

Ecological site group DX035X01JESG11

Paria and Kaibito Plateaus Loamy Moderately Deep to Very Deep Hills, Escarpments, and Steep Slopes

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Key Characteristics

- Paria and Kaibito Plateaus
- Loamy
- Uplands
- Moderately deep to very deep
- Hills, escarpments, mesas

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Physiography

This site occurs on talus slopes, escarpments, landslides, steep hillslopes, steep mountain slopes, and ledges. Run off is medium to very high (due to the steep slopes). Slopes typically range from 50-80%. Flatter slopes may occur in some locations. Elevations ranges from 3700-7500 ft.

Climate

The climate is characterized by hot summers and cool to warm winters. Large fluctuations in daily temperatures are common. Approximately 77 percent of the precipitation occurs as rain from March through October. On the average, February, May, and June are the driest months and August, September, and October are the wettest months. Runoff is high because of steepness of slopes, which makes this site have a wide range in effective precipitation. In average years, plants begin growth around March 1 and end growth around October 15.

Soil features

The characteristic soils in this site range from moderately deep to very deep and are well drained. The dry surface is typically light red. They formed in colluvium and residuum derived mainly from sandstone and shale. Soils are cobbly to extremely bouldery on the surface and throughout the profile. The water supplying capacity is 1.2 to 4.8 inches. Average annual soil loss in potential is approximately 2 to 3 tons/acre. Soil surface fragments range from 0-56%. Soil temperature and moisture regimes are mesic and aridic (torric) respectively. Soils are nonsaline to very slight saline.

Vegetation dynamics

This ecological site occurs over a wide range of country ranging from Mexican Hat and the 4-corners area in the south to Hanksville and Moab in the north. It is found on steep talus slopes on many landforms throughout Major Land Resource Area (MLRA) D35—The Colorado Plateau. A wide array of natural factors affect the vegetative composition of this site including latitude, elevation, aspect, precipitation (including run-on moisture), soil texture and depth, and the percent of coarse fragments found within the soil profile. Two distinct phases of this reference state have been described in this report.

The wet phase has a scattered overstory of Utah juniper with small amount of two-needle pinyon. A wide array of shrubs including Mormon tea, blackbrush, spiny hopsage, and Mexican cliffrose dominate the shrub layer. A well developed grass layer is often present with Indian ricegrass, salina wildrye and James galleta occurring most often. Vegetative variation appears to be a natural part of this ecological site. Each plant community evaluated has a

unique combination of species present based on its specific natural environment.

The dry phase has little or no Utah juniper or two-needle pinyon. Primary shrubs include blackbrush, shadscale, castle valley saltbush and Mormon tea. Herbaceous species are rare with minor amounts of Indian ricegrass and James galleta usually present. On sandy soils, spike and mesa dropseed may be present. As with the wet phase, wide species variation appears to be a natural part of this ecological site.

Livestock grazing is very limited on this site because of its steep slopes and rough topography. Some use was observed, however, where roads or trails crossed this site. Heavy wildlife browsing by deer and rabbits was observed at several locations.

Major Land Resource Area

MLRA 035X

Colorado Plateau

Subclasses

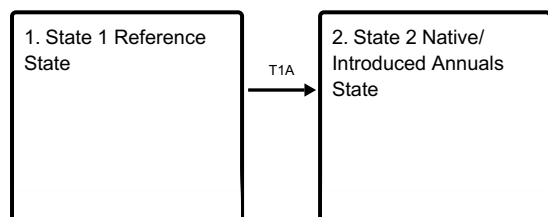
- R035XB236AZ–Colluvial Slopes 6-10" p.z. Warm
- R035XY018UT–Talus Slope (Blackbrush-Shadscale)
- R035XY146UT–Desert Very Steep Stony Loam (Shadscale)

Stage

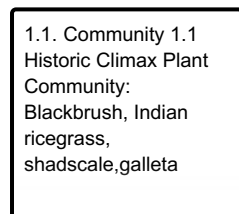
Provisional

State and transition model

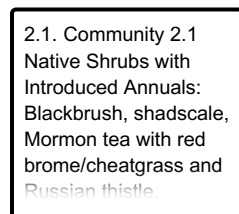
Ecosystem states



State 1 submodel, plant communities



State 2 submodel, plant communities



State 1

State 1 Reference State

State 1 Reference State

Community 1.1

Community 1.1 Historic Climax Plant Community: Blackbrush, Indian ricegrass,

shadscale,galleta

Community 1.1 Historic Climax Plant Community The plant community is made up of mid and short grasses with a significant percentage of desert shrubs and a few forbs. In the original plant community there is a mixture of both cool and warm season grasses. Plant species most likely to invade or increase on this site when it deteriorates are blackbrush annuals.

State 2

State 2 Native/ Introduced Annuals State

State 2 Native/ Introduced Annuals State This state is dominated by blackbrush with lesser amounts of shadscale, galleta and Indian ricegrass. There is an invasion of annual grasses, such as red brome, cheatgrass and Russian thistle. Climatic fluctuations, especially during cooler months, have the potential to produce high amounts of annuals.

Community 2.1

Community 2.1 Native Shrubs with Introduced Annuals: Blackbrush, shadscale, Mormon tea with red brome/cheatgrass and Russian thistle.

Community 2.1 Native Shrubs with Introduced Annuals This plant community is dominated by blackbrush with few perennial grasses. Red brome, cheatgrass and Russian thistle are present and well established.

Transition T1A

State 1 to 2

Season-long grazing providing little rest and recovery for preferred grazed plants during critical growing periods, coupled with high utilization.

Citations