

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

This draft ecological site description is approved for field use and testing for a one year period beginning MM, YYYY.
Additional information and comments on this site should be sent to the Utah State Range Management Specialist.

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Mountain Very Steep Loam (Curleaf mountainmahogany)

SITE NUMBER: 048AY471UT

MLRA: 048A

Original Site Description: Author: DJS

Date: 05/15/1981

Revised Site Description: Author: DJS

Date: 02/01/1994

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date: 05/27/1994

Ecological Site Definition - A distinctive kind of land, with specific physical characteristics, which differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation, and in its response to management.

A. PHYSICAL CHARACTERISTICS

(description narrative of this particular site)

1. SOILS

Depth: 20-40 inches

Surface Textures: Extremely Bouldery Fine Sandy Loam

Surface Fragments(<=3" % cover, >3" % cover):

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol):

Geologic Parent Materials: Colluvium from Sandstone and Shale

Moisture Regime:

Temperature Regime:

Runoff: Very Rapid

Permeability(min-max): Moderate

Drainage Class(min-max): Well Drained

Water Erosion Hazard: Slight

Wind Erosion Hazard:

Electrical Conductivity (EC in mmhos/cm):

Sodium Adsorption Ration (SAR):

Soil Reaction (1:1 water):

Soil Reaction (0.1 M CaCl₂):

pH Range:

Available Water Capacity (inches): 1-3

Major Soils Associated With This Site:

Soil Survey Area: 616

Pathead BYX-FSL, 40-70%

Additional information may be found in Section II of the Field Office Technical Guide.

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

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Ecological Site Name: Mountain Very Steep Stony Loam (Curlleaf mountainmahogany)

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Landform and Position: Mountain and Canyon Side Slopes

Aspect: South

	<u>Minimum</u>	<u>Maximum</u>
Slope:	40	70
Elevation:	7500	9000
Flooding:		
Frequency:		
Duration:		
Ponding:		
Depth (inches):		
Frequency:		
Duration:		
Water Table Depth:		

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 16-20

Mean Annual Air Temperature: 38-45

Mean Annual Soil Temperature: 40-47

Frost Free Period (days): 0-0

Freeze Free Period (days): 60-100

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean												
Low												

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean	1.67	1.64	1.74	1.67	1.59	1.17	1.66	2.00	1.60	1.63	1.35	1.45
Low												

Climate Stations: St. ID.:

Location:

Period:

From:

To:

(Includes factors such as storm intensity, precipitation dependability, origin and pattern of storms, driest and wettest months, orographic effects, etc.)

Influencing Water Features (if any):

Wetland Description(Cowardin System)

System

Subsystem

Class

Stream Types(Rosgen System)

System

C. PLANT COMMUNITY CHARACTERISTICS

Site Type: Rangeland

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Ecological Site Name: Mountain Very Steep Stony Loam (Curlleaf mountainmahogany)

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1. Potential Plant Community Description and Ecological Factors

The dominant aspect of this site is curlleaf mountainmahogany. The potential natural plant community by air-dry weight is composed of 35 percent perennial grasses, 15 percent forbs, and 50 percent shrubs.

2. Plant Community Composition by Weight and Percentage

Grasses and Grasslike, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Salina wildrye	LESAS		160	200	20	25
Geyer sedge	CAGE2		24	40	3	5
Bluebunch wheatgrass	PSSP6	1	8	24	1	3
Slender wheatgrass	ELTR7	1	8	24	1	3
Muttongrass	POFE	1	8	24	1	3
Indian ricegrass	ACHY	1	8	24	1	3
Letterman needlegrass	ACLE9	1	8	24	1	3
Western wheatgrass	PASM	1	8	24	1	3
Nevada bluegrass	PONE3	1	8	24	1	3
Prairie junegrass	KOMA	1	8	24	1	3
Sandberg bluegrass	POSE	1	8	24	1	3
Needleandthread	HECO26	1	8	24	1	3
Other perennial grasses	PPGG	1	40	80	5	10
Other annual grasses	AAGG	1	40	80	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Bastard toadflax	COUM	2	8	24	1	3
Small leaf pussytoes	ANMI3	2	8	24	1	3
Blue flax	LIPE2	2	8	24	1	3
Arrowleaf balsamroot	BASA3	2	8	24	1	3
Thickleaf peavine	LALA3	2	8	24	1	3
Longleaf phlox	PHLO2	2	8	24	1	3
Hoary tansyaster	MACA2	2	8	24	1	3
Scarlet globemallow	SPCO	2	8	24	1	3
Rocky mountain beardtongue	PEST2	2	8	24	1	3
Shaggy fleabane	ERPU2	2	8	24	1	3
Spurred lupine	LUCAC3	2	8	24	1	3
Lobeleaf groundsel	SEMU3	2	8	24	1	3
Parry goldenrod	SOPA4	2	8	24	1	3
Looseflower milkvetch	ASTE5	2	8	24	1	3
Tufted evening primrose	OECE2	2	8	24	1	3
Common yarrow	ACMI2	2	8	24	1	3
Wyoming Indian paintbrush	CALI4	2	8	24	1	3
Trumpet stoneseed	LIIN2	2	8	24	1	3
Twolobe larkspur	DENU2	2	8	24	1	3
Pacific aster	ASCH2	2	8	24	1	3
Fendler sandwort	ARFE3	2	8	24	1	3
Roughseed catseye	CRFL6	2	8	24	1	3
Fineleaf woollywhite	HYFI	2	8	24	1	3
Mountain pepperweed	LEMO2	2	8	24	1	3
Feathery false solomonsseal	MARAR	2	8	24	1	3
Uinta mountain flax	LIKI2	2	8	24	1	3
Scarlet skyrocket	IPAGA3	2	8	24	1	3
Navajo tea	THSU	2	8	24	1	3
Watson pricklygilia	LEWA	2	8	24	1	3
Other perennial forbs	PPFF	2	80	120	10	15
Other annual forbs	AAFF	2	80	120	10	15

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Curlleaf mountainmahogany	CELE3		200	240	25	30
Wyoming big sagebrush	ARTRW		24	40	3	5
Utah serviceberry	AMUT		24	40	3	5
Mountain snowberry	SYOR2		24	40	3	5
Birchleaf mountainmahogany	CEMO2	3	8	24	1	3
Creeping Oregon grape	MARE11	3	8	24	1	3
Black sagebrush	ARNO4	3	8	24	1	3
Mountain low rabbitbrush	CHVIL4	3	8	24	1	3
Woods rose	ROWO	3	8	24	1	3
Mountain rubber rabbitbrush	CHNAS	3	8	24	1	3
Broom snakeweed	GUSA2	3	8	24	1	3
Central pricklypear	OPPO	3	8	24	1	3
Other shrubs	SSSS	3	40	80	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Pinyon pine	PIED		0	0	0	0
Utah juniper	JUOS		0	0	0	0

3. Plant Community Annual Production

At the highest potential similarity index, this site will produce approximately the following amount of air-dry herbage, expressed as pounds/acre:

	Low	High
Favorable Year	1000	1100
Average Year	700	800
Unfavorable Year	500	600

4. Ground Cover and Structure

a. Vegetative

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Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	20	2	10
Forbs (perennial)	5	1	2
Shrubs	40	10	30
Trees	0	0	0
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure, grasses and palatable shrubs may decrease while less palatable shrubs and forbs may increase. Fire will kill curlleaf mountainmahogany and many valuable soil-holding plants in the understory. Rabbitbrush, snowberry and snakeweed may increase.

Plant Communities & Transitional Pathways

(Show a steady state diagram with influences to move from one steady state to another)

6. Plant Growth Curves

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	5	15	40	30	5	5	0	0	0
Name	PNC											
ID Number	UT4711											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	0	10	50	30	5	5	0	0	0
Name	Good Condition No.1											
ID Number	UT4712											
Description	wheatgrass, Salina wildrye, curleaf mountainmahogany											

7. Aspect Differences Near MLRA Boundaries

(Give related range sites in MLRA's above and below)

8. Associated Sites Within MLRA

048AY451UT

Mountain Stony Loam (Browse)

048AY465UT

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Mountain Very Steep Loam (Oak)

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9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

a. Site Factors Influencing Management

This site is not grazeable by livestock because of steepness of slope.

b. Guide to Forage Quality(Plant preference by season)

Species	Oct-Nov	Dec-Feb	Mar-May	Jun-Sep

VG = Very Good G = Good F = Fair P = Poor

2. Wildlife

a. Site Factors Influencing Management

This site is very valuable for mule deer and elk winter range.

b. List of Potential Species Present

Wildlife using this site include rabbit, coyote, elk, mule deer, a few species of small mammals, and songbirds.

This is a short list of the more common species found. Many other species are present as well and migratory birds are present at times.

c. Guide to Forage Preference of Managed Wildlife Species

Wildlife Species →				
Plant Species ↓	Use	Season	Use	Season

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Use - A = preferred or desirable

B = some use, but less important

C = little use or used occasionally

Season - F = Fall (Oct-Nov)

W = Winter (Dec-Feb)

Sp. = Spring (Mar-May)

Su. = Summer (Jun-Sep)

3. Recreational Uses

This site appeals to some people with regard to aesthetics and natural beauty. It is not a good site for hunting due to the dense areas of mountainmahogany where deer and other game can find cover. It has good values for camping and picnicking from a vegetative standpoint.

4. Wood Products

Curlleaf mountainmahogany furnishes some fence posts and stays. Firewood for fireplaces and campfires can be harvested, but the wood is difficult to cut with an axe after it is dry. Knick-knacks and other novelties as lamp stands, etc. can be made from this wood.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah

County:

Latitude:

Longitude:

Modal Soil: Pathead BYX-FSL, 40-70% — loamy-skeletal, mixed (calc.), frigid Typic Ustorthents

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Type Location: NE ¼; SE ¼; Section 16 Township 12S, Range 9E

General Legal Description:

Field Office Site Location

Roosevelt

Price

Data Collected and References

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417					
UTAH - RANGE - 2					
Permanent Transect Location					

Other References