

#4 *Canotia holocantha* Shrubland Association (P)

Crucifixion thorn Shrubland Association (P)

This shrubland community is characterized by a canopy (2–5 m) and sub-canopy (0.5–2 m) dominated by crucifixion thorn (*Canotia holocantha*) and a low-cover, diverse understory of shrubs, perennial forbs, and perennial grasses. Average total cover of all species combined is around 20%, but varies greatly across the community, with areas down to 8% and up to 45%. Crucifixion thorn has an average cover of 14%, ranging from 6% to 32%. Arizona juniper (*Juniperus arizonica*) and creosote bush (*Larrea tridentata*) are low-cover yet common associates, with average cover for both approaching 3%. Mariola (*Parthenium incanum*) is the most dominant low shrub (<0.5 m) in this community, but provides inconsistent cover throughout. Other species of note include red barberry (*Berberis haematocarpa*), Mormon tea (*Ephedra viridis*), lotebush (*Ziziphus obtusa*), catclaw acacia (*Senegalia greggii*), broom snakeweed (*Gutierrezia sarothrae*), New Mexico feathergrass (*Hesperostipa neomexicana*), purple threeawn (*Aristida purpurea*), slim tridens (*Tridens muticus*), featherplume (*Dalea formosa*), and ratany (*Krameria erecta*).

Common species

- *Canotia holocantha*
- *Juniperus arizonica*
- *Larrea tridentata*
- *Parthenium incanum*
- *Aristida purpurea*

This shrubland occurs mainly at the Castle unit, covering around 21% (64 ha, 160 ac) of the total area, primarily on hillslopes and summits above the floodplain of Beaver Creek. While occupying a similar habitat, the community is very restricted at the Well unit, covering only 0.2% (0.2 ha/0.5 ac). In general, this community is present in areas with high surface rock and bedrock cover, usually composed of limestone.

