

Lepidium beckii (Brassicaceae), a New Species from Bolivia

Ihsan A. Al-Shehbaz

Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299, U.S.A.

ABSTRACT. *Lepidium beckii*, a shrubby new species from Depto. La Paz (Bolivia), is described and illustrated. Its relationship to *L. philippianum* and *L. quitense* is discussed.

Of the world's ca. 180 species of *Lepidium* L., some 52 species are restricted to South America (Al-Shehbaz, 1993). All except two of the South American species are herbaceous. A third woody species, *L. beckii*, is described below, and the characters that distinguish it from the other two woody members, *L. quitense* Turczaninow and *L. philippianum* (Kuntze) Thellung, are discussed.

Lepidium beckii Al-Shehbaz, sp. nov. TYPE: Bolivia. La Paz: Prov. José Romá de Loayza, Baños Termales de Urmiri, matorral, 17°09'S, 68°05'W, 3500 m, 26 Jan. 1996, St. G. Beck 21944 (holotype, MO; isotype, LPB). Figure 1.

Suffrutex omnino puberulus. Folia sessilia, anguste linearia, (0.5–)1–1.5(–2.5) cm longa, 0.5–1.2 mm lata. Flos sepalis oblongis, 1.7–2 mm longis, 0.9–1.1 mm latis, anguste membranaceo-marginatis; petalis albis, anguste oblanceolato-spathulatis, 2.5–3 mm longis, 0.5–0.7 mm latis; staminibus 4. Silicula oblonga vel ovato-oblonga, 4–5 mm longa, 3–3.5 mm lata, puberula; stylo persistente 0.5–0.7 mm longo.

Subshrubs, all parts except petals and filaments horizontally puberulent with trichomes 0.05–0.1 mm long. Stems 10–15 cm tall, woody along entire growth of previous years, 1–2 mm wide, slightly striate. Leaves all cauline, not forming rosettes, narrowly linear, (0.5–)1–1.5(–2.5) cm long, 0.5–1.2 mm wide, sessile, somewhat fleshy, entire, widest at or near base, acute at apex, often strongly concave adaxially, ascending to subappressed on stem, puberulent along both surfaces. Inflorescences few-flowered, ebracteate corymbose racemes, elongated in fruit. Fruiting pedicels flattened, ascending to divaricate, 3.5–5 mm long. Sepals oblong, ascending, 1.7–2 mm long, 0.9–1.1 mm wide, not saccate, membranous margin and apex 0.2–0.4 mm wide, apex obscurely denticulate. Petals white, narrowly oblanceolate-spatulate, 2.5–3 mm long, 0.5–0.7 mm wide, not clawed, gradually attenuate to base, apex obtuse. Stamens 4; filaments white, distinctly dilated at base, 2–2.6 mm long; anthers ovate, 0.5–

0.6 mm long. Silicles oblong to ovate-oblong, 4–5 mm long, 3–3.5 mm wide; valves puberulent, keeled, not veined; apical notch 0.1–0.2 mm deep; style exserted from apical notch, 0.5–0.7 mm long, sparsely puberulent basally; stigma entire. Seeds reddish brown, oblong, ca. 2 × 1 mm; cotyledons accumbent.

Lepidium beckii, which is named in honor of Stephan G. Beck who made the type collection, is most closely related to the Ecuadorian *L. quitense* Turczaninow and the Chilean *L. philippianum* (Kuntze) Thellung, both of which have woody lower parts, four stamens, horizontally puberulent parts, and sessile, usually entire uppermost cauline leaves. The remaining South American species are herbs with two or rarely six stamens. From *Lepidium beckii*, *L. quitense* is readily distinguished by being a taller subshrub (20–50 cm) with many-flowered inflorescences, sepals ca. 1 mm long, petals shorter than sepals, glabrous fruits 2.5–3(–3.5) mm long, and shorter styles (0.1–0.3 mm long) included in the apical notch of the fruit. In contrast, *L. beckii* is a shorter plant (10–15 cm) with few-flowered inflorescences, sepals 1.7–2 mm long, petals longer than sepals, puberulent fruits 4–5 mm long, and longer styles (0.5–0.7 mm long) exserted from the apical notch of the fruit. *Lepidium philippianum* differs from *L. beckii* in having well-developed rosettes at the branches of the woody caudex, long petiolate basal leaves, apically toothed lower leaf blades (2–)3–5 mm wide, and glabrous fruits. *Lepidium beckii* does not produce basal rosettes, and it has sessile, entire leaves 0.5–1.2 mm wide and puberulent fruits. Furthermore, *L. philippianum* has a woody, much branched caudex, rather than being typical subshrubs as are *L. beckii* and *L. quitense*.

Hitchcock (1945) suggested that *Lepidium philippianum* is functionally dioecious, but I have not seen sufficient material to prove that, and no detailed field studies have been done on the species. I agree with Hitchcock that the division by Thellung (1906) of both *L. philippianum* and *L. quitense* into several varieties is unwarranted.

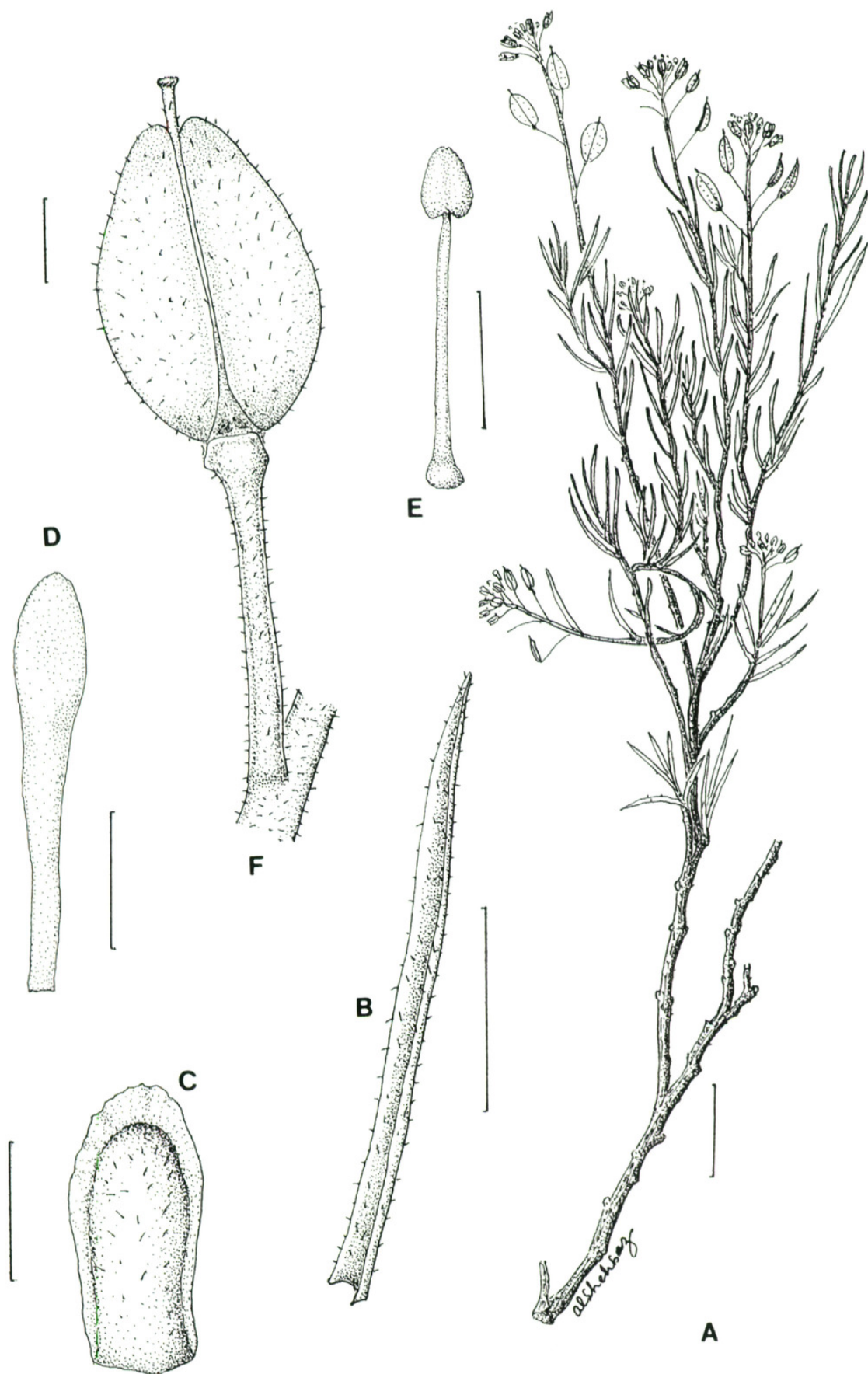


Figure 1. *Lepidium beckii* Al-Shehbaz (holotype). —A. Part of plant. —B. Cauline leaf. —C. Sepal. —D. Petal. —E. Stamen. —F. Fruit and pedicel. Scales A = 1 cm; B = 5 mm; C–F = 1 mm.

Acknowledgments. I am grateful to Stephan G. Beck for sending his Brassicaceae collections for my study and to Roy Gereau for correcting the Latin.

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