



Lepidium tayloriae (Brassicaceae), a New Species from Chile

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ABSTRACT. *Lepidium tayloriae* from Atacama (Region III), Chile, is described and illustrated. Its relationship to *L. pseudodidymum* and *L. strictum* is discussed, and its distinguishing characters from these and other South American species are given.

Several South American species of *Lepidium* have been discovered since Hitchcock's (1945) revision, and the total number, including this new species and *L. peruvianum* Chacón (1990), bring the total estimate of Al-Shehbaz (1989) to 52 species. The South American species of *Lepidium* belong to several complexes (e.g., *L. abortanifolium* Turczaninow, *L. aletes* Macbride, *L. chichicara* Desvaux, *L. depressum* Thellung, and *L. meyenii* Walpers), the taxonomy of which requires critical study. The limits of component species of a given complex are sometimes obscure. As shown below, however, the new species and its relatives are readily distinguished from all the other South American lepidiums.

Lepidium tayloriae Al-Shehbaz, sp. nov. **TYPE:** Chile. Atacama (Region III): Copiapó Province, between Huasco and Copiapó, ca. 20–25 km W of Totoral on the road to the coast, dry plains and hillside, 20°00'S, 70°50'W, 8 Oct. 1991, C. M. Taylor, C. von Bohlen & A. Marticorena 10804 (holotype, MO; isotype, CONC). Figure 1.

Herba annua hirsuta 17–24 cm alta. Folia caulina infima pinnatisecta 2–4 cm longa, segmentis 0.2–0.5 mm latis; folia superma anguste linearia integra, 1–4 cm longa, 0.3–1.5 mm lata. Flos sepalis ovatis 0.6–1 mm longis; petalis filiformibus usque ad 0.2 mm longis; pedicellis fructiferis erectis 1.2–2 mm longis, anguste alatis. Fructus suborbicularis, medio secus replum subconstrictus et sub-

didymus, (3.4–)3.7–4 mm longus et latus, valvis alatis, manifeste reticulato-venosis.

Herbs annual, erect, 17–24 cm tall; branches many, ascending, moderately to densely hirsute with spreading trichomes to 0.5 mm long. Basal leaves not seen; lowermost cauline leaves pinnatisect, 2–4 cm long, hirsute; petiole winged, 0.5–1.5 cm long, to 1 mm wide; lateral lobes 3–6, narrowly linear, 2–6 × 0.2–0.5 mm; rachis as wide as petiole; uppermost leaves narrowly linear, entire, 1–4 cm long, 0.3–1.5 mm wide. Inflorescences ebracteate racemes, greatly elongated in fruit. Sepals ovate, 0.6–1 × 0.3–0.5 mm, glabrous or rarely sparsely hirsute, purplish, scarious at margin, usually falling off after fruit maturation; petals filamentous, to 0.2 mm long; stamens 2, the filaments white, ca. 0.6 mm long, the anthers ca. 0.2 mm long; nectar glands 4, toothlike, ca. 0.1 mm long. Fruiting pedicels 1.2–2 mm long, erect, subappressed to rachis, narrowly winged, hirsute. Fruit suborbicular, subdidymous, (3.4–)3.7–4 mm long and wide, prominently reticulate, winged, glabrous, emarginate at apex, truncate-rounded at base; wing encircling all fruit, ca. 0.6 mm wide at fruit apex; apical notch ca. 0.3 mm deep, ca. 0.6 mm wide; style absent; stigma entire. Seeds ovate, brown, ca. 2 × 1 mm; cotyledons incumbent.

Lepidium tayloriae, which is named after Charlotte M. Taylor, one of the collectors of the holotype, is most closely related to the Argentinian *L. pseudodidymum* and the Chilean *L. strictum* (S. Watson) Rattan. These three species are readily distinguished from all of the other South American lepidiums by the prominently reticulate-veined fruits. The new species differs from *L. pseudodidymum*

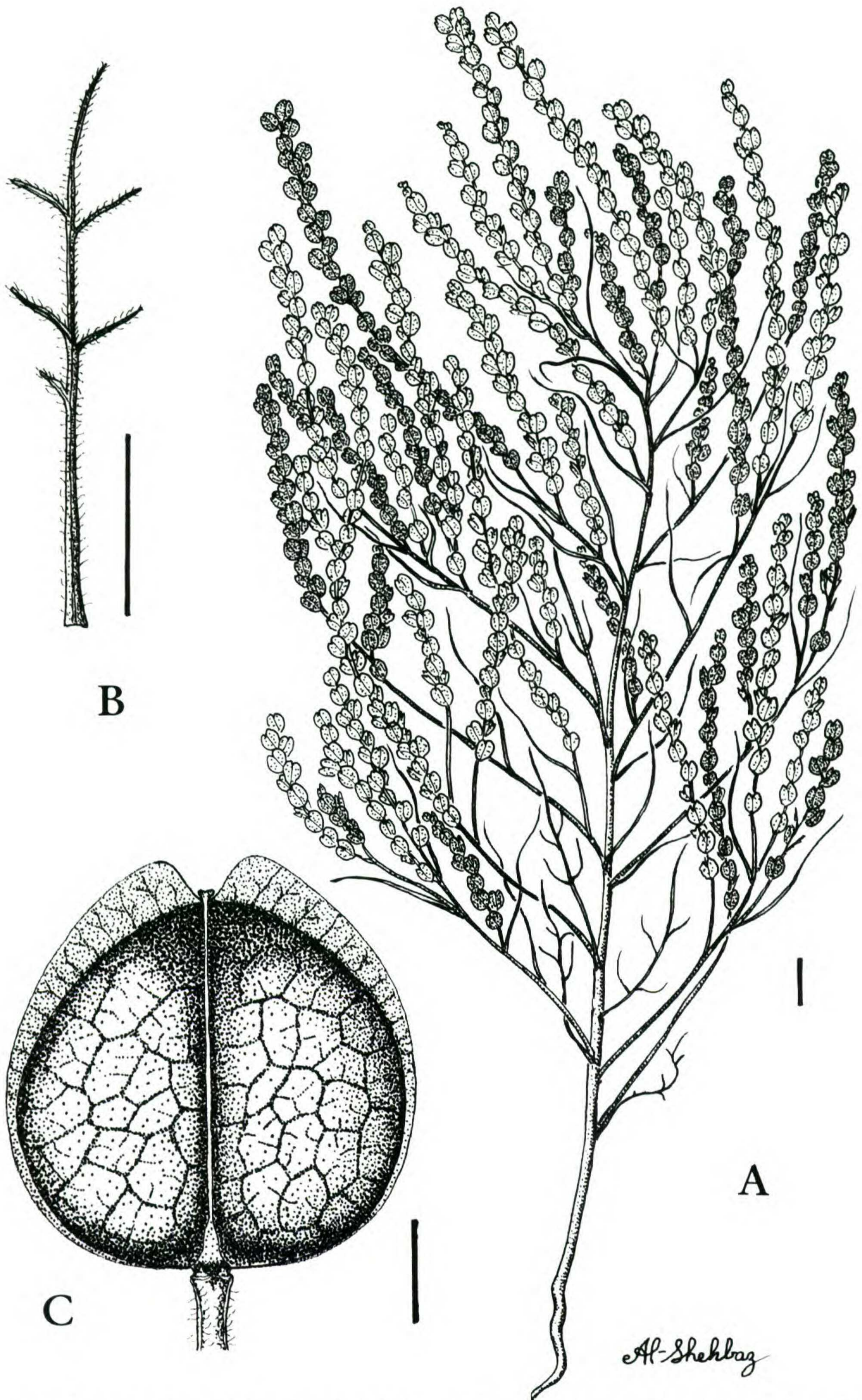


Figure 1. *Lepidium tayloriae* Al-Shehbaz (holotype). —A. Plant. —B. Lower cauline leaf. —C. Fruit. Scales A, B = 1 cm; C = 1 mm.

by its winged fruits (3.4–)3.7–4 mm long and wide, erect fruiting pedicels, entire upper cauline leaves, and sessile stigma. By contrast, *L. pseudodidymum* has wingless fruits 2–2.6 × 2.2–3 mm, arcuate-spreading fruiting pedicels, 2- or 3-pinnatifid or -pinnatisect upper cauline leaves, and styles ca. 0.17 mm long. It is separated from *L. strictum* by its larger fruits with glabrous keel, toothlike nectar glands, entire upper cauline leaves, trichomes to 0.5 mm, and constricted fruit replum distinctly lower than the valve surface. *Lepidium strictum* has smaller fruits (2.5 × 2 mm) with puberulent keel, linear nectar glands, pinnatisect upper leaves, trichomes to 0.3 mm, and raised fruit replum higher than the valve surface.

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Literature Cited

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