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# A New Species of *Microtropis* (Celastraceae) from Xizang, China

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**ABSTRACT.** A new species, *Microtropis xizangensis* Q. W. Lin & Z. X. Zhang, is described and illustrated. This species is similar to *M. discolor* (Wallich) Wallich ex Meisner in having 4-merous flowers and no disk, and differs from it mainly by having 1- to 3-flowered inflorescences, non-carinate petals, and rostrate capsules. The new species is determined as Vulnerable (VU) according to IUCN Red List Categories and Criteria.

**Key words:** Celastraceae, China, IUCN Red List, *Microtropis*.

The genus *Microtropis* Wallich ex Meisner (Celastraceae) has about 70 species distributed in the warm and tropical regions of eastern Asia, southeastern Asia, and Central America (Hou, 1962). The genus is characterized by its opposite, entire leaves, the cymose or thyrsoid inflorescences, the filiform stipules at the tops of shoots, the 4- to 6-merous bisexual (sometimes unisexual) flowers, the undeveloped disks (sometimes absent) with the stamens marginally inserted, and the laterally splitting capsules with a single seed.

***Microtropis xizangensis*** Q. W. Lin & Z. X. Zhang, sp. nov. TYPE: China. Xizang: Mêdog, Didong nearby, in evergreen forest, 1300 m, 13 Aug. 1974 (fr.), *Qinghai-Tibet Exped. 1813* (holotype, KUN; isotypes, KUN [2], PE). Figure 1.

Species qua ad *Microtropem discolorum* (Wallich) Wallich ex Meisner proxime accedit, sed ab ea inflorescentiis brevibus 1- ad 3-floribus, petalis ecarinatis atque fructibus apice crasse rostratis differt.

Shrubs or small trees, glabrous, 4–7 m tall; branchlets terete, tenuous, yellowish green when young, brown when mature, 1–2 mm diam., internodes 3–6 cm. Leaves ovate, elliptic, or oblong, (5–)8–12(–16) × (2–)3–5(–6) cm, chartaceous, smooth, green adaxially and abaxially, apex narrowly acuminate, caudate, base cuneate, slightly decurrent, margin entire; midrib and lateral veins (5 to 7 pairs) evident on both surfaces, slender, rigid, secondary venation obliquely ascending, arcuate in upper portions, dichotomous at tips, reticulate; petioles canaliculate, 0.3–0.8 cm, 1–2 mm diam. Cymes

usually extra-axillary, lateral, short, < 1 cm; peduncles ca. 0.5–0.8 cm, apex forked, generally with 3 close flowers and 2 bracts; bracts minute, ovate, ca. 1 × 0.5 mm broad, apex obtuse or acuminate. Flower buds (immature) small, ca. 1.5 mm, sessile or shortly pediculate, ellipsoid, ca. 1 mm diam., base with 2 bracteoles; bracteoles minute, ovate, ca. 1 mm, apex round or acute; sepals 4, persistent, slightly incrassate in fruiting, imbricate, unequal, the outer 2 semicircular or reniform, coriaceous, margin slightly erose, ca. 0.5 × 1 mm, the inner 2 smaller; petals 4, imbricate, white, elliptic, ca. 1 × 0.4 mm, base and apex round; stamens 4, filaments deltoid, ca. 0.5 mm, base ca. 0.1 mm wide, apex acute, anthers small; disk absent; ovaries conical, ca. 0.5 mm. Capsules large, 1.5–2.5 cm, ca. 1 cm diam., verrucose, globose or elliptic, 1-seeded, base round, apex with long rostra; rostra spiculate, 0.5–1 × ca. 0.2 cm.

**Distribution.** The new species is narrowly restricted to an often inaccessible area of Mêdog County, Xizang. All specimens examined were collected from the only location known for *Microtropis xizangensis*.

**Habitat.** *Microtropis xizangensis* grows in evergreen broadleaf forest at altitudes from 1300 to 2100 m. The holotype population was found in evergreen broadleaf forest at 2040 m; other examined specimens were discovered in forest areas at 1300 m, 1800 m, 2000 m, and 2100 m.

**IUCN Red List category.** So far there are only seven collections representing *Microtropis xizangensis*, but two of these have noted that this species is common in evergreen broadleaf forest. Considering the largely inaccessible locations and the small number of collections, the population of the new species should not be considered endangered. The total forest area in Mêdog is ca. 21,344 km<sup>2</sup>; it is in good condition and far away from human threat. However, in the near future, new road construction could increase human disturbance to the forest. Based on these factors, *M. xizangensis* is determined as Vulnerable (VU) according to IUCN Red List Categories and Criteria (IUCN, 2001).

**Phenology.** Flowering in May–June; fruiting in August–December.

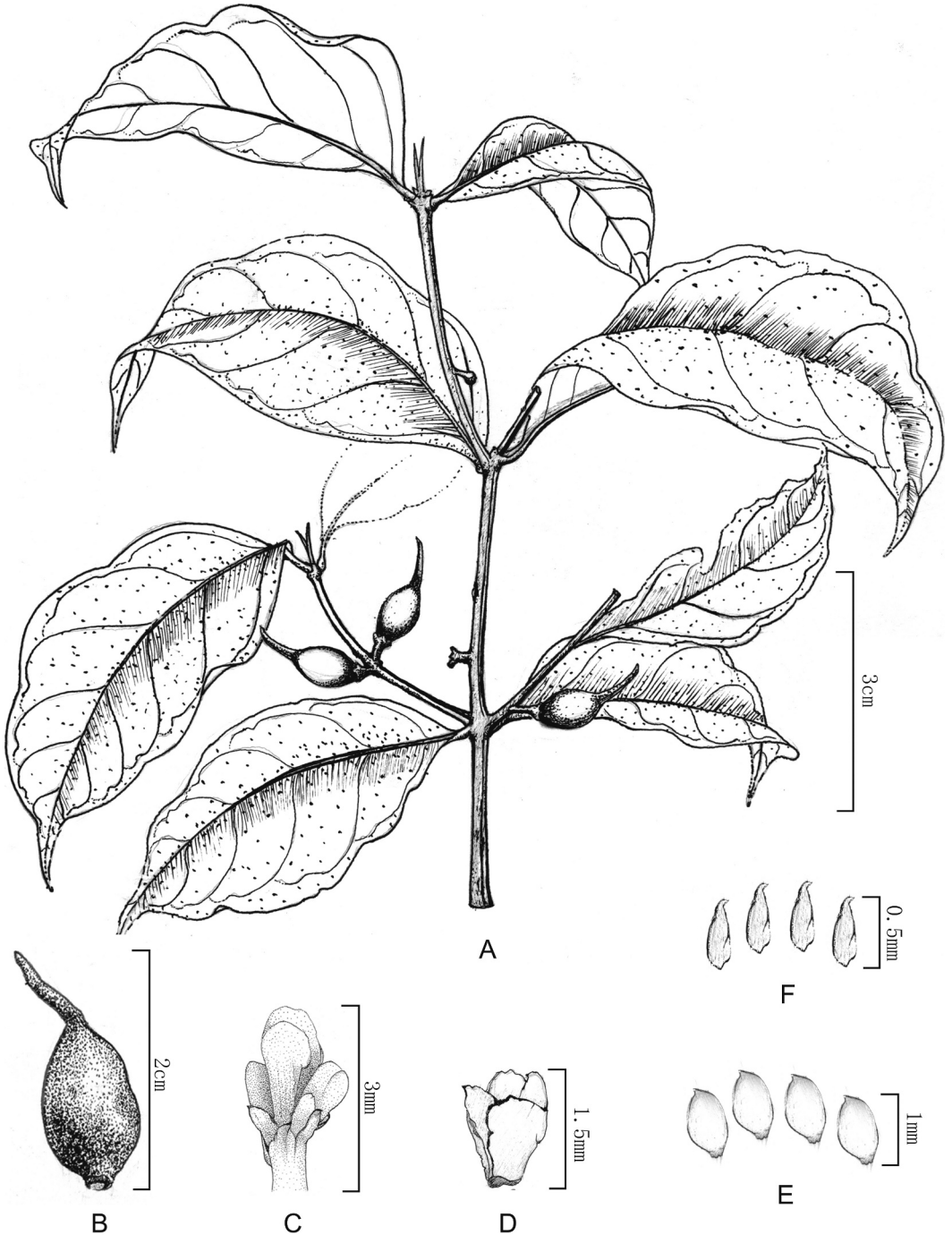


Figure 1. *Microtropis xizangensis* Q. W. Lin & Z. X. Zhang. —A. Fruiting branchlet. —B. Mature fruit. —C. Immature inflorescence. —D. Immature flower. —E. Petals. —F. Immature stamens. Drawn by Quanyi Qiu from the holotype Qinghai-Tibet Exped. 1813 (KUN) and the paratype Li, Cheng & Hua 3734 (PE).

*Relationships.* The new species is similar to *Microtropis discolor* (Wallich) Wallich ex Meisner in having 4-merous flowers and no disk and differs from it mainly by having 1- to 3-flowered inflorescences,

non-carinate petals, and rostrate capsules. The two species do not occur in the same region, but are found in a geographically continuous area. *Microtropis discolor* is widely distributed from the eastern part

of India, including Sikkim, West Bengal, and Assam, and East Bengal to Yunnan Province, occurring also in Burma, Laos, Thailand, Vietnam, Cambodia, and Penang, Malaysia, whereas the new species is restricted to Mèdog County, Xizang, China.

*Discussion.* The name *Microtropis macrophylla* Merrill & F. L. Freeman (1940) was misapplied to the new species, first by Li (1986) and then by Cheng and Kao (1999).

*Paratypes.* CHINA. **Xizang:** Mèdog County, Didong nearby, 12 Aug. 1974, *Qinghai-Tibet Exped.* 3085 (PE); Beibeng, Gelin Station, in evergreen forest, 23 May 1983 (fl.), B. S. Li, S. Z. Cheng & Z. C. Hua 3734 (PE); 10 Sep. 1974, *Qinghai-Tibet Exped.* 2427 (PE); 26 Dec. 1992, H. Sun, Z. K. Zhou & H. Y. Yu *ETM-2637* (KUN); from Gelin to De-er-jiang, 19 May 1983, B. S. Li & S. Z. Cheng 3627 (PE); Renqipeng, 22 Apr. 1993, H. Sun, Z. K. Zhou & H. Y. Yu *ETM-5678* (KUN).

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