

A New *Hymenocallis* (Amaryllidaceae) from Sonora, Mexico

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ABSTRACT. *Hymenocallis clivorum* is a new member of the Amaryllidaceae from southern Sonora, Mexico. It is unusual in the genus in that it occurs on steep slopes in a semi-arid environment.

RESUMEN. *Hymenocallis clivorum* es una nueva especie de las Amaryllidáceas del sur de Sonora, México. Es excepcional en el género en que se halla sobre las inclinaciones empinadas en ambiente semiárido.

A collection was made recently of the genus *Hymenocallis* that differs morphologically and ecologically from previous collections. It is extremely unusual in the genus because it grows on steep slopes in a semi-arid environment. Most of the other species grow in or near standing or running water, and many of them have water-dispersed seeds (Bauml, 1979; Flory 1976, 1978; Godfrey & Wooten, 1979; Howard, 1978). The relatively xerophytic Sonoran plant is described below as a new species.

Hymenocallis clivorum Laferrière, sp. nov.

TYPE: Mexico. Sonora: Agua Amarilla (Los Pinitos), 15 km WNW of Tepoca on Mexico 16 (Km 200 E of Hermosillo), 28°28'01"N, 109°20'23"W, 900 m, 13 July 1997, A. L. Reina G. 97-591, T. R. Van Devender, D. Larson, P. Merlin, M. J. Martinez (holotype, ARIZ; isotype, MEXU).

A *H. pimana* foliis latioribus, poculo staminali brevior, et floribus multioribus differt; a *H. sonorensis* foliis angustioribus differt.

Bulb ovoid, 4.5–6 cm long, 30–37 mm diam., dark brown, with a subterranean neck 4–5 cm long. Leaves narrow, ensiform, spreading, very glaucous, 9–16 mm wide, 25–35 cm long. Scape solitary, compressed, glaucous, 20–45 cm tall, 3 mm wide at base, gradually tapering to 10 mm wide at apex. Inflorescence capitate; outer floral bracts subulate, scarious, hyaline, 60–70 mm long. Flowers 8–11, sessile, erect; perigone tube green, 8–10 cm long, uniformly 1 mm diam. throughout its length; tepals white, persistent, spreading, 1.0–1.5 mm wide, 40–60 mm long including staminal cup; staminal cup broadly funnelform, white, 18–21 mm long, 10–15

mm diam., the margin entire; filaments green, white at base; anthers pale yellow, exserted, versatile, 14–17 cm long; locules 3; ovules 1–5 per locule; style exserted, green, 14–17 cm long; stigma green, capitate, 3-lobed. Seeds ellipsoid, 8–10 mm long, 4–5 mm wide.

Hymenocallis clivorum differs morphologically from *H. pimana* Laferrière in having slightly wider leaves (9–16 mm vs. 5–11 mm), a shorter staminal cup (18–21 mm vs. 25–50 mm), and more numerous flowers (8–11 vs. (1–)2–6(–8)). The leaves, though wider than *H. pimana*, are still much narrower and more intensely glaucous than those of *H. sonorensis* Standley (Laferrière, 1990, and see key, below). *Hymenocallis sonorensis* also has narrower staminal cups (see key). These are currently the only three species described from Sonora. Other populations of the genus not referable to any of these species have been reported elsewhere in the state (Fishbein, pers. comm.; Van Devender, pers. comm.), but at present insufficient material has been collected to allow formal descriptions. A key to the currently recognized Sonoran species is as follows:

- 1a. Staminal cup 18–21 mm high.
 - 2a. Leaves very glaucous, 9–16 mm wide; staminal cup 10–15 mm diam *Hymenocallis clivorum*
 - 2b. Leaves slightly glaucous, 15–30 mm wide; staminal cup 15–26 mm diam . . . *Hymenocallis sonorensis*
- 1b. Staminal cup 25–50 mm high *Hymenocallis pimana*

Ecologically, *Hymenocallis clivorum* differs strikingly from both *H. pimana* and *H. sonorensis*. *Hymenocallis sonorensis* occurs mostly along stream-banks and roadsides at low elevations, whereas *H. pimana* grows in open, grassy, anthropogenic clearings in pine-oak forest over 1500 m in the Sierra Madre Occidental (Laferrière, 1990, 1994). *Hymenocallis clivorum* occurs on dry, rocky slopes in tropical deciduous forest, at an elevation of less than 1000 m. “Clivorum” is the genitive plural of the Latin word “clivus,” i.e., “slope.”

Paratype. MEXICO. **Sonora:** Alamos Study Area, 7.5

mi. [12 km] NW of Alamos, [ca. 400 m fide Fishbein], 20 July 1968, R. Krizman s.n. (ARIZ).

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