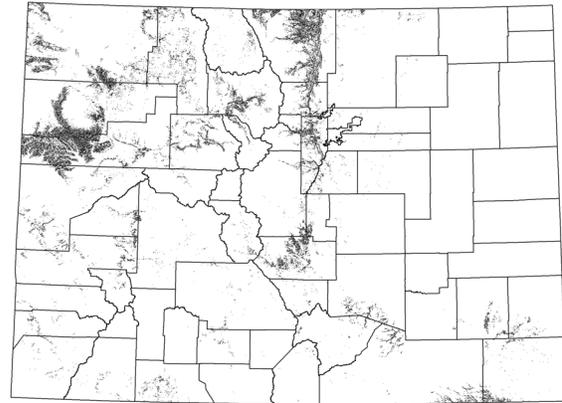


# ROCKY MOUNTAIN LOWER MONTANE - FOOTHILL SHRUBLAND



R. Rondeau



extent exaggerated for display

- ARTEMISIA FRIGIDA SHRUBLAND ALLIANCE
  - Artemisia frigida* / *Bouteloua gracilis* Shrubland [Provisional]
- ARTEMISIA NOVA SHRUB HERBACEOUS ALLIANCE
  - Artemisia nova* / *Leymus salinus* ssp. *salmonis* Shrub Herbaceous Vegetation
- CERCOCARPUS MONTANUS SHRUB HERBACEOUS ALLIANCE
  - Cercocarpus montanus* / *Muhlenbergia emersleyi* Shrub Herbaceous Vegetation
- CERCOCARPUS MONTANUS SHRUBLAND ALLIANCE
  - Cercocarpus montanus* - *Rhus trilobata* / *Andropogon gerardii* Shrubland
  - Cercocarpus montanus* / *Achnatherum scribneri* Shrubland
  - Cercocarpus montanus* / *Bouteloua curtipendula* Shrubland
  - Cercocarpus montanus* / *Elymus lanceolatus* ssp. *lanceolatus* Shrubland
  - Cercocarpus montanus* / *Hesperostipa comata* Shrubland
  - Cercocarpus montanus* / *Hesperostipa neomexicana* Shrubland
  - Cercocarpus montanus* / *Muhlenbergia montana* Shrubland
  - Cercocarpus montanus* / *Muhlenbergia pauciflora* Shrubland
  - Cercocarpus montanus* / *Pseudoroegneria spicata* Shrubland
  - Cercocarpus montanus* / *Rhus trilobata* var. *trilobata* Shrubland
  - Cercocarpus montanus* var. *paucidentatus* / *Petrophyton caespitosum* Shrubland
- PRUNUS VIRGINIANA SHRUBLAND ALLIANCE
  - Prunus virginiana* - (*Prunus americana*) Shrubland
- PURSHIA TRIDENTATA SHRUBLAND ALLIANCE
  - Purshia tridentata* / *Artemisia frigida* / *Hesperostipa comata* Shrubland
  - Purshia tridentata* / *Muhlenbergia montana* Shrubland
  - Purshia tridentata* / *Hesperostipa comata* Shrub Herbaceous Vegetation
- RHUS TRILOBATA SHRUB HERBACEOUS ALLIANCE
  - Rhus trilobata* / *Festuca idahoensis* Shrub Herbaceous Vegetation
  - Rhus trilobata* / *Pseudoroegneria spicata* Shrub Herbaceous Vegetation
  - Rhus trilobata* Rocky Mountain Shrub Herbaceous Vegetation [Provisional]
- RIBES CEREUM SHRUBLAND ALLIANCE
  - Ribes cereum* / *Leymus ambiguus* Shrubland
- SYMPHORICARPOS OCCIDENTALIS TEMPORARILY FLOODED SHRUBLAND ALLIANCE
  - Symphoricarpos occidentalis* Shrubland

**Overview:** This large patch ecological system is found in the foothills, canyon slopes and lower mountains of the Rocky Mountains and ranges from southern New Mexico extending north into Wyoming, and west into the Intermountain region. It is common where *Quercus gambelii* is absent such as the northern Colorado Front Range and in drier foothills and prairie hills. This system is generally drier than Rocky Mountain Gambel Oak-Mixed Montane Shrubland, but may include mesic montane shrublands where *Quercus gambelii* does not occur. It may occur as a mosaic of two or three plant associations often surrounded by grasslands or woodlands.

**Characteristic species:** Scattered trees or inclusions of grassland patches or steppe may be present, but the vegetation is typically dominated by a variety of shrubs including *Amelanchier utahensis*, *Cercocarpus montanus*, *Purshia tridentata*, *Rhus trilobata*, *Ribes cereum*, *Symphoricarpos oreophilus*, or *Yucca glauca*. Grasses present may include species of *Muhlenbergia*, *Bouteloua*, *Hesperostipa*, and

*Pseudoroegneria spicata*.

**Environment:** These shrublands occur between 5,000-9,000 feet (1,500-2,900 m) and are usually associated with exposed sites, rocky substrates, and dry conditions, which limit tree growth.

**Dynamics:** Fires play an important role in this system as the dominant shrubs usually have a severe die-back, although some plants will stump sprout. *Cercocarpus montanus* requires a disturbance such as fire to reproduce, either by seed sprout or root crown sprouting. Fire suppression may have allowed an invasion of trees into some of these shrublands, but in many cases sites are too xeric for tree growth.



S. Neid

Rank:	A	B	C	D
<b>① CONDITION</b>				
<b>Community structure</b>	Native species dominant, non-native species may be present but in small amounts (< 1% total cover). If trees are present, these are widely scattered and mature. Species richness is often high, and native bunch grasses or sedges (non-increasers) are dominant.	Native species dominant, non-native species are present but in small amounts (< 3% total cover). If trees are present, these are widely scattered and mature. Species richness is often high, and native grasses (non-increasers) are dominant.	Herbaceous cover is co-dominated by native and non-native species. Alteration of vegetation is extensive but potentially restorable over several decades.	Non-native species are dominant. Alteration of vegetation is extensive and restoration potential is low.
<b>Invasive exotics with major potential to alter structure and composition</b> (e.g., leafy spurge, knapweeds, non-native thistle, <i>Bromus inermis</i> , <i>Poa pratensis</i> , <i>Bromus tectorum</i> )	Absent or < 1% cover.	May be present, but <3% cover.	Likely to be present.	Present, may have significant cover.
<b>Native increaser spp.</b> (e.g. <i>Yucca</i> , <i>Artemisia frigida</i> , and <i>Opuntia</i> spp.)	< 3% cover.	<5% cover.	>10% cover.	May be dominant.
<b>Disturbance</b>		Fire regime is largely intact, and grazing is not contributing to deterioration of the occurrence.	Vehicle use or livestock grazing disturbance, if present, is extensive and significant enough to have notable impact on species composition and soil compaction. The fire and grazing regimes may need immediate management to prevent deterioration of the occurrence.	Vehicle use or livestock grazing disturbance, if present, is extensive and significant. System remains fundamentally compromised despite restoration of some processes. Soil compaction and continued disturbance is extensive throughout the occurrence.
<b>Fragmentation</b>		Fragmentation is limited to less than 5% of the occurrence.	Fragmentation is limited to less than 15% of the occurrence.	
<b>② SIZE</b>				
<b>Acres</b>	>5,000	2,000-5,000	1,000-2,000	< 1,000
<b>③ LANDSCAPE CONTEXT</b>				
<b>Connectivity</b>	Connectivity of adjacent systems allows natural ecological processes, e.g., fire and species migrations to occur. No unnatural barriers present.	Adjacent systems surrounding occurrence retain much connectivity. Few non-natural barriers present.	Adjacent systems surrounding occurrence are fragmented by alteration with limited connectivity.	Connectivity is severely hampered.
<b>Surrounding land</b>	At least 90% native and unaltered landscape with very little to no urban development or agriculture, and little to no industrial forestry.	Surrounding landscape composed of at least 75% natural or semi-natural vegetation, with little urban development within or adjacent to the occurrence.	Surrounding landscape is a mosaic of agricultural or semi-developed areas with >50% natural or semi-natural vegetation. Some non-natural barriers are present. Significant disturbance, but easily restorable.	Major human-caused alteration of surrounding landscape. Adjacent systems surrounding occurrence are mostly converted to agricultural or urban uses.