
A New Species of *Hypericum* (Clusiaceae) from Shaanxi Province, China

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ABSTRACT. The new species *Hypericum qinlingense* (Clusiaceae) is described and illustrated from the southern slope of Mount Qinling in Shaanxi Province, China. The new species belongs to *Hypericum* sect. *Adenosepalum* by its glabrous, perennial, herbaceous habit, persistent perianth and androecium, sepals with large stalked black glands, three bundles of stamens, and three free styles, as well as by the alveolate seeds. The new species is similar to *Hypericum elodeoides* Choisy in its scorpioidal dichasium, but differs in its bracts and flowers. A key to the Chinese species of *Hypericum* sect. *Adenosepalum* is included.

Key words: China, Clusiaceae, *Hypericum* sect. *Adenosepalum*, Shaanxi Province.

The genus *Hypericum* L. (Clusiaceae) consists of more than 400 species and is cosmopolitan except for the Polar Region. There are 8 sections, 55 species, and 8 subspecies of *Hypericum* in China, mainly in the southwest region (Li et al., 1990). The new species belongs to *Hypericum* sect. *Adenosepalum* Spach, which consists of 34 species (Li et al., 1990); 7 occur in China: *H. filicaule* (Dyer) N. Robson, *H. monanthemum* Hooker f. & Thomson ex Dyer, *H. wightianum* Wallich ex Wight & Arnott, *H. himalaicum* N. Robson, *H. elodeoides* Choisy, *H. hengshanense* W. T. Wang, and the new species.

Hypericum qinlingense X. C. Du & Y. Ren, sp. nov. TYPE: China. Shaanxi: Yangxian, Huayang, Xinglongling, 33°41'73"N, 107°35'94"E, 2450 m, 3 July 2001, ETNWU (Expedition Team of Northwest University) 40053 (holotype, SANU). Figure 1.

Haec species *Hyperico elodeoidi* similis, sed ab eo bracteis base glandulis nigris stipitatis praeditis, sepalis petalisque minoribus, staminibus in quoque fasciculo paucioribus, filamentis brevioribus atque stylo longitudine ca. tertiam partem ovarii aequante differt.

Herbs perennial, 30–40 cm high; stems 1 to several from basal rosette, cylindrical, glabrate, with inconspicuous glandular spots and vertical long

glandular stripes, internodes 1–4.5 cm long. Leaves stiffly papryaceous, elliptic to obovate, 1.3–2.9 × 0.5–1 cm on main stems, 6–10 × 2–3 mm on branches, with small light glands on the surface and larger black glands near the edge, slightly re-tuse or obtuse at apex, the margin entire and revolute, cuneate at the base and tapering into a petiole about 1 mm long, green on upper surface and light green below. Inflorescence a terminal scorpioidal dichasium, bracts lanceolate, 3–5 mm long, ca. 1 mm wide, with stalked black glands at the base of the back and the edge. Flowers yellow, ca. 8 mm diam.; perianth persistent; sepals 5, lanceolate, 3–4 mm long, ca. 1 mm wide, with yellow-brown vertical glandular stripes and occasional black stalked glands at the edge; petals 5, linear, 4–6 mm long, ca. 1 mm wide, with black glands at the apex and yellow-brown vertical glandular stripes; androecium persistent, with three stamen groups of 10 to 12 each, filaments ca. 4 mm long, anthers yellow, ca. 0.1 mm long, with longitudinal slit, with black glands at the connective; carpels 3, united, ovary ovoid, ca. 4 × 3 mm, with axial placentation, styles 3, 1–1.8 mm long, ca. ½ length of the ovary, with occasional black glands on stigma. Capsules ovoid, with septicial dehiscence, ca. 5 mm diam., with yellow-brown glands, with ca. 180 seeds inside. Seeds ca. 0.6 mm long, alveolate.

Habitat and distribution. The new species occurs on exposed slopes and in secondary forest, as well as roadsides, ranging from 1320 to 2450 m elevation. The primary vegetation of the area is deciduous broadleaved forest consisting of species of *Quercus* L. or temperate coniferous and broadleaved mixed forest composed of species of *Betula* L. and *Abies* Miller.

The new species is known only from Yangxian County of Shaanxi Province, China. Yangxian County is located in the middle of the southern slope of Mt. Qinling.

The new species belongs to *Hypericum* by its herbaceous habit, yellow flowers without glands be-

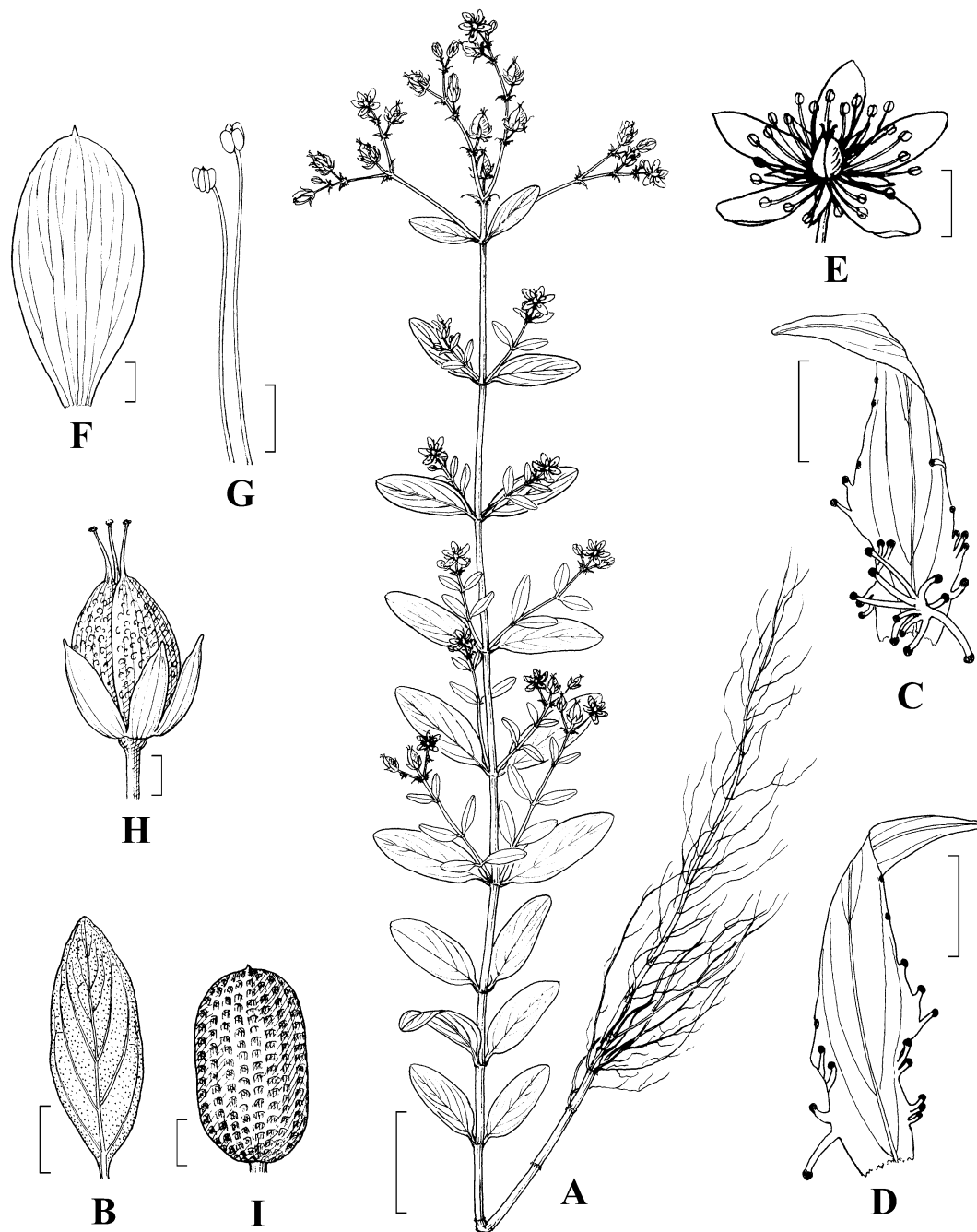


Figure 1. *Hypericum qinlingense* X. C. Du & Y. Ren. —A. Plant. —B. Dorsal view of leaf. C, D. Bracts. —C. Dorsal view. —D. Ventral view. —E. Flower. —F. Petal. —G. Stamens. —H. Capsule with persistent sepals and styles and with petals and stamens removed. —I. Seed. Scale bars: A = 2 cm; B = 5 mm; C, D = 1 mm; E = 5 mm; F = 1 mm; G = 1 mm; H = 2 mm; I = 0.2 mm. Drawn by Guo Mu-seng from the holotype, *ETNWU 40053*.

tween the stamen groups, stamens basally united into three groups, septicidal capsules, and seeds without wings.

There are eight sections of *Hypericum* in China (Li et al., 1990). *Hypericum qinlingense* is readily distinguished from the related Chinese species in section *Adenosepalum* by its stalked black glands at the base of the back of the bracts, sepals ca. 3–4 × 1 mm, petals 4–6 × ca. 1 mm, stamens basally adnate in 3 groups of 10 to 12 each, filaments ca. 4 mm long, and 3 carpels with 3 styles 1–1.8 mm long, ca. 1/3 of ovary length.

Hypericum qinlingense is similar to *H. elodeoides* in its scorpioidal dichasium, but differs from the latter in its bracts with black stalked glands at the base, smaller sepals and petals, fewer stamens per bundle, shorter filaments, and much shorter styles that are only about 1/3 of the length of the ovaries. The new species may be contrasted with six other species of *Hypericum* known to occur in China in the following key.

KEY TO *HYPERICUM* SECT. *ADENOSEPALUM* FROM CHINA

- 1a. Inflorescence a scorpioidal dichasium.
 - 2a. Bracts with stalked black glands at the base of the back and the edge; sepals ca. 3–4 × 1 mm; petals 4–6 × ca. 1 mm; stamens basally adnate in 3 groups of 10 to 12 each, filaments ca. 4 mm long; 3 carpels with 3 styles, styles 1–1.8 mm long ca. 1/3 of ovary length *H. qinlingense*
 - 2b. Bracts lacking glands; sepals ca. 6 × 3 mm; petals ca. 15 × 4 mm; stamens basally adnate in 3 groups of 20 each, filaments ca. 0.8–1.1 cm long; 3 carpels with 3 styles,

- styles at least twice ovary length
- *H. elodeoides*
- 1b. Inflorescence a single flower or aggregate inflorescence, not scorpioidal dichasia.
 - 3a. Sepals 4 *H. filicaule*
 - 3b. Sepals 5.
 - 4a. Style 1.4–7 times longer than ovary, exerted from flower *H. hengshanense*
 - 4b. Style shorter than or not exceeding the ovary, inserted within flower.
 - 5a. Flowers to 2 cm diam
 - *H. monanthemum*
 - 5b. Flowers less than 1.5 cm diam.
 - 6a. Annual herbs, with black stalked glands on leaf margins *H. wightianum*
 - 6b. Perennial herbs, lacking marginal glands *H. himalaicum*

Paratypes. CHINA. **Shaanxi:** Yangxian, Huayang, Cang'eryan, 26 June 2001, *ETNWU 40055* (SANU), 25 Aug. 2000, *ETNWU WA2-6-23* (SANU); Dongping, 26 Aug. 2000, *ETNWU EK-025* (SANU); Maoping, Pochayu, 27 Aug. 2000, *ETNWU EA-004* (SANU); same locality as type, *ETNWU 10544* (MO).

Acknowledgments. The reviewer, John J. Pipoly III (FTG), and scientific editor, Victoria C. Hollowell (MO), were extremely helpful in clarifying the text; we also thank Roy Gereau (MO) for the Latin diagnosis. This report was supported by State Key Basic Research and Development Plan of China (No. G200004680001).

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