

Vascular Plants of Williamson County

Sisyrinchium ensigerum – SWORDLEAF BLUE-EYED GRASS [Iridaceae]

Sisyrinchium ensigerum E. P. Bickn. (incl. *S. chilense*), SWORDLEAF BLUE-EYED GRASS. Perennial herb, inconspicuously rhizomatous, fibrous-rooted, several–many-stemmed at base, caespitose or not, in range to 30 cm tall (ascending shoots), conspicuously flexed at the first visible node; shoots with only basal leaves (cauline leaves = bracts subtending axillary inflorescence), at flowering having to 6 living basal leaves and lacking internodes at plant base, each leaf sheath sharply folded appressed lengthwise (replicate) and overlapping other sheaths (equitant), glabrous and often somewhat glaucous and having foliage grayish green; adventitious roots from short rhizomes. **Stems:** (= peduncle) having 1 long internode, compressed side-to-side with 2 winglike extensions, 1.8–4.5 mm diameter, tough, green and \pm glaucous, node sometimes red-purple, edges minutely toothed (denticulate), conspicuous node (below inflorescence) to 250 mm from ground level and \leq the longest basal leaf. **Leaves (basal):** alternate distichous, simple and sheathing; prophyll short-closed at base and unevenly folded, to 35 mm long, with 2 veins larger than others, minutely scabrous along keel; sheath of basal leaves open, keeled (folded), several–70 mm long, having membranous margins along most of the length, surfaces smooth, halves of sheath “fused” at top; blade ascending, linear, (0–)25–300 \times 0.9–2.2(–5) mm, green occasionally glaucous, minutely scabrous on folded midrib, long-tapered to tip, parallel-veined, surfaces smooth. **Inflorescence:** leafy compound cyme, arising from first node, flowers to 6 formed within “spathe” and successively exerted, bracteate, glabrous and green tissue often somewhat glaucous; bract arising from first node (cauline leaf) ascending, to 190 mm long and $>$ inflorescence, folded appearing to be 5 mm wide, closed to 20 mm, minutely scabrous on midvein; bract arising from second node \ll first bract decreasing to bracts axillary to principal bracts; stalk of spathe flexible, pedunclelike; spathe closed fusiform (when closed) and 2-keeled (along midribs), formed by green bractlets of the 2 earliest flowers of the cyme, to 27 mm long, spreading somewhat when flower emerging, bractlets alternate distichous, keeled and folded with membranous margins and sometimes membranous tissue purplish approaching tip and sometimes inner bractlet membranous margin lobelike at top, each exposed bractlet tapered to acuminate tip, outer (first) bractlet closed to 5 mm from base, tip of outer bractlet even with or commonly extending beyond tip of second bractlet to 2–4 mm with difference highly variable, other bractlets hidden and included within spathe, third bractlet to 17 mm long and green with wide membranous margins, fourth or fifth bractlets to 15 mm long (decreasing in length) and membranous with green panels, the shortest bractlet membranous with faint green veins; pedicel at maturity ca. 20–30 mm long (elongating in bud by an intercalary meristem before the flower is pushed outward exerted from spathe), exposed portion purplish red and whitish approaching base or purplish red while forming within spathe, often with some glandular hairs approaching ovary. **Flower:** bisexual, radial, 14–24 mm across; **perianth** 6-lobed (tepals), lobes in 2 whorls fused into ring at base and lobes horizontal in the same plane, \pm monomorphic, with bright yellow eye in starlike or crownlike center, persisting inrolled on top of early fruit; tube saucer-shaped, 0.5–0.8 mm long, glossy bright yellow (inside) and glossy yellow-green (outside, lower surface), thickish, without hairs or on lower surface with slender stalked glandular hairs; lobes obovate truncate to rounded or shallowly notched and having an acuminate-triangular

point at tip (acicular), 8–13 × 4.5–6.2 mm, tepals of outer whorl 1–1.5 mm wider than of inner whorl, yellow lower portion shield-shaped (collectively somewhat crown-shaped), upper portion dark violet to blue-violet, paler violet on lower surface, with darker midvein (possibly genotype white, i.e., lacking all violet pigment), tips 1.5–2 mm long, lacking stalked glandular hairs or lower surface with stalked glandular hairs mostly on yellow tissue or also on slender tip, lobe often 7-veined from edge of yellow emblem; **stamens** 3, fused into cylindrical column concealing nearly all of style; filament column exerted, straight or somewhat curved above midpoint, 4.3–5.7 × 0.5–0.7 mm, bright yellow at base above pale yellow to midpoint, greenish and whitish with purplish streaks (appearing turquoise) or somewhat violet approaching anthers, having many, widely spaced, long-stalked glandular hairs below midpoint; free filaments short at top of column; anthers dorsifixed, dithecal, attached at top of column and sacs deflexed appressed to column, each to 2 mm long and ball-like cluster ca. 1 mm across, vivid yellow, longitudinally and outwardly dehiscent; pollen bright yellow (yellow-orange); **pistil** 1; ovary inferior, short club-shaped obovoid shallowly 3-lobed, 1.2–2 × 1–1.5 mm, glossy green darker on angles, with radiating stalked glandular hairs having small heads base-to-tip or mostly at base, 3-chambered, each chamber with several–15 pale green ovules; **nectary** on top of ovary, green; style > stamens exposed < 0.5 mm curved above anthers and 3-forked at tip, colorless and exerted portion whitish, terminal portion lanceoloid 3-sided at base, 1–1.2 mm long, the base 0.5–0.6 × 0.3 mm and the tip acuminate and papillate. **Fruit:** capsule, loculicidal, or indehiscent opened at top by insect predator, several–27-seeded, subspheroid to obovoid, 4–6 × 4–5 mm, light brown, slightly bulging from seeds; fruit exerted and arching downward on long pedicel, pedicels to 10 persistent but only to 3 mature fruits. **Seed:** subspheroid to ± inversely pyramidal, (1–)1.2–1.5 mm long, black, rounded on top, when crowded in locule with 3–4 flattish sides, having only a few seeds in locule lacking angles, surface irregular with short ridges and pits (rugulose); hilum circular surrounded by a low rim, ca. 0.2 mm.

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