

Trend Study 9-2-05

Study site name: Taylor Mountain .

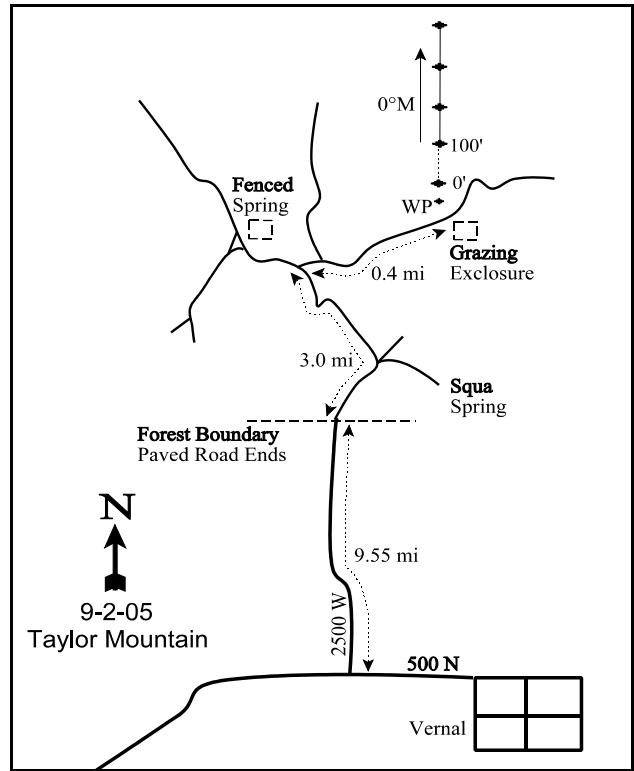
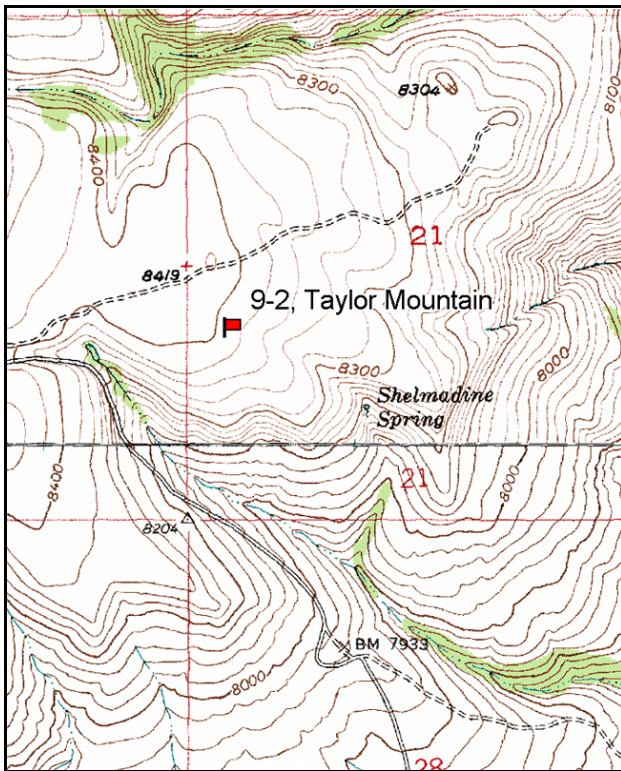
Vegetation type: Mountain Big Sagebrush .

Compass bearing: frequency baseline 0 degrees magnetic.

Frequency belt placement: line 1 (14 & 82ft), line 2 (28ft), line 3 (59ft), line 4 (77ft).

LOCATION DESCRIPTION

From Vernal, travel west on 500 North Street to 2500 West. Turn right on 2500 West and drive north 9.55 miles to the National Forest boundary. Continue north 3 miles to a fork. Turn right and go 0.4 miles towards the Taylor Mountain Exclosure. From the sign on the west side of the exclosure, walk 54 paces north to the 0-foot end of the baseline. There is also a witness post 4 feet south of the 0-foot stake. It is marked by an 18 inch tall fencepost with browse tag #7091.



Map Name: Dyer Mountain

Diagrammatic Sketch

Township 2S, Range 21E, Section 21

GPS: NAD 27, UTM 12T 4498236 N, 620581 E

DISCUSSION

Taylor Mountain - Trend Study No. 9-2

The Taylor Mountain trend study is adjacent to the Taylor Mountain Exclosure which was built in 1962. This site can best be classified as spring-fall range. Elevation on the broad open ridge top is 8,400 feet with a gentle east-facing slope of 1% to 5%. The Taylor Mountain-Oak Park allotment is managed by the Forest Service in a 6-pasture rest-rotation system with grazing occurring from June 1 to September 15. The grazing unit in which the trend study is located supports about 500 AUM's during years of use. Pellet group data from 2000 estimated 13 elk, 38 deer, and 4 cow days use/acre (31 edu/ha, 94 ddu/ha, and 9 cdu/ha). Pellet group data from 2005 estimated 3 elk, 66 deer, and 16 cow days use/acre (7 edu/ha, 164 ddu/ha, and 39 cdu/ha).

Soils are a dark clay loam to loam and are moderately shallow in depth. The estimated effective rooting depth is just over 9 inches. A profile stoniness index estimated from penetrometer readings shows nearly 90% of the rocks occur within the top 8 inches of soil. Phosphorus is low at 4.5 ppm. Values below 6 ppm may limit normal plant growth and development (Tiedemann and Lopez 2004). Active erosion is slight due to the level terrain. Vegetation and litter cover are also excellent and percent bare ground is relatively low at 8%. The erosion condition class determined soil movement as stable in 2005.

Browse is not as critical on this site since it is not true winter range, but a dense stand of essential mountain big sagebrush and antelope bitterbrush are present on this important fall-spring transition range. Mountain big sagebrush provided 23% average cover in 1995 and 26% in 2000 and 2005. Sagebrush density estimated 6,532 plants/acre in 1988, 4,620 in 1995, 5,120 in 2000, and 4,300 in 2005. Utilization has typically been moderate, although it spiked in 1995 to moderate to heavy use. In 1995, 4% of the population was decadent, this increased to 22% in 2000, and 27% in 2005. Percentage of dying plants in the population has also increased from 5% in 2000 to 10% in 2005. Young recruitment was estimated at 200 plants/acre in 2005, which would not be adequate to replace the number of dying plants (440 plants/acre).

Antelope bitterbrush is also a key forage species on this site. Density was estimated at 2,620 plants/acre in 1995, 2,500 in 2000, and 2,320 in 2005. Average percent cover was estimated 15% in 1995, 12% in 2000 and 2005. The population has a prostrate growth form that averages only 16 inches in height. In 2000, percent decadency was moderately high at 30%, but decreased to 8% in 2005. The population has generally been vigorous and healthy with moderate to heavy utilization, but increased to heavy use in 2005. The combined effects of moderate use and drought may have been responsible for the increase in decadency and poor vigor in 2000. Antelope bitterbrush is much more tolerant of heavy browsing than sagebrush (Billbrough and Richard 1993) and has appeared to have recovered with a return to normal precipitation patterns in 2005. Young recruitment in 2000 and 2005 was moderate, although no seedlings were observed in either year.

Other browse encountered on the site includes: mountain low rabbitbrush, snowberry, serviceberry, and true mountain mahogany. Both serviceberry and mahogany were heavily utilized and are not very abundant.

The herbaceous understory is diverse and moderately abundant with grasses producing 7% cover in 1995, 13% in 2000, and 6% in 2005. The dominant grasses are mutton bluegrass, Kentucky bluegrass, needle-and-thread, and bottlebrush squirreltail. Thickspike wheatgrass was abundant in 2000, but decreased significantly in 2005 along with mutton bluegrass. Perennial grasses sum of nested frequency decreased by 24% from 2000 to 2005. Forb average cover was 13% in 1995, 17% in 2000, and 21% in 2005. Forbs are exceptionally diverse with over 40 species being sampled every year since 1995. Perennial forbs dominate the herbaceous understory. The most abundant species include: ballhead sandwort, arrowleaf balsamroot, silver lupine, hollyleaf clover, and hoods phlox. The dense stand of mountain big sagebrush and previous years of drought may be suppressing the understory somewhat. However, the lack of a more abundant grass component is also effected by selective grazing by livestock and drought. As this is not critical winter range, some type of

treatment should be considered; perhaps a prescribed burn or the use of a meadow aerator could be used to decrease sagebrush density and cover. This would help improve the abundance of herbaceous species in the understory.

1982 APPARENT TREND ASSESSMENT

Both vegetative and soil trends appear stable or improving. Utilization of the key browse species is not excessive and there appears to be adequate replacement of decadent or dead plants. Herbaceous understory composition and production is fair, but there is need for improvement.

1988 TREND ASSESSMENT

An increase in percent litter cover was noted, resulting in more than 88% total ground cover in 1988. The dense vegetative cover on the site provides excellent soil protection. The slight soil movement is not significant and there is little net loss of soil. Trend for soil is up. Trend for the key browse species, mountain big sagebrush and bitterbrush, is up due to increasing population densities, good numbers of young plants, and low decadency rates. Trend for the herbaceous understory is also up due to increased quadrat frequency of grasses and forbs.

TREND ASSESSMENT

soil - up (+2)

browse - up (+2)

herbaceous understory - up (+2)

1995 TREND ASSESSMENT

Soil conditions did show some slight improvement, but not enough to warrant a change in trend. Bare ground declined from 12% to 6%. Litter cover declined from 77% to 65%, but this trend is common during the statewide extended drought. The browse trend is stable overall, being stable for sagebrush and slightly improved for bitterbrush. Sagebrush density has declined since 1988, but the number of mature plants is relatively stable, percent decadency is low and vigor is good. The number of dead plants is relatively low (300), indicating that the change in density is partly due to the much larger sample used in 1995. Recruitment of young is moderate at 8%. The only negative aspect of the sagebrush population is the higher use reported in 1995. Antelope bitterbrush is also more heavily utilized but has increased in density, has a lower percent decadence, and has an adequate number of young plants. The herbaceous understory has remained fairly stable since the last reading. Grasses declined slightly in sum of nested frequency, while forbs have increased slightly. The Desirable Components Index rated this site as good with a score of 72 due to low percent of decadent shrubs, excellent browse cover, and good perennial grasses cover.

TREND ASSESSMENT

soil - stable (0)

browse - stable (0)

herbaceous understory - stable (0)

winter range condition (DC Index) - Good (72) Mid-level Potential scale

2000 TREND ASSESSMENT

Trend for soil is stable. Bare ground remains relatively low. Protective ground cover from vegetation and litter are abundant and well distributed. Trend for browse is stable although sagebrush and bitterbrush display some slight increases in those individuals classified with poor vigor and decadence in 2000. Drought and competition, more than any other factors, likely combined to cause increases in decadency and poor vigor for

these species. Even with reduced health, these species remain at relatively stable densities. Some type of treatment such as a prescribed burn to decrease the dense stand of sagebrush and increase perennial herbaceous species should be considered in the future. Treatment with an aerator would be preferred to help prevent the detrimental loss of the bitterbrush and sagebrush shrub component. The weighted sum of nested frequency for forbs and grasses by abundance showed a moderate decreased in 2000. Trend would be considered slightly down. The Desirable Components Index rated this site as good with a score of 76 due to excellent browse cover, excellent perennial forb cover, and good perennial grasses cover.

TREND ASSESSMENT

soil - stable (0)

browse - stable (0)

herbaceous understory - slightly down (-1)

winter range condition (DC Index) - Good (76) Mid-level Potential scale

2005 TREND ASSESSMENT

Trend for soil is stable. Bare ground remains low and protective ground cover (vegetation, litter, and cryptogams) is abundant. Trend for key browse, mountain big sagebrush and antelope bitterbrush, is slightly down. The sagebrush density has declined from 5,120 plants/acre to 4,300 in 2005. Percent decadent and dying within the population have both increased slightly. Bitterbrush has also shown a 7% decrease in its population after 30% of population was classified as decadent in 2000. The percent decadence decreased to normal levels in 2005. Use is heavy, but the population appears normal with fair leader growth. Trend for the herbaceous understory is stable. Perennial grasses nested frequency decreased significantly. However, perennial grasses on average only contribute to only 34% of the herbaceous cover, while perennial forbs provide on average 66% of the herbaceous cover. The grasses that decreased significantly were thickspike wheatgrass and mutton bluegrass. They accounted for 72% of the grass cover in 2000, but only 30% in 2005. Annual forbs increased significantly back to 1995 levels. The Desirable Components Index rated this site as fair to good with a score of 64 due to moderate decadency of shrubs, excellent perennial forb cover, and a decrease in perennial grasses cover.

TREND ASSESSMENT

soil - stable (0)

browse - slightly down (-1)

herbaceous understory - stable (0)

winter range condition (DC Index) - Fair to Good (64) Mid-level Potential scale

HERBACEOUS TRENDS --

Management unit 09 , Study no: 2

| Type | Species | Nested Frequency | | | | Average Cover % | | |
|------|------------------------|------------------|------|------|-----|-----------------|------|-----|
| | | '88 | '95 | '00 | '05 | '95 | '00 | '05 |
| G | Agropyron dasystachyum | a- | c157 | c171 | b70 | 1.12 | 2.01 | .39 |
| G | Agropyron spicatum | - | 2 | 7 | 1 | .03 | .09 | .00 |
| G | Bouteloua gracilis | - | 3 | - | - | .00 | - | - |
| G | Bromus anomalus | a- | a- | b15 | b8 | - | .52 | .22 |
| G | Bromus tectorum (a) | - | 3 | - | - | .00 | - | - |
| G | Carex sp. | a- | ab7 | b20 | ab7 | .02 | .41 | .04 |

| Type | Species | Nested Frequency | | | | Average Cover % | | |
|-----------------------------|--------------------------------------|-------------------|------------------|------------------|------------------|-----------------|-------|------|
| | | '88 | '95 | '00 | '05 | '95 | '00 | '05 |
| G | <i>Festuca ovina</i> | 3 | 19 | 15 | 5 | .09 | .17 | .09 |
| G | <i>Koeleria cristata</i> | _b 46 | _a 18 | _a 5 | _a 2 | .08 | .06 | .03 |
| G | <i>Poa fendleriana</i> | _{bc} 173 | _b 154 | _c 206 | _a 86 | 1.96 | 7.09 | 1.47 |
| G | <i>Poa pratensis</i> | _{ab} 22 | _b 50 | _a 12 | _c 89 | .99 | .27 | 1.31 |
| G | <i>Poa secunda</i> | _c 77 | _a 1 | _{ab} 20 | _b 27 | .00 | .24 | .18 |
| G | <i>Sitanion hystrix</i> | _c 177 | _b 106 | _a 39 | _a 38 | 1.57 | .66 | 1.00 |
| G | <i>Stipa comata</i> | _c 90 | _{ab} 46 | _a 30 | _{bc} 61 | .30 | .62 | 1.03 |
| G | <i>Stipa lettermani</i> | _b 76 | _{ab} 56 | _a 28 | _a 36 | .39 | .55 | .38 |
| Total for Annual Grasses | | 0 | 3 | 0 | 0 | 0.00 | 0 | 0 |
| Total for Perennial Grasses | | 664 | 619 | 568 | 430 | 6.58 | 12.74 | 6.18 |
| Total for Grasses | | 664 | 622 | 568 | 430 | 6.59 | 12.74 | 6.18 |
| F | <i>Agoseris glauca</i> | _a - | _{ab} 4 | _b 9 | _{ab} 6 | .01 | .10 | .18 |
| F | <i>Antennaria rosea</i> | _b 107 | _a 59 | _a 54 | _a 44 | 1.67 | .99 | .82 |
| F | <i>Androsace septentrionalis</i> (a) | - | _b 20 | _a 2 | _a - | .04 | .00 | - |
| F | <i>Arabis</i> sp. | _b 45 | _a 16 | _a 9 | _a 2 | .06 | .02 | .01 |
| F | <i>Arenaria</i> sp. | _a 112 | _c 216 | _c 208 | _b 173 | 2.62 | 5.02 | 4.28 |
| F | <i>Aster chilensis</i> | _a - | _c 16 | _{bc} 15 | _{ab} 2 | .04 | .10 | .00 |
| F | <i>Astragalus convallarius</i> | _b 15 | _{ab} 5 | _{ab} 3 | _a - | .04 | .18 | - |
| F | <i>Astragalus tenellus</i> | - | 6 | 1 | - | .06 | .03 | - |
| F | <i>Astragalus</i> sp. | - | 2 | 5 | - | .00 | .01 | - |
| F | <i>Balsamorhiza hookeri</i> | 72 | 72 | 87 | 77 | .73 | 1.38 | 1.67 |
| F | <i>Castilleja flava</i> | - | 2 | 4 | 4 | .00 | .01 | .01 |
| F | <i>Castilleja linariaefolia</i> | _b 15 | _{ab} 14 | _{ab} 5 | _a 1 | .03 | .06 | .01 |
| F | <i>Cirsium</i> sp. | - | 3 | - | - | .00 | - | - |
| F | <i>Collomia linearis</i> (a) | - | _c 69 | _a 12 | _b 51 | .17 | .10 | .12 |
| F | <i>Comandra pallida</i> | 3 | 4 | 9 | 1 | .03 | .01 | .00 |
| F | <i>Collinsia parviflora</i> (a) | - | _b 78 | _a 25 | _c 190 | .15 | .09 | 1.25 |
| F | <i>Crepis acuminata</i> | _a - | _b 17 | _b 11 | _a - | 1.06 | .08 | - |
| F | <i>Cryptantha</i> sp. | - | 2 | - | - | .01 | - | - |
| F | <i>Descurainia pinnata</i> (a) | - | - | - | 1 | - | - | .00 |
| F | <i>Draba</i> sp. (a) | - | 1 | 4 | 1 | .00 | .01 | .00 |
| F | <i>Eriogonum alatum</i> | - | 1 | - | 1 | .00 | - | .00 |
| F | <i>Erigeron eatonii</i> | _b 100 | _a 42 | _a 50 | _a 26 | .13 | .22 | .17 |
| F | <i>Erigeron flagellaris</i> | - | - | 1 | 2 | - | .00 | .03 |
| F | <i>Erigeron pumilus</i> | _a - | _a - | _a 5 | _b 19 | - | .01 | .03 |
| F | <i>Eriogonum racemosum</i> | - | - | 3 | - | - | .03 | - |

| Type | Species | Nested Frequency | | | | Average Cover % | | |
|---------------------------|------------------------------------|------------------|-------|------|------|-----------------|-------|-------|
| | | '88 | '95 | '00 | '05 | '95 | '00 | '05 |
| F | <i>Eriogonum umbellatum</i> | 58 | 63 | 39 | 39 | .83 | .75 | .64 |
| F | <i>Gayophytum ramosissimum</i> (a) | - | 3 | - | 2 | .00 | - | .01 |
| F | <i>Hymenoxys acaulis</i> | - | 3 | - | - | .03 | - | - |
| F | <i>Ipomopsis aggregata</i> | 5 | 4 | - | - | .01 | - | - |
| F | <i>Lesquerella</i> sp. | - | 5 | 5 | 3 | .01 | .01 | .01 |
| F | <i>Lithospermum</i> sp. | a- | a1 | a- | b16 | .00 | - | .10 |
| F | <i>Lomatium</i> sp. | a- | b19 | b17 | c40 | .09 | .09 | .25 |
| F | <i>Lupinus argenteus</i> | a18 | b80 | b82 | b84 | 1.79 | 2.37 | 4.55 |
| F | <i>Lychnis drummondii</i> | a- | a- | a- | b9 | - | - | .03 |
| F | <i>Mertensia</i> sp. | - | 8 | - | 5 | .02 | - | .01 |
| F | <i>Microsteris gracilis</i> (a) | - | - | - | 1 | - | - | .00 |
| F | <i>Penstemon humilis</i> | a- | c40 | b14 | b14 | .12 | .08 | .07 |
| F | <i>Penstemon</i> sp. | c100 | b10 | a- | b11 | .02 | - | .07 |
| F | <i>Petradoria pumila</i> | c94 | bc59 | ab37 | a26 | 1.12 | 1.08 | .72 |
| F | <i>Phlox hoodii</i> | b93 | a23 | a40 | b107 | .10 | 1.22 | 2.37 |
| F | <i>Phlox longifolia</i> | ab50 | ab60 | b79 | a36 | .32 | 1.31 | .11 |
| F | <i>Polygonum douglasii</i> (a) | - | c165 | a3 | b99 | .36 | .00 | .27 |
| F | <i>Potentilla gracilis</i> | a12 | b28 | ab23 | a10 | .10 | .11 | .05 |
| F | <i>Senecio debilis</i> | c101 | a33 | a20 | b63 | .08 | .21 | .80 |
| F | <i>Sedum lanceolatum</i> | a- | c51 | b17 | ab1 | .25 | .11 | .00 |
| F | <i>Senecio multilobatus</i> | - | 2 | 4 | 6 | .00 | .01 | .06 |
| F | <i>Streptanthus cordatus</i> | - | 4 | - | - | .00 | - | - |
| F | <i>Taraxacum officinale</i> | a- | b33 | b15 | b16 | .15 | .05 | .15 |
| F | <i>Trifolium gymnocarpon</i> | a14 | bc131 | b109 | c136 | .54 | 1.13 | 2.06 |
| F | Unknown forb-annual (a) | - | 8 | - | - | .01 | - | - |
| F | Unknown forb-perennial | 11 | - | - | 37 | - | - | .22 |
| F | <i>Zigadenus elegans</i> | a- | b14 | b11 | b17 | .05 | .19 | .17 |
| Total for Annual Forbs | | 0 | 344 | 46 | 345 | 0.75 | 0.21 | 1.67 |
| Total for Perennial Forbs | | 1025 | 1152 | 991 | 1034 | 12.23 | 17.09 | 19.73 |
| Total for Forbs | | 1025 | 1496 | 1037 | 1379 | 12.99 | 17.31 | 21.41 |

Values with different subscript letters are significantly different at alpha = 0.10

BROWSE TRENDS --

Management unit 09 , Study no: 2

| Type | Species | Strip Frequency | | | Average Cover % | | |
|------------------|---|-----------------|-----|-----|-----------------|-------|-------|
| | | '95 | '00 | '05 | '95 | '00 | '05 |
| B | Amelanchier utahensis | 1 | 1 | 1 | .00 | .15 | .38 |
| B | Artemisia tridentata vaseyana | 91 | 94 | 93 | 22.71 | 26.12 | 25.46 |
| B | Cercocarpus montanus | 2 | 2 | 2 | .15 | .38 | .03 |
| B | Chrysothamnus viscidiflorus lanceolatus | 24 | 18 | 18 | .60 | 1.22 | 1.08 |
| B | Purshia tridentata | 75 | 70 | 72 | 14.75 | 11.55 | 11.78 |
| B | Symphoricarpos oreophilus | 11 | 14 | 12 | .56 | 1.50 | 1.67 |
| Total for Browse | | 204 | 199 | 198 | 38.78 | 40.95 | 40.40 |

CANOPY COVER, LINE INTERCEPT --

Management unit 09 , Study no: 2

| Species | Percent Cover |
|---|---------------|
| | '05 |
| Amelanchier utahensis | .11 |
| Artemisia tridentata vaseyana | 29.79 |
| Cercocarpus montanus | .23 |
| Chrysothamnus viscidiflorus lanceolatus | .66 |
| Purshia tridentata | 17.23 |
| Symphoricarpos oreophilus | 1.46 |

KEY BROWSE ANNUAL LEADER GROWTH --

Management unit 09 , Study no: 2

| Species | Average leader growth (in) |
|-------------------------------|----------------------------|
| | '05 |
| Artemisia tridentata vaseyana | 1.7 |
| Purshia tridentata | 2.4 |

BASIC COVER --

Management unit 09 , Study no: 2

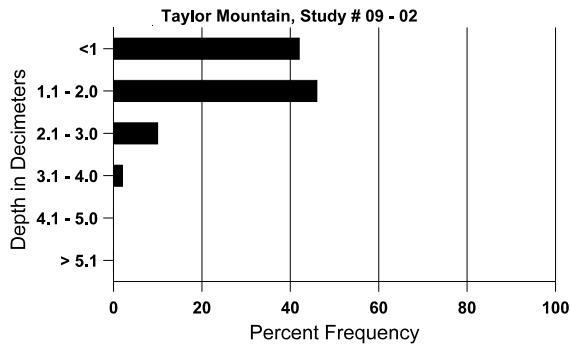
| Cover Type | Average Cover % | | | | |
|-------------|-----------------|-------|-------|-------|-------|
| | '82 | '88 | '95 | '00 | '05 |
| Vegetation | 11.00 | 7.25 | 50.54 | 61.97 | 55.36 |
| Rock | .50 | .75 | .58 | .13 | .13 |
| Pavement | 4.25 | 3.25 | 2.70 | 1.94 | 1.63 |
| Litter | 63.75 | 77.25 | 65.15 | 71.75 | 53.91 |
| Cryptogams | 0 | 0 | 1.87 | 1.22 | .08 |
| Bare Ground | 21.00 | 11.50 | 6.45 | 7.75 | 7.76 |

SOIL ANALYSIS DATA --

Herd Unit 09, Study # 2, Study Name: Taylor Mountain

| Effective rooting depth (in) | Temp °F (depth) | pH | %sand | %silt | %clay | %OM | ppm P | ppm K | dS/m |
|------------------------------|-----------------|-----|-------|-------|-------|-----|-------|-------|------|
| 9.5 | 55.0 (11.8) | 7.2 | 37.4 | 36.0 | 26.6 | 5.0 | 4.5 | 153.6 | 1.3 |

Stoniness Index



PELLET GROUP DATA --

Management unit 09 , Study no: 2

| Type | Quadrat Frequency | | |
|--------|-------------------|-----|-----|
| | '95 | '00 | '05 |
| Rabbit | 2 | 6 | 33 |
| Elk | 8 | 3 | 8 |
| Deer | 21 | 20 | 25 |
| Cattle | 3 | - | 10 |

| Days use per acre (ha) | |
|------------------------|----------|
| '00 | '05 |
| - | - |
| 13 (31) | 3 (7) |
| 39 (96) | 66 (164) |
| 5 (9) | 16 (39) |

BROWSE CHARACTERISTICS --
Management unit 09 , Study no: 2

| | | Age class distribution (plants per acre) | | | | | Utilization | | | | | |
|--|---------------------------------------|--|-------|--------|----------|------|-------------|---------|------------|---------|--------------|---------------------------|
| Year | Plants per Acre (excluding seedlings) | Seedling | Young | Mature | Decadent | Dead | % moderate | % heavy | % decadent | % dying | % poor vigor | Average Height Crown (in) |
| Amelanchier utahensis | | | | | | | | | | | | |
| 82 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 88 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 95 | 20 | - | - | 20 | - | - | 100 | 0 | - | - | 0 | 31/43 |
| 00 | 20 | - | - | 20 | - | - | 0 | 100 | - | - | 0 | 30/28 |
| 05 | 20 | - | - | 20 | - | - | 0 | 0 | - | - | 0 | 19/31 |
| Artemisia tridentata vaseyana | | | | | | | | | | | | |
| 82 | 4666 | 266 | 1200 | 2600 | 866 | - | 11 | 0 | 19 | - | 0 | 23/29 |
| 88 | 6532 | - | 1000 | 4666 | 866 | - | 12 | 1 | 13 | - | 0 | 23/26 |
| 95 | 4620 | 180 | 380 | 4040 | 200 | 300 | 72 | 12 | 4 | .43 | .43 | 24/39 |
| 00 | 5120 | 40 | 220 | 3780 | 1120 | 300 | 10 | 0 | 22 | 5 | 5 | 27/37 |
| 05 | 4300 | - | 200 | 2920 | 1180 | 580 | 34 | 27 | 27 | 10 | 10 | 29/40 |
| Cercocarpus montanus | | | | | | | | | | | | |
| 82 | 0 | - | - | - | - | - | 0 | 0 | 0 | - | 0 | -/- |
| 88 | 0 | - | - | - | - | - | 0 | 0 | 0 | - | 0 | -/- |
| 95 | 40 | - | - | 40 | - | - | 0 | 100 | 0 | - | 0 | 32/41 |
| 00 | 40 | - | - | 40 | - | - | 0 | 100 | 0 | - | 0 | 27/34 |
| 05 | 60 | - | - | - | 60 | - | 33 | 67 | 100 | - | 0 | 29/34 |
| Chrysothamnus viscidiflorus lanceolatus | | | | | | | | | | | | |
| 82 | 1533 | - | 600 | 933 | - | - | 0 | 0 | 0 | - | 0 | 17/14 |
| 88 | 2599 | - | 1066 | 1533 | - | - | 3 | 0 | 0 | - | 0 | 10/11 |
| 95 | 600 | - | - | 600 | - | - | 0 | 0 | 0 | - | 0 | 11/13 |
| 00 | 580 | - | - | 580 | - | - | 0 | 3 | 0 | - | 0 | 15/15 |
| 05 | 500 | 40 | 20 | 460 | 20 | - | 16 | 0 | 4 | - | 0 | 14/16 |
| Purshia tridentata | | | | | | | | | | | | |
| 82 | 2065 | 66 | 266 | 1733 | 66 | - | 45 | 19 | 3 | - | 0 | 13/27 |
| 88 | 2266 | - | 333 | 1600 | 333 | - | 68 | 15 | 15 | - | 0 | 16/24 |
| 95 | 2620 | - | 300 | 2240 | 80 | 40 | 57 | 36 | 3 | 2 | 2 | 16/42 |
| 00 | 2500 | - | 220 | 1520 | 760 | 60 | 23 | 52 | 30 | 10 | 12 | 16/37 |
| 05 | 2320 | - | 220 | 1920 | 180 | 60 | 12 | 79 | 8 | 2 | 2 | 17/37 |

| | | Age class distribution (plants per acre) | | | | | Utilization | | | | | |
|----------------------------------|---------------------------------------|--|-------|--------|----------|------|-------------|---------|------------|---------|--------------|---------------------------|
| Year | Plants per Acre (excluding seedlings) | Seedling | Young | Mature | Decadent | Dead | % moderate | % heavy | % decadent | % dying | % poor vigor | Average Height Crown (in) |
| <i>Symphoricarpos oreophilus</i> | | | | | | | | | | | | |
| 82 | 266 | - | - | 266 | - | - | 0 | 0 | 0 | - | 0 | 19/11 |
| 88 | 532 | - | 133 | 333 | 66 | - | 0 | 0 | 12 | - | 13 | 14/16 |
| 95 | 380 | 80 | 40 | 340 | - | - | 0 | 0 | 0 | - | 0 | 14/37 |
| 00 | 320 | 20 | 20 | 280 | 20 | - | 13 | 0 | 6 | - | 0 | 16/39 |
| 05 | 360 | - | 20 | 340 | - | 20 | 0 | 0 | 0 | - | 0 | 15/29 |