

Atriplex canescens (Pursh) Nutt. var. *canescens*, FOUR-WING SALTBUUSH. Shrub, winter-deciduous, not spinescent, highly branched and lacking thorns but sometimes with short, rigid, intricate lateral branching, 100–225 cm tall, width = height; dioecious (monoecious); shoots gray-green, initially with a cover of densely packed, watery scales (vesicular) aging scurfy. **Stems:** cylindric, smooth, green and nearly glabrate when young aging grayish brown with longitudinally fissured epidermis. **Leaves:** helically alternate, simple, subsessile to short-petiolate, without stipules; petiole < 1.5 mm long; blade narrowly oblanceolate to narrowly linear-elliptic, 8–73 × 1.3–6 mm, thickish to firm, long-tapered at base, entire along slightly to strongly upcurved margins, narrowly rounded to ± acute at tip, pinnately-veined with veins faintly visible on upper surface of large leaves and midrib raised on lower surface, tannish to grayish green, densely scurfy. **Inflorescences:** leafy panicles of clusters of unisexual flowers (glomes), terminal, panicle all staminate, all pistillate, or mixed staminate and pistillate, bracteate, scurfy. **Staminate inflorescence:** with ultimate branchlets spikelike having axillary, several-flowered, densely congested, spheric glomes, with 1 order (2 orders) of branching; primary axis 50–220 mm long; bracts along principal axis leaflike; branchlet axes 2–32 mm long, with leaflike bracts 1–8 mm long or absent on shorter axes. **Staminate flower:** radial, 1–1.5 mm across; **perianth** calyxlike, 5-lobed, fused only near base; lobes cupped and broadly ovate to oblong, 0.8–1 × 0.5–0.7 mm, green aging reddish beneath scurfy hairs on back, membranous and jagged on margins; **stamens** 5, fused at base; filaments ascending, 0.5–7 mm long, light green; anthers dorsifixed, dithecal, 0.3–0.8 mm long, light yellow becoming tinged pink, longitudinally dehiscent; pollen light yellow; **pistil** sometimes present but rudimentary (on monoecious plant sometimes a pistillate flower appears bisexual but lacks bracteoles). **Pistillate inflorescence:** 20–120 mm long with spikelike branchlets 5–10 mm long, having axillary, 1–3 flowered cymes (glomes); bract subtending cyme leaflike, 3.5–8 mm long; pedicel short or absent; bracteoles enclosing flower 2, ± ovate with terminal beak, at anthesis 1.2–2 × 0.6–1.5 mm, fused below beak, rounded at tip, sometimes not 4-winged initially but becoming 4-winged as fruit develops, densely and thickly scurfy, the beak narrowly triangular, 0.5–0.7 × 0.3–0.5 mm. **Mixed inflorescence:** with mostly axillary, sessile cymes of pistillate flowers and racemelike with often short-stalked lateral spikes (stalk < 1 mm long and decreasing upward), the lateral spikes to 5 mm long, mostly staminate glomes with 1–4 pistillate flowers at base. **Pistillate flower:** **perianth** absent; **stamens** absent; **pistil** 1, green; ovary superior, compressed-spheroid to compressed-ovoid, 0.3–0.4 mm long, tapering to style, 1-chambered with 1 ovule; style 2-branched, 0.4–1 mm long below fork, the branches exerted, 1.2–2 mm long, yellowish-orange, stigmatic, papillate-hairy. **Fruit:** utricle, tightly enveloped by bracteoles (diclesium), indehiscent, conspicuously 4-winged, stalked, the stalk 2.5–5.5 mm long; bracteoles medially fused around utricle, wings vertical, unequal, semi-obovate to semi-ovate or lobed at top, 9–11.5 × 5.5–7.5 mm, green aging light tan, entire below midpoint, dentate with 5–9 teeth above midpoint, netted-veined, scurfy, fused to stalk at different levels, sometimes with a flat triangular to semicircular or ridgelike outgrowth on face of wing; fused center ± narrowly fusiform to ovoid in outline but rectangular in ×-section, 4–5 mm long, hardened, beaked for ca. 1 mm in notch formed by wings, the beak = a narrowly triangular projection from each bracteole, remaining open for radicle to emerge; utricle compressed-ovoid, ca. 3 × 1.5 mm, papery, not adherent to chamber formed by fused bracteoles. **Seed:** vertical,

adherent to fruit wall; embryo hooklike and surrounding white storage tissue (perisperm), with upward-pointing radicle (superior). Late August–late October.

Native. Shrub probably introduced to the range by landscaping operators from the desert and found in several localities near homes and roads. *Atriplex canescens* has narrow leaves, which in range can be more slender than reported in the literature. The plant is called fourwing saltbush because the fruit has 4 vertical wings formed from the two bracteoles, which are so tightly fused that they enclose the vertical seed (utricle), but there is an opening in the beak (bracteole tissue) through which the seed can emerge during germination. Normally this species is dioecious, but in range a plant was found with staminate and pistillate flowers in the same inflorescence, and even some flowers appeared to be bisexual.

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