# 10760
# Chihuahuan Stabilized Coppice Dune and Sand Flat Scrub

BpS Model/Description Version: Aug. 2020 None

| Modelers | | Reviewers | |
|---|---|---|---|
| John Karges | jkarges@tnc.org | John Morlock | John_Morlock@nps.gov |
| Lee Elliott | lelliott@tnc.org | None | None |
| None | None | None | None |

**Vegetation Type**
Shrubland

**Map Zone**
26

**Geographic Range**
Chihuahuan Desert dunes and sandsheets.

**Biophysical Site Description**
Coppice dunes and sandsheets are found in the Chihuahuan Desert. Most moisture occurs during intense, short-duration, late-summer thunderstorms and some winter rains. Another very important process driving this system is wind. This type may also occur in sandy basins.

**Vegetation Description**
Dominated by mesquite (*Prosopis glandulosa*) but includes fourwing saltbush (*Atriplex canescens*), Torrey's jointfir (*Ephedra torreyana*), Mexican tea (*E. trifurca*), rosemary mint (*Poliomintha incana*), and littleleaf sumac (*Rhus microphylla*) coppice sand scrub with 10-30% total vegetation cover. Soaptree yucca (*Yucca elata*), broom snakeweed (*Gutierrezia sarothrae*), and mesa dropseed (*Sporobolus flexuosus*) are commonly present. Mesquites are scattered, of various ages, and characterized by occurring on pedestaled soil with interstices wind-scoured.

**BpS Dominant and Indicator Species**

| Symbol | Scientific Name | Common Name |
|---|---|---|
| PRGL2 | *Prosopis glandulosa* | Honey mesquite |
| ATCA2 | *Atriplex canescens* | Fourwing saltbush |
| EPTO | *Ephedra torreyana* | Torrey's jointfir |
| EPTR | *Ephedra trifurca* | Longleaf jointfir |
| POIN3 | *Poliomintha incana* | Frosted mint |

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

**Disturbance Description**
Eolian movement of sparsely vegetated areas between coppice dunes. Fire plays little to no role in this Biophysical Setting (BpS)

**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**

Occurred in small patches, historically.

**Adjacency or Identification Concerns**

**Issues or Problems**

Heavy grazing in late 1800s and early 1900s may have caused mesquite to increase. Naturally occurring coppice dunes may have been limited to areas peripheral to active dunes. Coppice dunes are currently more extensive, resulting from sand movement due to degradation of grasslands.

**Native Uncharacteristic Conditions**

**Comments**

## *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 | A | A | UN | UN | UN | UN | UN | UN | UN |
| Shrub | 0.5-1.0 | A | A | A | UN | UN | UN | UN | UN | UN | UN |
| Shrub | 1.0-3.0 | A | A | A | UN | UN | UN | UN | UN | UN | UN |
| Shrub | >3.0 | A | A | A | UN | UN | UN | UN | UN | UN | UN |
| Tree | 0-5 | A | A | A | UN | UN | UN | UN | UN | UN | UN |
| Tree | 5-10 | UN | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Tree | 10-25 | UN | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Tree | 25-50 | UN | UN | UN | UN | UN | UN | UN | UN | UN | UN |
| Tree | >50 | UN | 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 Mid Development 1 - Open**

*Indicator Species*

| Symbol | Scientific Name | Common Name | Canopy Position |
|---|---|---|---|
| PRGL2 | Prosopis glandulosa | Honey mesquite | All |
| ATCA2 | Atriplex canescens | Fourwing saltbush | None |
| POIN3 | Poliomintha incana | Frosted mint | None |

*Description*

This class occurs as a mosaic of open, unvegetated sand substrate and dunes vegetated with scattered multi-branched, recumbent mesquites. Significant amounts of bare soil and dune conditions result in low percent canopy closure. Wind movement of this BpS maintains the open aspect. Fire plays little to no role.

*Maximum Tree Size Class*

None

## Model Parameters

**Deterministic Transitions**

| From Class | Begins at (yr) | Succeeds to | After (years) |
|---|---|---|---|
| Mid1:OPN | 0 | Mid1:OPN | 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 |
|---|---|---|---|---|---|---|
| Wind or Weather or Stress | Mid1:OPN | Mid1:OPN | 1 | 1 | No | 0 |

## References


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