11460

Southern Rocky Mountain Montane-Subalpine Grassland

BpS Model/Description Version: Aug. 2020

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| --- | --- | --- | --- |
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Vegetation Type

Herbaceous

Map Zone

26

Geographic Range

High elevations in Davis Mountains (Mt. Livermore) and Guadalupe Mountains (Pine Top Mountain).

Biophysical Site Description

At elevations of 2,000-2,500m. Wind-swept and shallow soils derived from trachyte (acidic igneous).

Vegetation Description

Dominated by Arizona fescue (*Festuca arizonica*) and pine dropseed (*Blepharoneuron tricholepis*). Other species include nodding onion, desert indigo sage, yarrow, annual muhly, birdbill dayflower, blue grama, Carruth’s sagewort, squirreltail, Indian paintbrush, and cardinal catchfly (*Allium cernuum*, *Salvia arizonica*, *Achillea millefolium*, *Muhlenbergia minutissima*, *Commelina dianthifolia*, *Bouteloua gracilis*, *Artemisia carruthii*, *Elymus elymoides*, *Castilleja* spp.and *Silene laciniata* ssp*. greggii*, respectively).

BpS Dominant and Indicator Species

|  |  |  |
| --- | --- | --- |
| **Symbol** | **Scientific Name** | **Common Name** |
| FEAR2 | *Festuca arizonica* | Arizona fescue |
| BLTR | *Blepharoneuron tricholepis* | Pine dropseed |

Species names are from the NRCS PLANTS database. Check species codes at http://plants.usda.gov.

Disturbance Description

Wind-swept and shallow soils are the driving processes in this system that maintain a grassland cover. Extreme cold and extreme heat make this a severe environment, limiting woody invasion.

Fire Frequency

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Severity** | **Avg FI** | **Percent of All Fires** | **Min FI** | **Max FI** |
| Replacement |  |  |  |  |
| Moderate (Mixed) |  |  |  |  |
| Low (Surface) |  |  |  |  |
| All Fires |  |  |  |  |

Fire interval is expressed in years for each fire severity class and for all types of fire combined (All Fires). Average FI is the central tendency modeled. Percent of all fires is the percent of all fires modeled in that severity class. Minimum and Maximum FIs show the relative range of fire intervals as estimated by model contributors, if known.

Scale Description

Very small, generally <20ac

Adjacency or Identification Concerns

Coahuilan chaparral is adjacent in more moist situations.

Issues or Problems

Very limited in extent and size. May be difficult to map.

Native Uncharacteristic Conditions

Comments

In map zone 26, this system is *very* limited and very poorly represented.

Succession Classes

**Mapping Rules**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Upper Layer Lifeform** | **Height (m)** | **Canopy Cover (%)** | | | | | | | | | |
| **0-10** | **11-20** | **21-30** | **31-40** | **41 - 50** | **51-60** | **61-70** | **71-80** | **81-90** | **91-100** |
| Herb | 0-0.5 | A | A | A | A | A | A | A | A | A | A |
| Herb | 0.5-1.0 | A | A | A | A | A | A | A | A | A | A |
| Herb | >1.0 | A | A | A | A | A | A | A | A | A | A |
| Shrub | 0-0.5 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Shrub | 0.5-1.0 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Shrub | 1.0-3.0 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Shrub | >3.0 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Tree | 0-5 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Tree | 5-10 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Tree | 10-25 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Tree | 25-50 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Tree | >50 | A | UN | UN | UN | UN | UN | UN | UN | UN | UN |

Succession class letters A-E are described in the Succession Class Description section. Some classes use a leafform distinction where a qualifier is added to the class letter: Brdl (broadleaf), Con (conifer), or Mix (mixed conifer and broadleaf). UN refers to uncharacteristic native or a combination of height and cover that would not be expected under the reference condition. NP refers to not possible or a combination of height and cover which is not physiologically possible for the species in the BpS.

**Description**

Class A 100 Early Development 1 - All Structures

Indicator Species

|  |  |  |  |
| --- | --- | --- | --- |
| **Symbol** | **Scientific Name** | **Common Name** | **Canopy Position** |
| FEAR2 | Festuca arizonica | Arizona fescue | Lower |
| BLTR | Blepharoneuron tricholepis | Pine dropseed | Lower |

Description

This is a stable type with little effect of fire or other disturbance. It is generally controlled by edaphic and climatic factors. Fire may occur in this system, but it probably has very little effect. At the most, fire may affect the edges of occurrences, at their interface with adjacent Coahuilan chaparral.

*Maximum Tree Size Class*  
None

Model Parameters

Deterministic Transitions

|  |  |  |  |
| --- | --- | --- | --- |
| **From Class** | **Begins at (yr)** | **Succeeds to** | **After (years)** |
| Early1:ALL | 0 | Early1:ALL | 999 |

Probabilistic Transitions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Disturbance Type** | **Disturbance occurs In** | **Moves vegetation to** | **Disturbance Probability** | **Return Interval (yrs)** | **Reset Age to New Class Start Age After Disturbance?** | **Years Since Last Disturbance** |

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