

ERIOPHYTON SUNHANGII BO XU, ZHIMIN LI & BOUFFORD
(LAMIACEAE), A NEW SPECIES FROM EASTERN XIZANG, CHINA

BO XU,¹ ZHIMIN LI,¹ AND DAVID E. BOUFFORD²

Abstract. *Eriophyton sunhangii* (Lamiaceae), from eastern Xizang (Tibet), China, is described as new. A key is provided to highlight features distinguishing it from the only other species in the genus, *E. wallichii*. *Eriophyton sunhangii* is so far known only from Zhuoga-la, west of the city of Changdu (Qamdo, or Chamdo).

Keywords: Lamiaceae, *Eriophyton sunhangii*, Xizang, Tibet, China

As part of a survey of the plant and fungal diversity of the Hengduan Mountains region, China, field work in 2004 by botanists from the Harvard University Herbaria, Field Museum of Natural History, and Kunming Institute of Botany, focused on an area in eastern Xizang (Tibet) outlined roughly by a triangle connecting Riwoqe (Riwoche, or Leiwuqi - 类乌齐) in the west, Changdu (Qamdo, or Chamdo - 昌都) in the southeast, and Jianga (Jomda - 江达) in the east. Within this area several sites were targeted for one or more days of exploration. One of the most interesting sites, where nearly two full days was spent, but only barely explored because of the steep slopes and extensive expanse of the area, was Zhuoga-la, a high pass surrounded by scree slopes on nearly all sides. Among the discoveries made on Zhuoga-la were unusual plants of the genus *Eriophyton* (Lamiaceae). Plants of *Eriophyton* are obligate endemics of scree slopes on high mountains throughout the Himalaya from western Nepal to southwestern China. The plants on Zhuoga-la, however, differ from specimens collected elsewhere throughout the range in that they are less hairy, generally larger overall, but with the calyx and corolla conspicuously larger and with the spines of the calyx teeth greatly extended and the bracteoles with shorter hairs. We here describe the plants from Zhuoga-la as a new species, *E. sunhangii*.

Eriophyton sunhangii Bo Xu, Zhi-min Li & Boufford, *sp. nov.* TYPE: CHINA. Xizang (Tibet): Riwoqe Xian. W side of Zhuoga-La (pass) on road (highway 317 + 214) from Changdu (Chamdo) to Riwoqe, 31°6'34"N, 96°52'28"E, 13 August 2004, *D. E. Boufford, J. H. Chen, S. L. Kelley, J. Li, R. H. Ree, H. Sun, J. P. Yue & Y. H. Zhang 32300* (Holotype: KUN; Isotypes: A, TI). Fig. 1.

Eriophyton wallichii affinis sed calyce latiore campanulato vel infundibulari dentibus acuminatis spina 12 mm longa multum extensis et corollae longiore differt.

Similar to *Eriophyton wallichii* but different in its wider, campanulate to infundibular calyx with acuminate teeth greatly extended in a spine 12 mm long and in its longer corolla.

Herbs, perennial. *Roots* thickened, forked. *Stem* usually 1, erect, ascending or arching, 15–35 cm tall, unbranched, rigid, lanate. *Petiole* obsolete or appearing as a winged extension of the leaf base; *basal leaves* scale-like, colorless or white; upper leaves rhombic to circular, 4–6 × 4–6 cm, densely and shortly lanate, base broadly cuneate, margin entire below middle, upper half crenate to crenate-serrate or sharply serrate toward apex, apex acute, obtuse or rounded; veins radiating from base, reticulate, coarse, conspicuously raised on lower surface. *Bracteoles* spine-like, 1.2–1.8 cm long, densely hirsute. *Flowers* sessile. Calyx broadly campanulate to

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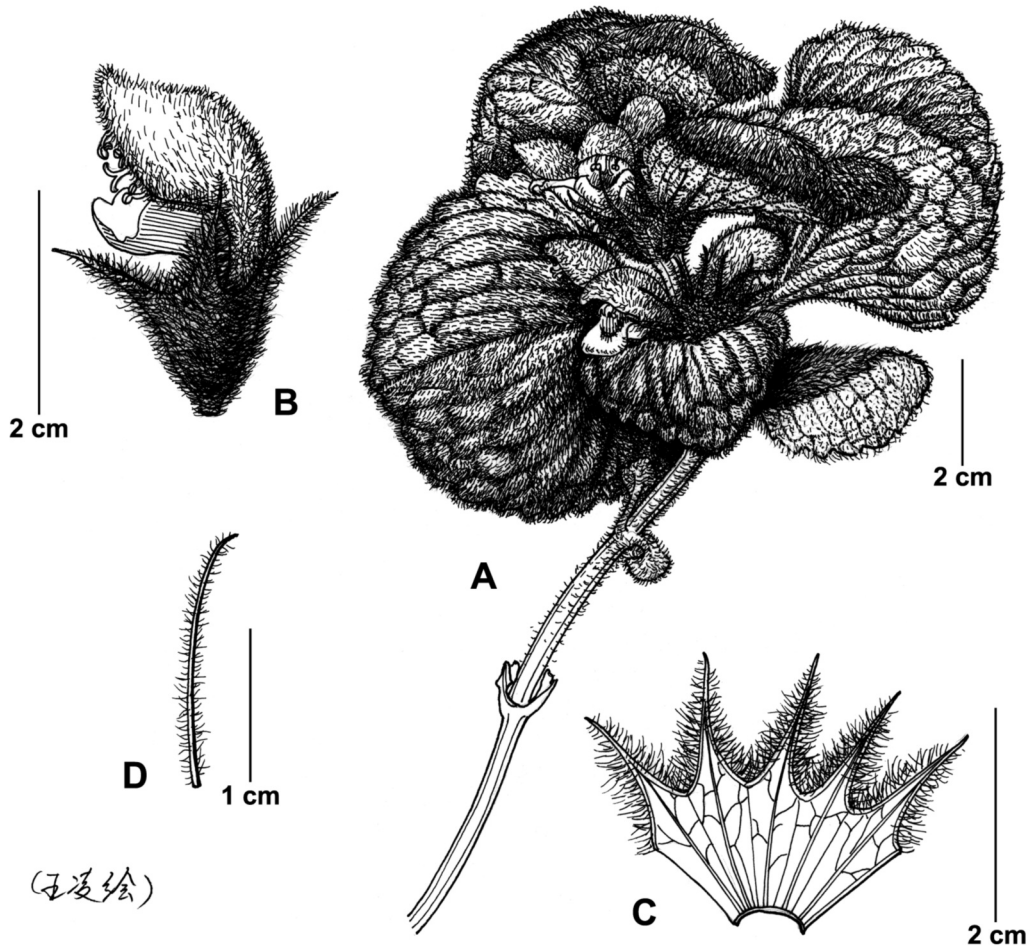


FIGURE 1. *Eriophyton sunhangii* Bo Xu, Zhi-min Li & Boufford. **A**, habit; **B**, flower, showing calyx and corolla; **C**, calyx, split to show inside surface and trichomes on lobes; **D**, bracteole, showing pubescence. (Drawn from the holotype.)

infundibular, ca. 1.5–2.2 cm long, outside lanate or glabrous, inside glabrous, margin lanate; teeth 12 mm long, long acuminate, apex pungent. Corolla purplish or reddish, 2.5–3.0 cm long, tube slightly incurved, 1.2–1.6 cm long, outside sparsely lanate or glabrous. Nutlets yellowish brown, 3–4 mm long.

Phenology: flower and fruit August.

Habitat: alpine scree slopes, 3920 m.

Eponymy: we are pleased to name this plant for our teacher, good friend, and dedicated field botanist, Hang Sun, of the Kunming Institute of

Botany, who has explored widely in the Hengduan region. The specific epithet reflects the Chinese order of names; family name, Sun, followed by given name, Hang.

Eriophyton sunhangii Bo Xu, Zhi-min Li & Boufford is generally larger than *E. wallichii* Benth and has larger leaves (to ca. 6.5 × 6.0 vs. ca. 3–4 × 3–4 cm) and longer bracteoles (1.2–1.8 cm vs. to 1.2 cm) with proportionally shorter hairs, and the veins on the lower leaf surface are prominently raised. Although lanate, the hairs of *E. sunhangii* are notably shorter,

(1–)2–3(–4) mm, and less dense. The calyx is broadly campanulate to infundibular and is lanate or glabrous outside and the lobes terminate in an elongate spine. The corolla has a longer tube and is also sparsely lanate

or glabrous outside. The fruiting time of *E. sunhangii* also appears to be earlier, but more observations are needed to confirm this. The two species can be distinguished by the following key.

- 1a. Calyx broadly campanulate, ca. 1.5 cm long, teeth, including spine, ca. 7 mm long; corolla 2.2–2.8 cm long *Eriophyton wallichii*
- 1b. Calyx broadly campanulate to infundibular, 1.5–2.2 cm long, teeth, including spine, ca. 12 mm long; corolla 2.5–3.2 cm long *Eriophyton sunhangii*

Eriophyton sunhangii is so far known only from Zhuoga-la, the first high pass west of the city of Changdu (Qamdo, or Chamdo) at the western edge of the Hengduan Mountains, a biodiversity hotspot. Several other interesting

plants are found on Zhuoga-la, including what may be a new species of *Meconopsis* Viguier and an undescribed species of *Silene* Linnaeus. The extensive scree slopes on Zhuoga-la are still poorly known and deserve further exploration.