

19. *Carnegiea gigantea* / *Parkinsonia microphylla* (*Olneya tesota*) / *Ambrosia deltoidea* Shrubland Association (P)

Saguaro / Yellow paloverde (Desert ironwood) / Triangle bur ragweed Shrubland Association (P)

This shrubland is characterized by an open (<10% cover) canopy (>2 m) of yellow paloverde (*Parkinsonia microphylla*) and desert ironwood (*Olneya tesota*), with an understory dominated by a suite of succulents and triangle bur ragweed (*Ambrosia deltoidea*). There are trends in landform and aspect within this association. In general, species diversity is greater and vegetation cover is higher on slopes, while examples on bajadas show decreased cover and diversity. Yellow paloverde (*P. microphylla*) is a consistent (1.0), small (2–3 m) tree with average cover of around 3%, with some dense inclusions up to 10%. Desert ironwood (*O. tesota*) is a patchy (0.66) associate that, when present, contributes cover of 1–2%, with occasional dense inclusions where it outcompetes yellow paloverde (*P. microphylla*). Saguaro (*Carnegiea gigantea*) is documented in all examples of this community, typically providing cover of around 1%. The subcanopy (0.5–2 m) is characterized by a variable mix of succulents that, from most to least frequent, include buckhorn cholla (*Cylindropuntia acanthocarpa*), chain-fruit cholla (*Cylindropuntia fulgida*), and cactus apple (*Opuntia engelmannii*). Combined, these species contribute around 10% cover to the community. The field stratum is dominated by triangle bur ragweed (*A. deltoidea*), typically with cover of 3–8%, including some dense inclusions up to 12%. This species often has the greatest cover of all species present and accounts for roughly 20% of the total cover.

Common species

- *Carnegiea gigantea*
- *Parkinsonia microphylla*
- *Olneya tesota*
- *Ambrosia deltoidea*
- *Opuntia engelmannii*

This community covers 27% (2,728 ha/6,741 ac) of the Tucson Mountain District (TMD). It is restricted to alluvial landforms that predominate in the western half of the TMD, but are found in the northern, eastern, and southern areas of the park from 683 to 1,042 meters (2,240–3,420 ft). This community is generally found on lower to upper alluvial fans and lower toeslopes of hills, but is occasionally located on mountain slopes. Parent materials are most commonly a mix of new and old alluvium, and on slopes, also include mixed colluvium, extrusive, and intrusive igneous rock.



