

33. *Prosopis velutina* / *Opuntia engelmannii* / *Encelia farinosa* (*Cottisia gracilis*) Wooded Shrubland Association (P)

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

This wooded shrubland is characterized by a sparse (<10% cover) canopy (>2 m) of velvet mesquite (*Prosopis velutina*), a variable (10–20% cover) subcanopy (0.5–2 m) of cactus apple (*Opuntia engelmannii*) with mixed associate shrubs, and a dense (20–40% cover) field layer (<0.5 m) dominated by brittlebush (*Encelia farinosa*) with slender janusia (*Cottisia gracilis*). Velvet mesquite (*P. velutina*) provides consistent low cover of around 5%, sometimes over 10%. Yellow paloverde (*Parkinsonia microphylla*) provides a consistent 1% cover, with uncommon inclusions where it competes for dominance with velvet mesquite.

Saguaro (*Carnegiea gigantea*) is present throughout the community, contributing <1% cover. The subcanopy is primarily composed of cactus apple (*O. engelmannii*), providing a consistent 5–10 [20]% cover, dropping to almost absent in areas of high grass cover. The remaining vegetation is a diverse mix of low-cover associate shrubs and succulents, including staghorn cholla (*Cylindropuntia versicolor*), catclaw acacia (*Senegalia greggii*), Berlandier's wolfberry (*Lycium berlandieri*), teddybear cholla (*Cylindropuntia bigelovii*), spiny hackberry (*Celtis ehrenbergiana*), and Wright's beebrush (*Aloysia wrightii*). When present, these species can sometimes contribute up to 4% cover. Teddybear cholla (*C. bigelovii*) should only provide small, patchy inclusions and not become a consistent dominant in this community. The field is characterized by dominant brittlebush (*E. farinosa*), which is the most consistent and highest-cover (10–20%) species in the community. The remaining cover is split between a diverse mix of small shrubs, subshrubs, and grasses. Slender janusia (*C. gracilis*) is the most dominant of these species, providing consistent average cover of 4%. Fairyduster (*Calliandra eriophylla*) and sangre de cristo (*Jatropha cardiophylla*) are the next most-common, low-cover associates, providing 1–2% each, with occasional inclusions up to 8%. The grass component is diverse, with at least five noteworthy bunchgrasses, including bush muhly (*Muhlenbergia porteri*), tanglehead (*Heteropogon contortus*), sideoats grama (*Bouteloua curtipendula*), slender grama (*Bouteloua repens*), and Arizona cottontop (*Digitaria californica*). While not consistent across the community, Lehmann lovegrass (*Eragrostis lehmanniana*) can provide inclusions of dominance.

This community is contained within a two-association map class that covers 12% (3,225 ha/7,969 ac) of the Rincon Mountain District and is widespread throughout the low slopes of Tanque Verde Ridge and above the Madrona ranger station. It occupies low-angle slopes of varying aspects from 840 to 1,350 meters (2,755–4,429 ft). The ground surface is covered with very coarse gravel and rock with vast expanses of bedrock outcrops/shelves.

Common species

- *Prosopis velutina*
- *Opuntia engelmannii*
- *Encelia farinosa*
- *Cottisia gracilis*



