## Vascular Plants of Williamson County Juniperus virginiana var. virginiana – EASTERN RED CEDAR [Cupressaceae]

Juniperus virginiana L. var. virginiana, EASTERN RED CEDAR. Small tree, evergreen, scale-leaved, sometimes spinescent (on vigorous whip shoots), most leaves on relatively short, ascending to spreading lateral branches, usually with 1 trunk, highly branched and shedding senescent minor shoots, canopy  $\pm$  conic, in range to 8 m tall; dioecious; shoots with scalelike leaves in 4 vertical, closely appressed, overlapping rows (orthotropic), foliage shoots  $\pm$  4-sided and mostly ca. 1 mm diameter, strongly aromatic when crushed having ducts filled with resin. **Stems:** on young growth flexible, hidden by leaf bases; bark of old stem peeling in thin strips (exfoliating), red-brown. Leaves: opposite decussate (whorled sometimes on thicker whip shoots), simple and sessile, without stipules; spinescent leaves on primary shoots having the longest internodes, acuminatetriangular and awl-shaped,  $2.5-8.5 \times 1.5$  mm, with hard point at tip, on typical shoots acute-triangular  $\pm 1 \times 1$  mm (typical foliage), dark green often somewhat glossy, decurrent base on stem, minutely toothed on margin, with pit of resin gland in center at base. Pollen **cone:** spikelike, terminal on scattered, newly formed winter shoots, oblong to ellipsoid,  $3.4-4.5(-5) \times 1.8-2.2$  mm, (when releasing pollen), of pollen-bearing, opposite decussate microsporophylls; microsporophylls stalked (peltate) with a broadly ovate (roundish) and cupped top (mushroomlike), surface to  $1.5 \times 1.5$  mm, yellowish ochre and orangish aging red to purplish, minutely fringed on scabrous margins (inrolled before releasing pollen),  $\pm$ obtuse at tip, with 2–6 pollen sacs on under surface of each microsporophylls but only on lower half of surface, sacs pale vellow; pollen pale vellow. Seed cone: terminal on short lateral shoot on new growth having to 10 pairs of opposite decussate, green, scalelike leaves; at pollination young cone inconspicuous, of to 4 fused, fleshy cone scales (scalebract complex), opposite to alternate, each initially pink and glaucous with 2 visible chimneylike projections (exposed micropyles of ovules) along edge of fertile scale; mature seed cone (1-year) berrylike, 1-2(-3)-seeded often with 1 seed distinctly larger, ovoid with 1 flat face or almond-shaped (3-sided) to ovoid-subspheroid,  $4.5-5 \times 4-4.5$  mm, glaucous blue-black often drying waxy and whitish; maturing in same year and abscising with terminal portion of shoot with several pairs of leaves. Seed:  $\pm$  hemiovoid to angular ovoid,  $(2-)2.5-4 \times 2.5-3 \times 1.7$  mm, brown and resin-coated. A. C. Gibson