

DRABA HENRICI (BRASSICACEAE),
A NEW SPECIES FROM NORTHERN NEW MEXICO

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Abstract. *Draba henrici*, a new species from New Mexico, is described and illustrated. It resembles widespread *D. aurea* and the Colorado-endemic *D. streptobrachia* in habit, foliage, and fruits but is readily distinguished from them by the smaller white vs. yellow flowers, shorter (1–2(–3) vs. 3–20 mm) fruiting pedicels, and several aspects of indumentum discussed below.

Keywords: Brassicaceae, *Draba*, New Mexico

Draba L. is the largest genus in the Brassicaceae (Cruciferae), with an estimated 390 species distributed on all continents except Australia and Antarctica (Al-Shehbaz, 2012). Recent account of the genus (Al-Shehbaz and Windham, 2010) for the Flora of North America (FNA) indicated that it is represented by 121 species in Canada, Greenland, and the United States. Of these, two have recently been placed in *Abdra* Greene and three in *Tomostima* Raf. (Al-Shehbaz, 2012), bringing down the FNA number to 116 species. However, the author believes that several new species in Canada and the United States are yet to be described. The following novelty was discovered during fieldwork conducted by Dr. van der Werff in Taos County, New Mexico.

Draba henrici Al-Shehbaz, *sp. nov.* TYPE: UNITED STATES. New Mexico, Taos County, Frazer Hill, above Taos Ski Valley, alpine tundra, 11,000–12,000 ft. [3352.8–3657.6 m], 8 August 2011, *H. van der Werff 24146* (Holotype: MO; Isotype: MO) Fig. 1.

Herbs perennial, not caespitose; caudex few to several branched, herbaceous, covered with few persistent leaf remains of previous seasons, some branches terminated in sterile rosettes. Stems (2–)4–10(–12) cm, erect to ascending or rarely subdecumbent, herbaceous, simple throughout or branched distally, leafy, pubescent near base with a mixture of simple trichomes 0.5–1 mm and smaller, short-stalked, 4–6-rayed trichomes often crisped on distal parts of stem. Basal

leaves rosulate; petiole 2–5 mm, usually ciliate, persistent; leaf blade narrowly oblanceolate, 5–12 × 1–2 mm, both surfaces moderately pubescent with stalked, 4(–7)-rayed trichomes, base attenuate, margin entire, apex subobtusely; cauline leaves (8–)10–16(–20), overlapping, lanceolate to oblong or narrowly ovate, entire or rarely denticulate, both surfaces with stalked, non-crisped, 4(–7)-rayed trichomes 0.2–0.35 mm, these usually mixed adaxially and along proximal part of midvein abaxially with fewer simple trichomes to 1 mm. Racemes ebracteate, 6–15-flowered, corymbose, elongated in fruit; rachis straight, pubescent with crisped, minutely stalked, 4–7-rayed trichomes mixed with longer, straight or curved simple ones to 1 mm; lowermost fruiting pedicels ascending, straight, 1–2(–3) mm, pubescent all around as rachis. Flowers: sepals green with white margin, ovate, 1.5–2 mm, ascending, caducous, not saccate at base, pubescent with crisped, branched trichomes and subapically with longer simple trichomes; petals white, oblanceolate, 3–3.5 × 1–1.5 mm, caducous, submarginate at apex, attenuate to a claw-like base; filaments white, 1.5–2 mm; anthers ovate, 0.2–0.3 mm, sagittate at base, not apiculate at apex; nectar glands 4, lateral, minute, 1 on each side of lateral stamen, median glands absent. Fruit (immature) narrowly oblong, 6–8 × ca. 1.5 mm, slightly twisted, sessile, divaricate-ascending, not appressed to rachis; valves puberulent with simple and 2(–4)-rayed trichomes, obscurely veined, subobtusely at both ends; style 0.3–0.8 mm. Mature seeds not seen.

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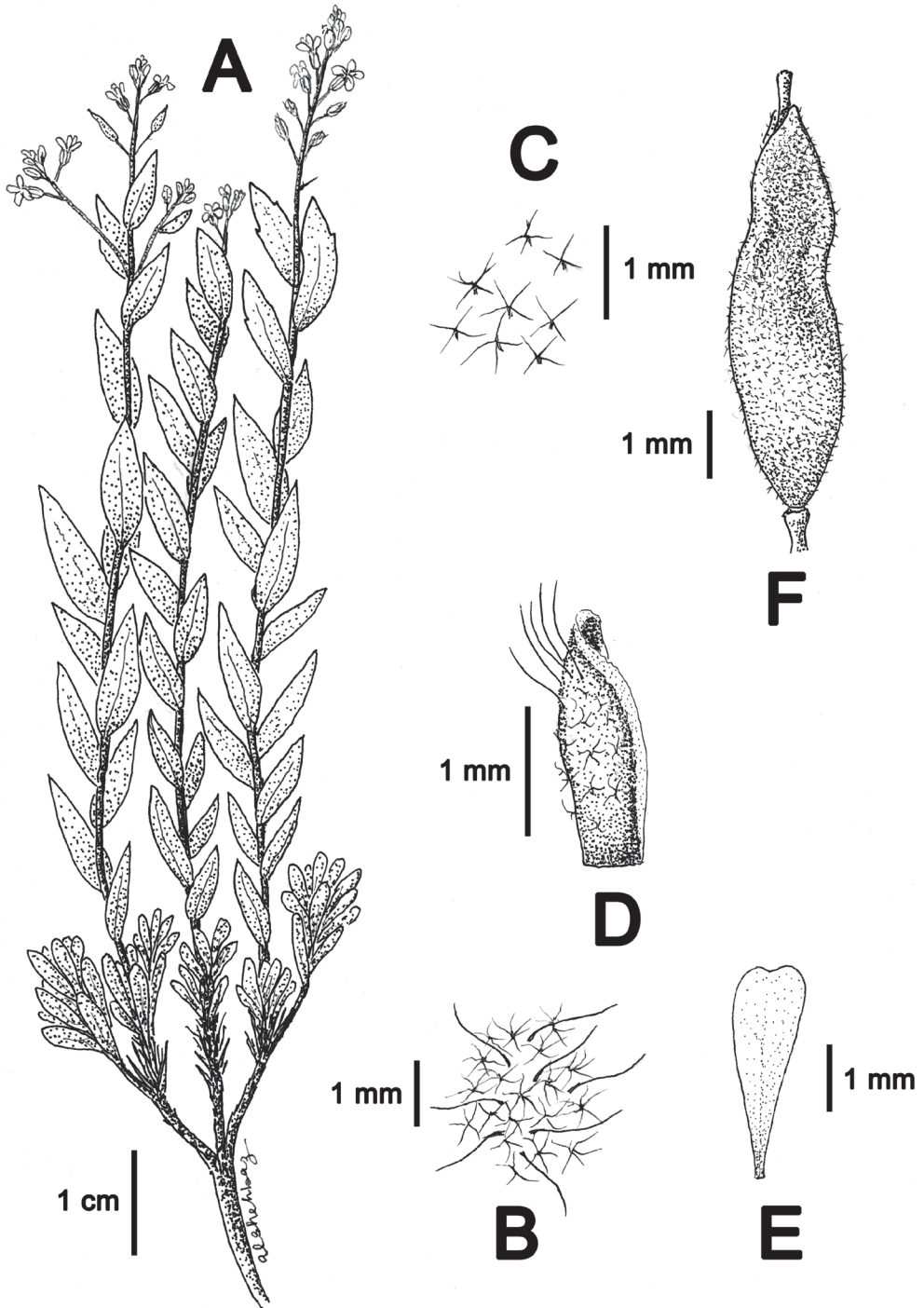


FIGURE 1. *Draba henrici* Al-Shehbaz. A, plant; B, stem trichomes; C, trichomes of abaxial surface of cauline leaves; D, side view of sepal; E, petal; F, young fruit. Drawn by Al-Shehbaz from the holotype, *van der Werff* 24146 (MO).

Eponymy: This novelty is named in honor of Dr. Henk (Hendrik) van der Werff (Missouri Botanical Garden) who made all of three collections known thus far for the species.

Phenology: Flowers late July into early August.

Distribution and ecology: Known from the alpine tundra (3350–3660 m) of Frazer Hill in Taos County, New Mexico.

Distinguishing characters: *Draba henrici* resembles the very widespread *D. aurea* Vahl ex Hornem. (Alaska and Greenland south into Arizona and New Mexico) and the Colorado-endemic *D. streptobrachia* R. A. Price in being a perennial with slender caudex, leafy stems, and flattened, puberulent, usually slightly twisted fruits. However, it is readily distinguished from both species by having white (vs. yellow) and smaller ($3\text{--}3.5 \times 1\text{--}1.5$ vs. $3.5\text{--}5 \times 1.5\text{--}3$ mm) petals and shorter (1–2(–3) vs. 3–20 mm) fruiting pedicels. It further differs from *D. aurea* by having crisped (vs. non-crisped) stem trichomes, ebracteate (vs. basally bracteate)

racemes, and non-appressed (vs. appressed) fruits. It also differs from *D. streptobrachia* by having simple trichomes on most parts, (8–)10–16(–20) cauline leaves, and distinctly stalked stellate trichomes that are not crisped on leaves. By contrast, *D. streptobrachia* lacks the simple trichomes throughout and has (1 or)2–4(or 5) cauline leaves and sessile, crisped stellate trichomes on all parts.

Draba henrici grows sympatrically with *D. heilii* Al-Shehbaz, another endemic of New Mexico from which it is easily distinguished by the smaller, white petals and by the presence of stellate trichomes throughout. The latter species has yellow petals 4–6 mm long, and the entire plant is covered with simple and 2-rayed trichomes.

Additional specimens examined: United States, New Mexico, Taos County, Frazer Hill, along trail to Wheeler Peak, *H. van der Werff* & *J. Bruemmer* 24397 (MO); along trail to Wheeler Peak above Taos Ski Valley, *H. van der Werff* 24384 (MO).

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