

## Vascular Plants of Williamson County

### *Potamogeton illinoensis* – ILLINOIS PONDWEED [Potamogetonaceae]

*Potamogeton illinoensis* Morong, ILLINOIS PONDWEED. Submersed aquatic perennial herb, rhizomatous, fibrous-rooted, not rosetted, with shoots arising along rhizome and branching above to form a flexible shoot system; shoot with mainly cauline leaves, totally lacking hairs; rhizomes horizontal, slender, internodes 10–25 × ca. 1 mm, with reduced scalelike leaves to < 4 mm long; adventitious roots nodal. **Stems:** not cylindrical, to 4 mm diameter, internodes 15–60 mm long; internodes with air chambers (aerenchyma) but more solid at nodes. **Leaves:** alternate distichous, simple, petiolate without a sheath, with persistent “stipule” (= prophyll); prophyll axillary, initially appressed to stem later projecting, = open sheath including membranous margins, 20–53 mm long, to 14 mm wide (flattened), not attached to leaf, linear-lanceolate becoming inrolled cylindrical, with 2 parallel conspicuous ridges defining flat lower side, lateral sides with fine parallel veins; petiole hemi-cylindrical to oblong in  $\times$ -section, to 2.5 × 1.5 mm, in range mostly < 40 mm long, indistinct from narrowly tapered base of blade; blade narrowly lanceolate to narrowly rectangular, to 135 × 28 mm, thin, long-tapered at base, entire and wavy to puckered on margins, acuminate to acute at tip, palmately veined but with a broad midrib slightly raised on lower surface, with parallel principal veins having parallel bridges between principal veins. **Inflorescence:** spike, terminal and axillary, mostly emergent on long, suberect to ascending peduncle, spike 25–40+ × 4.5–5.5 mm, many-flowered, sessile flowers in whorls of 3 either compact with flowers tightly packed base-to-tip or the lowest whorls with spaced and rachis visible, not bracteate, hairs totally absent; peduncle in range to 100 mm long,  $\pm$  flat on upper side, to 5 mm wide; rachis green; bractlet subtending flower absent. **Flower:** bisexual, radial, in surface view diamond-shaped ca. 4 × 4 mm; **sepals** 4, appearing broadly triangular (surface view), bulging broadly ovate, ca. 1.5 × 1.5 mm, green, with thick attachment; **stamens** 4, sessile, each opposite sepal and cupped by sepal, connected to thick attachment of sepal with upper portion of anthers hidden by sepal and lower portion of anthers visible below sepal (side view); anthers medifixed, dithecal with 4 sacs side-by-side, 1.2 mm long (curved), off-white, longitudinally dehiscent; pollen white; **pistils** (3–)4 in 1 tight whorl, erect, ca. 1.2 mm long; ovaries superior, 3-sided, green, outer side rounded to midpoint and 0.8 mm thick, upper portion 3-angled and glossy green, lateral faces  $\pm$  flat, each 1-chambered with 1 ovule; stigma terminal, spreading, tongue-shaped, ca. 0.4 × 0.2 mm, mostly green aging blackish. **Fruits:** drupeletlike (4 in whorl), 1-seeded with helical embryo, initially with a straight to bowed edge later bulging and fleshy, 2.5–3.6 × 2.1–3 mm including short beak to 0.5 mm long, olive green.

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