

# Ecological site group DX035X01JESG15

## Paria and Kaibito Plateaus Shallow Sandstone, MAST < 54 degrees F

Last updated: 10/25/2022  
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### Key Characteristics

- Paria and Kaibito Plateaus
- Sandstone or sandy loam
- Shallow
- MAST < 54 degrees F

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 ecological site occurs on dissected plateaus, mesas, fan terraces, benches hillslopes, pediments, valleys, cuerdas, and ridges. The soil of this site is very shallow to shallow to sandstone bedrock. The soil surface texture ranges from gravelly fine sandy loam to fine sand. Subsurface horizon textures include loam, loamy fine sand, fine sand and may be channery or gravelly. The soil is slightly to strongly effervescent in the surface and strongly effervescent throughout the subsurface profile. Slopes generally range from 0 to 15 percent, occasionally as much as 25 percent.

### Climate

Winter summer moisture ratios range from 70:30 to 60:40. Late spring is usually the driest period, and early fall moisture can be sporadic. Summer rains fall from June through September; moisture originates in the Gulf of Mexico and creates convective, usually brief, intense thunderstorms. Cool season moisture from October through May tends to be frontal; it originates in the Pacific and the Gulf of California and falls in widespread storms with longer duration and lower intensity. Precipitation generally comes as snow from December through February. Accumulations above 12 inches are not common but can occur. Snow usually lasts for 3-4 days, but can persist much longer. Summer daytime temperatures are commonly 95 - 100 F and on occasion exceed 105 F. Winter air temperatures can regularly go below 10 F and have been recorded below - 20 F.

### Soil features

Soils are very shallow to shallow and well drained. They are formed in eolian sand over local alluvium derived dominantly from sandstone. The soil surface texture ranges from gravelly fine sandy loam to fine sand. Subsurface horizon textures include loam, loamy fine sand, fine sand and may be channery or gravelly. The soil is slightly to strongly effervescent in the surface and strongly effervescent throughout the subsurface profile. The range in depth to sandstone bedrock is 4-20 inches. Available water capacity is low. Water erosion hazard is moderate; wind erosion hazard is high. Soils are mildly to moderately alkaline (pH 7.4-8.4).

### Vegetation dynamics

Community 1.1

Historic Climax Plant Community

35.3 Sandstone upland 10-14" p.z.

The dominant aspect of this site is a grassland and shrub mix with scattered Utah juniper and/or Colorado Pinyon. Major grasses are Indian ricegrass, needle and thread, blue grama and galleta. Shrubs include Bigelow sagebrush, antelope bitterbrush, stansbury cliffrose and green mormon tea. There may trace amounts of non-native

annuals present.

Plant species most likely to increase or invade on this site are cheatgrass, thrifty goldenweed, stemless goldenweed, annual weeds, broom snakeweed, Greene rabbitbrush Bigelow rubber rabbitbrush and Bigelow sagebrush.

Continuous grazing during the winter and spring will decrease cool season grasses which are replaced by lower forage value grasses and forbs.

#### Community 1.2

##### Half Shrubs - Short Grasses with Trees

This plant community is characterized by an increase of low growing shrubs such as snakeweed, rabbitbrush, Bigelow sagebrush and other native shrubs. There is a decline of cool season grasses in the interspaces and an increase of shortgrasses such as blue grama. There may trace or minor amounts of non-native annuals present.

## Major Land Resource Area

MLRA 035X

Colorado Plateau

### Subclasses

- DX035X04B204–Sandstone Upland 6-10" p.z.
- DX035X04B314–Sandstone Upland 10-14" p.z.
- F035XC322AZ–Sandstone Upland 10-14" p.z. (JUOS)
- R035XA115AZ–Sandstone Upland 10-14" p.z.
- R035XB255AZ–Sandstone Rockland 6-10" p.z.
- R035XD411AZ–Sandstone Upland 7-11" p.z.
- R035XY130UT–Desert Shallow Sandy Loam (Shadscale)

### Correlated Map Unit Components

22340784, 22340787, 22340795, 22340846, 22340849, 22340868, 22340876, 22396826, 22396846

### Stage

Provisional

### Contributors

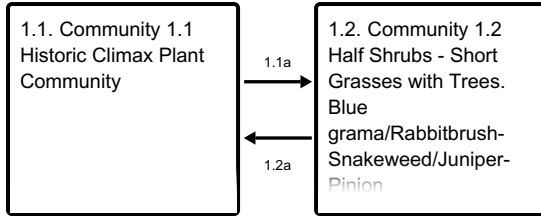
Curtis Talbot

### State and transition model

#### Ecosystem states

1. State 1 Reference State
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### State 1 submodel, plant communities



## State 1

### State 1 Reference State

State 1 Reference State The dominant aspect of this site is a grassland and shrub mix with scattered trees.

## Community 1.1

### Community 1.1 Historic Climax Plant Community

Community 1.1 Historic Climax Plant Community The dominant aspect of this site is a grassland and shrub mix with scattered Utah juniper and/or Colorado Pinyon. Major grasses are Indian ricegrass, needle and thread, blue grama and galleta. Shrubs include Bigelow sagebrush, antelope bitterbrush, stansbury cliffrose and green mormon tea. There may trace amounts of non-native annuals present. Plant species most likely to increase or invade on this site are cheatgrass, thrifty goldenweed, stemless goldenweed, annual weeds, broom snakeweed, Greene rabbitbrush Bigelow rubber rabbitbrush and Bigelow sagebrush. Continuous grazing during the winter and spring will decrease cool season grasses which are replaced by lower forage value grasses and forbs.

## Community 1.2

### Community 1.2 Half Shrubs - Short Grasses with Trees. Blue grama/Rabbitbrush-Snakeweed/Juniper-Pinion

Community 1.2 Half Shrubs - Short Grasses with Trees This plant community is characterized by an increase of low growing shrubs such as snakeweed, rabbitbrush, Bigelow sagebrush and other native shrubs. There is a decline of cool season grasses in the interspaces and an increase of shortgrasses such as blue grama. There may trace or minor amounts of non-native annuals present.

## Pathway 1.1a

### Community 1.1 to 1.2

Season-long grazing providing little rest and recovery for preferred grazed plants during critical growing periods, coupled with high utilization. Drought is an additional factor here.

## Pathway 1.2a

### Community 1.2 to 1.1

Favorable precipitation, prescribed grazing

## Citations