

Ecological site group DX035X02DESG02

Grand Canyon - Ustic Aridic - Limestone or Loamy Upland

Last updated: 10/25/2022
Accessed: 04/19/2024

Key Characteristics

- Grand Canyon (D)
- Site parent material is limestone or dolomite, or soil is loamy.
- Site soils are ustic aridic or within a 10-14" precipitation zone.
- Site is and/or located in an upland with slopes <15%.

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

Site is and/or located in an upland with slopes <15%. Physiography is complex.

Climate

Site soils are ustic aridic or within a 10-14" precipitation zone. Precipitation comes monsoonal patterns during months of July, August, and September, and is supplemented by winter storm patterns from November through March.

Soil features

Parent material is limestone. Soils are loamy. Site consists of limited amounts of gently sloping sheet alluvial or eolian deposits over residuum of plateaus and structural benches.

Vegetation dynamics

This plant community is made up primarily of mid and short grasses, shrubs and a relatively small percentage of forbs and a scattered overstory of junipers. There is a mixture of both cool and warm season grasses.

Plants most likely to invade or increase on this site are broom snakeweed, wooly groundsel, pingue, juniper, rabbitbrush and annuals. Unmanaged grazing during the winter and spring periods will decrease the cool season grasses, which are replaced by warm season, lower forage value grasses and shrubs. In this plant community there may be trace amounts of non-native annuals present. They do not change the sites ecological processes in these minor amounts

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- DX035X01I113–Loamy Upland 10-14" p.z.
- F035XA121AZ–Shallow Loam 10-14" p.z. Cobbly (JUOS)
- R035XA119AZ–Shallow Loamy 10-14" p.z.
- R035XA125AZ–Limy Upland 10-14" p.z. Shallow

- R035XC304AZ–Loamy Upland 10-14" p.z. Cindery
- R035XC310AZ–Limy Slopes 10-14" p.z.
- R035XC311AZ–Limy Upland 10-14" p.z.
- R035XC319AZ–Limestone/Sandstone Upland 10-14" p.z.
- R035XC338AZ–Loamy Upland 10-14" p.z. Limy
- R035XC350AZ–Limestone Upland 10-14" p.z. Warm

Correlated Map Unit Components

22394145, 22394143, 22394151, 22395174, 22395175, 22395025, 22395026, 22395023, 22395073, 22395074, 22395178, 22395180, 22395179, 22395458, 22395456, 22395428, 22395052, 22395059, 22395430, 22395157, 22395158, 22395163, 22395162, 22395161, 22395464

Stage

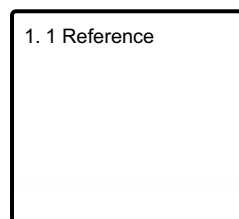
Provisional

Contributors

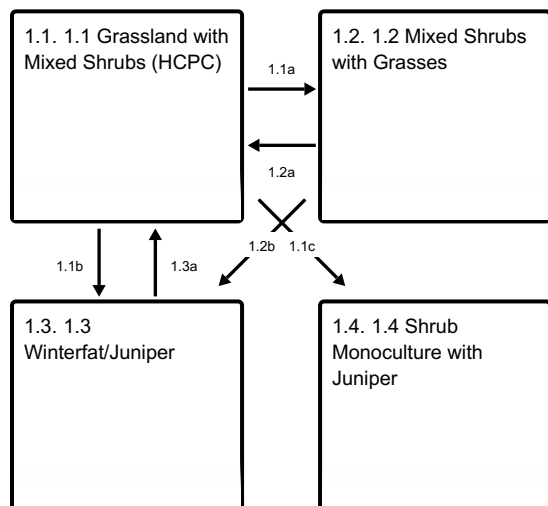
Curtis Talbot

State and transition model

Ecosystem states



State 1 submodel, plant communities



State 1

1 Reference

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Community 1.1

1.1 Grassland with Mixed Shrubs (HCPC)

This plant community is made up primarily of mid and short grasses, shrubs and a relatively small percentage of forbs and a scattered overstory of junipers. There is a mixture of both cool and warm season grasses. Plants most likely to invade or increase on this site are broom snakeweed, wooly groundsel, pingue, juniper, rabbitbrush and annuals. Unmanaged grazing during the winter and spring periods will decrease the cool season grasses, which are replaced by warm season, lower forage value grasses and shrubs. In this plant community there may be trace amounts of non-native annuals present. They do not change the sites ecological processes in these minor amounts.

Community 1.2

1.2 Mixed Shrubs with Grasses

This plant community is dominated by a mix of shrubs and grasses with scattered junipers. Dominant grasses include galleta, blue grama, black grama, New Mexico feather grass, and dropseeds. Common shrubs include snakeweed, rabbitbrush, Mormon tea and fourwing saltbush with some succulents present. In this plant community there may be a trace amounts, less than 3% by weight, of non-native annuals present. They do not change the sites ecological processes in these minor amounts.

Community 1.3

1.3 Winterfat/Juniper

The dominant aspect of this plant community is low growing shrub winterfat with a very light overstory of junipers. The understory may have blue grama and or snakeweed. The glaring attribute of this site is bare soil at or >70%.

Community 1.4

1.4 Shrub Monoculture with Juniper

Winterfat and juniper

Pathway 1.1a

Community 1.1 to 1.2

An increase in shrubs over time.

Pathway 1.1b

Community 1.1 to 1.3

Excessive degradation of this site and increase in bare soil with scattered shrubs.

Pathway 1.1c

Community 1.1 to 1.4

Encroachment and establishment of juniper along with degradation of soil, water, and plant resources..

Pathway 1.2a

Community 1.2 to 1.1

A decrease in shrubs and increase in grasses due to disturbance such as fire.

Pathway 1.2b

Community 1.2 to 1.3

Degradation of plants and soils with an increase of bare ground and erosion.

Pathway 1.3a

Community 1.3 to 1.1

Slow restoration of soil, plant and water resources.

Citations