

Vascular Plants of Williamson County

Forestiera pubescens var. *pubescens* – ELBOW BUSH, DESERT OLIVE [Oleaceae]

Forestiera pubescens Nutt. var. *pubescens*, ELBOW BUSH, DESERT OLIVE. Shrub, winter-deciduous, somewhat spinescent with rigid, paired, short lateral branches to 140 mm long, pairs of branches widely spaced, to 250 cm tall; dioecious; shoots flowering on woody twigs before leaves appearing, branches subopposite decussate, 3-dimensional, with long shoots formed in early spring after flowering, when dormant each young lateral branch with 2 stacked axillary buds having the branch bud (second, distal) pointed at tip, initially velveteen and puberulent (glabrate) with occasional longer short hairs or \pm short-hairy, lacking appressed, umbrellalike (peltate) scales. **Stems:** cylindrical but flaring below each node and somewhat compressed on sides lacking leaves, tough becoming woody and stiff, on long shoot internodes mostly 20–45 mm long and < 2.5 mm diameter, periderm at first dull red to reddish brown with puberulent leaf bases; bark of large branches smooth, dull light gray. **Leaves:** \pm opposite (subopposite) decussate, simple, petiolate, without stipules; prophyll sessile and triangular, reddish to orangish, having ridge on lower surface above midpoint; petiole \pm channeled, 1.5–6 mm long, with 2-ridged edges approaching blade; blade elliptic to broadly lanceolate or narrowly ovate or obovate (roundish), 9–48 \times 22–31 mm, tapered at base, broadly and shallowly crenate on margins, acute to obtuse at tip (rarely notched), pinnately veined with principal veins slightly sunken on upper surface and raised on lower surface, with scattered short hairs or also short-pilose. **Inflorescence:** axillary panicle of racemelike cymes or \pm condensed (pistillate) or \pm condensed (staminate), flowers functionally unisexual, lateral cymes opposite decussate, branchlets 3-, 5-, and 7-flowered, bracteate, axes sparsely short-hairy to short-tomentose, flowers lacking fragrance and nectar (wind-pollinated); peduncle short; bracts and bractlets 2 at lower nodes (sometimes at other nodes), obovate to \pm spatulate, pistillate bracts 2.5–4 \times 1–2.5 mm, short-lived and mostly greenish, staminate bracts rhombic and cupped around anthers ca. 4 \times 4 mm, mostly purplish red and somewhat persistent, pinnately veined, short-ciliate above midpoint; pedicels 3.5–4.7 mm long (pistillate) or < 0.4 mm long (staminate). **Staminate flower:** radial, 3 mm across, subsessile; **calyx** obscure; **corolla** absent; **stamens** 4–6, fused to top of perianth; filaments ascending, before dehiscing to 1.5 mm long increasing 2 \times during pollen release, initially greenish aging reddish; anthers dorsifixed, dithecal, 0.8–1.1 mm long, yellow-green with a reddish connective, longitudinally dehiscent; pollen light yellow; **pistil** vestigial or absent. **Pistillate flower:** appearing bisexual with sterile stamens, radial, to 4 mm across (= spreading stamens); **calyx** unequally and minutely 4-toothed to lacking teeth and rimlike, green; **corolla** absent; **stamens** (0)2–5, attached to rudimentary perianth, sterile; filaments spreading (ascending), 0.7–2.6 mm long, often unequal, greenish aging orangish, glabrous, early-abscising; anthers dorsifixed, dithecal, ca. 0.3 mm long, yellowish; pollen sterile; **pistil** 1, 1.7–2.1 mm long; ovary superior, ovoid, 0.7–0.9 \times 0.5–0.6 mm, dull green, glabrous, 2-chambered, each chamber with 1 ovule; style erect, ca. 1 mm long, yellowish, often with a cylindrical reddish band at base; stigma terminal, often curved and inconspicuously 2-lobed, aging red, short-papillate. **Fruit:** drupe, broadly ovoid to subspheroid with deep pit when removed, 4.5–5.8 \times 4–5.2 mm, glaucous dark purple; skin (exocarp) thin; pulp (mesocarp) juicy, nearly colorless to weak orange but reddish next to skin; stone (endocarp) easily

separating from watery mesocarp, broadly ellipsoid to ovoid, $4-4.8 \times 2.7-3.4$ mm, initially yellowish green, with 20+ longitudinal ribs (wrinkles); pedicel short-tomentose.
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