

Vascular Plants of Williamson County

Crinum bulbispermum – ORANGE RIVER LILY, HARDY SWAMPLILY [Amaryllidaceae]

Crinum bulbispermum (Burman f.) Milne-Redh. & Schweick., ORANGE RIVER LILY, HARDY SWAMPLILY. Perennial herb, often clonal, geophytic, bulb-forming, fibrous-rooted, conspicuously rosetted, scapose, with scape arising lateral from soil, in range to 95 cm tall (suberect) or with ascending to spreading inflorescences; shoots with only ascending to spreading basal leaves from bulb, leaves to 20, glabrous; bulb of flowering plantlet ovoid with columnar extension to near ground level, 50–80 mm diameter, inner leaves white and surface wrapped with a couple very thin, brown-papery covers (outer leaf sheaths), with columnar portion (tightly wrapped leaf sheaths eventually around base of scape) 80–100 mm long, bulblets several around root ball of mother plant, each with emerging adventitious roots; adventitious roots of mother bulb 20+ arising in coarse ring from base of bulb (on lower side lacking in center of stem plate). **Stem:** = lower scape, from platelike base of bulb. **Leaves:** helically alternate, simple with sheath; sheath closed (several outer leaves) to open (all newer leaves), white, sinuses broadly acute to broadly U-shaped, open sheaths to 40 mm across with parallel margins, inner (upper) surface glossy; blade wide strap-shaped (lorate), 350–950 × (20–)30–95 mm, tough, gently wavy and essentially entire with sparse, minute, weak teeth on margins, acuminate at tip (missing on older leaves), parallel-veined, surfaces flat or with inconspicuously raised veins (shallowly sagging between veins easy observed when wilted) or with midrib somewhat defined on lower surface especially above midblade, thick (to 2.5 mm) and somewhat spongy, inside containing a single series of long, wide air canals with occasional vertical septae within the canals and between canals with a girderlike partition (each including a vein), both surfaces lightly glaucous and with many stomates.

Inflorescence: umbel on long peduncle (scape), 8–13-flowered, bracteate, glabrous; peduncle suberect to ascending or spreading, elliptic in \times -section ca. 22 × 15 mm, 450–750 mm long, green (white belowground and beneath leaf sheaths, solid; bracts subtending flower umbel 2, alternate distichous, ovate-triangular, unequal, the outer bract 3/4-sheathing, ca. 95 × 40 mm, and the inner bract 1/2 sheathing, ca. 80 × 30 mm, green-striped (parallel veins slightly raised on outer surface) alternating with colorless tissue aging papery and tannish with brown veins, with membranous margins to 1 mm wide, obtuse with minute point at tip, the margins ending ca. 6 mm from tip and fused to bract tissue, abscised during flowering; bractlet subtending pedicel linear, the outermost 75–85 × 3–4 mm decreasing inward, green with colorless margins, with to 3 parallel veins; pedicel subtending ovary 3-sided aging cylindrical, at anthesis 7–30 × 5–7 mm increasing to 70 mm long after perianth wilted, green and thick. **Flower:** bisexual, radial, ca. 80 mm across, at nighttime strongly sweet-scented (for hawkmoths); hypanthium tubular with 3 broad ribs (decurent from outer tepals) alternating with 3 broad, shallow furrows, in range mostly 70–75 × 4.5–5 mm diameter slightly wider at top, green or tinged reddish, wall 2 mm thick, with **nectary** at base producing copious thin nectar around lower style; **tepals** 6 in 2 series arising from rim of hypanthium, acute-oblongate and obtuse-narrowly obovate (elliptic), in range 70–92 mm long, ca. 20–23 mm wide (outer tepals) and ca. 25–31 mm wide (inner tepals), at night opening white with a broad, rose and reddish “midrib” aging the next day to pale light rose with somewhat crimson broad midrib raised on lower surface, outer tepals with a greenish, acute, pocketlike tip ca. 2.5

mm long including a tuft of tangled hairs on inner surface, inner tepals with a white, obtuse tip with a tuft of tangled hairs on inner surface; **stamens** 6, arising in a ring at top of hypanthium and fused ca. 10 mm to perianth, fused portion light green but including a pair of membranous wings, included; free filaments 45–55 mm long (opposite outer tepals) and 55–65 mm long (opposite inner tepals) with outer < inner, ca. 1.3 mm diameter, pale green at base changing to white below midpoint and pink and strongly curved approaching top; anthers versatile, dithecal, slender-linear, 22–25 mm long, white or pinkish, longitudinally dehiscent; pollen white; **pistil** 1; ovary inferior, narrowly barrel-shaped to somewhat wedge-shaped, ca. 10(–12) × 5.5+ mm, glossy green or blushed reddish, 3-chambered, each chamber with to 12 ovules attached to center (axile placentation); style exerted above anthers, ca. 150–160 mm long, long-cylindric, ca. 1.2 mm diameter and greenish at base to white above and pinkish rose or purplish rose to purple (crimson) approaching stigma; stigma terminal, ca. 1.5 mm across, at pollination purple and wet. **Fruit:** capsule, splitting irregularly of thin fruit wall stretched by seed enlargement, to 36-seeded, immature fruit initially obovoid and somewhat 3-sided becoming irregular or even lobed (garliclike) and bulging at mature clusters of seeds, in range ca. 40–50 × 50–60 mm, green aging papery, at top with a crownlike projection at top (= the lowermost hypanthium, surrounding the persistent style) to 2.5 mm long; dry style often persistent, reflexed from top of fruit; seeds in each chamber when immature packed like kernels of corn (*Zea*) and pale yellow; pedicel in fruit to 55 mm long, ascending to arching. **Seed:** initially kidney-shaped enlarging to wedge-shaped, to 25+ × 21 × 15 mm and green and white, fleshy becoming spongy (very difficult to dry often germinating forming white axis eventually forming a terminal miniature bulb), with hilum at a midpoint notch on inward-facing edge; seed coat corky.

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