#1 *Pinus (discolor - cembroides) / Quercus arizonica / Muhlenbergia emersleyi* Woodland Association (P)

Border pinyon / Arizona white oak / Bullgrass Woodland and Forest Association

This woodland community is characterized by a variably dense tree canopy (25–70%) dominated by border pinyon (*Pinus discolor*) and Arizona white oak (*Quercus arizonica*) with one common associate, alligator juniper (*Juniperus deppeana*). Border pinyon (*P. discolor*) provides variable cover ranging from 9% in the woodland variation to 62% in the forest, with an average of 22% across the community. Arizona white oak (*Q. arizonica*) ranges in cover from 3%, typically in the forest variation, to 23% in the woodland. Alligator juniper (*J. deppeana*) is a variable, and usually sparse, associate that provides an average of 4% cover throughout. Other noteworthy canopy as-

Common species *Pinus discolor Quercus arizonica Juniperus deppeana Quercus hypoleucoides Garrya wrightii*

sociates include silverleaf oak (*Quercus hypoleucoides*), Emory oak (*Quercus emoryi*), and Arizona madrone (*Arbutus arizonica*). Wright's silktassel (*Garrya wrightii*) is the most consistent and abundant subcanopy (0.5–2 m) associate, providing an average of 3% cover across the community. The field (<0.5 m) stratum is characterized by a low-cover mix of native perennial grass, providing an average of 9% cover across the community.

Overall, this community covers 4% (77 ha, 190 ac) of the park, predominantly on steep (35–50%), north-facing backslopes or within deep, narrow drainages at 1,710–2,010 meters (5,610–6,594 ft). The primary examples of this community occur in sheltered areas within the western half of the park.

