Ecological site group DX035X02DESG06
Grand Canyon - Aridic Ustic - Limestone or Loamy Cliffs

Last updated: 10/26/2022
Accessed: 05/02/2024

Key Characteristics

- Grand Canyon (D)
- Site parent material is limestone or dolomite, or soil is loamy.
- Site soils are aridic ustic or within a 13-17" 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 on a cliff with slopes >50%. Physiography is complex.

Climate

Site soils are aridic ustic or within a 13-17" 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 gently dipping shallow residuum weathered from sedimentary rocks eroded into steep cliff faces and canyons.

Vegetation dynamics

The dominant aspect of the site is a shrub tree mix with grasses and forbs. The shrubs most dominant are turbinella oak and banana yucca. Scattered trees of Colorado pinyon and Utah juniper are present. The major grasses are Sideoats grama, Desert needlegrass, and muttongrass.

With disturbance plants that will increase are Turbinella oak, banana yucca and pricklypear, those that may invade are mainly annuals.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- R035XF601AZ–Sedimentary Cliffs 13-17" p.z.

Correlated Map Unit Components

22395197, 22395218, 22395221, 22395191, 22395103, 22395122

Stage

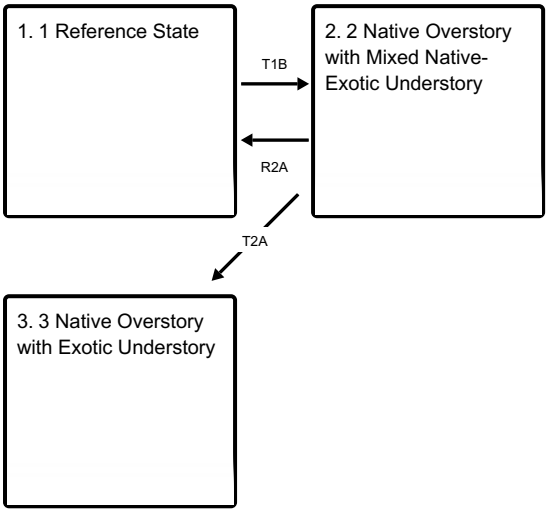
Provisional

Contributors

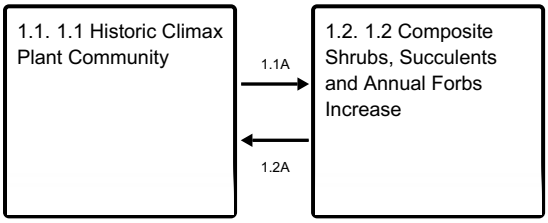
Curtis Talbot

State and transition model

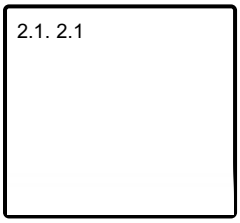
Ecosystem states



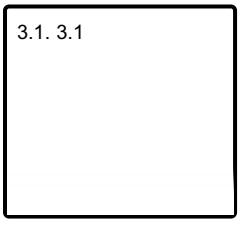
State 1 submodel, plant communities



State 2 submodel, plant communities



State 3 submodel, plant communities



State 1
1 Reference State

Community 1.1
1.1 Historic Climax Plant Community

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oak and banana yucca. Scattered trees of Colorado pinyon and Utah juniper are present. The major grasses are Sideoats grama, Desert needlegrass, and muttongrass. With disturbance plants that will increase are Turbinella oak, banana yucca and pricklypear, those that may invade are mainly annuals.

Community 1.2
1.2 Composite Shrubs, Succulents and Annual Forbs Increase

Pathway 1.1A
Community 1.1 to 1.2

Pathway 1.2A
Community 1.2 to 1.1

State 2
2 Native Overstory with Mixed Native-Exotic Understory

Community 2.1
2.1

State 3
3 Native Overstory with Exotic Understory

Community 3.1
3.1

Transition T1B
State 1 to 2

Invasion by exotic species.

Restoration pathway R2A
State 2 to 1

Treatment of introduced species.

Transition T2A
State 2 to 3

Loss of native understory due to dominance of introduced species.

Citations