Vascular Plants of Williamson County

*Arundo donax* − GIANT REED, SPANISH CANE [Poaceae]

*Arundo donax* L., GIANT REED, SPANISH CANE. Perennial, bamboolike, evergreen with overwintering leaves on principal canopy shoots, clonal, rhizomatous, fibrous-rooted, aboveground principal shoots erect to ascending, with 1−several ascending to spreading lateral branches from any node midplant (or at any node when plant damaged), in range 250−800 cm tall; shoots with only cauline leaves, essentially glabrous; rhizomes shallow, horizontal and long-creeping, typically 30–60 mm diameter (mature plants), with brownish scales; adventitious roots on lower side of rhizome. **Stems (culms):** cylindric, of principal axes (1° shoots) living 2 or 3 years, (16−)24−33+ mm basal diameter and becoming woodlike before year 2, of lateral shoots pencil-like and rigid, < 14 mm diameter, internodes 50–290 mm long; internodes hollow. **Leaves:** alternate distichous, simple with sheath, on each lateral shoots dimorphic with a distinctive first leaf (prophyll); prophyll with overlapping open sheath, triangular-deltate in outline and strongly 2-keeled and stiff-biconvex, 6.5−9 mm long, green with narrow membranous margins, keels + adjacent surfaces densely sericeous, the hairs 4−5 mm long, silvery white; sheath open, not keeled, persistent and gray or brownish after blade abscises, collar yellowish tan, wavy and rounded on margin, long-villous at basal margin; ligule membranous and ciliate, 1−1.6 mm long, as wide as leaf blade; blade narrowly lanceolate, gradually long-tapered (small and triangular for 1−2 blades next to rhizome), (35−)120−860 × 15−77 mm, < and narrower on lateral shoots, dull, somewhat glaucous, flat, minutely toothed on margins, with long, linear tip, parallel-veined with midvein conspicuous on basal 1/3. **Inflorescence:** spikelets, in terminal panicles, panicle plumose, 380−550 × 80−150 mm, with alternate distichous clusters of ascending lateral branchlets, branchlets stiff, 50−220(−270) mm long, typically with grayish and purplish spikelets, spikelet with 3−5(−6) florets, bracteate, short-awned; branch and branchlet axes low-ridged, minutely scabrous, the stalk beneath a spikelet minutely short-hairy. **Spikelet:** slightly compressed side-to-side, in range 11−13 mm long (including awns), bisexual (the terminal floret sterile and diminutive), breaking above glumes and between florets; **glumes** 2, ± equal, lanceolate and long-acuminate, 8.5−11.5 mm long, ± without awns, membranous and often purplish on rounded back, with 3 or 5 veins, the veins raised especially on upper glume with midvein only extending to tip, glabrous; rachilla flattened, ± 0.5 mm long and pubescent between glumes, ± 0.2 mm long below first floret with basal tuft of hairs, segments 0.8−2 mm long and glabrous, forming the longest internode below the terminal (sterile) floret; **lemma** awned, lanceolate, 10−12 mm long (including awn), tannish scarious, rounded on back, 2-forked having teeth or bristles with awn arising from notch, teeth sometimes with bristle tip, 5−7-veined basally to 3-veined at tip for teeth and awn, conspicuously pilose below midpoint, the hairs fine, 4.5−8 mm long, veins green becoming purplish approaching tip, the awn 2−2.8 mm long, delicate, bristle tips 1−2 mm long; **palea** < lemma, oblanceolate, 3.5−5.5 mm long, mostly colorless but pale green at base and sometimes purplish at tip, truncate or slight notched and conspicuously short-ciliate at tip, 2-veined, 2-keeled, densely and fine-hairy along keels, sparsely pilose at base. **Flower:** bisexual; **perianth (lodicules)** 2, ± inversely pyramidal to trapezoidal or ± 3-toothed with short, rounded to obtuse lateral teeth and an elongated middle tooth, 0.3−1.25 × 0.3−0.6 mm, the middle tooth = length of lodicule
body, long-tapered at base, hairy or finely fringed and sometimes reduced to a threadlike extension; **stamens** 3, free; filaments threadlike, 2.5–5 mm long, translucent; anthers dorsifixed (attached to base of connective), dithecal, linear, 1.7–3.2 mm long, yellow-green, connective 0.5–1 mm long, longitudinally dehiscent; pollen pale yellow; **pistil** 1; ovary superior, ellipsoid, 0.5–0.8 mm long, at anthesis olive green to dark brown, glabrous, 1-chambered with 1 ovule; styles 2, spreading, 2.5–3.4 mm long, dark brown at thickened base and translucent-white below stigmas, stigmatic above midpoint; stigmas exserted sideways from lemma and palea, ± 0.6 mm wide with dense, spreading, purplish to brown hairs. **Fruit:** achene (caryopsis), oblong, 3–4 mm long, with 2 teeth from persistent style bases.

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