

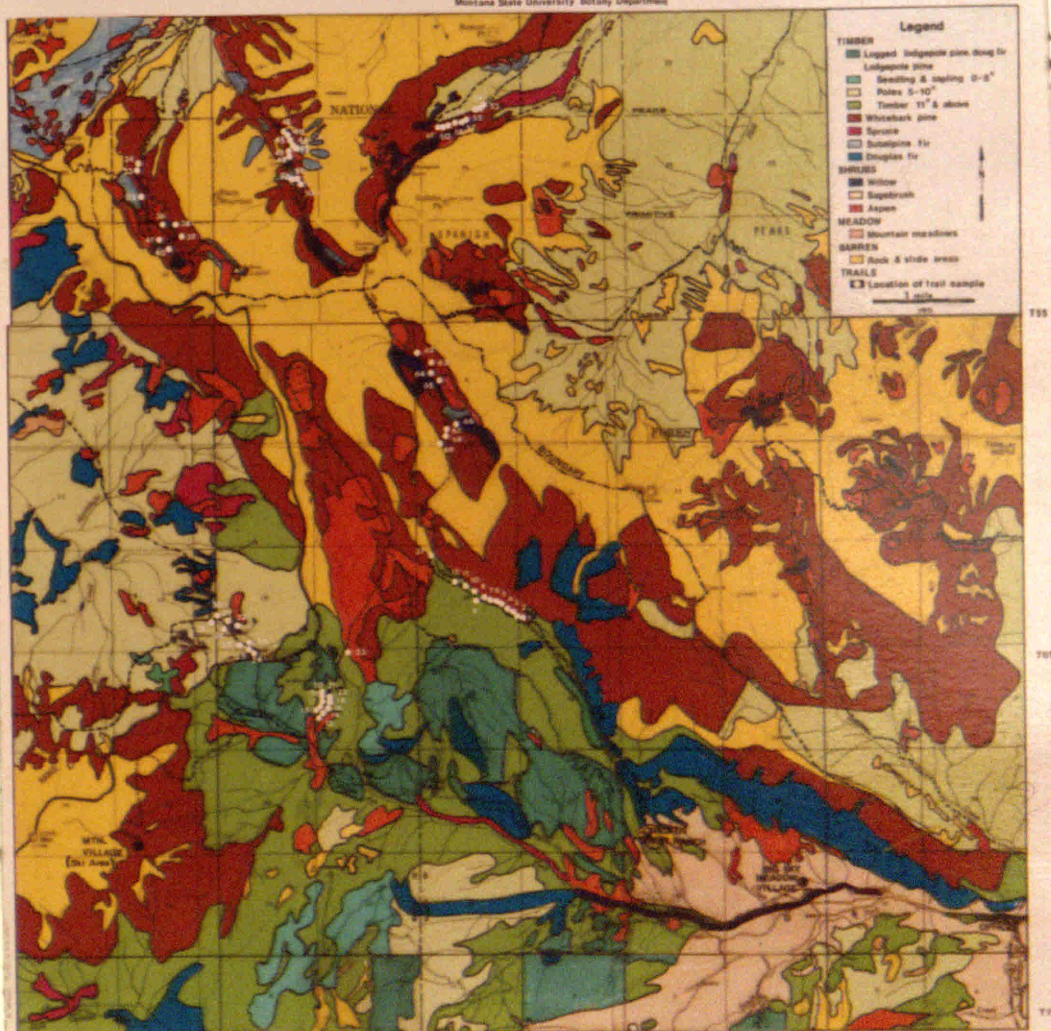
Vegetation of the Spanish Peaks-Lone Mtn. Area

Gallatin County, Montana

by

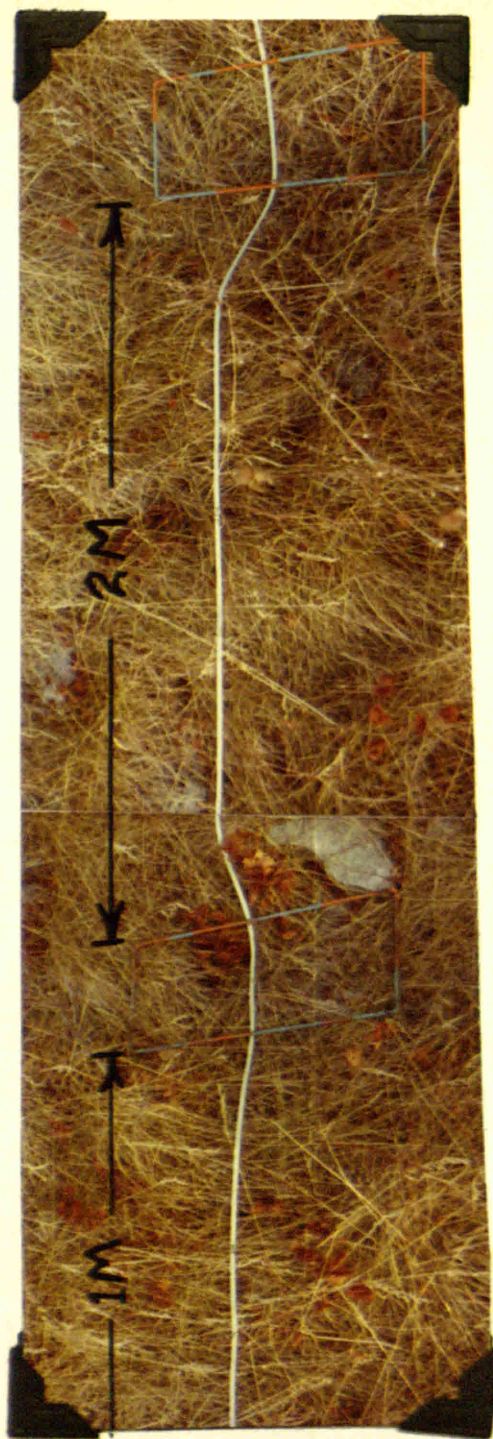
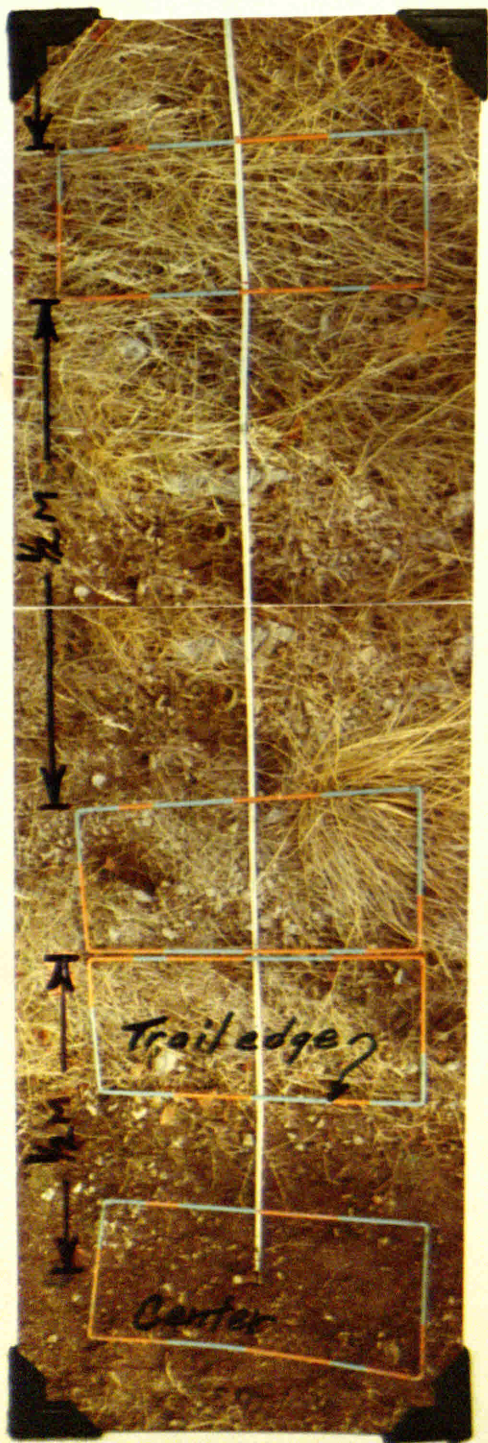
Donn R. Dale

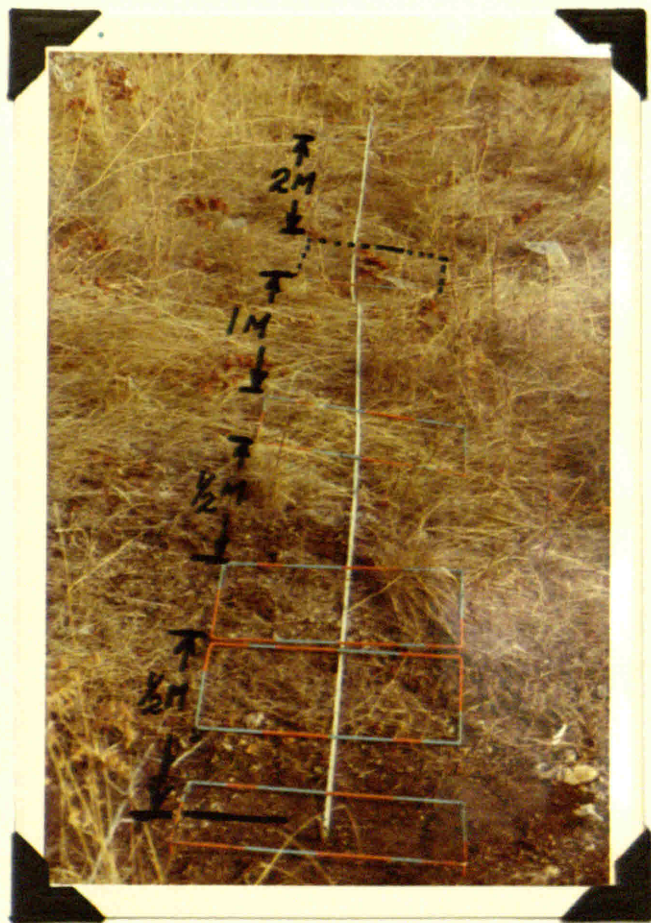
in cooperation with the U. S.
Forest Service and T. Weaver,
Montana State University Botany Department



DIRECTIONS

In the following pages there are data sheets and corresponding colored photographs of each trail site for future relocation. For more detailed information of methods of sampling, refer to Dale, Donn R. , 1972, Effects of Trail-Use Under Forests in the Madison Range, Montana, unpublished Master's Thesis, Montana State University, Bozeman, Montana.





TRAILSIDE SAMPLE DATA FORM

North Fork Trail

Tag Identification No. 330-1

Date 7-1-71

Vegetation: Overstory Type Lodgepole pine
Understory (reprod) Abies lasiocarpa
Herbaceous Ground Thalictrum Erythronium

Photo Taken yes
B.A. Prism Count at 9
Center of Frame 5 215.25

Trail Width: 40 cm
Trail Depth at Center 4 cm

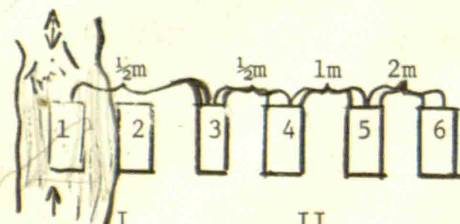
Apparant Use: Light
Medium X
Heavy

Point of Origin: Take North Fork Road to Bear Basin Trail
Trail begins at first creek crossing at Forest Service Trail
register - This is 0 point for distance measurement
F.S. Trail No. 16

Mileage to sample 200 yards (100m from beginning of trail)
Location of Tag Tree: 4.5 meters on left side of Trail (North
at azimuth 36° from trail center. Tree is DIAMOND BLAZED.

Remarks: still early spring. not too much out yet.

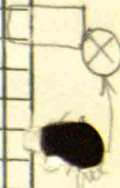
Plot centers begin at 4.5 meters at 200° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, 1/2 meter, 1 meter, 2 meters, and 4 meters respectively and running at 36° azimuth from trail center (1st plot).



Per cent Classes	
1	0-5%
2	5-25%
3	25-50%
4	50-75%
5	75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Erythronium grandiflorum</i>								X					X					X					X					X		
<i>Tanacetum officinale</i>							X					X					X					X					X			
<i>Fragaria virginiana</i>							X					X					X					X					X			
<i>Abies lasiocarpa</i>																														
<i>Thalictrum venulosum</i>													X					X				X					X			
<i>Geranium viscosissimum</i>							X					X																		
<i>Viola orbiculata</i>								X					X					X												
<i>Bromus anomalus</i>							X																							
<i>Aster engelmanni</i>																	X													
<i>Arnica fulgens</i>																	X													
<i>Carex rogersii</i>														X																

Frame 1 is at Tag Tree





TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-2

Vegetation: Overstory Type Meadow
Understory (reprod) Mixed
Herbaceous Ground Mixed

Date 7-3-71
Photo Taken Yes
B.A. Prism Count at
Center of Frame 5 0 meadows
ELv 4500
Apparant Use: Light X
Medium X
Heavy

Trail Width: 40 cm
Trail Depth at Center 3 cm

Point of Origin: mileage begins at Trail register at end of north Fk.
logging road on North Fork Trail F.S. #16 into Bear
Basin

Forest Service Trail #16

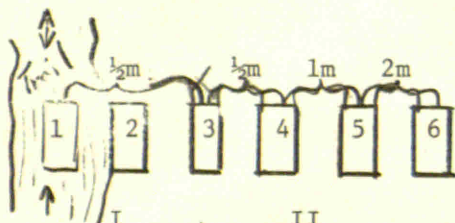
Mileage to sample 2/10 mile

Location of Tag Tree: Approximately 9.5 meters at a right angle to the north from trail center.

Top Tree a 9.5" Engelmann Spruce with a diamond blaze
on edge of meadow

Remarks: Open meadow - very rocky limestone + calcite
present in soil - Meadows the trail becomes narrower.

Plot centers begin at 9.5 meters at 190° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 10° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-3
 Vegetation: Overstory Type Meadow
 Understory (reprod) Mixed
 Herbaceous Ground _____

Date 7-8-71
 Photo Taken yes
 B.A. Prism Count at Center of Frame 5 2
 Elev 7550
 Apparant Use: Light _____
 Medium X
 Heavy _____

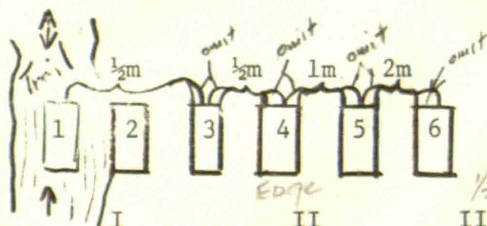
Trail Width: 45cm
 Trail Depth at Center 10cm

Point of Origin: Distance of trail measure begins at North Fork Trail Register at end of abandoned North Fork logging road and adjacent to first creek crossing on North Fork-Bear Basin Trail Forest Service #16

Mileage to sample 3/10 mile
 Location of Tag Tree: 2.5 meter at 33° azimuth from 3/10 mile point.

Remarks: Open meadow lodgepole surrounding meadow. Method of measure adjusted to corner of Frame instead of Center of Frame Pertains to all plots from here on.

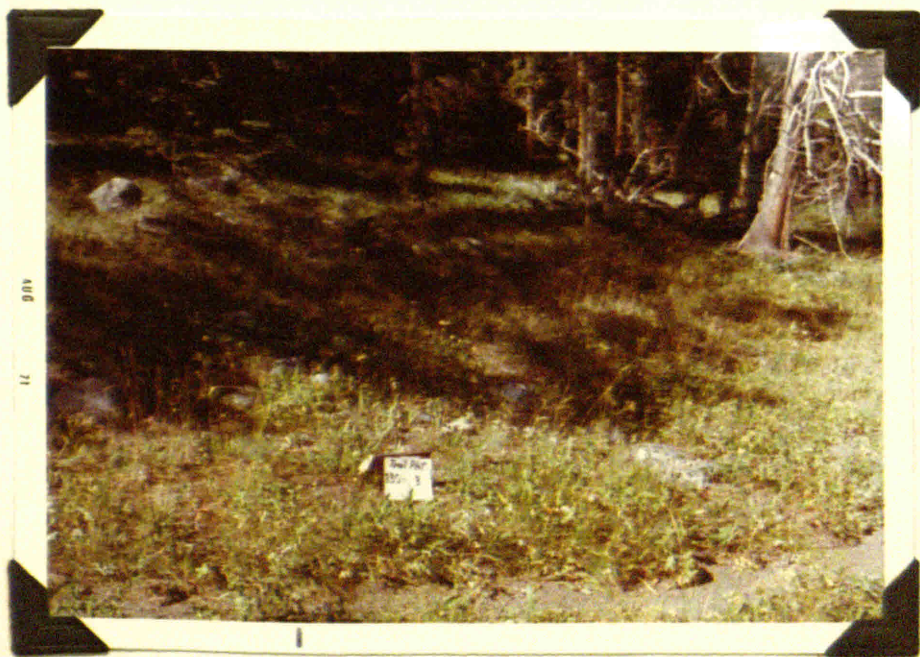
Plot centers begin at 8.5 meters at 200° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, 1/2 meter, 1 meter, 2 meters, and 4 meters respectively and running at 360° azimuth from trail center (1st plot).



Per cent Classes

- 1 0-5%
- 2 5-25%
- 3 25-50%
- 4 50-75%
- 5 75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>mus marginatus</i>	X					X					X					X					X									
<i>anum viscosissimum</i>						X					X					X					X									
<i>isia parviflora</i>	X						X					X				X					X									
<i>im boreale</i>	X						X					X				X					X									
<i>lycium grandiflorum</i>						X						X					X					X								
<i>onum umbellatum</i>							X					X					X					X								
<i>adunca</i>						X						X					X					X								
<i>agalus alpina</i>							X					X					X					X								
<i>ica Idahoensis</i>						X						X					X					X								
<i>etache urticifolia</i>							X					X					X					X								
<i>lea millefolium</i>							X					X					X					X								
<i>xicum officinale</i>							X					X					X					X								
<i>epi Arvense</i>							X					X					X					X								
<i>illa gracillius</i>							X					X					X					X								
<i>iridium bicolor</i>							X					X					X					X								
<i>nuttallii</i>							X					X					X					X								
<i>ex Geyeri</i>							X					X					X					X								
<i>thella uniflora</i>							X					X					X					X								
<i>brum angustifolium</i>							X					X					X					X								
<i>culus marianus</i>							X					X					X					X								
<i>panula rotundifolia</i>							X					X					X					X								
<i>ternaria rosea</i>							X					X					X					X								
BARE%	90					10					10					05					05					10				



330-A

Date _____

Photo Taken

B.A. Prism Count at

Center of Frame 5

54.50 *

Elev

7550

Trail Width:

Apparant Use: Light

Trail Depth at Center

Mediu

Heavy

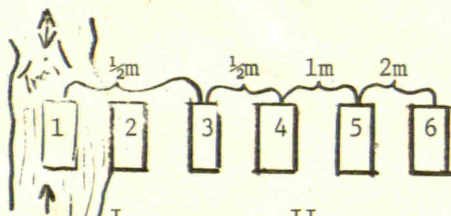
Point of Origin: Distance of trail measure begins at North Fork Trail Register at end of abandoned North Fork logging road and adjacent to first Creek Crossing on North Fork-Bear Basin Trail. Forest Service Trail #16

Mileage to sample

Location of Tag Tree: 2.3 meters at 2° Az. from trail center
(right angle from main path at trail)

Remarks: Raining today -

Plot centers begin at 37 meters at 235° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 4° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



330-5

Date _____

Photo Taken

B.A. Prism Count at

Center of Frame 5

Elev 7600

Apparant Use: Light

Medium ~~X~~

Heavy

Point of Origin: Distance of trail measure begins at North Fork Trail Register at end of abandoned North Fork Logging road, and adjacent to First Creek Crossing on North Fork - Bear Basin F.S. Trail #16

Mileage to sample

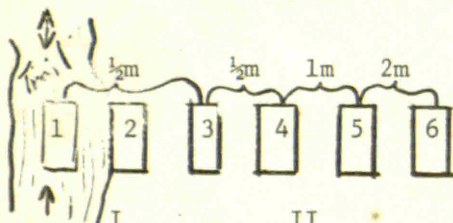
Location of Tag Tree:

from Trail Center

Remarks :

Plot centers begin at 4.3 meters at 260° azimuth from tag tree to here (orchid)

Plot centers begin at 4.3 meters at 260° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 214° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Poa pratensis</i>							X					X																		
<i>Fragaria virginiana</i>												X					X										X			
<i>Erythronium</i> sp.																											X			
<i>Epidendrum angustifolium</i>																											X			
<i>Thalictrum venulosum</i>													X															X		
<i>Carex grayi</i>									X				X														X			
<i>Viola orbiculata</i>														X													X			
<i>Pine litter</i>				X										X													X			
<i>Bare ground</i>				X								X																		
<i>Elyra Secunda</i>																											X			



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-6

Date 1/12/46

Vegetation: Overstory Type LPP
Understory (reprod) AF 2-3'
Herbaceous Ground Arnica + Erythronium

Photo Taken yes
B.A. Prism Count at
Center of Frame 5

Trail Width: 1.25 meters ^{1.25} _{3 root}
Trail Depth at Center 8 cm ₅

ELN 7660
 Apparant Use: Light _____
 Medium X
 Heavy _____

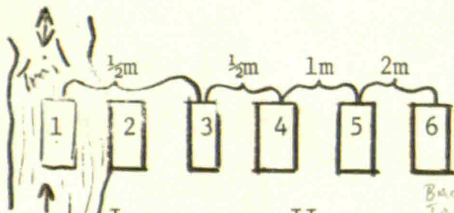
Point of Origin: Distance of trail measure begins at North Fork Trail Register
at end of abandoned North Fork logging road and adjacent to first creek
crossing on North Fork - Bear Basin F.S. Trail #16

Mileage to sample • 44

Location of Tag Tree: 2nd Lodgepole pine 1.5 meters from
tree center at 320 from trail center - Right angle from main trail
path.

Remarks: Elevation climbing slightly
Viola orbic, Erythronium in flower.

Plot centers begin at 1.6 meters at 205° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 210° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

	I	II	III	IV	V	VI
% Class No.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Species						
<i>Arnica cordifolia</i>	X	X		X	X	
<i>Fragaria virginiana</i>	X	X	X	X	X	
<i>Erythronium americanum</i>				X		X
<i>Vaccinium scoparium</i>	X	X	X	X	X	
<i>Abies lasiocarpa</i> (Seedling)						
<i>Carex geyerii</i>		X	X	X	X	
<i>Viola orbiculata</i>	X	X				X
<i>Sium mollisophyllum</i>		X				
<i>Osmorhiza chilensis</i>	X	X				X
<i>Achillea millefolium</i>	X					
<i>Gepantrum viscosus</i>	X	X		X	X	X
Pine litter	X	X		X	X	X
Bare ground			X			X
<i>Pyrola secunda</i>						X



Tag Identification No. 330-7 Date 7/12/71
Vegetation: Overstory Type LPP. Photo Taken yes
Understory (reprod) Spruce-Abies- B.A. Prism Count at 81.75
Herbaceous Ground Arctostaphylos-Myrica Center of Frame 5 3
Elev 7650
Trail Width: 70 cm Apparant Use: Light
Trail Depth at Center 6cm Medium X
Heavy

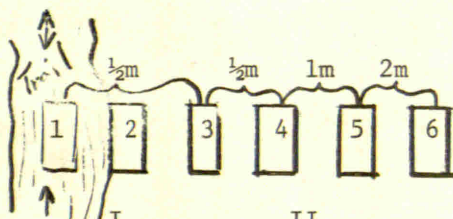
Point of Origin: Distance of trail measure begins at North Fork
Trail Register at end of abandoned North Fork logging road adjacent
to First Creek Crossing on North Fork - Bear Basin Trail #16

Mileage to sample .50 miles

Location of Tag Tree: 2.5 meters at 22° AZIMUTH from
Trail center. LPP 9" DBH. - Diamond Skidze. - Approx 125 feet
up trail from plot 330-6

Remarks: 15 percent slope - plot goes down hill.
Erythronium going out of flower.

Plot centers begin at 2.5 meters at 200° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 206° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Arnica cord.</i>								X				X						X					X				X			
<i>Geranium macos</i>							X					X						X												
<i>Fragaria virginiana</i>								X				X						X				X								
<i>Carex geyseri</i>							X					X						X					X						X	
<i>Potentilla gracilis</i>								X																						
<i>Epilobium angust.</i>																														
<i>Erythronium</i> sp. X								X				X						X					X				X			
<i>Pinus officinalis</i> (seedling)																														
<i>Litter</i> (lip pool)			X				X					X						X				X							X	
<i>Thalictrum venul.</i>																														
<i>Base ground.</i>				X			X																							
<i>Astragalus alpinus</i>								X				X																		
<i>Viola orbiculatis</i>																		X												
<i>Pyrola secunda</i>																		X												



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-8

Date 7/12/71

Vegetation: Overstory Type Lothepole pine
Understory (reprod) AF. & E.S.
Herbaceous Ground Arnica cord. & Erythron.

Photo Taken yes

B.A. Prism Count at

Center of Frame 5

EL-2V 7650

Trail Width: 70 cm.

Trail Depth at Center 5cm

Apparant Use: Light

Medium

Heavy

Point of Origin: Distance of trail measure begins at North Fork Trail Register at end of abandoned North Fork logging road adjacent to first creek crossing on North Fork - Gray Basin trail #16

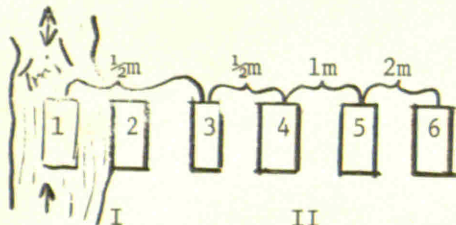
Mileage to sample .5/ miles.

Location of Tag Tree: 1 meter from trail center (10" L.P.P.)

6 $\times$ 10° Az. MUTH - Diamond Glaze ON Type.

Remarks: 675 slope - Nothing in flower. Plot center located exactly 29.5 METERS (80 feet) uptrail from center of Plot 7

Plot centers begin at 1.9 meters at 238° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 191° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



330-9

isolate of *rodgersiae*
Patchman Date

Date

7/12/71

Engel. Spruce

Photo Taken *yes*

Understory (reprod) Abies lasio-Picea

B.A. Prism Count at

Herbaceous Ground *Thalic.*

Center of Frame 5 10

Elev 7700

Trail Width: 50 cm.

Apparant Use: Light

Trail Depth at Center 6 cm.

Medium X

Heavy

Point of Origin: Distance of trail measure begins at North Fork trail Register at end of abandoned North Fork Logging Road adjacent to 1st Creek crossing on North Fork-Bear Basin Trail # 16

Mileage to sample 0.55 miles

Mileage to sample 0.55 miles
Location of Tag Tree: 2.1 meters at 220° Azimuth from trail
center - Tag tree is an Engelmann Spruce - 10" DBH.

Remarks: Spruce - fir forest type. - Eupatorium, Thalictrum in flower.
Many want to know so is difficult to identify except in adjacent open meadows

Plot centers begin at 3.4 meters at 88° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 216° azimuth from trail center (1st plot).

Per cent Classes

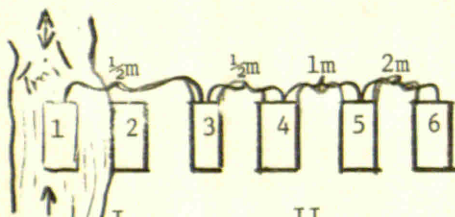
1 0-5%

2 5-25%

3	25-50%
---	--------

4 50-75%

5 75-100%

[illegible]



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-10

Date 7/12/71

Vegetation: Overstory Type Spruce-fir
Understory (reprod) AF 60'
Herbaceous Ground Erythron & Thalictrum

Photo Taken yes.
B.A. Prism Count at 6 163.50
Center of Frame 5

Trail Width: 60 cm.

Apparant Use: Light
Medium X
Heavy

Trail Depth at Center 5 cm.

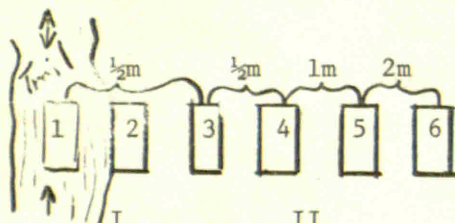
Point of Origin: Distance of trail measure begins at North Fork Trail
Register at end of abandoned North Fork Logging road adjacent to 1st
Creek crossing on North Fork - Bear Basin E2 Trail #16

Mileage to sample 85 miles

Location of Tag Tree: Alpine fir 10" DBH at 2.5 meter at
26° AZIMUTH from trail center.

Remarks: More Alpine fir than spruce only older larger spruce
abundant - *Erythronium* & *Thalictrum* in flower.

Plot centers begin at 9.8 meters at 226° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 202° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

	I	II	III	IV	V	VI
% Class No.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Species						
Erythronium grandiflorum	X	X	X	X	X	X
Thalictrum flavum	X	X	X	X	X	X
Gaultheria procumbens	X	X	X	X	X	X
Lilium	X	X	X	X	X	X
Bare	X	X	X	X	X	X
Carex geyeri	X	X	X	X	X	X
Pyrula secunda	X	X	X	X	X	X
Abies lasiocarpa	X	X	X	X	X	X
Fragaria virginiana	X	X	X	X	X	X



[illegible]



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-12

Date 7/12/71

Vegetation: Overstory Type LPP

Photo Taken Yes

Understory (reprod) AF

B.A. Prism Count at

Herbaceous Ground Arnica-Carex gey
cordif.

Center of Frame 5 9 275.23

Elev. 7750

Trail Width: 56 cm

Apparant Use: Light

Trail Depth at Center 4 cm.

Medium ☒

Heavy

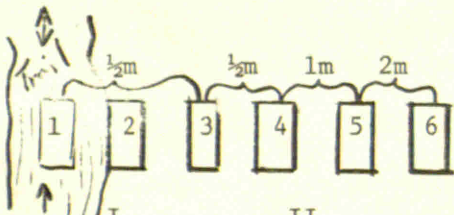
Point of Origin: Distance of trail measure begins at North Fork Trail
Register at end of abandoned North Fork logging road adjacent
to first creek crossing on North Fork Bear Basin F.S. Trail #16

Mileage to sample 1.25 miles

Location of Tag Tree: Tag tree 1.8 meters at 48° Azimuth from
trail center

Remarks :

Plot centers begin at 5.0 meters at 300° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 58° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Lupinus sericeus</i>						X										X					X					X				
<i>Stragalus alpinus</i>											X					X					X					X				
<i>Aster engelmannii</i>																														
<i>Spiraea betulifolia</i>						X										X										X				
<i>Carex georgii</i>																														
<i>Rhynchospora grandis</i>						X										X					X									
<i>Viola virginiana</i>																														
<i>Viola orbiculatus</i>																														
<i>Viola nuttallii</i>																														
<i>Arnica cordifolia</i>						X															X									
<i>Antennaria racemosa</i>																														
Litter	X															X									X					
Bare ground				X																										
<i>Sesuvium viscosum</i>											X										X									
<i>Hieracium gracile</i>											X					X										X				



Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Spirea holubii</i>	X							X					X					X								X				
<i>Aster engelmannii</i>							X																							
<i>Asclepias scoparium</i>											X					X					X									X
<i>Antennaria racemosa</i>													X				X							X						
<i>Abies lasio</i>																														
<i>Thalictrum ven</i>							X									X														
<i>Arnica cord.</i>							X					X															X			
<i>Hieracium gracile</i>																X					X									X
<i>Vaccinium myrtillum</i>							X					X					X							X						
<i>Lupinus sericeus</i>								X				X					X													
<i>Erigeron annuus</i>							X					X					X							X			X			
<i>Desmodium illinoensis</i>												X																		
<i>Beta</i>					X							X											X							
<i>Lithos</i>			X									X					X						X							
<i>Populus geyeri</i>												X					X													
<i>Fragaria virg</i>																									X					



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-15

Vegetation: Overstory Type LPP
Understory (reprod) AE
Herbaceous Ground Vac. Scap.

Date 7/17/71
Photo Taken yes - uphill
B.A. Prism Count at 12 3a7
Center of Frame 5
Loc. 7550

Trail Width: 70 cm
Trail Depth at Center 2 cm

Apparant Use: Light X
Medium _____
Heavy _____

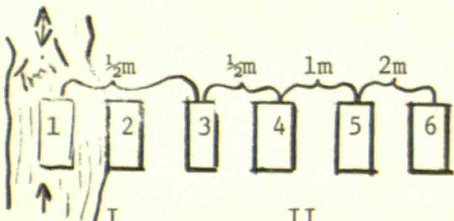
Point of Origin: Trail Measure begins at junction of Middle Fork Road
and Bens Basin Trail #15 at SE 1/4, Sec 19, T.6S., R.3E. mpm.
(Above Smedings hunting camp)

Mileage to sample	.65
-------------------	-----

Mileage to sample .65
Location of Tag Tree: 1.7 meters l.o.p. 7" o.d. at 328° azimuth
left side of trail going up hill.

Remarks: Almost exclusively used by Big Sky Lone Mtn Ranch,

Plot centers begin at 3.2 meters at 177° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 328° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



Behind track.

Date 4-17/71

Photo Taken Yes - uphill
B.A. Prism Count at 13 35425
Center of Frame 5 13
elevation 7600'
Apparant Use: Light X
(Medium _____
Heavy _____

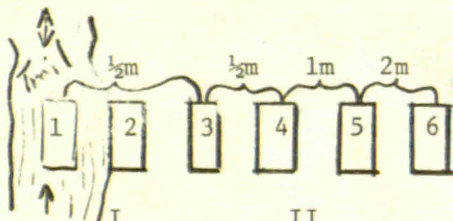
Apparant Use: Light X
Medium _____
Heavy _____

Point of Origin: Trail measure begins at junction of Middle Fork
Road and Bear Basin Trail # at $8\frac{1}{2}$ mi, Sec 19, T.6S., R.3E. N.P.M.
(Above S. Smedings old hunting camp)

Location of Tag Tree: Tag tree on right side of trail
going up hill. 1/2 meter from trail center @ 142°
from center of trail.

Remarks: Raining

Plot centers begin at 1.5 meters at 266° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 315° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Vacc scoparium</i>								X					X					X						X				X		
<i>Osmorhiza chilensis</i>							X					X																		
<i>Saxifraga hypnifolia</i>																														
<i>Arenica cordifolia</i>																			X									X		
<i>Viola orbiculata</i>												X															X			
<i>Lieracium albidum</i>							X					X															X			
<i>Erythronium grandiflorum</i>																		X									X			
<i>Vaccin. membranaceum</i>																														
Bare					X			X				X						X												
Little		X					X					X						X												





[illegible]

TRAILSIDE SAMPLE D FORM

Tag Identification No. 330-20

Date 7/22/71

Vegetation: Overstory Type L.PP
Understory (reprod) AF
Herbaceous Ground Ac. scop.

Photo Taken 7/22/71
B.A. Prism Count at 54.50
Center of Frame 5 2 BNA

Trail Width: 45 cm.
Trail Depth at Center -0-

Apparant Use: Light X
Medium _____
Heavy _____

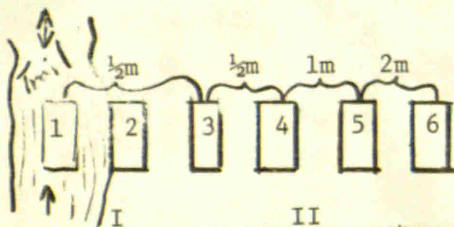
Point of Origin: Trail Measure begins at junction with Middle Fork Road
and Beehive Basin trail # SE 1/4, SEC. 19, T. 6 S., R. 3 E. M.P.M.

Mileage to sample .91

Location of Tag Tree: located 2 meters on left side going
up trail northward at 302° AZimuth from trail center

Remarks:

Plot centers begin at 2.5 meters at 175° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 310° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Accinium Scgp.</i>											X					X										X				
<i>Accinium nemorosum</i>											X																			
<i>Arnica latifolia</i>																X														
<i>Carex Geyeri</i>																X														
Bare																														
Litter		X		X												X										X				



[illegible]



Trail Plot
330-21



Trail Plot
330-21

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>minum scoparium</i>								X					X					X					X						X	
<i>ca. bulbifolia</i>	X												X					X												
<i>ex geyeri</i>																														
<i>Litter</i>		X											X					X												
<i>Bare</i>			X				X					X					X					X				X				
									</																					



Beehive Trail

Date 8/2/71

Photo Taken yes at 90° Az toward
B.A. Prism Count at Mod.
Center of Frame 5 4109.

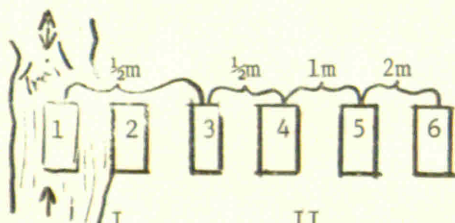
Apparant Use: Light X
Medium _____
Heavy _____

Mileage to sample 1.31 miles

Location of Tag Tree: On right of trail going into Beehive
Basin - Edge of timber - Bluff meadow and just
before creek crossing - Location 215 meters at
148° to Tag tree.

Remarks:

Plot centers begin at 3.62 meters at 3^o azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 3^o azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Erythronium grandiflorum</i>						X	X				X	X				X					X					X				
<i>Vaccinium scoparium</i>								X			X							X							X					X
<i>Lupinus sativus</i>						X					X																			
<i>Arnica cordifolia</i>							X				X							X				X								
<i>Arnica latifolia</i>																												X		
<i>Carex oeyerii</i>								X						X				X				X								
<i>Epilobium angustifolium</i>																											X			
<i>Aster engelmannii</i>							X											X												
<i>Pedicularis racemosa</i>											X	X																		
<i>Hieracium albidulum</i>											X																			



Uterus / abes Trail

Date 7-26-71

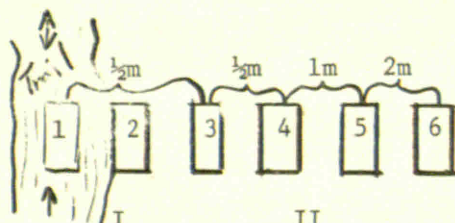
Photo Taken 4-5 -
B.A. Prism Count at 299.75
Center of Frame 5 11
Elev. 7800

Apparant Use: Light _____
Medium _____
Heavy X

Mileage to sample 1/10 mile
Location of Tag Tree: Tag tree, 2 meters on left side of
trail which travelling Northwest toward Ugly
Lake (azimuth 220° from trail center)

Remarks: Near edge of small clearing. (Erythronium about 1 yd here)
edge frame beyond number 3 frame due to width trail width

Plot centers begin at 02 meters at 58° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 234° azimuth from trail center (1st plot).



1	0-5%
2	5-25%
3	25-50%
4	50-75%
5	75-100%

[illegible]



Uterus / also Trail

Date 7/26/71

Vegetation: Overstory Type Lop
Understory (reprod) E.S. AF WBP
Herbaceous Ground VAc 5000-Arvica Cord

Photo Taken yes - Sept 10
B.A. Prism Count at 6 190.75
Center of Frame 5
Elev - 7300

Trail Width: 1.5 meter
Trail Depth at Center 4 cm

Apparant Use: Light _____
Medium _____
Heavy X

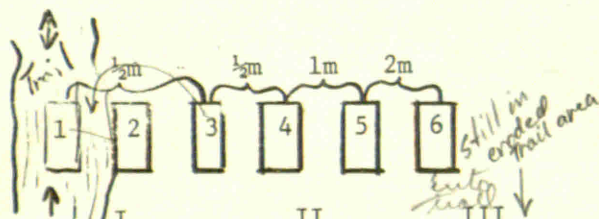
Point of Origin: Distance of trail measure begins at berm of logging road
which intersects old Ulley Lake trail - NW 1/4, Sec 19, T. 45, R. 3, E. 1 MPM.

Mileage to sample 112 mile

Mileage to sample 1/2 mile
Location of Tag Tree: located 14.5 meters NW of plot 24 toward
Berry Lake - Tag tree 1 meter at 198° Azimuth from
Track Center

Remarks: MATURE lodgepole stand. edge of small clearing
Frame 2 exceeds #3 due to trail width. Partial clearing.

Plot centers begin at 1.5 meters at 57° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 206° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Ace. saoparium</i>									X				X					X					X				X			
<i>Hieracium gracile</i>						X					X																			
<i>Lupinus sericeus</i>							X										X										X			
<i>Polypogon monspeliensis</i>						X						X					X					X					X			
<i>Epilobium angustifolium</i>						X					X																			
<i>Viola orbiculata</i>						X										X											X			
<i>Spiraea betulifolia</i>																X							X							
<i>Fragaria virginiana</i>											X																X			
<i>Erythraea arvensis</i>						X										X											X			
<i>Abies balsamea</i>																						X					X			
<i>Arnica montana</i>																											X			
<i>Erigeron annuus</i>																											X			
					</																									



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-27

Date 7-26-71

Vegetation: Overstory Type LPP
Understory (reprod) AF + ES
Herbaceous Ground 1/4 S. C.

Photo Taken 318

B.A. Prism Count at

Center of Frame 5 4

Elev 7100

Apparant Use: Light

Medium

Heavy

Trail Width: 75 cm

Trail Depth at Center 2.5

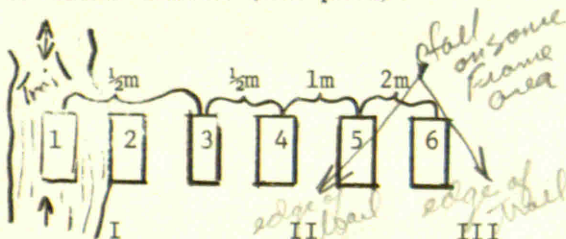
Point of Origin: Distance of trail measure begins at beam of logging spur
road which intersects old Avery Lake Trail. NW 1/4

Mileage to sample . 19 miles

Location of Tag Tree: On left side edge of trail travelling
N.W. toward Weyer Lake - in young timber
1 meter at 220° from trail center

Remarks:

Plot centers begin at 1.0 meters at 44° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 44° azimuth from trail center (1st plot).



Per cent Classes

1 0-5%

2 5-25%

3 25-50%

4 50-75%

5 75-100%

[illegible]





Date 7/27/71

Photo Taken yes
B. A. Prism Count at

20 meter plot

Location of Tag Tree: Located near center of packers Chouse
camp and the east edge of camp center pole
nailed to 3 trees. End tree in the reference log
tree.
Site located approx 300 feet south of outlet of
Ulery Lake. 1441

Plot centers begin at 5.33 meters at 125⁰ azimuth from tag tree and runs at 0, 5, 10, 20 and 40 meter intervals to plot centers at 282⁰ azimuth from 1st plot center. 80 meters —

Remarks: LPP ASD is 10-12" (11") - Cutting of firwood trees out to 40 meters - Preponderance of *Erythronium* and *Vib. articulata* in Early Spring. Several have been removed due to Comptel use!

Per cent Classes

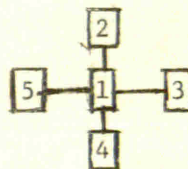
1 0-5%

2 5-25%

3 25-50%

4m 50-75%

5 75-100%



III

21 31

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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Beginning: Plot at 5 Meters
 Five Meter Radius Species List: UN, Vaccinium scoparium, Antennaria racemosa
Viola orbiculatis, Hieracium albiflorum, Arnica cordifolia, Vaccinium membr.
Erythronium grandiflorum, Lupinus sericeus, Pinus albicaulis, Asar. integrifolius,

Frame	I					II					III					IV					V				
Per Cent Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species List																									
<u>Vaccinium scoparium</u>				X					X															X	
<u>UN Aster engelmannii</u>			X																						
<u>Hieracium albiflor</u>		X					X																		
<u>Spiraea betulifolia</u>							X																		
<u>Bromus marginatus</u>												X													
<u>Viola orbiculatis</u>																							X		
<u>Arnica cordifolia</u>																								X	
<u>Lupinus sericeus</u>																									
<u>Bare</u>		X																							
<u>litter</u>			X					X					X										X		

Beginning: Plot at 10 Meters
 Five Meter Radius Species List: UN, Fragaria virginiana, Lupinus sericeus
Epilobium sp., Pinus albicaulis

Frame	I					II					III					IV					V				
Per Cent Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species List																									
<u>Vaccinium scoparium</u>				X						X			X						X						X
<u>Viola orbiculatis</u>		X					X										X					X			
<u>Hieracium albiflor</u>		X															X								
<u>Arnica cordifolia</u>								X										X							
<u>Antennaria racemosa</u>							X																		
<u>Spiraea betulif</u>							X					X					X								
<u>Erythronium grandiflorum</u>																						X			
<u>Bare</u>		X															X								
<u>Litter</u>			X				X					X					X					X			

Beginning: Plot at 20 Meters

Five Meter Radius Species List: Vaccin membranaceum.

Frame	I					II					III					IV					V				
Per Cent Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species List																									
<i>Vaccinium Scop.</i>			X						X					X						X					X
<i>Lupinus sericeus</i>		X									X					X									
<i>Spiraea betulifolia</i>	X																					X			
<i>Viola orbiculatis</i>		X				X										X									
<i>Hieracium albithorum</i>	X					X					X					X									
<i>Erythronium grand.</i>						X										X									
<i>Vaccin membr.</i>													X												
<i>Arnica cordifolia</i>													X												
Bare																									
litter			X			X										X					X				

Beginning: Plot at 40 Meters

Five Meter Radius Species List: Epilobium,

Frame	I					II					III					IV					V				
Per Cent Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species List																									
<i>Vacc Scop.</i>					X					X			X						X					X	
<i>Erythron grand.</i>	X																				X				
<i>Hieracium albithorum</i>	X					X																			
<i>Aster angustifolius</i>	X																								
<i>Carex geyeri</i>	X					X															X				
<i>Viola orbiculatis</i>	X					X										X					X				
<i>Hieracium gracile</i>											X														
<i>Arnica cordifolia</i>																X									
<i>Epilobium angust.</i>																X					X				
Bare																									
litter	X					X							X			X					X				

[illegible]



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-29 Date 7/28/71
 Vegetation: Overstory Type LPP Photo Taken _____
 Understory (reprod) AF B.A. Prism Count at _____
 Herbaceous Ground Vac Secy - Arn. Cor Center of Frame 5 _____
 ELW 7200

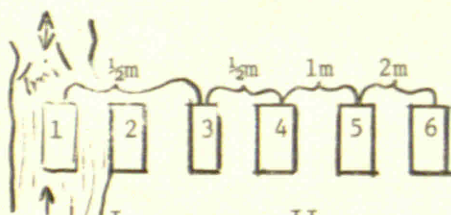
Trail Width: 50 cm
 Trail Depth at Center 2 cm
 Apparant Use: Light _____
 Medium X
 Heavy _____

Point of Origin: Trail begins at Junction of Logging Road
and Ullery Lake Trail 200' West of Upper Ullery Lake
between the two lake. NW 1/4, Sec 19, T.6.S, R.3.E. M.P.M.

Mileage to sample .52 miles
 Location of Tag Tree: located on right side of trail going
west uphill @ 78° from trail center

Remarks: _____

Plot centers begin at 2.3 meters at 200 ° azimuth from tag tree to
 plot center (center of trail) and frames begin at trail center to trail edge,
 1/2 meter, 1 meter, 2 meters, and 4 meters respectively and running at 84 °
 azimuth from trail center (1st plot).



Per cent Classes

- 1 0-5%
- 2 5-25%
- 3 25-50%
- 4 50-75%
- 5 75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Hieracium gracile</i>	X																													
<i>Lupinus sericeus</i>								X				X						X									X			
<i>Eriophorum sp.</i>							X							X																
<i>Vaccinium scoparium</i>								X					X											X						
<i>Aster engelmanni</i>							X										X													
<i>Arnica cordif.</i>							X					X																		
<i>Hieracium albidiflorum</i>							X																			X				
<i>Carex geyeri</i>							X																					X		
<i>Erigeron angust</i>																												X		
<i>Salix betulaefolia</i>												X															X			
<i>Abies lasiocarpa</i>											X																			
<i>Poa</i>																														
<i>Littor</i>												X																		

leamy
diff.
open
area



Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Erythronium grandiflorum</i>							X				X										X					X				
<i>Carex podocarpa</i>							X				X																			
<i>Cyperus virginianus</i>							X				X										X									
<i>Scirpus setaceus</i>																X						X								
<i>Helianthus orbiculatus</i>							X				X										X						X			
<i>Geranium albidum</i>							X				X										X						X			
<i>Geranium gracile</i>							X					X															X			
<i>Accinium scoparium</i>																						X							X	
<i>Pyrola secunda</i>																														
<i>Cicuta lasiocarpa</i>							X				X																			
<i>Anaphalis margaritacea</i>							X				X																			
<i>Rosa engelmanni</i>							X				X																			
<i>Poa pratensis</i>							X				X																			
<i>Antennaria racemosa</i>											X					X						X					X			
<i>Aster engelmanni</i>																X					X						X			
<i>Spiraea betulifolia</i>																X						X					X			
<i>Bare</i>					X																	X								
<i>Silene</i>					X		X					X										X					X			



[illegible]



UNDEVELOPED CAMPSITE SAMPLE DATA SHEET

Tag Identification No. 330-32Date 7-30-71Vegetation: Overstory LPP
Ground Vacc scop.Photo Taken 9/2/71

B. A. Prism Count at

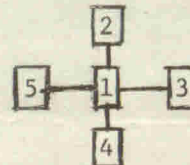
20 meter plot 10Young Reproduction AFLocation of Tag Tree: Located on peninsula in north
central edge of lake; 8" lodgepole pines - 10' from
edge of water, diamond shape on 3 sides.Plot centers begin at 2.8 meters at 60° azimuth from tag tree and
runs at 0, 5, 10, 20 and 40 meter intervals to plot centers at 99° azimuth
from 1st plot center. 80 meters

Remarks:

Beginning: Plot at 0 Meters
Five Meter Radius Species List:

Per cent Classes

- 1 0-5%
2 5-25%
3 25-50%
4 50-75%
5 75-100%



Frame	I					II					III					IV					V				
Per cent Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species List																									
<i>Antennaria racemosa</i>						X					X														
<i>Anagallis margaritacea</i>											X														
<i>Hieracium alba</i>											X					X									
<i>Fragaria virginiana</i>	X					X					X						X								
<i>Antennaria rosea</i>																									
<i>Euthronium parvif.</i>																									
<i>Vaccin scop.</i>											X														
<i>Agrostis scabra</i>																									
<i>Arabis drummondii</i>																									
<i>Antennaria discolor</i>																									
<i>Heul. cristata</i>																									
<i>Hier. gracile</i>											X														
<i>Saxifraga sp.</i>	X																								
<i>Luzula arb.</i>											X														
<i>Lupinus sericeus</i>																									
<i>Ber.</i>																									
<i>Litter</i>						X	X				X	X				X					X	X			X

Five Meter Radius Species List:

[illegible]

Five Meter Radius Species List:

[illegible]

Five Meter Radius Species List:

[illegible]

Five Meter Radius Species List:

[illegible]

Five Meter Radius Species List:

Five Meter Radius Species List:

[illegible]



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-33

Date 8/10/71

Spanish
hakes
area

Vegetation: Overstory Type Sp-AF
Understory (reprod) AF
Herbaceous Ground Arnica latifolia

Photo Taken 117°
B.A. Prism Count at 11
Center of Frame 5 11

Trail Width: 90 cm
Trail Depth at Center 3 cm

Elev 7800
Apparent Use: Light
Medium X
Heavy

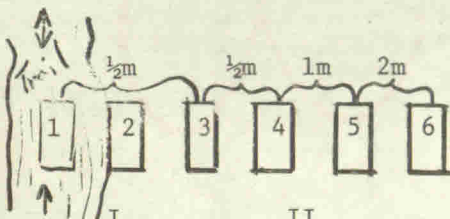
Point of Origin: Begin at Spanish Creek Campground
at 1st Creek Crossing. NE 1/4, Sec 32, T4S, R3E.

Mileage to sample (7.6) miles

Location of Tag Tree: Tag on AF on North Side of Trail which
Joins Main Spanish hakes trail and 1st packer camp
on meadow which is on West edge of Spanish creek
On trail which crosses Jack Creek on Near Junction Jack Cr. Crossing + Spanish hakes trail

Remarks: Tag tree blazed with Trail Blaze and is 5 meters from
edge of creek on west edge of creek. (trail has water in it & heavy shade)

Plot centers begin at 2.5 meters at 270° azimuth from tag tree to
plot center (center of trail) and frames begin at trail center to trail edge,
1/2 meter, 1 meter, 2 meters, and 4 meters respectively and running at 211°
azimuth from trail center (1st plot).



Per cent Classes orange trail blaze
on East side of
creek.
1 0-5%
2 5-25%
3 25-50%
4 50-75%
5 75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Erythronium grandiflorum</i>								X					X					X				X					X			
<i>Senecio serotinus</i>																														
<i>Arnica latifolia</i>									X				X					X				X						X		
<i>Vaccinium scoparium</i>																												X		
<i>Pedicularis bracteosa</i>											X							X				X								
<i>Aster engelmanni</i>																											X			



AUG 71



AUG 71 •

TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-34

Date 8/10/71

Vegetation: Overstory Type WBP
Understory (reprod) AF
Herbaceous Ground luc Scap.

Photo Taken 188
B.A. Prism-Count at
Center of Frame 5 5

Trail Width: 70 cm
Trail Depth at Center 3 cm

Apparant Use: Light _____
Medium _____
Heavy **X**

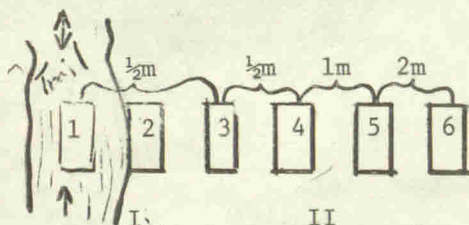
Point of Origin: Trail Measure begins at Spanish Creek Campground
at first Creek Crossing. - NE 1/4, SEC 32, T4S, R.3E. M.P.M.

Mileage to sample 7.5

Mileage to sample 1.5
Location of Tag Tree: Tag Tree is a 10" WBP on west edge of
Trail with small trail blaze on both sides.

Remarks: located about 2 1/10 mile North of Spanish Lakes and 1/10 mile north
of Jack Creek trail Junction. - creek below trail on west side

Plot centers begin at 2.7 meters at 165° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, ½ meter, 1 meter, 2 meters, and 4 meters respectively and running at 98° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Erythronium grand.</i>								X					X													X				
<i>Vaccinium scoparium</i>						X					X					X					X									X
<i>Erigeron pectinatus</i>																														
<i>Hieracium gracile</i>						X															X									
<i>Arnica latifolia</i>																X														
Blank																														
<i>Bare</i>				X		X																								
<i>Litter</i>	X						X				X															X				



Tag Identification No. 330-35

Date 8/10/71

Vegetation: Overstory Type WBP
Understory (reprod) AF
Herbaceous Ground VAc Scap

Photo Taken at 333° Az.

B.A. Prism Count at
Center of Frame 5 8

8100

Trail Width: 1.5 meters
Trail Depth at Center 4 cm

Apparant Use: Light _____
Medium _____
Heavy ☒

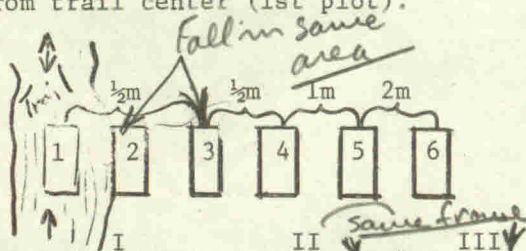
Point of Origin: Trail measure distance begins at Spanish Creek (unimproved)
at the first creek crossing - NE 1/4, SEC 32, T.45., R. 3E. MPM.

Mileage to sample 7.8

Location of Tag Tree: Whitebark Pine on west side of trail
22" DBH and approx 3 meters from edge of trail. (Right
side facing up hill.)

Remarks: Right side of trail is washing away. - above plot, trail splits into an oval.  start with 2nd & 3rd frame identical with edge of trail.

Plot centers begin at 3.9 meters at 45° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 243° azimuth from trail center (1st plot).



1	0-5%
2	5-25%
3	25-50%
4	50-75%
5	75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Asclepija miniata</i>						X					X																			
<i>Eythronium grandiflorum</i>								X				X																	X	
<i>Accinium Scovarium</i>										X				X					X							X			X	
<i>Arnica latifolia</i>							X					X							X										X	
<i>Abies lasiocarpa</i>																						X					X			
<i>Empetriformis</i>																			X											
<i>Pedicularis bracteosa</i>																												X		
<i>Pine</i>				X			X					X																		
<i>Littles</i>							X					X							X							X			X	



[illegible]



DM

Date 8/6/71

Photo Taken Yes -

B.A. Prism Count at _____

Center of Frame 5 10

7760

Apparant Use: Light X

Medium

Heavy

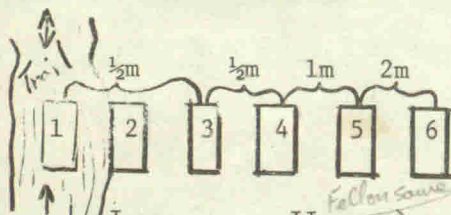
Point of Origin: Distance of trail measure begins at North Fork trail register
at end of abandoned North Fork logging Road adjacent to 1st Creek
Crossing on North Fork - Bear Basin Trail #16

Mileage to sample 1.9 miles

Location of Tag Tree: After crossing North Fork Creek come into an open meadow. The first cleared timbered area is where sample is. Tag tree has both diamond and trail blaze & is on the left side on trail at edge of meadow.

Remarks: *Pyrola secunda* is predominant under trees near stump.
Erythronium is progressively in its flower as altitude increases.

Plot centers begin at 214 meters at 276° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 292° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Erythronium grand.</i>	X						X					X					X					X					X			
<i>Thalictrum venulosum</i>																	X					X					X			
<i>Arnica cordifolia</i>							X					X										X					X			
<i>Antennaria racemosa</i>																			X				X							
<i>Osmorhiza chilensis</i>																	X						X							
<i>Fragaria virginiana</i>																	X													
<i>Abies lasiocarpa</i>																											X			



Frame	I					II					III					IV					V					VI									
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5					
Species																																			
<i>Erythronium grand.</i>	X					X					X					X					X														
<i>Vacc. scoparium</i>						X					X								X										X						
<i>Arnica latifolia</i>																												X					X		
<i>Gentianum gracile</i>						X					X															X					X				



Tag Identification No. 330-39

Date 8/11/71

Vegetation: Overstory Type WBP
Understory (reprod) ES.
Herbaceous Ground Vac scop.

Photo Taken 160°
B.A. Prism Count at
Center of Frame 5 2
Elev 8750

Trail Width: 90 cm
Trail Depth at Center 3 cm.

Apparent Use: Light _____
Medium _____
Heavy X

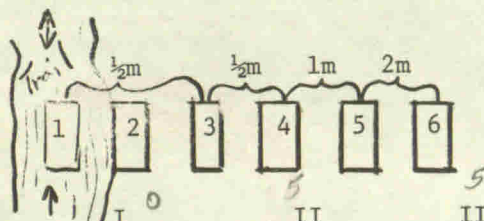
Point of Origin: Distance of trail measure begins at Spanish Creek Campground at First Creek crossing - Plot 13 located on trail upward from Lower Spanish Lake on trail leading up to Champagne Lake.

Mileage to sample 8.4

Mileage to sample 4
Location of Tag Tree: on East side of trail approx 3 meters
from trail center, indicated by a light blaze on
South side of tree. - Seen just after Smithback on
trail up to Champagne lake.

Remarks: trail up to Champagne lake. Plot is on 10% slope going uphill from trail center. *En. Thronium* is common in first on eroded side of trail. This trail is being used less due to loss of fishing in Champagne. Recently fenced.

Plot centers begin at 5.5 meters at 184° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 70° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

30 - approx
cover in
each frame

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Erythronium grandiflorum</i>							X				X					X											X			
<i>Vaccinium scoparium</i>							X				X					X											X			
<i>Arnica latifolia</i>							X									X														
<i>Hieracium procumbens</i>											X						X					X					X			
<i>Oxalis georgii</i>																X											X			
<i>Lonicera</i>						X	X								X	X						X								
<i>littoralis</i>		X					X					X					X					X					X			



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-40

Date 8/11/71

Vegetation: Overstory Type WBP
Understory (reprod) WBP + AF
Herbaceous Ground the scop.

Photo Taken at 112°
B.A. Prism Count at
Center of Frame 5 10
9250

new Trail Width: 3 meter
Trail Depth at Center 3 cm

Apparant Use: Light _____
Medium _____
Very Heavy X

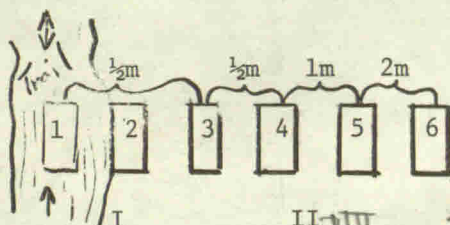
Point of Origin: Distance of trail measure begins at Spanish Creek campground at 1st creek crossing - Plot located on bend in trail adjacent to pond between upper and lower spanish lakes.

Mileage to sample 8.6 approx

Location of Tag Tree: on north side of trail - Situated adjacent to outlet of pond between the two spanish lakes. Tree is trail blazed on west side only.

Remarks: There are two widths of trail 1. new where all traffic occurs 2. old where little to no traffic occurs now - Reduction in use believed due to no fish or few fish in upper spanish lake.

Plot centers begin at 4.9 meters at 233° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 22° azimuth from trail center (1st plot).



Per cent Classes

- 1 0-5%
- 2 5-25%
- 3 25-50%
- 4 50-75%
- 5 75-100%

Frame	I					II-III					IV					V					VI					VII				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Vaccinium Scop</i>																														
<i>Erythronium gr.</i>																														
<i>Eriogon perigrinus</i>																														
<i>Carex Podocarpa</i>																														
<i>Sibbaldia procumbens</i>																														
<i>Bare</i>																														
<i>Litter</i>																														
							</																							

UN 40-1



UNDEVELOPED CAMPSITE SAMPLE DATA SHEET

Tag Identification No. 330-41

Date 8/11/71

Vegetation: Overstory WBP
Ground Arnica rhd. - Vacc scop.

Photo Taken yes. -
B. A. Prism Count at

Young Reproduction Abies lasiocarpa

20 meter plot 3

Location of Tag Tree: Located in Pacheco Camp approx 100 yds North
West of outlet of Lower Spanish Lake. - Tree is blazed on East + West
sides with standard trail type blaze. located on west edge of
site and is a WBP app 10" DBH - Tag is on lower North face of
tree near ground.

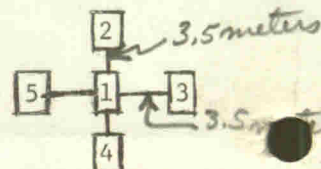
Plot centers begin at 6.25 meters at 50° azimuth from tag tree and
runs at 0, 5, 10, 20 and 40 meter intervals to plot centers at 286° azimuth
from 1st plot center. 80 meters

Remarks: Area heavily used for several years. -
Same begins toward edge of heaviest use.

Beginning: Plot at 0 Meters
Five Meter Radius Species List:

Per cent Classes

- 1 0-5%
- 2 5-25%
- 3 25-50%
- 4 50-75%
- 5 75-100%



Frame	I					II					III					IV					V				
Per cent Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species List																									
<u>Vaccinium scoparium</u>	X																								
<u>Arnica latifolia</u>								X					X												
<u>Epilobium alpinum</u>												X					X								
<u>Polygonum bistortoides</u>																									
<u>Carex lasiocarpa</u>																									
<u>Euthronium grandiflorum</u>												X		X											
<u>Brownia aquatica</u>																									
<u>Litter</u>					X		X										X							X	
<u>Base</u>	X																				X		X		
<u>Rock</u>							X									X					X				

Beginning: Plot at 20 Meters
Five Meter Radius Species List:

[illegible]

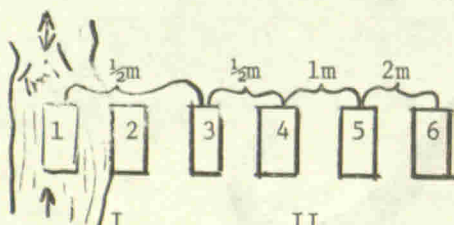
Beginning: Plot at 40 Meters
Five Meter Radius Species List:

[illegible]



TRAILSIDE SAMPLE DATA FORM

Mirror Lake

Tag Identification No. 330-42Date Aug. 15Vegetation: Overstory Type Aspen Spruce
Understory (reprod) "
Herbaceous Ground mixedPhoto Taken yes at 180°
B.A. Prism Count at 3
Center of Frame 5 3Elev 8000Trail Width: 70 cmTrail Depth at Center 4 cmApparant Use: Light Medium
Heavy XPoint of Origin: Distance of trail measure begins at Spanish Creek Campground. Proceed to Mirror Lake Trail upward. Plot is north of Mirror Lake on Trail below lake.Mileage to sample 6.5Location of Tag Tree: Tag tree just as trail levels out going up to mirror lake - Large Engelmann Spruce on East side of Trail - (Trail blazed on North side only Approx 28" DBH)Remarks: Trail is being used progressively less due to lack of fish in mirror lake.Plot centers begin at 3.5 meters at 303° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, 0° azimuth from trail center (1st plot).
1/2 meter, 1 meter, 2 meters, and 4 meters respectively and running at 76

Per cent Classes

- 1 0-5%
- 2 5-25%
- 3 25-50%
- 4 50-75%
- 5 75-100%

4 horses

2 backpackers

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Quercus latifolia</i>	X						X					X					X						X					X		
<i>Rodicularis bracteosa</i>													X				X					X						X		
<i>Carex geyeri</i>							X					X						X				X								
<i>Erigeron peregrinus</i>												X				X											X			
<i>Barnum marginatus</i>							X					X				X														
<i>Cystopteris minima</i>																		X										X		
<i>Vaccinium scop</i>																						X						X		
<i>Erythronium grandiflorum</i>							X					X															X			
<i>Agrostis flavescens</i>												X																X		
<i>Senecio triangularis</i>																X														
<i>Abies lasiocarpa</i>																		X								X				
Bare Rock	X											X										X								
Bare ground																														
Litter	X						X					X						X									X			
Tree root		X					X															X								



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-43

Date 8/15/71

Vegetation: Overstory Type Alpine fir
Understory (reprod) "
Herbaceous Ground Vaccinium scop.

Photo Taken Yes @ 324°
B.A. Prism Count at Center of Frame 5
Elev. 7900

Trail Width: 90 cm.

Trail Depth at Center 2 cm

Apparant Use: Light Medium
Heavy X

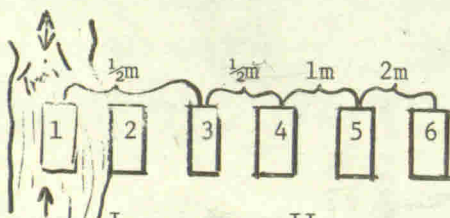
Point of Origin: Distance of trail measure begins at Spanish Creek Campground. Proceed to Mirror Lake from Junction in trail at 5.5 mile marker. Plot located off trail North and below "mirror lake"

Mileage to sample 6.51

Location of Tag Tree: approx 60 ft south up trail from plot 42. Tag tree alpine fir on East side of trail - blazed on both sides.

Remarks:

Plot centers begin at 2.6 meters at 171° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 52° azimuth from trail center (1st plot).



Per cent Classes

- 1 0-5%
- 2 5-25%
- 3 25-50%
- 4 50-75%
- 5 75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Vaccinium scoparium</i>						X					X					X					X					X				
<i>Pedicularis bracteosa</i>																X					X					X				
<i>Arnica latifolia</i>								X					X					X			X								X	
<i>Carex geyeri</i>							X				X															X				
<i>Erythronium grand.</i>						X					X					X														



[illegible]



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-45

Date 8/15/71 4:15^{PM}

Vegetation: Overstory Type Alpine fir
Understory (reprod) Alpine fir
Herbaceous Ground Trifolium latifolium

Photo Taken *yes at 120*

B.A. Prism Count at

Center of Frame 5 5

Elev 7900

Trail Width: 60 cm.

Trail Depth at Center 4 cm

Apparant Use: Light

Medium

Heavy ~~X~~

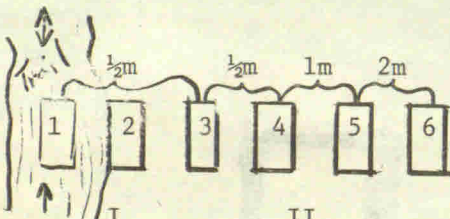
Point of Origin: Distance of trail measure begins at Spanish Creek Campground. Proceed to Mirror Lake from Junction at 5.5 mile marker and Spanish Creek Trail.

Mileage to sample 6.6

Location of Tag Tree: on East side of trail at 2 meters from
trail center Alpine fir 9" DBH

Remarks: Lone Mtn Ranch 3 riders, 3 pack horses
Creek 50 feet west

Plot centers begin at 3.4 meters at 290° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 236° azimuth from trail center (1st plot).



Per cent Classes

1 0-5%

2 5-25%

3 25-50%

4 50-75%

5 75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Senecio triangularis</i>																														
<i>Erigeron peregrinus</i>								X				X																X		
<i>Arnica latifolia</i>							X						X				X				X						X			
<i>Pedicularis bracteosa</i>							X					X					X				X									
<i>Vaccinium scoparium</i>									X			X																		
<i>Erythronium grandiflorum</i>							X					X					X				X						X			
<i>Beauveria marginatus</i>							X					X					X					X						X		
<i>Viola orbiculatis</i>							X																							
<i>Castilleja miniata</i>												X																		
<i>Agave glauca</i>												X																		
<i>Epilobium alpinum</i>																	X										X			
<i>Thalictrum venulosum</i>																	X													
<i>Base</i>					X			X																						
<i>Litter</i>							X					X					X					X						X		
<i>Rock</i>																														
<i>Hieracium gracile</i>							X										X					X								
<i>Carex geyeri</i>																								X			X			
<i>Abies lasio</i>																						X								



Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Onica latifolia</i>						X					X																			
<i>Thalictrum venulosum</i>																			X							X				
<i>Edicularia bracteata</i>																X										X				
<i>Poa pratensis</i>						X					X																			
<i>Hieracium gracile</i>						X					X																			
<i>Senecio triangularis</i>																			X											
<i>Pyrola secunda</i>																X										X				
<i>Erythronium grandiflorum</i>																X										X				
<i>Epilobium alpinum</i>																X														
<i>Grex geyeri</i>																										X				
<i>Onica cordifolia</i>																														
<i>Ernanthis chilensis</i>																														



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-48

Date 8/15/71

Vegetation: Overstory Type AF
Understory (reprod) AF
Herbaceous Ground mixed

Photo Taken 420
B.A. Prism Count at
Center of Frame 5 5
Elev 8300

Trail Width: 70 cm.

Trail Depth at Center 8 cm.

Apparant Use: Light _____
Medium _____
Heavy X

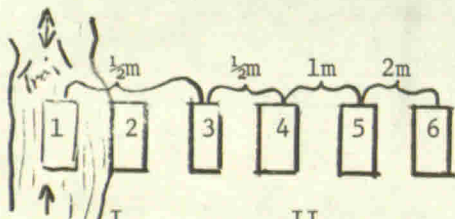
Point of Origin: Distance of trail measure begins at Spanish Creek Campground -
Proceed from Junction with Spanish Creek trail + Mirror Lake trail toward Mirror
Lake (5.5 mile marker)

Mileage to sample	6.82
-------------------	------

Location of Tag Tree: Top tree large Engelmann spruce (Approx 36" diam)
on East (Right side going up hill) side of main trail. - located on
very edge of right-of-way.

Remarks :

Plot centers begin at 2 meters at 113° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 68° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



Tag Identification No. 330-49

Date 8-15-71

Vegetation: Overstory Type AF
Understory (reprod) AF
Herbaceous Ground mixed

Photo Taken yes at 146°
B.A. Prism Count at
Center of Frame 5 7
Elm-8350

Trail Width: 1.2 meter

Trail Depth at Center 7 cm.

Apparant Use: Light _____
Medium _____
Heavy X

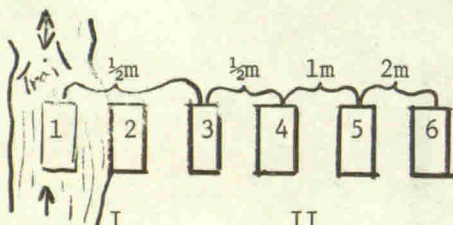
Point of Origin: Distance of trail measure begins at Spanish Creek Campground
Proceed from Junction with Spanish Creek Trail and Mirror Lake Trail toward
Mirror Lake (5.5 mile board). Plot located just before breaking into
opening by the Lake outlet.

Mileage to sample 6.83 mile

Location of Tag Tree: on right side (west side) of trail
8" along fin on edge of trail - about 10 ft
below trail.

Remarks:

Plot centers begin at 1.2 meters at 8° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 62° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



Tag Identification No. 330-50

Date 8-15-71

Photo Taken 4/25 at 162
B.A. Prism Count at 8
Center of Frame 5
Elmer 8500

Trail Width: 60 cm
Trail Depth at Center 9 cm

Apparant Use: Light _____
Medium _____
Heavy X

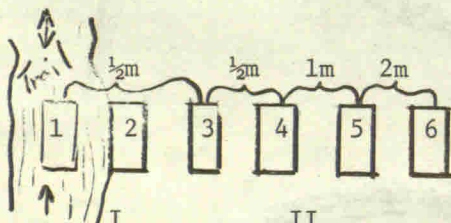
Point of Origin: Distance of Trail Measure begins at Spanish Creek Campground
Crossed from junction with Spanish Creek trail and Mirror Lake trail past mirror lake (5.5 mile marker)
Proceed up trail past mirror lake for approx 1 mile toward Emerald Meadows.

Mileage to sample 8.0

Location of Tag Tree: On East edge of trail 1 meter in just past curve in trail - Tag Tree 3 in WBP. - Tag tree curved and changed in growth form due to late snows & (Avalanche?)

Remarks: Alpine fir is shrubby and stunted in growth.

Plot centers begin at 2.6 meters at 186° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 78° azimuth from trail center (1st plot).



1	0-5%
2	5-25%
3	25-50%
4	50-75%
5	75-100%

Frame	I	II	III	IV	V	VI
% Class No.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Species						
<i>Hieracium gracile</i>		X		X		
<i>Ranunculus corymbosus</i>	X					
<i>Anemone latifolia</i>	X		X		X	
<i>Carex geyeri</i>		X				
<i>Vaccinium scoparium</i>	X		X	X		X
<i>Sedum stenopetalatum</i>		X	X			
<i>Potentilla diversifolia</i>		X				
<i>Abies lasiocarpa</i>					X	X
Bare Litter Rock	X	X	X	X	X	X



[illegible]



Tag Identification No. 330-52

Date 8-15-71

Vegetation: Overstory Type GS + AF
Understory (reprod) AF + WBP
Herbaceous Ground Vac. Scop.

Photo Taken yes 170
B.A. Prism Count at
Center of Frame 5 6
ELUT B500

Trail Width: 60 cm
Trail Depth at Center 3 cm

Apparant Use: Light _____
Medium _____
Heavy X

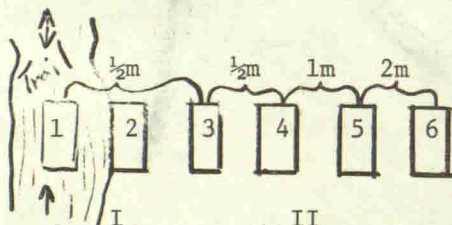
Point of Origin: Distance of trail measure begins at Spanish Creek Campground
Proceed from junction with Spanish Creek trail + Mirror Lake trail (5.5 mile marker)
Continue up past Mirror Lake for approx 3 1/2 mile to plat area.

Mileage to sample 7.3 miles

Location of Tag Tree: Tag tree on west edge of trail - 8" DBH alpine

Remarks :

Plot centers begin at 1.7 meters at 68° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, ½ meter, 1 meter, 2 meters, and 4 meters respectively and running at 108° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-53

Date Aug 24, 1971

Vegetation: Overstory Type WBP
Understory (reprod) WBP
Herbaceous Ground Vaccinium
Scoparium

Photo Taken yes at 80 ft
B.A. Prism Count at _____
Center of Frame 5 7
Elevation 9100
Apparant Use: Light X
Medium _____
Heavy _____

Trail Width: 70
Trail Depth at Center 0

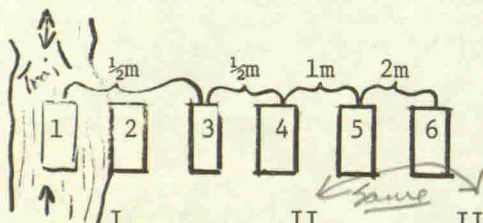
Point of Origin: Measure distance from Thompson lake and proceed
on Indian Ridge Trail. Eastward.

Mileage to sample . 95 mile

Location of Tag Tree: Leaning WBP on North Side of Trail
New blaze on west Face and old blaze on East Face.

Remarks:

Plot centers begin at 3.0 meters at 104° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 163° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Vaccinium scoparium</i>							X					X					X						X					X		
<i>Arnica latifolia</i>								X					X				X					X				X				
<i>Bryo</i>				X													X													
<i>Litter</i>		X							X				X						X				X				X			
<i>Rock</i>	X					X					X					X					X					X				



Tag Identification No. 330-54

Vegetation: Overstory Type WBP
Understory (reprod) WBP
Herbaceous Ground VAC Scop

Photo Taken yes at 94°
B.A. Prism Count at 6
Center of Frame 5

Trail Width: 50 cm

Trail Depth at Center 2 cm.

Apparant Use: Light X
Medium _____
Heavy _____

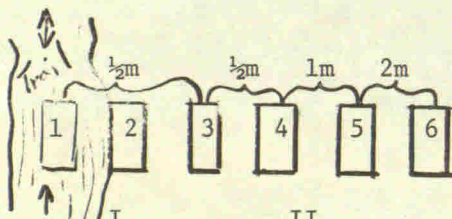
Point of Origin: Measure distance from Thompson Lake + Proceed on
Indian ridge trail eastward.

Mileage to sample .93 mile

Location of Tag Tree: WBP 30" DBH on North side of Trail.
approx 3 meters from trail center

Remarks: Trail blocked off by windfall - trail used lightly now
at one time it appears to have been used heavily

Plot centers begin at 4.5 meters at 246° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 186° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]





[illegible]



Tag Identification No. 330-57

Date August, 1971

Vegetation: Overstory Type WBP
Understory (reprod) WBP
Herbaceous Ground 1/2c Scap.

Photo Taken yes at 31
B.A. Prism Count at 7
Center of Frame 5

Trail Width: 50 cm
Trail Depth at Center 2 cm

Elev 9100
Apparant Use: Light X
Medium _____
Heavy _____

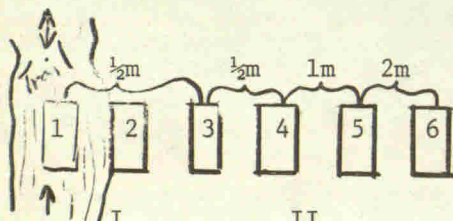
Point of Origin: Distance of trail measure begins at east edge of Thompson Lake and proceeds to trail junction #401, #110 - Proceed up Indian Ridge Trail # 401

Mileage to sample .83 miles

Location of Tag Tree: by east edge trail low old trail
blaze on both sides WBP 68" DBH

Remarks:

Plot centers begin at 5.6 meters at 24° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 304° azimuth from trail center (1st plot).



1	0-5%
2	5-25%
3	25-50%
4	50-75%
5	75-100%

[illegible]



Tag Identification No. 330-58

Date Aug 29, 1971

Vegetation: Overstory Type WBP
Understory (reprod) AF
Herbaceous Ground 1/4c scap

Photo Taken yes at 69 AR
B.A. Prism Count at
Center of Frame 5 5

Trail Width: 80 cm

Apparant Use: Light X
Medium _____
Heavy _____

Trail Depth at Center 4 in

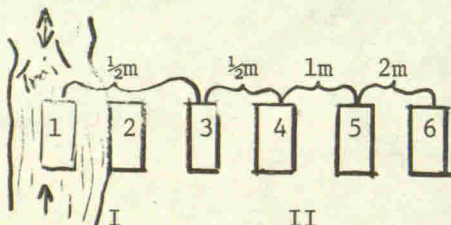
Point of Origin: Distance of trail measure begins at east edge of Thompson Lake and proceeds to trail junction #401, § 110 - Proceed up Indian Ridge trail #401 to blazed reference tree.

Mileage to sample .70 mile

Location of Tag Tree: Approximately 2 meter from Trail Center on East side of trail - Engelmann Spruce 17" DBH.

Remarks: Plot border edge of meadow.
Erythronium growing in center of trail.

Plot centers begin at 2.6 meters at 300° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 151° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



	I	II	III	IV	V	VI
% Class No.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Lupinus sericeus		X X		X		
Ageris glauca		X X	X		X	
Anica latifolia		X	X			X
Euthrochium		X	X	X	X	
Achillea millefolium						
Bane	X		X			
Kitten	X		X	X	X	
Rock				X		
Carex xerantha						X



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-60

Date *Aug 24, 1971*

Vegetation: Overstory Type WBP
Understory (reprod) WBP
Herbaceous Ground 1AAC Scop

Photo Taken *yes at 30° A2*

B.A. Prism Count at

Center of Frame 5 11

Elevation 9100

Apparant Use: Light X

Medium

Heavy

Trail Width: 50cm
Trail Depth at Center 3cm

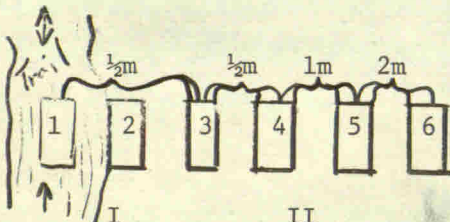
Point of Origin: Distance of trail measure begins at east edge of Thompson Lake (Pacing). Proceed east to junction Tr #401 & #110 - Continue up Indian Ridge Trail #401 to reference tree.

Mileage to sample 0.63 mi

Location of Tag Tree: Approximately 2 meters on SE. edge of trail
reference tree is doug alpine fir 8" DBH

Remarks: Some previous house used indicated by old packer camp
in vicinity - Hunt Mtn Sheep in this country.

Plot centers begin at 3.8 meters at 243° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 114° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

Frame	I	II	III	IV	V	VI
% Class No.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Species						
<i>Accutrium scoparium</i>				X		X X
<i>Arnica latifolia</i>		X		X	X	
<i>Agrostis glauca</i>						X
<i>Poa secunda</i>						
<i>Carex pedunculata</i>		X	X			
<i>Hieracium gracile</i>		X		X		
<i>Sibbaldia procumbens</i>		X				
Bare	X	X				
Litter	X	X	X	X		X
Rock		X		X		



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-61

Date Aug 24, 1971

Vegetation: Overstory Type AF
Understory (reprod) AF
Herbaceous Ground VAc Scops

Photo Taken Yes at 30 Az
B.A. Prism Count at 9
Center of Frame 5
Elevation 7100

Trail Width: 50 cm

Trail Depth at Center 2cm

Apparant Use: Light X

Medium

Heavy

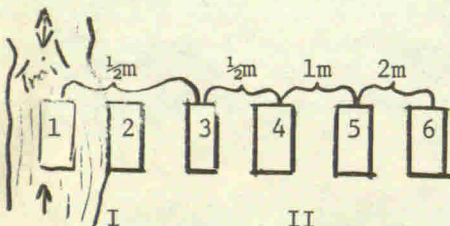
Point of Origin: Distance of trail measure begins at east edge of Thompson
lake (pacing method). Proceed east to junction of Tr # 40 & # 110 -
Continue up Indian Ridge Trail # 40 to reference tree.

Mileage to sample .58 miles

Location of Tag Tree: Approx 1 1/2 meters on east edge of trail
Alpine 15" DBH and part of a forked tree.

Remarks :

Plot centers begin at 4.4 meters at 259° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 129° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]

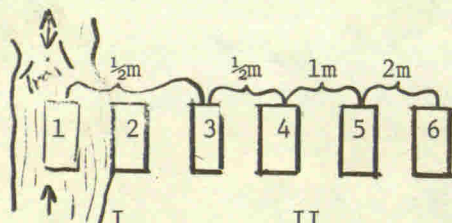


Date Aug 25, 1971
Photo Taken yes at 380°42
B.A. Prism Count at
Center of Frame 5 6
Elev. 8290
Apparant Use: Light _____
Medium X
Heavy _____

Apparant Use: Light _____
Medium X
Heavy _____

Mileage to sample 4.33 miles
Location of Tag Tree: South edge of last big opening meadow in trees
Before going over Summit. Tag tree $4\frac{1}{2}$ meters from trail
center on east side of trail (Right Side going uphill.) Is a 9 inch
Alpine fir with Diamond blaze on North and South side.
Remarks: Erythronium dying up. Top plot (Highest plot on
North Fork Trail)

Plot centers begin at 2.1 meters at 195° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 73° azimuth from trail center (1st plot).



1	0-5%
2	5-25%
3	25-50%
4	50-75%
5	75-100%

[illegible]



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-63

Date *Aug 25, 1971*

Vegetation: Overstory Type WBP
Understory (reprod) AF
Herbaceous Ground 1/4c Scap

Photo Taken Yes at 94 Az.

B.A. Prism Count at

Center of Frame 5 12

Elon 8270

Trail Width: 95 cm

Trail Depth at Center 5 cm.

Apparant Use: Light

Medium ☒

Heavy

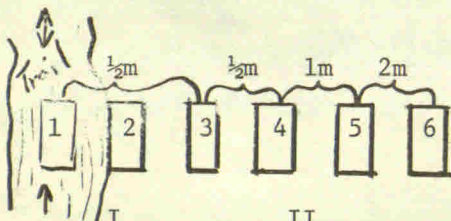
Point of Origin: Distance of measure begins at North Fork trail register at end of logging road and adjacent to first creek crossing on North Fork-bear basin trail. F.S. Trail #15

Mileage to sample 3.33

Location of Tag Tree: IN WBP Forest Just Below Bear Basin - AT North
edge of trail approximately 2 meters from trail center
Diamond Blaze on both sides. Tag tree is a WBP approx. 27in DBH
on left side going uphill.

Remarks :

Plot centers begin at 7.2 meters at 111° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, ½ meter, 1 meter, 2 meters, and 4 meters respectively and running at 358° azimuth from trail center (1st plot).



Per cent Classes

1 0-5%

2 5-25%

3 25-50%

4 50-75%

5 75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Hibiscus amole</i>																														
<i>Arnica latifolia</i>																														
<i>Scorodendrum</i>																														
<i>Anthriscus grandiflorus</i>																														



TRAILSIDE SAMPLE DATA FORM

Tag Identification No. 330-64

Date Aug 26, 1971

Vegetation: Overstory Type WBP
Understory (reprod) AF
Herbaceous Ground VAC Scop

Photo Taken EN at 54° 12'
B.A. Prism Count at 7
Center of Frame 5 7

Elev. 8260

Trail Width: 60
Trail Depth at Center 3cm.

Apparant Use: Light Medium
Heavy X

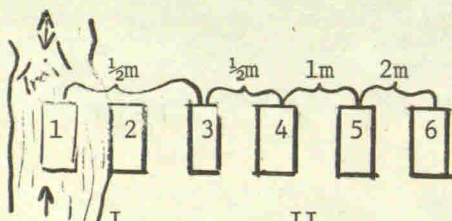
Point of Origin: Distance of measure begins at North Fork Trail Register at end of logging road and adjacent to first Creek Crossing on North Fork - Bear basin trail, F.S. Trail #15

Mileage to sample 3.46 miles

Location of Tag Tree: In WBP forest on south edge of trail approximately 2 meters from trail center. (Right side going up hill.)
Tag tree is on the edge of a steep grade where it levels out.

Remarks: Enythronium leaves are dried up.

Plot centers begin at 2.7 meters at 360° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, 1/2 meter, 1 meter, 2 meters, and 4 meters respectively and running at 152° azimuth from trail center (1st plot).



Per cent Classes

- 1 0-5%
- 2 5-25%
- 3 25-50%
- 4 50-75%
- 5 75-100%

Frame	I					II					III					IV					V					VI				
% Class No.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Species																														
<i>Vaccinium scoparium</i>											X								X					X						
<i>Arnica latifolia</i>											X										X									
<i>Enthronium grandiflorum</i>												X							X											
<i>Hieracium gracile</i>												X							X											
<i>Lupinus sericeus</i>												X							X											
<i>Grass</i>					X		X																							
<i>Litter</i>										X					X					X				X						
<i>Rock</i>																														
<i>Abies lasiocarpa</i>																														

Handwritten note: no Abies reproduction



Tag Identification No. 330-65

Date *Aug 26, 1971*

Vegetation: Overstory Type WBP
Understory (reprod) AF
Herbaceous Ground Vaccinium
Scoparium

Photo Taken BW @ 88°
B.A. Prism Count at
Center of Frame 5 7
Elev 8250

Trail Width: 40
Trail Depth at Center 17 cm

Apparant Use: Light _____
Medium X
Heavy _____

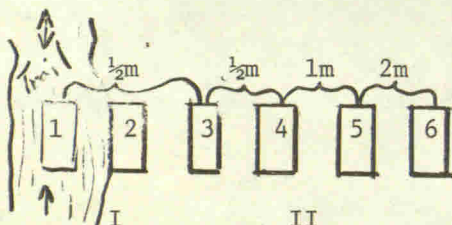
Point of Origin: Distance measure begins at end of abandoned old logging road where North Fork - Bear Basin trail begins - located at F.S. trail register adjacent to first creek crossing, on F.S. Trail #16

Mileage to sample 3.48

Location of Tag Tree: Adjacent to edge of trail on uphill grade
on South (right side going uphill.) Has Fir. Trail blaze
and diamond blaze below that. - 13 A W&P 28" DBH

Remarks: Erosion in depth may occur due to heavy use and no side or off drainage for spring runoff. Look for nail in tree root on trail plot center

Plot centers begin at 1.8 meters at 56° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 186° azimuth from trail center (1st plot).



1	0-5%
2	5-25%
3	25-50%
4	50-75%
5	75-100%

[illegible]



Tag Identification No. 330-66

Date Aug 26 1971

Vegetation: Overstory Type WBP
Understory (reprod) AF
Herbaceous Ground VAC scop

Photo Taken *BW @ 348°*

B.A. Prism Count at

Center of Frame 5 8
Elev. 8100

Trail Width: 1.10 meters

Trail Depth at Center 59m

Apparant Use: Light

Medium ~~X~~

Heavy

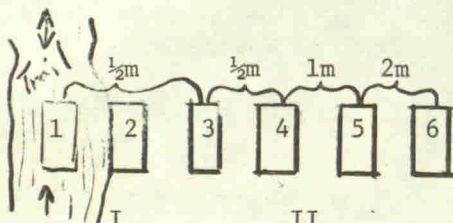
Point of Origin: Distance of trail measure begins at North Fork
Trail register at end of old abandoned logging road and adjacent to
first creek crossing on North Fork - Bear Basin trail F.S. # 16.

Mileage to sample 3.24

Location of Tag Tree: On EAST SIDE OF Trail Approximately 3 1/2 meters
on right side (going uphill) off of curve in trail - Is Diamond
blazed at right angles on two sides - WBP 16" DBH

Remarks: on such a wide trail plat 3 becomes edge of trail

Plot centers begin at 4.4 meters at 290° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 101° azimuth from trail center (1st plot).



1	0-5%
2	5-25%
3	25-50%
4	50-75%
5	75-100%

[illegible]



[illegible]



Tag Identification No. 330-68

Date Aug 26, 1971

Vegetation: Overstory Type AF
Understory (reprod) AF
Herbaceous Ground Mixed

Photo Taken at 280° Az
B.A. Prism Count at 8
Center of Frame 5 8
Elev - 7800

Trail Width: 1.75 meter

Trail Depth at Center 8 cm

Depth in erosion gully 280cm

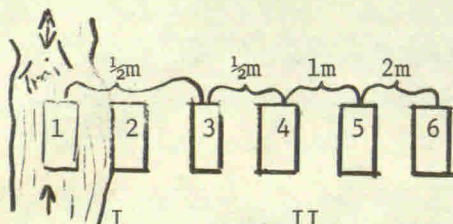
Point of Origin: Distance measure begins at end of Abandoned
old logging road where North Fork - Bear Basin Trail Begins - located
at U.S.F.S. Trail register adjacent to first creek crossing on
F.S. Trail #16

Mileage to sample	2.99
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Location of Tag Tree: North edge of trail - old Alpine fir
19 inches DBH - Diamond Blaze on EAST side of tree.
old decadent tree - MAY NOT LAST LONG.

Remarks: High erosion due to no cross drainage on trail on steep area.

Plot centers begin at 3.5 meters at 125° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, ½ meter, 1 meter, 2 meters, and 4 meters respectively and running at 6° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]



Tag Identification No. 330-69

Date Aug 26, 1971

Vegetation: Overstory Type AF
Understory (reprod) AF
Herbaceous Ground Mixed

Photo Taken BW d 180
B.A. Prism Count at
Center of Frame 5 2
FLW 7600

Trail Width: 45 cm
Trail Depth at Center 2 cm

Apparant Use: Light
Medium X
Heavy

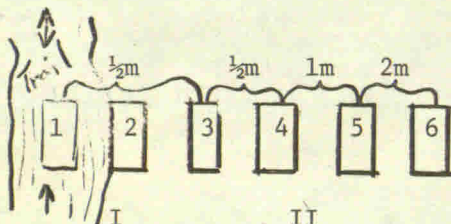
Point of Origin: Distance of trail measure begins at North Fork
Trail register at end of old abandoned logging road and adjacent
to the first creek crossing on North Fork - Bear Basin trail.

Mileage to sample	2.85
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Location of Tag Tree: Young Alpine fir on west edge of trail
Diamond blaze on North and South sides. AF DBH 40 inches
Near edge of clearing.

Remarks:

Plot centers begin at 6 meters at 360° azimuth from tag tree to plot center (center of trail) and frames begin at trail center to trail edge, $\frac{1}{2}$ meter, 1 meter, 2 meters, and 4 meters respectively and running at 279° azimuth from trail center (1st plot).



Per cent Classes

- | | |
|---|---------|
| 1 | 0-5% |
| 2 | 5-25% |
| 3 | 25-50% |
| 4 | 50-75% |
| 5 | 75-100% |

[illegible]

