

Vascular Plants of Williamson County

Quercus sinuata var. *breviloba* – SHIN OAK, SCALYBARK OAK, BIGELOW'S OAK [Fagaceae]

Quercus sinuata Walter var. *breviloba* (Torrey) C. H. Müller, SHIN OAK, SCALYBARK OAK, BIGELOW'S OAK. Tree, fall-deciduous, 1–several-trunked and often with numerous suckers from root crown following drought stress, in range to 9 m tall; monoecious; shoots with only cauline leaves, foliage stellate-hairy with most hairs having 8–10 arms; buds ovoid to subspheroid strongly angled, purplish red, the scales cupped semicircular, short-ciliate on margins. **Stems:** with scattered stellate hairs, twigs with semicircular leaf scars and small, broadly fusiform to circular lenticels, glabrous; bark flaking in stiff patches, the patches 2–3 mm thick, light brownish gray, interior patches brown. **Leaves:** helically alternate, unlobed to shallowly lobed ($< \frac{1}{2}$ to midrib), petiolate, with stipules; stipules 2, attached at node, linear, 1.4–4.5 mm long, aging purple-red, short stellate-hairy, early-deciduous; petiole subcylindric with ridges decurrent from blade margins, to 6 mm long, having short stellate hairs, with minute purple-red microhairs on upper side; blade obovate or elliptic to oblong (ovate), 31–85(–150) \times 13–55(–97) mm, tapered at base, entire and often wavy or leaves on suckers often with rounded lobes and sinuses, obtuse and sometimes slightly notched at tip, pinnately veined with principal veins raised on lower surface, upper surface somewhat glossy with widely scattered, short stellate hairs maturing nearly glabrous, lower surface with \pm dense, light brown stellate hairs having mostly 8–10 appressed, short arms (scattered on juvenile leaf). **Staminate inflorescence:** catkin, spikelike, having 1–2 catkins + a new shoot arising from 5-angled axillary bud in the lowest axils of new spring growth, catkins pendent, to 43 \times 3.5 mm, of 15–25 sessile flowers interrupted and unevenly spaced along rachis, lacking bractlets; peduncle to 10 mm long; rachis light green. **Staminate flower:** \pm radial, 2–2.5 mm across; calyx unequally 4–5-lobed, fused only at base; lobes mostly semicircular, ca. 1 \times 2 mm, papery and brownish, pubescent on outer (lower) surface, persistent; **stamens** 3–8, free; filaments at anthesis 0.5–0.9 mm long increasing to 2 mm long, whitish; anthers dorsifixed, conspicuously dithecal with 4 lobes, 1.2–1.6 mm long, plump, greenish maturing light yellow, curved toward center, lacking appendage at top, short-hairy, longitudinally dehiscent; pollen copious, dry, pale yellow; **pistil** absent to minute and vestigial, center with short reddish or whitish stellate hairs. **Pistillate inflorescence:** spikelike, axillary on very young, new spring shoot several nodes above staminate inflorescence, axis short with 1–3 nonshowy pistillate flowers, axis densely pubescent; **involucre** (cupule) at anthesis of several visible bracts, cupped, semicircular scales at base of pistil, 1.5–2 mm wide. **Pistillate flower:** radial, 1.5 mm across, 1.5 mm long; perianth (calyx) 5–6-lobed to midpoint, greenish colorless on margins, ca. 0.7 mm long, short-hairy on lower surface; lobes obtuse-ovate; **stamens** absent; **pistil** 1; ovary inferior, inversely conic, greenish, 3-chambered, each chamber with 2 ovules; styles 3, spreading, tonguelike 2-lobed with stigmatic surface, mm long, fleshy and pale green-yellow, with stiff hairs below midpoint. **Fruit:** acorn (glans), sessile, maturing and deciduous in late summer; involucre generally covering basal 1/4 of nut, shallowly bowl-like, mostly 13–16 mm diameter and 5–6 mm deep, scales helically alternate, overlapping, and tightly appressed, dark brown mostly covered by light brown, dense short-tomentum, relatively flat (not warty), tips broadly acute and obtuse to rounded; nut in range oblong to \pm ellipsoid-oblong, 11–16.5 \times 8–13 mm, light brown, rounded to

truncate at tip often with short, persistent point, basal scar circular, 4.1–6.2 mm diameter, dull tan and coarse; shell pubescent inside.

A. C. Gibson