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A new species of *Capparis* L. (Capparaceae) from the Sekong Province, Laos

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ABSTRACT

A new species of *Capparis* L., *C. sekongensis* Fici, Souvann., Lanors. & Lamxay, sp. nov., is described and illustrated from the Sekong Province, southern Laos. The new species, belonging to *Capparis* sect. *Monostichocalyx* Radlk., is related to *C. khuamak* Gagnep., differing in several characters as the glabrous-pruinose twigs, the shorter, glabrous pedicels, the smaller sepals, glabrous outside, the petals woolly inside, the shorter gynophore and the subglobose ovary.

RÉSUMÉ

Une nouvelle espèce de Capparis L. (Capparaceae) de la Province de Sekong, Laos.

Une nouvelle espèce de *Capparis* L., *C. sekongensis* Fici, Souvann., Lanors. & Lamxay, sp. nov., est décrite et illustrée de la province de Sekong, sud du Laos. La nouvelle espèce appartient à *Capparis* sect. *Monostichocalyx* Radlk., et ressemble à *C. khuamak* Gagnep., dont elle se distingue par plusieurs caractères comme les jeunes rameaux glabres pruineux, les pédoncules plus courts, glabres, les pétales laineux sur la face interne, le gynophore plus court et l'ovaire subglobuleux.

KEY WORDS

Capparaceae,
Capparis,
Laos,
sect. *Monostichocalyx*,
new species.

MOTS CLÉS

Capparaceae,
Capparis,
Laos,
sect. *Monostichocalyx*,
espèce nouvelle.

INTRODUCTION

The genus *Capparis* L. includes about 150 species of small trees, shrubs and climbers (POWO 2024), occurring in several habitats of the tropical and subtropical regions of Africa, Asia, Australia and Oceania, with a few representatives in the Mediterranean and central Asia. The eastern part of the Indochinese Peninsula has been regarded by Jacobs (1965) as a major centre of speciation of *Capparis*. Several intrageneric taxa were recently described from this area, in particular from Vietnam, Laos and Cambodia (Sy *et al.* 2013, 2015, 2016, 2018, 2020; Souvannakhoummane *et al.* 2018, 2020; Fici 2016; Fici & Souvannakhoummane 2020; Fici *et al.* 2018, 2020, 2024). With regard to Laos, 23 species, five subspecies and three varieties are reported for the country (Fici *et al.* 2022; Fici 2023). All these taxa belong to sect. *Monostichocalyx* Radlk., while other sections of the genus, *i.e.* sect. *Capparis*, sect. *Sodada* (Forssk.) Endl., and sect. *Busbeckea* (Endl.) Benth. are not represented in the area (Jacobs 1965).

In recent years, field investigations were undertaken in several provinces of Laos, aimed at investigating the diversity of the genus *Capparis*. In the course of a survey carried out in southern Laos in April 2024, a population of *Capparis* was observed and collected in forest habitats of the Sekong Province. Based on herbarium researches this population showed different characters from other species of the genus, turning out to belong to a new species of sect. *Monostichocalyx*, characterised by twigs glabrous-pruinose, recurved stipular thorns and flowers in subumbels. The new species is here described and illustrated, its affinities are discussed and the provisional conservation status is assessed.

MATERIAL AND METHODS

Herbarium investigations were carried out on the collections of *Capparis* kept at FOF, HN, HNL, P and PAL. Digital images of the type specimens of related taxa were examined through *JSTOR Global Plants* (n.d.). The new species here described was firstly observed during field surveys undertaken in southern Laos during April 2024. The description and illustration are based on herbarium material. The species concept adopted follows the one proposed by Jacobs (1965). The terminology, as well as the main diagnostic characters within the genus, are based on the same treatment (Jacobs 1965). The plant names and authors are based on IPNI (2025). The conservation status was provisionally assessed according to *IUCN Red List Categories and Criteria* (IUCN 2012).

HERBARIUM ABBREVIATIONS

FOF	The Herbarium of Faculty of Forestry, National University of Laos, Vientiane;
HN	Vietnam Academy of Science and Technology, Ha Noi;
HNL	Conseil national des Sciences, Vientiane;
P	Muséum national d'Histoire naturelle, Paris;
PAL	Orto Botanico dell'Università degli Studi di Palermo, Palermo.

SYSTEMATICS

Family CAPPARACEAE Juss.

Genus *Capparis* L.*Capparis sekongensis*

Fici, Souvann., Lanors. & Lamxay, sp. nov.

(Figs. 1-3; Table 1)

Differs from *C. khuamak* Gagnep. in the twigs glabrous-pruinose (vs tomentose), pedicels glabrous, (1-)1.2-1.9(-2.2) cm long (vs tomentose, 2-4 cm long), sepals glabrous, (4-)4.5-6(-7) × 2.5-3.5 mm (vs puberulous outside, *c.* 6.5-8 × 3.5-4.5 mm), petals woolly inside (vs pubescent inside only at the base), gynophore 1.7-2.5 cm long (vs 2.3-3.5 cm) and ovary subglobose (vs ellipsoid).

TYPE MATERIAL. — Laos • Sekong Province, Dakcheung District; 21.IV.2024; Lamxay *et al.* WF034; 15°30'30.6"N, 107°04'22.3"E; holotype: FOF; isotype: HNL.

PHENOLOGY. — Flowering in April.

DISTRIBUTION AND ECOLOGY. — The new species is known only from the type locality (Fig. 3), in the Sekong Province of southern Laos, at 15°30'30.6"N, 107°04'22.3"E, where a few individuals were observed in mixed deciduous Fagaceae forest at 1301 m a.s.l.

PROVISIONAL CONSERVATION STATUS. — Based on the *IUCN Red List Categories and Criteria* (IUCN 2012), the new species is provisionally assessed as Vulnerable (VU D2) due to its restricted area of occupancy and low number of individuals observed.

DESCRIPTION

Woody climber up 10 m long. Twigs glabrous-pruinose. Stipular thorns 1-4 mm long, recurved, strong. Petiole 8-15 mm long, glabrous. Leaf blade subcoriaceous 2.5-3.6 times as long as wide, (4.3-)5.1-6.5(-7.3) × (1.6-)1.8-2.2(-2.5) cm; base acute, top acute or acuminate, the tip up to *c.* 0.8 cm long, in some cases mucronulate; surfaces glabrous; nerves 5-7 pairs. Flowers in subumbels 4-7-flowered, terminal or on lateral twigs; pedicels (1-)1.2-1.9(-2.2) cm long, glabrous; sepals greenish, (4-)4.5-6(-7) × 2.5-3.5 mm, glabrous, with cartilaginous margins; petals white, obovate or oblong, 6.5-8 × 3-4 mm, woolly inside; stamens *c.* 18-28, with filaments (1.6-)1.9-2.9 cm long; gynophore 1.7-2.5 cm long, glabrous; ovary subglobose (1.3-)1.5-2 × (1-)1.3-1.5 mm, beaked, glabrous. Fruit unknown.

REMARKS

As reported in the diagnosis the new species is related to *C. khuamak*, a taxon known from China (Yunnan), northern Laos (Xiangkhoang and Houaphan Provinces) and Vietnam (Zhang & Tucher 2008; Fici 2023) (Table 1). *C. sekongensis* Fici, Souvann., Lanors. & Lamxay, sp. nov., shows also affinities with *C. lanceolaris* DC., recorded from Philippines, Indonesia, Papua New Guinea and northeastern Australia (Jacobs 1965), from which differs by the indumentum of young twigs (glabrous-pruinose vs fulvous to red-brownish puberulous when young); narrower sepals (2.5-3.5 mm vs *c.* 5 mm wide); smaller petals (6.5-8 × 3-4 mm vs 8-11 × 4-6 mm) with distinct indumentum (woolly inside vs puberulous at the base);

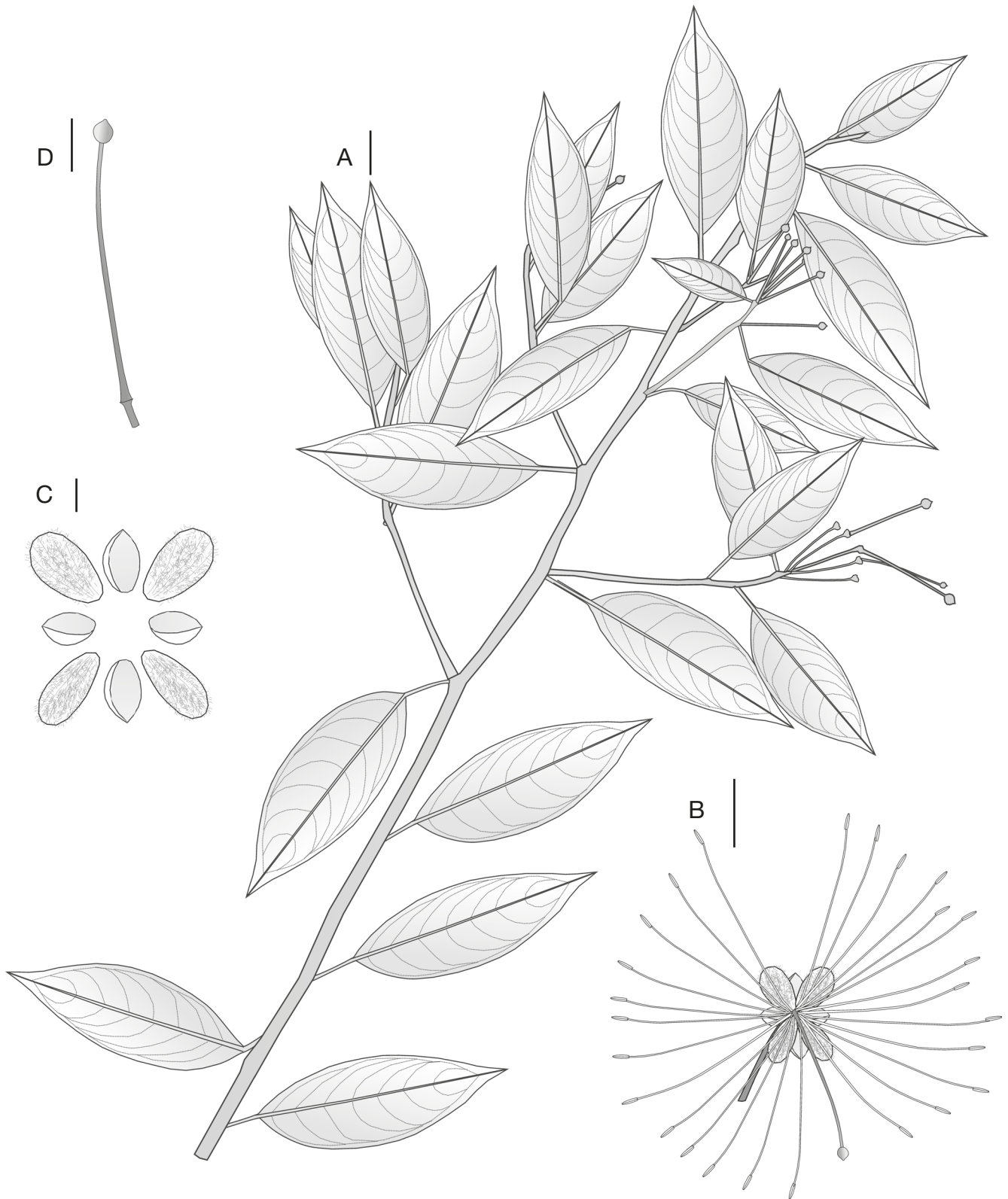


FIG. 1. — *Capparis sekongensis* Fici, Souvann., Lanors. & Lamxay, sp. nov.: **A**, branch; **B**, flower; **C**, dissected flower showing sepals and petals; **D**, gynophore and ovary. (All from the holotype). Scale bars: A, B, 1 cm; C, 3 mm; D, 4 mm. Drawn by S. Fici.

shorter gynophore (1.7-2.5 cm vs [2-]3-4[-5] cm long); and ovary shape (subglobose vs ellipsoid). Furthermore the new species is related to *C. diffusa* Ridl., recorded from Thailand,

Malaysia, Indonesia (Sumatra) and Vietnam (Fici 2023), differing by the indumentum of young twigs (glabrous-pruinose vs brown-puberulous when young); longer petiole (8-15 mm



FIG. 2. — *Capparis sekongensis* Fici, Souvann., Lanors. & Lamxay, sp. nov.: **A**, vegetative branch; **B**, stipular thorns; **C**, inflorescence; **D**, gynophore and ovary. Photos by S. Lanorsavanh.

vs 2-5 mm long); shorter pedicels ([1.-]1.2-1.9 [-2.2] cm vs 2-5 cm long); longer petals (6.5-8 mm vs *c.* 4-6[-8] mm long); longer gynophore (1.7-2.5 cm vs 1-1.8[-2] cm long);

and longer ovary ([1.-]1.5-2 mm vs *c.* 1 mm long) (Jacobs 1965). *C. sekongensis* Fici, Souvann., Lanors. & Lamxay, sp. nov., is also related to *C. longestipitata* Heine, known from

TABLE 1. — Diagnostic characters among *Capparis sekongensis* Fici, Souvann., Lanors. & Lamxay, sp. nov. and related taxa.

	<i>C. sekongensis</i> Fici, Souvann., Lanors. & Lamxay, sp. nov	<i>C. khuamak</i> Gagnep.	<i>C. lanceolaris</i> DC.	<i>C. diffusa</i> Ridl.	<i>C. longestipitata</i> Heine
Indumentum of twigs	Glabrous-pruinose	Tomentose, later glabrescent up to 3	Puberulous, later glabrescent up to 7	Puberulous, later glabrescent 1-3	Puberulous, later glabrescent 3-4
Length of stipular thorns (mm)	1-4				
Length of petiole (mm)	8-15	8-18	(5-)7-10(-15)	2-5	c. 10
Leaf blade size (cm)	(4.3-)5.1-6.5-7.3) × (1.6-)1.8-2.2(-2.5)	(5-)6-10(-11) × 2-3.5(-4.5)	(3.5-)6.5-12 (-16) × (1.7-)2-4(-7)	4-9.5 (11.2) × 1.2-4(-5)	5-7 × 2.5-3.5
Leaf base	Acute	Acute or rounded	Acutish, rounded or subcordate	Rounded or acute	Rounded
Leaf apex	Acute or acuminate	Acute, obtuse or notched	Acuminate, rounded or submarginate	Acute or subacuminate	Acuminate
Inflorescence	subumbels 4-7-flowered, terminal or on lateral twigs	Flowers 6-10 conferted at the top of lateral twigs	Flowers conferted at the top of lateral twigs, or in subumbels axillary or terminal	Subumbels 3-5 (-10)-flowered, terminal or on lateral twigs	Subumbels c. 15- flowered, axillary or terminal
Pedicel length (cm) pubescence	(1-)1.2-1.9(-2.2) glabrous	2-4 tomentose	(1.3-)2-2.5(-3) glabrous	2-5 glabrous	0.8-1.5 glabrous
Sepals size (mm) pubescence	(4-)4.5-6(-7) × 2.5-3.5 glabrous	c. 6.5-8 × 3.5-4.5 puberulous outside	c. 6-7(-10) × 5 glabrous	c. 4-5 × 2-4 glabrous, inner pair ciliate	2.5-5.5 × 2-3.5 puberulous outside
Petals Size (mm) pubescence	6.5-8 × 3-4 woolly inside	c. 6-9(-12) × 3-3.5(-4) pubescent inside at the base	8-11 × 4-6 puberulous at the base	c. 4-6(-8) × 3-4 pubescent inside	4-6 × 2.5-4 glabrous or pubescent
Length of gynophore (cm)	1.7-2.5	2.3-3.5	(2-)3-4(-5)	1-1.8(-2)	2-3
Ovary size (mm) shape	(1.3-)1.5-2 × (1-)1.3-1.5 subglobose	c. 1.7 × 1.3 ellipsoid	c. 1.5-2 × 1 ellipsoid	c. 1 × 1 subglobose	c. 1.5 × 1 subovoid

Vietnam and Malaysia (Borneo), differing by the indumentum of young twigs (glabrous-pruinose vs greyish puberulous when young); narrower leaf blade ([1.6-] 1.8-2.2[-2.5] cm vs 2.5-3.5 cm wide); indumentum of the outer pair of sepals (glabrous outside vs greyish-puberulous outside); and longer petals (6.5-8 mm long vs 4-6 mm long) (Jacobs 1965). The diagnostic characters among the new species and related taxa are reported in Table 1.

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FIG. 3. — Known distribution of *Capparis sekongensis* Fici, Souvann., Lanors. & Lamxay, sp. nov.

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