

# The North Texas Species of *Hymenocallis* (Amaryllidaceae)

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The only recent descriptive account of the United States species of *Hymenocallis* is that by Small in his *Manual of the Southeastern Flora* (1933: several corrections of nomenclature are given by Morton, 1935). None of the 11 species there given is credited to Texas. In his earlier *Flora of the Southeastern United States* (1903), 7 species were treated by Rose, one of them (*H. galvestonensis*) from Texas. Actually at least two species are found in the state, neither of which entirely fits the description of *H. galvestonensis*. The difficulty of collecting and pressing the plants has been responsible for a deficiency of herbarium specimens, and this in turn for the lack of satisfactory taxonomic treatments of the species. In addition, neglect and carelessness in the matter of bibliography have been responsible for misuse of names. So it comes about that the showy and familiar spider lilies of Texas have no valid scientific names. This brief synopsis of the species of the northeastern quarter of the state is based on collections in the Herbarium of Southern Methodist University. Two species can readily be distinguished by flowering time and length of perianth tube. It is very doubtful if small differences of tooting of the crown, emphasized by some authors, is of real taxonomic significance. Leaf width, as used in Small's keys, is certainly misleading. A more thorough discussion must await the accumulation of more study material, but these notes may at least call attention to the inaccuracy and inadequacy of available published information.

- 1a. Flowering March-May, sporadically to July, with the leaves; perianth tube 6-8 cm. long.....1. *H. Liriosme*
- 1b. Flowering July-September, after the leaves begin to wither; perianth tube 8-12 cm. long.....2. *H. Eulae*

1. HYMENOCALLIS *Liriosme* (Raf.) Shinnery, comb. nov. *Pancratium Liriosme* Raf., Fl. Ludov. 19. 1817. *Hymenocallis galvestonensis* of authors, perhaps not *Choretis galvestonensis* Herbert, 1837 (see discussion at end). This is the common white spider lily of stream-banks, ditches, and wet places in eastern Texas, west to Red River, Hopkins, Van Zandt, and southeastern Kaufman counties in the north, to Victoria County in the south; beginning to flower in March near the coast, in April near the Red River. Rafinesque gave an exceptionally full and clear description: "Beautiful plant, growing in moist grounds and round the small lakes; its bulb is about an inch in diameter, black outside and white within; radical leaves deep green, shining, similar to those of the *Narcissus*. Stem compressed, nearly winged, two feet high: umbel of about six white large flowers (8 inches diameter) each with a spatha, and having a fragrant smell, nearly similar to that of the common lily: the anthers are long and yellow: it blossoms in March. It has some affinity with the *P. Rotatum* of Ker and Pursh." The bulb has the black outer and white inner coat described, by Rafinesque, but is over an inch in diameter on older plants. The leaves are distichous, deeply cupped (almost folded longitudinally, but

rounded dorsally; usually pressed out flat in herbarium specimens), larger than those of most species of *Narcissus* now cultivated in Texas, up to 4.0 cm. wide (varying with age of leaf and with age of plant). The scape is sharply 2-edged, biconvex, spongy, shrivelling to less than half its original width and less than a fourth its thickness in drying, herbarium specimens giving no conception of the living plant. The showy white flowers (tinged lemon yellow in center, greenish or yellowish on the perianth tube) have the heavy, sweet, funeral-parlor scent of white lilies, and the long, deep yellow anthers are conspicuous while pollen is being shed. There is no basis for Morton's assertion (1935, p. 83) that "this species seems to be the same as *Pancratium maritimum* Linnaeus, of Europe, and was probably based on cultivated material." Rafinesque was relying on Robin's description of plants the latter had observed wild in Louisiana.

2. *HYMENOCALLIS Eulae* Shinnery, sp. nov. *H. Liriosmi* affinis, sed post foliorum marcentem florens; perianthi tubo longiore (8-12 cm.). TYPE: north of Edgewood near Ocean Lake, Van Zandt Co., Texas, cultivated at J. A. White house having been introduced from wild plants on Sabine River, *Eula Whitehouse 16448*, Sept. 6, 1946 (SMU). "Leaves appearing in spring, dying before flower stalk appears; perianth white." Additional specimen: Tyler State Park, 12½ miles north by west of Tyler, Smith Co., Texas, *V. L. Cory 57515*, Aug. 7, 1950 (SMU). "A colony of about a dozen plants on wooded hillside. Scape about 7.5 dm. high; perianth tube 11-12 cm. long; taller and more robust than the other spider lilies of Texas; should be collected earlier in the season." This specimen consists of bulbs, scape, a few withered leaves, and half-withered flowers. Like *Aster Eulae*, this species is named for Dr. Eula Whitehouse, Technical Assistant in the Herbarium of Southern Methodist University, artist-author of *Texas Wild Flowers in Natural Colors*, and assiduous collector not only of flowering plants, but also of ferns, bryophytes, and algae, both inside and outside of Texas.

Since the available discussions of *Hymenocallis* are both meagre and scattered, some miscellaneous notes may be brought together here, and a list of references likely to be of use to future students of the genus as it occurs in the United States.

*HYMENOCALLIS GALVESTONENSIS* (Herbert) Baker, Handbook of the Amaryllidaceae, p. 126. 1888. *Choretis galvestonensis* Herbert, Amaryllidaceae, p. 221. 1837. TYPE: Galveston Bay, Texas, *Drummond 412* (Hooker Herbarium, at Kew; not seen), without leaves. According to Herbert, the scape is 9-11 inches high, umbel 4-flowered, tube scarcely 2½ inches (6.5 cm.) long, limb 2½-3 inches. If it is assumed that only the summit of the scape was present, this would apply fairly well to the earlier-described *Pancratium Liriosme* Raf., which is 1½-3 feet high, 4- to 10-flowered. But Herbert states that his genus *Choretis* differs from *Hymenocallis* in having a round scape instead of a 2-edged one. This can hardly be determined satisfactorily from a dried specimen. Herbert may well have been mistaken, in which case his name is a synonym of *Hymenocallis Liriosme*, or conceivably belongs to a distinct species.

*HYMENOCALLIS NARCISSIFLORA* (Jacq.) Macbride, Field Museum Publ. Bot. Ser. 11: 11. 1931. *Pancratium narcissiflorum* Jacq. *P. calathinum* Ker. *Ismene calathina* (Ker) Herbert. *Hymenocallis calathina* (Ker) Nicholson. (Synonymy after Macbride.) Thrives in cultivation; commonly sold under the name "Peruvian Daffodil." The new edition of Bailey's *Manual of Cultivated Plants* still lists this as *Hymenocallis calathina* (p. 256).

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## Note

*ALLIUM Fraseri* (M. Ownbey) Shinnery, comb. nov.—*A. canadense* var. *Fraseri* M. Ownbey, Res. Studies State College of Washington 18 (4): 195-196. 1950 (published 1951). I do not agree with Dr. Ownbey's wholesale reduction of four Texas species to varieties of *Allium canadense*. Though the morphological differences are not great, they are numerous, and in conjunction with ecological behavior and geographic distribution, warrant recognition as species. Certainly to anyone who has had ample opportunity to become acquainted with them in the field, it is extremely difficult not to regard them as distinct specifically. They are so treated in the manuscript for a forthcoming flora of north Texas, for which this new combination is required.—Lloyd H. Shinnery.