

9. (*Fouquieria splendens*) / *Prosopis velutina* / *Opuntia engelmannii* / *Cottisia gracilis* Shrubland Association (P)

(Ocotillo) / Velvet mesquite / Cactus apple / Slender janusia Shrubland Association (P)

This shrubland community is characterized by a sparse (<10% cover) canopy (>2 m) of ocotillo (*Fouquieria splendens*) and velvet mesquite (*Prosopis velutina*), an open (10–15% cover) subcanopy layer (0.5–2 m) dominated by cactus apple (*Opuntia engelmannii*), and a variable (1–25% cover) field layer (<0.5 m) most commonly dominated by slender janusia (*Cottisia gracilis*). Ocotillo and velvet mesquite are both consistent in the canopy and provide 2–5% cover each, occasionally reaching up to 10%. Saguaro (*Carnegiea gigantea*) is a conspicuous component, but only provides a scant 1% cover throughout. The subcanopy dominant, cactus apple (*O. engelmannii*), provides the most cover of any species, averaging 7% and sometimes reaching up to 18%. Catclaw acacia (*Senegalia greggii*) is a low-cover (~2%), but consistent associate shrub. Other noteworthy associates include yellow paloverde (*Parkinsonia microphylla*), Wright’s beebrush (*Aloysia wrightii*), spiny hackberry (*Celtis ehrenbergiana*), staghorn cholla (*Cylindropuntia versicolor*), and Berlandier’s wolfberry (*Lycium berlandieri*). The field layer is sparse and composed of a low-cover mix of small shrubs, subshrubs, and perennial grasses. The stratum is most commonly dominated by slender janusia (*C. gracilis*), which provides consistent cover at around 3%, up to 8%. Sangre de cristo (*Jatropha cardiophylla*) and fairyduster (*Calliandra eriophylla*) are consistent associates, with 1–2% cover each. Additional field associates include brittlebush (*Encelia farinosa*), Lehmann lovegrass (*Eragrostis lehmanniana*), Arizona spikemoss (*Selaginella arizonica*), and sideoats grama (*Bouteloua curtipendula*).

Common species

- *Fouquieria splendens*
- *Prosopis velutina*
- *Opuntia engelmannii*
- *Cottisia gracilis*

This community covers 4% (1,100 ha/2,719 ac) of the Rincon Mountain District and is widespread throughout the low slopes of Tanque Verde Ridge and northeast of the Madrona ranger station. It mainly occupies north-trending, low-angled to moderately steep (20–40%) backslopes. Its elevational range is 950–1,200 meters (3,120–3,940 ft). Surface rock and exposed bedrock are common throughout the community.



