

Ecological site group GX070A01XESG03

Sandy

Last updated: 08/05/2020

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Key Characteristics

- Site does not meet criteria in 1a.
- Soils are > 50 cm to root-restrictive layers.
- Soil texture is FSL or coarser at the surface, and sand percentage is ≥ 50 in all horizons in the upper 100 cm.

Physiography

This group occurs on various landforms.

Soil features

Soils are greater than 50 cm to a root-restrictive layer, are well-drained, and have textures dominated by sand in the entire upper 100 cm.

Major Land Resource Area

MLRA 070A

Canadian River Plains and Valleys

Subclasses

- R070AY011NM–Cinder
- R070AY012NM–Sandy Plains
- R070AY016NM–Gravelly Upland
- R070AY018NM–Sandstone Savanna

Stage

Provisional

Contributors

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State and transition model

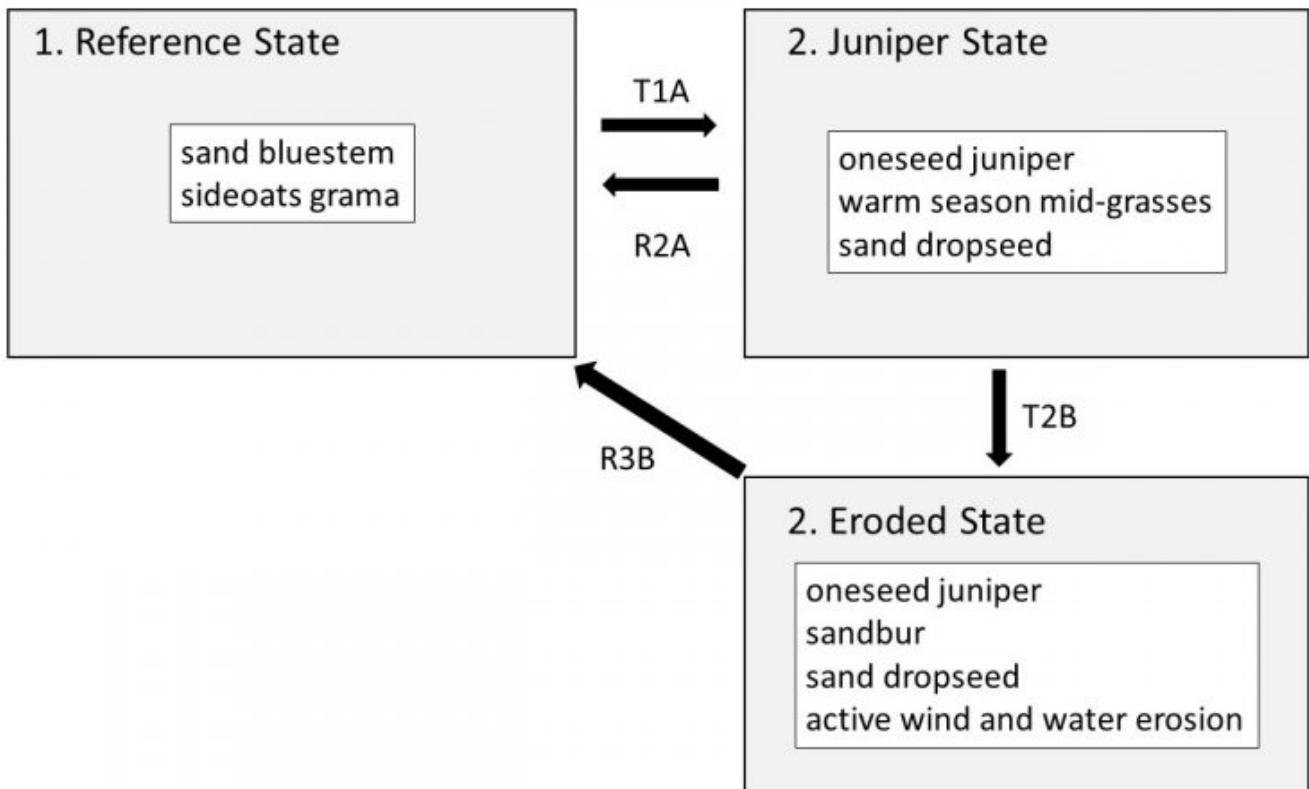


Figure .

**State 1
Reference State**

In this state, late-seral grasses such as sand bluestem are well-represented, topsoil remains, and tree species have not encroached.

**State 2
Juniper State**

In this state, oneseed juniper is abundant.

**State 3
Eroded State**

This state is characterized by topsoil loss. Wind and water erosion are evident. Oneseed juniper is a major player.

**Transition T1A
State 1 to 2**

This transition represents the reduction or extirpation of highly palatable species such as sand bluestem, coupled with the establishment of oneseed juniper woodlands. The most likely mechanism is season-long grazing providing little rest and recovery for preferred grazed plants during critical growing periods, coupled with high utilization.

**Restoration pathway R2A
State 2 to 1**

This pathway represents the elimination of oneseed juniper and a resurgence of highly palatable species such as sand bluestem. This process will likely require a prolonged period of prescribed/deferred grazing, coupled with a tree-killing mechanism such as fire or chemical/mechanical treatments.

Transition T2B

State 2 to 3

This transition represents the initiation of wind and water erosion. This is the result of soil disturbance and reduced plant cover. Both would be expected under a prolonged, heavy, continuous grazing regime.

Restoration pathway R3B

State 3 to 1

This pathway represents the elimination of oneseed juniper, a resurgence of highly palatable species such as sand bluestem, and a marked reduction in erosion rates. This process will likely require a prolonged period of prescribed/deferred grazing, coupled with a tree-killing mechanism such as fire or chemical/mechanical treatments. In cases where topsoil has been severely truncated or removed, the restoration of topsoil cannot be expected in a human lifetime.

Citations