

Trend Study 10R-19-00

Study site name: Lower South Canyon.

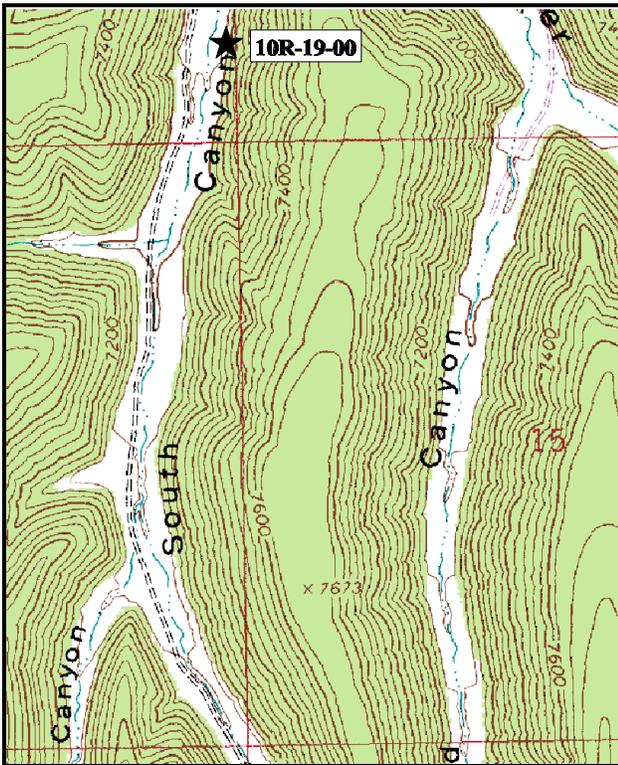
Range type: Big Sagebrush-Grass.

Compass bearing: frequency baseline 177°M.

Footmark (first frame placement) 5 feet, footmarks (frequency belts) line 1(11ft), line 2(34 ft), line 3(59 ft), line 4(71 ft) line 5 (95 ft).

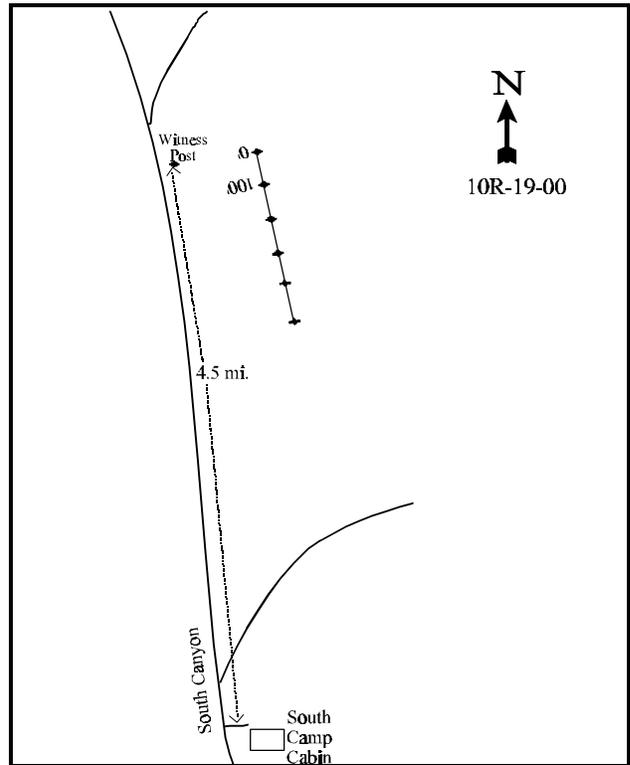
LOCATION DESCRIPTION

From Jarman's South Camp BLM cabin in South Canyon follow the road ,staying left the entire time, down the canyon 4.5 miles to a witness post on the right side of the road. From here the 0' stake is located 37 paces at 43°M.



Map name: Tom Patterson

Township 14 S, Range 24 E, Section 9.



Diagrammatic Sketch

UTM 4376021.087 N, 652442.025 E

DISCUSSION

Trend Study No. 10R-19

The Lower South Canyon trend study was established in 1998. It samples an old basin big sagebrush burn in the narrow South Canyon bottom. The site is nearly level with an elevation of about 6,800 feet. There is a small ephemeral creek that runs about 100 feet from the site and a larger perennial stream about ½ mile from the site. This area is used by elk in the spring and winter and by cattle during the summer. Pellet group data from 1998 estimated only 6 elk days use/acre (15 ddu/ha) and 13 cow days use/acre (32 cdu/ha). Data from 2000 estimate higher use of 26 elk days use/acre (64 edu/ha). About 80% of the elk pellet groups sampled appeared to be from the previous winter with the other 20% from spring. Some old cow pats were seen but no cattle grazing has occurred yet this year. This area is within the Sweetwater allotment which permits cattle grazing from June through September on a deferred rest rotation basis.

Soil at the site is moderately deep but compacted. Effective rooting depth is estimated at 23 inches. It has a sandy loam texture with a neutral pH. There is no rock on the surface and little within the soil profile. There is abundant vegetation and litter cover and very little bare ground exposed. There is no apparent erosion and the small gully that runs through the site is not active.

Perennial grasses dominate the site but there is a small population of large basin big sagebrush. Density is currently ('00) estimated at 620 plants/acre. These shrubs are mostly unutilized, show normal vigor and low decadence. There are also a few moderately browsed white-stem rubber rabbitbrush on the site.

Perennial grasses are the key component on this site. They provide over 90% of the vegetative cover with a cover value for grasses of 66% in 1998 and 63% in 2000. The most abundant grass is smooth brome which provides two-thirds of the grass cover. Great basin wildrye and Kentucky bluegrass are also common. Some of the smooth brome observed in 2000 had been utilized. There are few forbs found on the site which provides little cover or forage of value.

1998 TREND ASSESSMENT

There is no significant erosion occurring on the site due to the abundant vegetation and litter cover. There is a small and apparently stable population of basin big sagebrush on the site. It is mostly unused and not an important species for this site. The herbaceous understory is abundant, vigorous and dominated by smooth brome, Great Basin wildrye and Kentucky bluegrass.

2000 TREND ASSESSMENT

The soil trend is stable with very little bare ground exposed on the site. There is no significant erosion occurring. Browse is not a key component on this site. The small population of basin big sagebrush appears to be stable and mostly unutilized. Trend for the herbaceous understory is stable with similar sum of nested frequency values for perennial grasses and forbs compared to 1998. The only significant change is the increase in the nested frequency of Kentucky bluegrass.

TREND ASSESSMENT

soil - stable (3)

browse - stable (3)

herbaceous understory - stable (3)

HERBACEOUS TRENDS --
Herd unit 10R, Study no: 19

T y p e	Species	Nested Frequency		Quadrat Frequency		Average Cover %	
		'98	'00	'98	'00	'98	'00
G	Agropyron dasystachyum	71	49	17	16	2.70	.80
G	Bromus inermis	397	443	89	98	41.70	43.21
G	Carex spp.	10	-	3	-	.21	-
G	Elymus cinereus	91	76	27	30	9.28	8.11
G	Hordeum jubatum	2	-	1	-	.03	-
G	Juncus balticus	3	-	1	-	.03	-
G	Muhlenbergia pungens	2	-	1	-	.00	-
G	Poa pratensis	276	*317	82	84	11.92	10.40
Total for Annual Grasses		0	0	0	0	0	0
Total for Perennial Grasses		852	885	221	228	65.88	62.53
Total for Grasses		852	885	221	228	65.88	62.53
F	Agoseris glauca	2	-	1	-	.03	-
F	Descurainia spp. (a)	3	-	1	-	.00	-
F	Hackelia patens	2	-	1	-	.00	-
F	Lappula occidentalis (a)	3	1	1	1	.00	.00
F	Taraxacum officinale	19	18	9	7	.29	.11
F	Tragopogon dubius	3	3	2	1	.01	.03
Total for Annual Forbs		6	1	2	1	0.00	0.00
Total for Perennial Forbs		26	21	13	8	0.33	0.14
Total for Forbs		32	22	15	9	0.34	0.14

* Indicates significant difference at % = 0.10

BROWSE TRENDS --
Herd unit 10R, Study no: 19

T y p e	Species	Strip Frequency		Average Cover %	
		'98	'00	'98	'00
B	Artemisia frigida	1	0	-	-
B	Artemisia tridentata tridentata	20	17	5.11	4.04
B	Chrysothamnus nauseosus hololeucus	6	3	.06	-
Total for Browse		27	20	5.17	4.04

BASIC COVER --

Herd unit 10R, Study no: 19

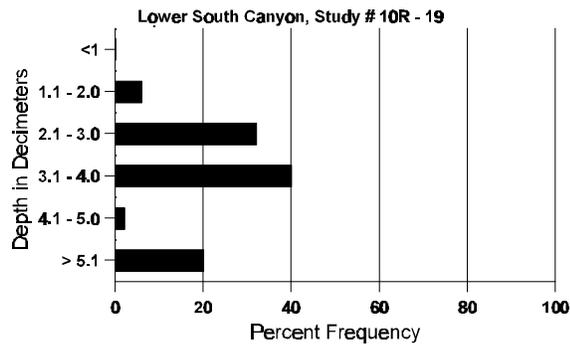
Cover Type	Nested Frequency		Average Cover %	
	'98	'00	'98	'00
Vegetation	496	488	74.54	67.80
Rock	2	-	.00	0
Pavement	15	-	.05	0
Litter	500	496	80.43	77.11
Bare Ground	69	60	3.41	1.89

SOIL ANALYSIS DATA --

Herd Unit 10R, Study # 19, Study Name: Lower South Canyon

Effective rooting depth (inches)	Temp °F (depth)	pH	%sand	%silt	%clay	%OM	PPM P	PPM K	dS/m
23.3	57.8 (17.2)	6.8	60.4	25.1	14.6	3.2	18.7	108.8	.9

Stoniness Index



PELLET GROUP FREQUENCY --

Herd unit 10R, Study no: 19

Type	Quadrat Frequency		Pellet Transect			
	'98	'00	Pellet Groups per Acre		Days Use per Acre (ha)	
			'98	'00	'98	'00
Rabbit	1	-	-	26	-	N/A
Elk	1	8	78	313	6 (15)	26 (65)
Cattle	3	7	157	-	13 (32)	-

BROWSE CHARACTERISTICS --

Herd unit 10R, Study no: 19

A G R E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
<i>Artemisia frigida</i>																		
M	98	1	-	-	-	-	-	-	-	-	1	-	-	-	20	8	7	1
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'98		00%			00%			00%										
'00		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'98	20	Dec:	-			
												'00	0		-			
<i>Artemisia tridentata tridentata</i>																		
S	98	7	-	-	-	-	-	-	-	-	7	-	-	-	140			7
	00	2	-	-	-	-	-	-	-	-	2	-	-	-	40			2
Y	98	7	-	-	3	-	-	-	-	-	10	-	-	-	200			10
	00	8	-	-	-	-	-	-	-	-	8	-	-	-	160			8
M	98	25	-	-	-	-	-	-	-	-	25	-	-	-	500	66	63	25
	00	17	-	-	-	-	-	-	-	-	17	-	-	-	340	57	43	17
D	98	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	00	6	-	-	-	-	-	-	-	-	4	-	-	2	120			6
X	98	-	-	-	-	-	-	-	-	-	-	-	-	-	500			25
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	240			12
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'98		00%			00%			00%			-11%							
'00		00%			00%			06%										
Total Plants/Acre (excluding Dead & Seedlings)												'98	700	Dec:	0%			
												'00	620		19%			
<i>Chrysothamnus nauseosus hololeucus</i>																		
Y	98	2	-	-	-	-	-	-	-	-	2	-	-	-	40			2
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
M	98	6	-	-	-	-	-	-	-	-	6	-	-	-	120	26	29	6
	00	1	2	-	-	-	-	-	-	-	3	-	-	-	60	27	20	3
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'98		00%			00%			00%			-63%							
'00		67%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'98	160	Dec:	-			
												'00	60		-			
<i>Symphoricarpos oreophilus</i>																		
M	98	-	-	-	-	-	-	-	-	-	-	-	-	-	0	58	64	0
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'98		00%			00%			00%										
'00		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'98	0	Dec:	-			
												'00	0		-			