

4. *Prosopis velutina* / *Opuntia engelmannii* - *Ericameria laricifolia* / *Muhlenbergia porteri* Wooded Shrubland Association (P)

Velvet mesquite / Cactus apple - Turpentine bush / Bush muhly Wooded Shrubland Association (P)

This community is characterized by a variable (15–30% cover) canopy stratum (>2 m) dominated by velvet mesquite (*Prosopis velutina*), a sub-canopy dominated by cactus apple (*Opuntia engelmannii*) and turpentine bush (*Ericameria laricifolia*), and a field layer (<0.5 m) dominated by bush muhly (*Muhlenbergia porteri*). Velvet mesquite (*P. velutina*) is consistently (1.0) present as single-stem trees (4 m) with an average cover of around 15%. Cactus apple (*O. engelmannii*) and turpentine bush (*Ericameria laricifolia*) provide average cover of around 7% and 5%, respectively. Bush muhly (*M. porteri*) provides consistent (1.0) dominance, with average cover of around 10% and occasional dense inclusions of up to 18%. Other documented species include catclaw acacia (*Senegalia greggii*), staghorn cholla (*Cylindropuntia versicolor*), spiny hackberry (*Celtis ehrenbergiana*), sideoats grama (*Bouteloua curtipendula*), Arizona cottontop (*Digitaria californica*), and spidergrass (*Aristida ternipes*).

Common species

- *Prosopis velutina*
- *Opuntia engelmannii*
- *Ericameria laricifolia*
- *Muhlenbergia porteri*

This community covers 0.6% (153 ha/378 ac) of the Rincon Mountain District and is primarily found along the lower portion of the Manning Camp Trail, near the junction with the Quilter Trail. It is typically present on low-angle (<20%) benches within broader mountain backslopes from 1,220 to 1,450 meters (4,000–4,700 ft). The surface cover is characterized by shallow, well-drained soil ranging from cobbles to skeletal loam covered with a dense layer of gravel.



Rincon Mountain District, Saguaro National Park

