

Lysimachia gesnerioides (Myrsinaceae), a new species from China and Vietnam

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A new species, *Lysimachia gesnerioides* Y.M. Shui & M.D. Zhang (Myrsinaceae) from Yunnan and Vietnam, is described and illustrated. It is morphologically most similar to *L. physaloides*, *L. chapaensis* and *L. grandifolia*. The distinguishing characters are given in a key to the four species.

Key words: *Lysimachia*, Myrsinaceae, new species, taxonomy

The genus *Lysimachia* (Myrsinaceae), including about 180 taxa, mainly occurs in temperate and subtropical parts of the northern hemisphere, but has a few species in Africa, Australia, and South America. In China there occur 138 species (Fang 2003).

In May 2004, during our botanical exploration in Hekou County, Yunnan Province, China, we collected an unknown taxon assignable to the genus *Lysimachia*, subgen. *Idiophyton*. We had collected it before in the adjacent places. After careful comparison with morphologically similar species in China (Chen *et al.* 1989, Fang 2003), Vietnam (Anhthao 1991, Hu 1992) and Thailand (Hu 1985, 1992, Oliver 1896), we concluded that it represents a new species.

***Lysimachia gesnerioides* Y.M. Shui & M.D. Zhang, *sp. nova* (Fig. 1)**

Haec species valde affinis L. physaloidi, sed nervis lateralibus 6–7 (nec 10–13); inflorescentiis

corymbosis (in illa racemosis); bracteis ovato-lanceolatis (in illa lineari-lanceolatis); corollis flavis ca. 15 mm longis (in illa roseis 11–12 mm long) antheris ovatis (nec sagittatis) differt.

TYPE: China. Yunnan Province, Hekou County, Nanxi comm., from Anjiahe to Liangzi, on roadside at the edge of forest, alt. 690 m, 6.V.2004 Y. M. Shui *et al.* 40906 (holotype KUN; isotypes KUN, PE).

Herbs perennial, 20–40 cm tall. Stems erect, simple, glabrous, angular. Leaves alternate or slightly crowded at upper parts of stem, papyraceous, oblong or ovate-elliptic, 15–20 × 6–9 cm, glabrous on both sides, densely covered with linear 1.6–2 mm long brown glands on abaxial surface, base widely cuneate, slightly oblique and decurrent down petiole, margin entire, apex short-acuminate; lateral veins 6–7 pairs; petiole 3–6 cm long. Inflorescence corymb-like, solitary or 2–5 clustered in upper axils, 5–8 cm long, flowers 4–10; peduncle 1.5–4 cm long, angular; bracts ovate-lanceolate, leaf-like, 4–12 × 3–5 mm, subsessile; pedicel 1.7–2.4 cm long.

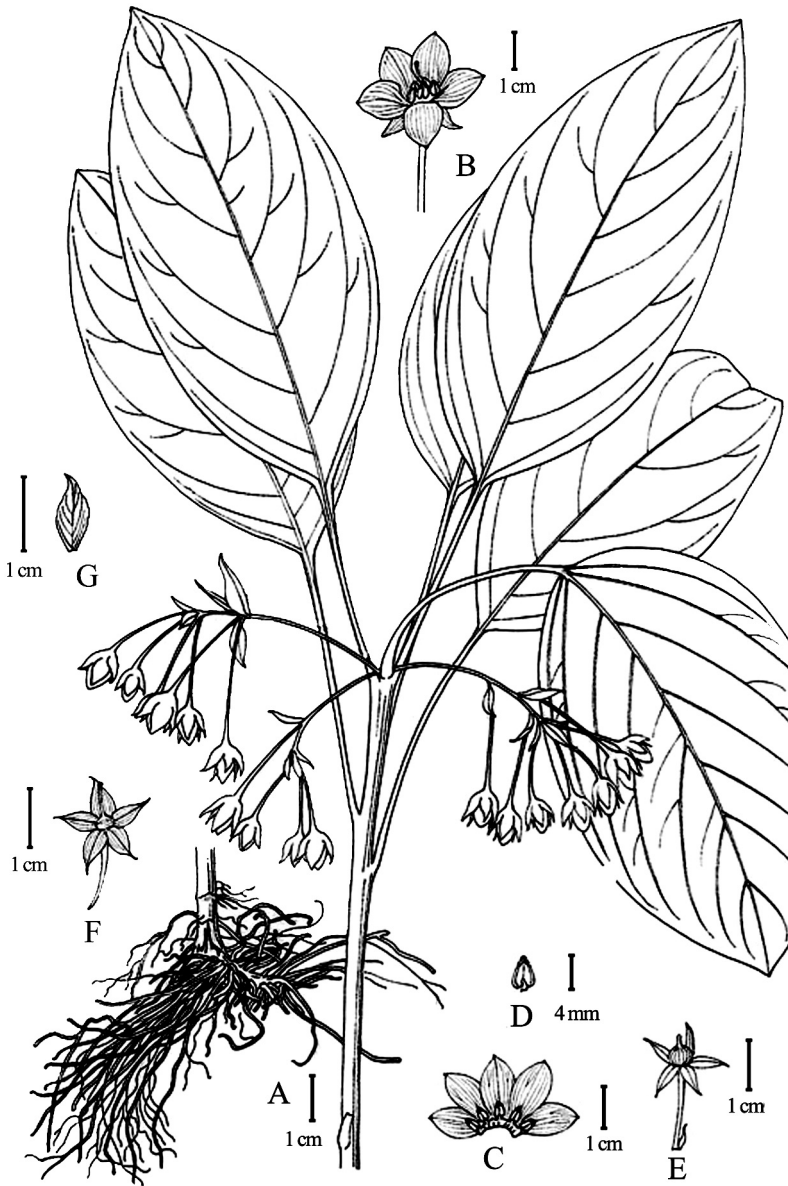


Fig. 1. *Lysimachia gesnerioides* (from holotype, drawn by Xi-Lin Wu). — A: Habit. — B: Flower. — C: Flower opened, showing stamens. — D: Stamen. — E: Capsule. — F: Pistil. — G: Bract.

Calyx lobes narrowly ovate, ca. 10×4 mm, apex acuminate. Corolla yellow, lobes broadly ovate, ca. 15×8 mm, apex acute. Filaments connate basally into a ca. 1 mm high ring, free parts very short; anthers sagittal, ca. 4 mm long, opening by apical pores. Ovary ovoid. Style linear, ca. 7 mm long, stigma capitate. Capsule subglobose, whitish, ca. 6 mm diameter, with persistent calyx and base of style; seeds 9–12, triangular, 0.9–1.0 mm long and wide, black.

HABITAT ECOLOGY AND PHENOLOGY. It grows in tropical rain forest, at alt. 160–900 m. Flowering was observed in April and May.

DISTRIBUTION. China (Yunnan Province, Hekou and Maguan County), Vietnam (Lao Cai Province; Nghe An Province, Quy Chau District).

According to Chen and Hu (1979), *Lysimachia* includes five subgenera. *Lysimachia gesnerioides* belongs to subgen. *Idiophyton* and is morphologically close to *L. physaloides*, *L.*

grandifolia and *L. chapaensis* in the non-perfume dry plants, alternate or slightly crowded leaves in upper parts of stems, short filaments and sagittal or ovate anthers. *Lysimachia gesnerioides* is closest to *L. physaloides* due to the shape of leaves and flowers. However, there are clear differences between *L. gesnerioides* and the three other species. *Lysimachia physaloides* differs mainly in its hairy, 10–13-nerved leaves, elongate raceme, linear-lanceolate bracts and pink corolla 11–12 mm long. *Lysimachia grandifolia* also has hairy leaves, and differs in addition by the white flowers, pedicel 1–1.5 cm long, and by thriving at 2400–2600 m altitude (Hu 1992). *Lysimachia chapaensis* is distinct by its raceme, 4–5 cm long pedicels, ca. 4 mm long calyx lobes and sagittal anther, whose cells open by lateral slits. The following key should aid in the identification of the four species.

1. Leaves hairy; flowers pink or white; anther sagittal 2
1. Leaves glabrous; flowers yellow; anther sagittal or ovate 3
2. Leaves oblong and with sparse setae on upper sides; veins of leaves in 10–13 pairs; raceme elongate; bracts linear-lanceolate; pedicel 1.8–2.5 cm long; flowers pink (China) *L. physaloides*
2. Leaves ovate-lanceolate and densely hairy; veins of leaves in 5–6 pairs; raceme subumbellate; pedicel 1–1.5 cm long; flowers white (Laos) *L. grandifolia*
3. Leaves ovate; inflorescence racemose; pedicel 4–5 cm long; calyx lobes ca. 4 mm; anther sagittal, its cells opening by lateral slits (Vietnam) *L. chapaensis*
3. Leaves oblong or ovate-elliptic; inflorescence corymb-like; pedicel 1.7–2.4 cm long; calyx lobes ca. 10 mm; anther ovate, its cells opening with apical pores (China, Vietnam) *L. gesnerioides*

ADDITIONAL SPECIMENS EXAMINED (paratypes): — **China.** Yunnan Province: Hekou County, Anjiahe National Forest Park, on shady trail, alt. 350 m, 10.X.1999 *C. I. Peng et al.*

17519 (KUN); Hekou County, Yaoshan, Baiquanchong, on the summit at the edge of forests, alt. 900 m, 15.IV.2000 *Y. M. Shui 12481* (KUN!); Maguan County, Gulinqing, in tropical seasonal rain forest, alt. 700 m, 9.X.2002 *Y. M. Shui et al. 30963* (KUN); Maguan County, Gulinqing, in evergreen broad-leaved forest of limestone hills, alt. 500 m, 13.X.2002 *Y. M. Shui et al. 30554* (KUN). **Vietnam.** Lao Cai Province: 20 kilometers SE of Lao Cai, in forest near a brook, alt. 160 m, 24.XII.1964 *Sino-Vietnam Exped. 851* (KUN); Nghe An Province: Quy Chau District, in forest near a brook, alt. 190 m, 26.I.1965 *Sino-Vietnam Exped. 1804* (KUN!).

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