

Vascular Plants of Williamson County

Sisyrinchium langloisii – LANGLOIS BLUE-EYED GRASS [Iridaceae]

Sisyrinchium langloisii E. L. Greene, LANGLOIS BLUE-EYED GRASS. Perennial herb, inconspicuously rhizomatous, clonal, fibrous-rooted, (several–)many-stemmed at base, often densely cespitose, moundlike or fountainlike, when robust with mostly ascending shoots, in range < 25 cm tall, often flexed at the first visible node (at base of inflorescence); shoots with only basal leaves (cauline leaves = bracts subtending axillary inflorescence), at flowering usually having 3 basal leaves per shoot and lacking internodes at plant base, each leaf sheath sharply folded appressed lengthwise (replicate) and overlapping other sheaths (equitant), glabrous, not glaucous or faintly so on stem; rhizome < 2 mm diameter, highly branched and totally concealed by numerous adventitious roots growing from shoot bases, lacking persistent fibrous tissues from old leaves. **Stems:** (= peduncle) having 1 long internode often with conspicuous red-purple at top, compressed side-to-side with 2 winglike extensions, internode mostly < 150 mm long and << the longest basal leaf, tough and often twisted, flattened side-to-side, among leaf sheaths ca. 1 mm across and white or with greenish edges, internode above leaf sheath narrowly winged 2.5–3.2 mm across and greenish or weakly glaucous on wings, with raised vein and several parallel veins on each wing, the uppermost internode expanded to 3.5–4.2 mm with broad purple band directly below node or also on the node and sometimes on the lower portion of the next internode, edge entire to minutely toothed. **Leaves (basal):** alternate distichous, simple and sheathing; prophyll short-closed at base and strongly flattened front-to-back, 2-folded and 2-keeled, obtuse-triangular, ca. 2 mm long, white, 2-veined along keels, with tiny point at tip; leaves per shoot increasing in length and width, the oldest leaf often withered at flowering from 35 mm long and the young leaf to 200 mm long; sheath of basal leaves closed to 2.5 mm long and above that keeled (folded), white where not exposed to sunlight and green above, with membranous margins; blade ascending, linear, to 4 mm wide (the youngest, longest leaf) and > node at internode, parallel-veined with to 10 veins on each side scarcely raised, margins subentire (mostly not minutely toothed), acuminate to acute at tip, glabrous, not glaucous. **Inflorescence:** leafy compound cyme, each cyme with several–12+ flowers formed within a closed “spathe” and successively exerted by spreading the tips, arising from the upper node of the flattened peduncle (stem), having cymelike array arising from the node (robust specimen), having 1 or 2 unequal branches each with a terminal spathe + the longest branch potentially compound with the second internode and 1–2 spathes from the third node, bracteate, glabrous, in range not glaucous and lacking hairs; node of bract with broad purple band, often sharply bent (genticulate); bract arising from first node leaflike (cauline leaf), erect to suberect, to 100 mm long and > or < inflorescence, as folded appearing to 3 mm wide, closed to 11 mm, with membranous margins to midvein and especially from midblade minutely toothed on midvein (fold) to acuminate-acute often curved tip, bract at second node < bract at first node; stalk of spathe flattened and flexible, to 60 × 1.5 mm, with purple band at top and base of spathe, with raised midrib; spathe ascending to suberect, fusiform to peapodlike (when closed) and 2-keeled (along midveins) formed by green bractlets of the 2 earliest flowers of the cyme, in range mostly 15–< 20 mm long, spreading somewhat when flower emerging, bractlets alternate distichous, green and lacking hairs, keeled and folded with wide membranous margins nearly to tip, lower bractlet (outer spathe bract) = or slightly longer than upper

bractlet (inner spathe bract), outer bractlet ca. 1 mm > inner bractlet, membranous margins to 0.8 mm wide tapered upward and ending < 1 mm before acuminate green tip, lower bractlet closed to 3 mm from base and in bud its tip sometimes slightly exceeding tip of upper bractlet, other bractlets hidden and included within spathe (acuminate tips of the longest bractlets visible when outer bractlets are somewhat spread), the third bractlet at least 1 mm < second bractlet and with some greenish tissue but mostly membranous and colorless, decreasing inward with tips changing from acuminate to acute or jagged on progressively shorter bractlets and eventually lacking all green pigmentation; pedicel at maturity to 23 mm long (elongating in bud by an intercalary meristem before the flower is pushed outward exerted from spathe), exerted ca. 5 mm from near tip of “spathe,” midpoint diameter 0.25 mm, pale green, not purplish red while forming within spathe when exerted greenish to faded or remaining purple, lacking nonglandular and stalked glandular hairs. **Flower:** bisexual, radial, 15–20 mm across; **perianth** 6-lobed (tepals), lobes in 2 overlapped whorls fused into ring at base and lobes horizontal in the same plane, ± monomorphic, with bright yellow eye in crownlike center of perianth, persisting collapsed and inrolled on top of early fruit; tube saucer-shaped, ca. 0.5 mm long, glossy bright yellow (inside) and glossy light yellowish green (outside, lower surface), thickish, usually without hairs; lobes narrowly fan-shaped (obovate), (6.5–)7.5–10.1 × 4.2–5.1 mm (outer tepals, sepals) and (6.5–)7.5–10.1 × 3.2–4 mm (inner tepals, petals), outer wider than inner, subtruncate or shallowly notched and having an acuminate-triangular point at tip (acicular) to 1 mm long, upper surface ± medium blue or violet-blue to blue-violet above bright yellow emblems 1.6–2 mm long at base, the emblems somewhat wedge-shaped acute to subtruncate but jagged at top (collectively somewhat crown-shaped) extended from the perianth cup and nectary, veins usually not raised often 7 on outer tepals and 5 on inner tepals; lower surfaces much paler with a raised midvein and very fine parallel lateral veins, the basal portion light yellowish green, surfaces lacking stalked glandular hairs; **stamens** 3, fused into cylindric column concealing nearly all of style; filament column exerted, straight, 4–5 × 0.3–0.35 mm, lower portion pale green to light yellow often aging conspicuously purplish approaching top of column, usually glabrous and lacking radiating, long-stalked glandular hairs or less commonly having some glandular hairs on basal portion of column; free filaments short at top of column, stout and spreading, ± 0.25 mm long, pale green; anthers dorsifixed, dithecal, attached at top of column and sacs strongly deflexed and appressed to column, each 1.3–1.6 mm long forming a ball-like cluster ca. 1 mm across, deep orangish yellow, longitudinally and outwardly dehiscent; pollen copious, bright orangish yellow (golden); **pistil** 1; ovary inferior, top-shaped obovoid 3-angled, 1.5–1.7 × 1–1.2 mm, glossy light green, totally lacking radiating stalked glandular hairs, 3-chambered, each chamber with to 20 translucent ovules; **nectary** on top of ovary; style mostly concealed by stamens, 3-branched, ca. 4.5 mm long, translucent, axis to 3.5 × 0.1 mm, at top of filament cylinder having an enlarged base and 3 stigmatic branches exerted from anther ball and usually appressed so appearing acuminate to tip, the swelling at top of staminal column 3-lobed and ca. 0.25 mm across (pulvinuslike?). **Fruit:** capsule, loculicidal, partially dehiscent opened at top, several–many-seeded, crudely subspheroid, 3.1–4.7 mm, dull medium brown, lacking stalked glandular hairs on capsule and pedicel; pedicel arching from spathe ca. 5 mm. **Seed:** ± subspheroid to raisinlike, 0.9–1.1 mm

long, dark brown, when crowded in chamber having 3–4 flattish sides but lacking a major depression, surfaces conspicuously pitted with short ridges and shallow pits (rugulose).
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