansenii* Chantar., endemic to Peninsular Thailand, in having obovate to elliptic leaves with obtusely acuminate apex and secondary veins of about 10 pairs but distinguished by its longer petioles 1.2–1.6 cm long (vs 0.5–1.2 cm long in *P. hansenii*), flowers arising mainly on old twigs behind leaves (vs in axils of apical leaves), longer pedicle of 4–5.5 mm long (vs 2–4 mm long), and reddish-brown hairy anthers (vs glabrous). Type: Laos, Khammouane Province, Khounkham District, 18.16623°N, 104.47261°E, alt. 147 m, 19 Mar. 2024, *S. Tagane, P. Souladeth, V.S. Dang, T. Yamamoto, K. Sowannakhoummane, N. Tanaka, D. Kongkaisavath, K. Phengmala, A. Sengthong, Q.B. Nguyen & K. Takahashi Z1225* [fl. buds] (holotype **FOF** [FOF0006322!], isotypes **KAG** [KAG187625!], **VNM** [VNM00070621!]). Fig. 2.

Trees, 6 m tall. *Branchlets* terete, dark grayish brown, glabrous when old. *Leaves* alternate, spirally, usually tufted at the end of branchlets; blades elliptic, oblong-elliptic, obovate-elliptic, 12–15.2 × 4.3–5.8 cm, chartaceous, dark brown adaxially, dull brownish yellow abaxially, glabrous on both surfaces, apex obtusely acuminate, base cuneate, margin entire, midrib prominent or sunken only at basal part adaxially, prominent abaxially, secondary veins 9–11 pairs, prominent abaxially, tertiary veins scalariform-reticulate, faintly visible; petioles 1.2–1.6 cm long, grooved adaxially, rounded abaxially, pubescent when young, glabrous when old. *Stipules* linear, 1.2 mm long, pubescent abaxially, caducous. *Flowers* 1–4 on old twigs behind leaves and occasionally in axils of leaves; pedicel 4.5–5.5 mm long, covered with reddish-brown short hairs. *Sepals* 6, in 2 whorls of 3, free, triangular, apex acute, outer surface covered with reddish-brown short appressed hairs, inner surface glabrous; outer sepals ovate-triangular, 3.1 × 2.8 mm; inner sepals ovate-triangular, 2.9 × 1.8 mm. *Corolla* ca 2 mm long, glabrous except for a few hairs at the apex of the lobes; tube ca 0.2 mm long, lobes 6, elliptic, ca 1.8 mm long, apex obtuse to rounded. *Stamens* 12, filaments ca 0.2 mm long, anthers ca 1.2 mm long, reddish-brown hairy, connective bifid, ca 0.1 mm long. *Ovary* conoid, tapering into a style, reddish-brown hairy, style ca 1.8 mm long, not exerted, glabrous except for

a reddish-brown hairy base. *Fruits* and seeds not seen. The measurements of flowers are based on flower buds.

Distribution.— Laos (so far known only from the type locality).

Ecology in Laos.— At the evergreen forest edge, along a dry stream near limestone hills, at alt. 150 m.

Vernacular name.— ບົງລາວ (Bong Lao). “Bong” refers to the common name of the genus *Palaquium* in Lao; and “Lao” refers to the type locality), suggested here.

Notes.— The genus *Palaquium* Blanco is a medium-sized genus, with ca 120 species, distributed from the Indo-Sri Lankan region through SE Asia to the Pacific islands (POWO, 2025). In Laos, three species, *P. annamense* Lecomte, *P. obovatum* (Griff.) Engl. and *P. poilanei* Lecomte were recorded (Aubréville, 1963; Newman *et al.*, 2017 onwards). In the surrounding countries of Laos, 10 species are known from Thailand (Chantaranothai, 1988; 2014), one from China (Li & Pennington, 1996), three from Vietnam (Aubréville, 1963; Hô, 2003), and one from Cambodia (Aubréville, 1963). Although our collection of *P. laoticum* is only with flower buds, it is easily distinguishable from these species by its leaf blades elliptic to obovate-elliptic up to 15.2 cm long, glabrous, and obtusely acuminate at apex, 9–11 pairs of secondary veins, glabrous corolla except a few hairs at the apex of the lobes, and reddish-brown hairy anthers (Fig. 2). Further field surveys would be desirable to complete the description including flowers, fruits, and seeds.

SPECIES NEWLY RECORDED IN LAOS

CAPRIFOLIACEAE

Lonicera macrantha (D. Don) Spreng., Syst. Veg., ed. 16. 4(2): 82. 1827.— *Caprifolium macranthum* D. Don, Prodr. Fl. Nepal.: 140 (1825). Type: Nepal, *Buchanan s.n.* (**BM** [BM000521768] photo seen). Fig. 3A&B.

Specimens examined.— Bolikhamxai Province, Viengthong District, Ban Hin Ngon, Nam Kading National Protected Area, 18.376820°N, 104.437270°E, alt. 387 m, 3 Sept. 2023, *Tagane et al. Z118* [fr.] (**FOF** [FOF0005299], **KAG** [KAG186584], **VNM** [VNM00071246]).

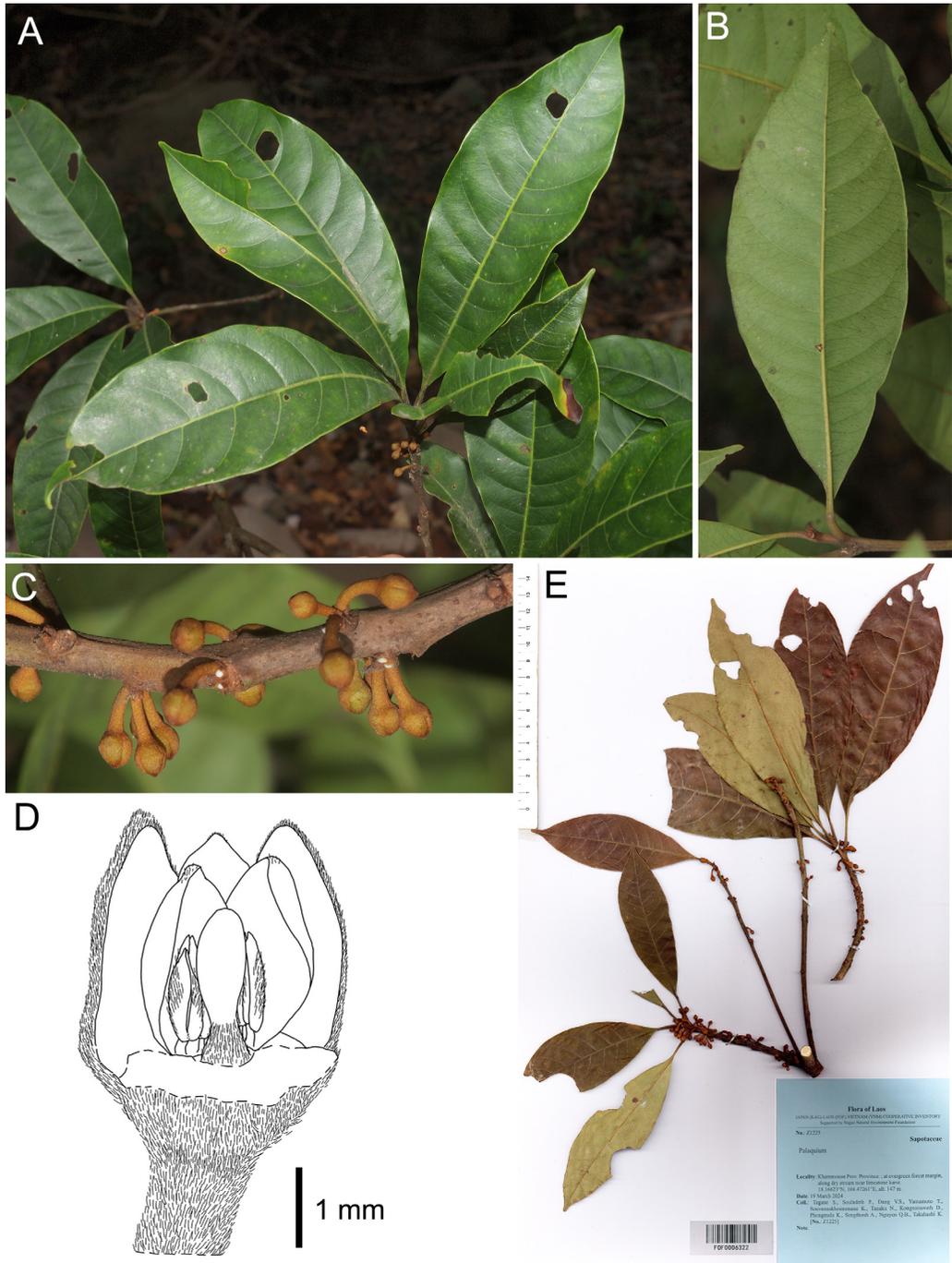


Figure 2. *Palaquium laoticum* Tagane & Soulad.: A. branches with flower buds, B. lower leaf surface, C. flower buds, D. portion of the flower, some sepals, petals, and stamens were removed to show pistil. E. holotype (FOF0006322). D from Tagane et al. Z1225 (KAG187625), drawn by S. Tagane.

Distribution.— India, Nepal, Bhutan, Myanmar, Thailand, Laos, Vietnam, China, Taiwan.

Ecology in Laos.— In seasonal evergreen broad-leaved forest mixed with bamboo, at alt. 400 m.

Vernacular name.— ສາຍນ້ຳເຜິ້ງ (Sai Nam-phuang). “Sai Nam-phuang” refers to honeysuckle, the common name of the genus *Lonicera* in English, suggested here.

Notes.— In Laos, two species of *Lonicera* have been known, namely *L. bournei* Hemsl. from northern Laos (Lim *et al.*, 2016) and *L. sumatrana* Miq. from southern Laos (Tagane *et al.*, 2020). *Lonicera macrantha* is easily distinguishable from these two by its branches, petioles, and peduncles densely covered with spreading yellow-brown long stiff hairs and minute glandular hairs (vs densely yellow pubescent in *L. bournei* and vs glabrous in *L. sumatrana*) (Rushforth, 2010; Yang *et al.*, 2011).

MALVACEAE

Heritiera angustata Pierre, Fl. Forest. Cochinch.: t. 204. 1889. Type: Cambodia, Kratie (‘Cratieh’), May 1876, *Harmand 2851* (holotype P [P06645444] photo seen). Fig. 3C–E.

Specimens examined.— Khammouane Province, Khounkham District, 18.16623°N, 104.47261°E, alt. 147 m, 19 Mar. 2024, *Tagane et al. Z1239* [fr.] (FOF [FOF0006333], KAG [KAG187639], VNM); Khounkham District, Ban Konglor, 17.95582°N, 104.74398°E, alt. 181 m, 5 Mar. 2025, *Tagane et al. Z2216* [fr.] (FOF [FOF0007469], KAG [KAG200942], VNM [VNM00074018]).

Distribution.— Laos, Cambodia, Vietnam, China.

Ecology in Laos.— In evergreen and semi-evergreen forest, often along a dried stream near limestone hills, at alt. 100–200 m.

Vernacular name.— ປັດໃບເງິນ (Pad Bai-ngeun). “Pad” names for to the genus *Heritiera* in Lao; and “Bai-ngeun” refers to the silvery white or slightly golden scales on lower leaf surface, suggested here.

Notes.— We identified this species as *Heritiera angustata* based on the characteristics of its simple

leaves, densely lepidote lower leaf surface, 8–12 pairs of secondary veins, and glabrous samara with apical wing of ca 1.5 cm long (Gagnepain, 1910; Kostermans, 1959). The genus *Heritiera* Aiton with about 35 species, is evergreen trees distributed in Africa, Asia to Australia, among which only one species, *Heritiera javanica* (Blume) Kosterm. had been known in Laos (Newman *et al.*, 2017 onwards). *Heritiera javanica* is occasional in evergreen forest at lowland in the country and easily distinguishable from *H. angustata* by its digitately compound leaves consisting of 5–7 leaflets.

Heritiera parvifolia Merr., J. Arnold Arbor. 6: 137. 1925. Type: China, Hainan, northwest slope of Five Finger Mountain, 29 June 1920, *Chun 2100* (holotype UC [UC243562] photo seen, isotypes A [A00062836, A00072434] photos seen). Fig. 3F–H.

Specimens examined.— Khammouane Province, Khounkham District, Tad Nam Sanam, 18.2186°N, 104.50429°E, alt. 349 m, 15 Mar. 2024, *Tagane et al. Z794* [fl.] (FOF [FOF0005921], KAG [KAG187209], VNM [VNM00070810]).

Distribution.— China (Hainan), Myanmar, Thailand, Laos.

Ecology in Laos.— In evergreen forest, at alt. 350 m.

Vernacular name.— ນິຍົມໃບກວ້າງ (Nignom Bai-kuang). “Nignom” means popular in Lao; and “Bai-kuang” refers to the broader leaves, suggested here.

Notes.— We found one large tree ca 25 m tall on a steep slope near Tad Nam Sanam Waterfall. This species is distinguished from *H. angustata* by its smaller leaves with fewer secondary veins (leaf blades 4–8.5 × 1.3–3.1 cm and secondary veins 5–7 pairs in *H. parvifolia* vs leaf blades 12.5–30.2 × 5.5–10.3 cm and secondary veins 11–16 pairs in *H. angustata*).

OLACACEAE

Olas imbricata Roxb., Hort. Bengal.: 5. 1814 (*nom. nud.*); Fl. Ind. 1: 169. 1820. Type: India, cultivated in Calcutta Botanical Garden, from plants originally from Bangladesh, Chittagong, 1824,

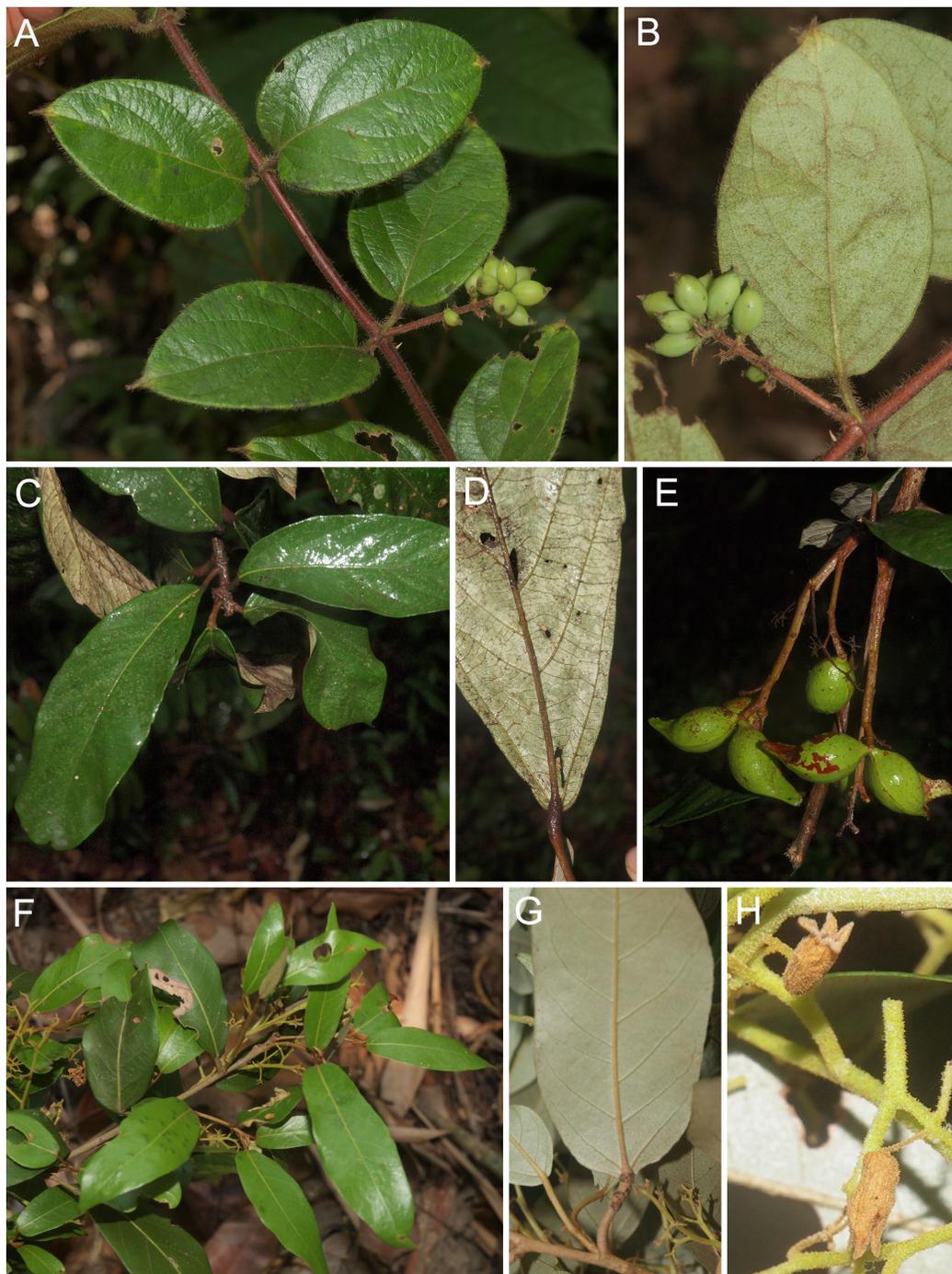


Figure 3. *Lonicera macrantha* (D. Don) Spreng.: A. fruiting branch, B. lower leaf surface. *Heritiera angustata* Pierre: C. leafy twig, D. portion of lower leaf surface, E. fruits. *Heritiera parvifolia* Merr.: F. branches, G. portion of lower leaf surface, H. flowers after anthesis.

Anon. s.n. [Wallich Cat. 6775A] (lectotype **BR** [BR0000005942602] photo seen, designated here; isolectotypes **PH** [PH00019745] photo seen, **K-W** [K001124799] photo seen). Fig. 4A–C.

Specimens examined.—Bolikhamxai Province, Pak Kading District near Ban Naphong, Nam Kading National Protected Area, 18.21482°N, 104.38088°E, alt. 285 m, 18 Mar. 2024, *Tagane et al. Z1114* [fl.] (**FOF** [FOF0006225], **KAG** [KAG187519], **VNM**).

Distribution.—India, Sri Lanka, Bangladesh, China, Myanmar, Thailand, Laos, Cambodia, Vietnam, Malaysia, Indonesia, Philippines, Papua New Guinea.

Ecology in Laos.—In evergreen forest, at alt. 300 m.

Vernacular name.—ດາວກະຈາຍ (Dao Ka-chai). “Dao Ka-chai” refers to the flowers with imbricate petals, suggested here.

Notes.—*Olox imbricata* is a widespread species distributed from India to Southeast Asia, extending to Papua New Guinea, but has not been recorded in the flora of Laos (Sleumer, 1984; Newman *et al.*, 2017 onwards; POWO, 2025). It is characterized by its densely lenticellate twigs, absence of thorns on branches and stems, ovate-oblong and subcoriaceous lamina, axillary racemose inflorescences up to 2 cm long, 3 linear-oblong petals, 3 stamens, and 5 bifid-staminodes (Sleumer, 1980; 1984).

In the protologue of *Olox imbricata*, Roxburgh (1820) did not indicate a particular collection but gave the locality “a native of Chittagong, where it flowers in the hot season”. In the taxonomic revision of Olacaceae by Sleumer (1980) and Phoon (2012) they mentioned, “holotype CAL n.v.” and “holotype CAL n.v., isotype BM n.v.”, respectively. Pertaining to the type specification of *Olox imbricata*, we could find its type neither at **CAL** nor **BM**, and instead the specimen Wallich Cat. 6775 was traced. It consists of two different collections, 6775A and B; the first, deposited at **BR**, **K-W** and **PH**, collected in HBC (Hortus Botanicus Calcuttensis) and the second, deposited at **K-W**, from Amherst, Myanmar in 1827. According to the label information on the sheet of **PH**, the former came from Chittagong, and thus the collection number 6775A is likely for its type material.

We proposed here the specimen Wallich Cat. 6775A at **BR** as the lectotype of the name, as it is the original Roxburgh specimen.

RHIZOPHORACEAE

Pellacalyx yunnanensis Hu, Bull. Fan Mem. Inst. Biol., Bot. 10: 130. 1940. Type: China, Meng-la, Jenn-yeh Hsien, alt. 850 m, Nov. 1936, *Wang 80597* (holotype **PE** [PE00025643] photo seen, isotypes **A** [A00368013] photo seen, **PE** [PE00024332, PE00025638, PE00025641, PE00025642, PE00025644, PE00025645] photos seen). Fig. 4D–F.

Specimens examined.—Bolikhamxai Province, Viengthong District, Ban Nadi, Nam Kading National Protected Area, 18.309607°N, 104.511795°E, alt. 490 m, 4 Sept. 2023, *Tagane et al. Z371* [fl. & young fr.] (**FOF** [FOF0005531], **KAG** [KAG186815], **VNM** [VNM00071820]); Vientiane Province, Kasi District, Ban Thong Muead, 19.3474°N, 102.1606°E, alt. 750 m, 17 Sept. 2025, *Tagane et al. Z3020* [fl. & young fr.] (**FOF**, **KAG** [KAG202561], **VNM**).

Distribution.—China, Laos, Vietnam.

Ecology in Laos.—In seasonal evergreen broad-leaved forest mixed with bamboo, near streams, at alt. 475–750 m.

Vernacular name.—ຂາງຢູນນານ (Khang Yunnan). “Khang” refers to the genus *Pellacalyx* in Lao; and “Yunnan” refers to the type locality, suggested here.

Notes.—*Pellacalyx yunnanensis* is characterized by its oblanceolate to lanceolate leaf blades 13–20 × 4.5–6.5 cm, 8–9 pairs of secondary veins, 6–7 persistent calyx lobes (Qin & Boufford, 2007; Vu *et al.*, 2010). In the checklist of the vascular plants of Laos, *Pellacalyx* sp. (Newman *et al.*, 2007) and *P. axillaris* Korth. (Newman *et al.*, 2017 onwards) were recorded based on specimens *Svengsuksa BT220 & BT232* (**L**, both collected from Khammouane Province). However, when we confirmed these specimen images via the Naturalis Bioportal (<https://bioportal.naturalis.nl/nl>), they were not species of *Pellacalyx* but *Euonymus indicus* B. Heyne ex Wall. (Celastraceae). Thus, we here report the occurrence of *P. yunnanensis* in Laos for the first time based on our collected materials.

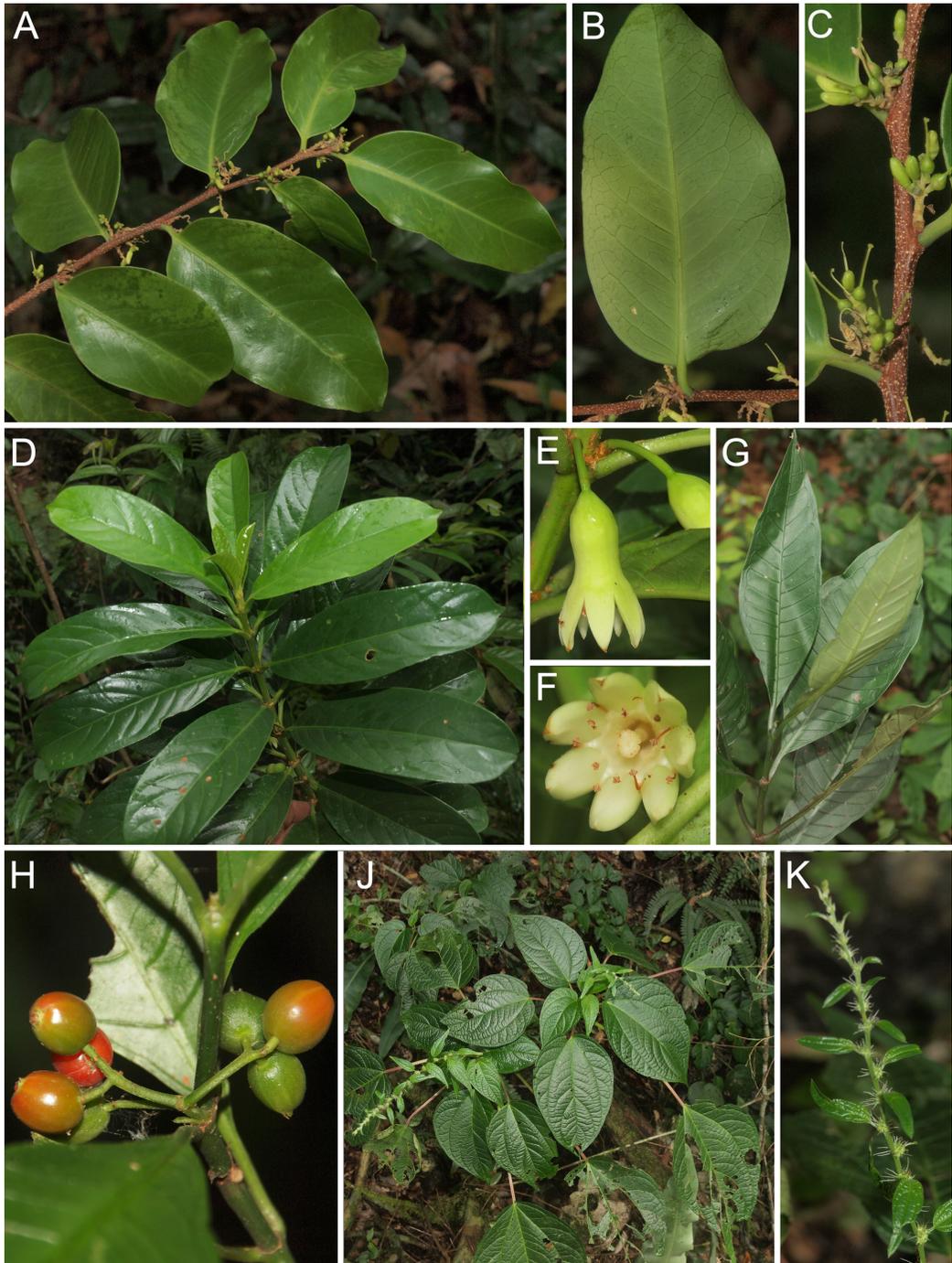


Figure 4. *Olax imbricata* Roxb.: A. flowering branch, B. lower leaf surface, C. inflorescences with flower buds and flowers after anthesis. *Pellacalyx yunnanensis* Hu: D. flowering branch, E. flower, side view, F. flower, front view. *Psychotria bonii* Pit.: G. leafy twig, H. fruits. *Pouzolzia zeylanica* var. *calcicola* Friis & Wilmot-Deaar: J. flowering plant, K. flowering branch.

RUBIACEAE

Psychotria bonii Pit., in Lecomte, Fl. Indo-Chine 3: 347. 1924. Type: Vietnam, Tonkin, Khien Khe, Dong Ham mount, 14 May 1883, *Bon 2137* (lectotype **P** [P00601775] photo seen, designated by Srisuk *et al.* (2020), isolectotype **P** [P00604047] photo seen). Fig 4G&H.

Specimens examined.— Bolikhamxai Province, near Ban Naphong, Nam Kading National Protected Area, 18.21803°N, 104.38163°E, alt. 416 m, 18 Mar. 2024, *Tagane et al. Z1130* [fl. & fr.] (**FOF** [FOF0006240], **KAG** [KAG187535], **VNM** [VNM00070379]); Champasak Province, Paksong District, near border with Sanamxai District, Bolaven Plateau, 15°00'18.27"N, 106°21'31.64"E, alt. 783 m, 8 July 2019, *Souladeth et al. L3274* [fl. & fr.] (**FOF** [FOF0008874]; **KAG** [KAG129532]); Sekong Province, Thateng District, Huay Saiy Village, Dong Hua Sao National Protected Area (Bolaven Plateau), 15°24'21.6"N, 106°22'44.1"E, alt. 1081 m, 23 Feb. 2019, *Souladeth et al. L2763* [fr.] (**FOF** [FOF0008873]; **KAG** [KAG129012]); same locality, 22 Dec. 2019, *Souladeth et al. L3764* [fr.] (**FOF** [FOF0008888], **KAG** [KAG156124]).

Distribution.— Thailand, Laos, Vietnam.

Ecology in Laos.— In seasonal evergreen forest, hill evergreen forest; at alt. 400–1,100 m.

Vernacular name.— จັ້ນດົງ (Chan Dong). “Chan” refers to the genus *Psychotria* in Lao; and “Dong” refers to shaded forest, suggested here.

Notes.— This species was previously known from northern Vietnam (Hô, 2003), and recently recorded also from North-Eastern Thailand (Srisuk *et al.*, 2020). Thus, our record in central and southern Laos, filling the gap between the two areas, is very valid. *Psychotria bonii* is easily distinguished from the other species of the genus in Laos in having its small erect shrubby habit 30–80 cm tall, glabrous stems and leaves, secondary veins of 9–15 pairs, brochidodromous and prominent on both surfaces, and small flowers (calyx lobes 0.3–0.5 mm long and corolla 2.2–5.3 mm long) (Pitard, 1924).

URTICACEAE

Pouzolzia zeylanica var. **callicola** Friis & Wilmot-Dear, Nordc. J. Bot. 24: 79. 2006. Type: Thailand, Nan Province, Tham Pa Tok near Nan, 18°47'N,

100°45'E, alt. 350 m, 25 July 1992, *Larsen et al. 43580* (holotype **A** photo seen, isotype **BKF**). Fig. 4J & K.

Specimens examined.— Bolikhamxai Province, Viengthong District, Ban Nadi, Nam Kading National Protected Area, 18.322700°N, 104.526220°E, alt. 475 m, 5 Sept. 2023, *Tagane et al. Z439* [fl.] (**FOF** [FOF0005590], **KAG** [KAG186874], **VNM** [VNM00072093]); Khammouane Province, Khounkham District, Ban Nahin, the Rock Viewpoint, Phou Pha Marn, 18.17756°N, 104.48480°E, alt. 455 m, 7 Sept. 2023, *Tagane et al. Z535* [fl.] (**FOF** [FOF0005674], **KAG** [KAG186967], **VNM** [VNM00071788]); Gnommalath District, Near Ban Tat, 17.54504°N, 105.06574°E, alt. 206 m, 5 Sept. 2024, *Tagane et al. Z1553* [fl.] (**FOF**, **KAG** [KAG188221], **VNM** [VNM00073380]), Gnommalath District, Pha Katai trail, 17.55238°N, 105.16422°E, alt. 217 m, 5 Sept. 2024, *Tagane et al. Z1639* [fl.] (**FOF**, **KAG** [KAG188305], **VNM** [VNM00073400]); Hinboun District, 17.6447°N, 104.81186°E, alt. 194 m, 6 Sept. 2024, *Tagane et al. Z1713* [fl.] (**FOF**, **KAG** [KAG188376], **VNM** [VNM00073487]); Vientiane Province, Vang Vieng District, Ban Phon Nguen, along trail to the Pha Nguen Silver Cliff View Point, on limestone hill ridge, 18.9163°N, 102.4130°E, alt. 475 m, 20 Sept. 2025, *Tagane et al. Z3253* [fl.] (**FOF**, **KAG** [KAG202785], **VNM**).

Distribution.— Myanmar, Thailand, Laos.

Ecology in Laos.— On limestone rocks; alt. 150–500 m.

Vernacular name.— ຊ້ານາງຫິນ (Sa-nang Hin). “Sa-nang” refers to the genus *Pouzolzia* in Lao; and “Hin” refers to the limestone habitat, suggested here.

Notes.— We found this species common on the limestone karst we surveyed. Although it possesses some morphological variation in leaf shape depending on semi-shaded to sun-exposed environments, we identified our collection as this variety in the following points: subshrubs 1.5 m tall, alternate leaves, unmodified leaf blades on main stem broadly ovate to ovate, larger than 10 × 4 cm, entire along the margin, with 1–2 pairs of lateral veins arising above the middle of the midrib, long petioles up to 13.5 cm long, leaf-size gradually smaller toward apex, axillary inflorescence of sessile flower-clusters, and 5-merous flowers (Wilmot-Dear and Friis, 2006).

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