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NEW VARIETY OF *YUCCA HARRIMANIAE* (AGAVACEAE) FROM UTAH

Elizabeth Neese¹ and Stanley L. Welsh¹

ABSTRACT.—*Yucca harrimaniae* var. *sterilis* Neese & Welsh is named and described from the Uinta Basin of Utah. The plant is strongly rhizomatous, evidently sterile, and has limber, sparingly filiferous leaves that tend to recline on the ground.

During field investigations in the Uinta Basin of Utah in the late 1970s and early 1980s, a phase of *Yucca harrimaniae* Trel. was brought to our attention by Mr. Dan Gardner of the Bureau of Land Management in Vernal, Utah, who had observed the plants in the Pariette Bench vicinity of the basin.

Several occurrences of this peculiar entity were discovered thereafter by the authors and by other collectors in the region. The plants are characterized by being strongly rhizomatous, with the rosettes more or less widely spaced; the leaves are limber and sparingly, if at all, filamentous marginally, and tend to recline in curved fashion on the ground. These characters contrast strongly with typical material of *Yucca harrimaniae* as it occurs in the Uinta Basin and elsewhere. Furthermore, the plants with sprawling, sparingly filamentous, flaccid leaves are not known to produce fruit, even though some populations have been observed over a period of several years, nor has fruit from previous years, often observable in the typical material, been found by us. In typical plants the rosette leaves are stiffly erect-ascending and marginally filamentous, the rosettes are clumped to narrowly spaced, and fruit is produced routinely. The species is treated as follows.

Yucca harrimaniae Trel. Harriman Yucca. [*Y. harrimaniae* var. *gilbertiana* Trel., type from Juab County; *Y. gilbertiana* (Trel.) Rydb]. Plants acaulescent, forming densely to widely spaced rosettes; leaves falcate or straight, lanceolate to spatulate-lanceolate, concavo-convex, deeply striate, rather thick and rigid or limber, pale green, pungent apically, 1–5 dm long, 0.7–4 cm wide, the margins white or brown, in age more or less filifer-

ous, the fibers, when present, somewhat coarse and curly; inflorescence 3.5–7 dm tall, racemose or rarely with a few short branchlets, extending from within the foliage to well above; flowers broadly campanulate, pendant, yellowish or greenish yellow to cream, tinged with purple, the segments 4–5 (6) cm long, 1.6–3.5 cm broad; ovary 1.5–2 cm long, pale green; style 9–11 mm long, bright green; capsule cylindrical, with a short attenuate beak, 3.7–5 (6) cm long, usually deeply constricted toward the center and flaring open when dried, or not developed. Two more or less distinctive varieties are present in this species.

1. Leaves of basal rosette stiffly erect-ascending, conspicuously filamentous along the margin; rosettes often clumped; plants not strongly rhizomatous, routinely forming capsules
..... *Y. harrimaniae* var. *harrimaniae*
- Leaves of basal rosette flaccid, often reclining on the ground, typically curved, not especially filamentous marginally; rosettes often widely spaced; plants strongly rhizomatous, not known to form fruit *Y. harrimaniae* var. *sterilis*

Var. *harrimaniae*. Warm desert shrub, grasslands, sagebrush, pinyon-juniper, and mountain brush communities at 1200 to 2700 m in Beaver, Carbon (type from near Helper), Duchesne, Emery, Garfield, Grand, Iron, Juab, Millard, Piute, Sevier, San Juan, Uintah, and Wayne counties; Nevada, Colorado, Arizona, and New Mexico; 42 (xii).

Var. *sterilis* Neese & Welsh, var. nov. Similis *Y. harrimaniae* var. *harrimaniae* in floribus et staturis generalis sed in foliis flaccidis et floribus sterilis differt. TYPE: USA Utah. Uintah Co., T6S, R22E, Sec 14, ca 8 km S of Jensen, at mouth of Walker Hollow, at 1470 m elev., Salt desert shrub community, on bluff

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margin, alluvium over Uinta Formation, 31 May 1979, S. L. Welsh 18461 (Holotype BRY; Isotypes 4, distributed previously as *Yucca*). Additional specimens: Utah. Uintah Co., 19 km due SSW of Naples, 14 May 1980, S. White & E. Neese 133 (BRY); mouth of Walker Hollow, 31 May 1979, Neese et al. 7479 (BRY); 41 km S of Roosevelt, 29 June 1978, E. Neese & L. England 5899 (BRY); ca 3

km NW of Gusher, 8 June 1979, E. Neese & B. Welsh 7542, 8 June 1979 (BRY). Duchesne Co., ca 11 km NNW of Roosevelt, 19 June 1979, E. Neese 7663 (BRY).

LITERATURE CITED

- HIGGINS, L. C., AND S. L. WELSH. 1985. Utah flora: Agavaceae. Brigham Young University. Unpublished manuscript. 8 pp.