

R.S. M-1 Plumas Plot 1

Near Portola NW $\frac{1}{4}$ of SW $\frac{1}{4}$ S27 T73N E13E

Fenced against livestock ^{June} 1923 ^{Shaw} Dunning

8 square plots (75' x 75') designated
by letters A to H inclusive

Cut 1911

Reproduction studied 1911 —

SW cor of plot lies 6 ch S66°W from
NE cor of the NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of S27
about $\frac{3}{4}$ miles north of F River Lumber
Co Mill at Delliker near ~~Port~~ Portola

Area 24 acres 10 chains by 24 chains

Sheep reported damaging tree reprod 1910

Fires 1906, 1907, 1880, 1850 and 1830

Prob responsible for scanty tree reprod.

Plot established May 18 1911 by

R. S. Maddox.

Reprod plots A to H established

May 11 on every 3rd sq. chain
beginning near middle of plot on
West end

Reexamined 1912, 1914, 15, 17, 19
1920, 22, 1924,

Examined by Phil Haddock 1941 (Trees)

Map revisions - Shrub cover

Map No	Type	
<u>I</u>	Tracing paper	Incomplete
<u>II</u>	Blueprint (1913)	Probably shows cover in 1911. Not sure complete
<u>III</u>	Blueprint (1914)	Shows change from map II but may just have added shrub info where new seedlings came in
<u>IV</u>	Printed base	Probably 1917 picture
<u>IV</u>	Printed base	New black ink 1924
<u>IV</u>	" "	Red 1920
<u>IV</u>	Printed base	Blue 1924 1925
<u>IV</u>	Printed base	Pencil 1925 1925? and 1926

Notes on Mc 1 Plot 1 Plumas N.F.
established 1911 (May 18)

1911 data - original mapping

1911 Reproduction plots (1 chain sq.) A to H.

On each of the maps were located also
all burnt spots, logs, stumps, brush,
(manzanita, Thorn etc) and squaw carpet
"two feet across," logs, roads and skid roads"

Notes on shrub cover

Underbrush Sagebrush	Subplot A	Ground cover Squaw carpet + Wm (Blks) woods brush (48, 49, 50)
none	B	" "
none	C	" "
none	D	" "
none	E	" "
thorn brush	F	" "
none	G	" "
none	H	" "

Photographs Oct 28, 1911

Febr. 5, 1921 (Duncan Denning)

Bitterbrush occurs as scattered individuals over entire plot. Brush is scanty over most of the plot. Most abundant species is white Thorn (*Coanothus cordulatus*) confined to N and E slopes on E end of main plot. *Mangarita* (*A. patula*) and *ABt* occur sparingly. Other shrubs not important. The principal ground cover is *C. prostratus*. Increased 43% between 1911 and 1917.

Other species E = Elderberry
 A = Amelanchier

Febr 1 1987 (H. W. Siggins)

Ground cover scant consisting of scattered specimens of *C. cordulatus*, Apt, Pt. There are more or less extensive patches of *C. prostratus*. Some Wm (Bds)

(See photos in this report.)

Copies needed

Species Pt, (Cp C cord. Other)

Dates 1917 1911, 1917, 1920, 1924, 1926, 1963

Species 2

Dates 6

12 copies each plot

12 x 8 plots = 96 prints.

Prints

1917 mapping clear base $\frac{32 \text{ prints}}{16} = 48 \text{ prints}$
(1911, 1917, 2 species (8 plots) = 32)

(48)

1917 base showing remappings

1920, 1924, 1926, ~~1926~~ 2 species (8 plots)

(48)

96.

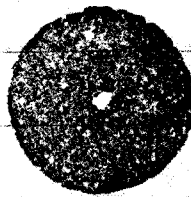
Clear grid 2 of each plot

2 x 8 =

16

Show plants on the ground
in 1911, 1917, 1920, 1924, 1926, 1963

Bitterbrush plant size classes
(For Plumas mapped plots)

Diameter class			Size of circle	
No	Range inches	Mid point	Diameter inches	
1	1-6	3	$\frac{1}{16}$	
2	7-18	12	$\frac{1}{8}$	
3	19-30	24	$\frac{1}{4}$	
4	31-42	36	$\frac{3}{8}$	
5	43-54	48	$\frac{1}{2}$	
6	55-66	60	$\frac{5}{8}$	
7	67-78	72	$\frac{3}{4}$	

Scale $\frac{3}{4}" = 6.6'$ approx
 $\frac{1}{8}" = 12" \quad " \quad "$



— Log of location —
at Pt plot (Mc-1)
near Dalletter

From intersection 1
mile NW of Dalletter
0.8 miles to cruiser tag
and 1.1 miles to plot
taken off permit:
Plot NE of road

See notes in diary
Sept 9 1963
about work on plots

McC Portola Plots Plumas N.F.

Tree reproduction studies

Date

May 18, 1911

Plots established

Logged. Studies started

{ By District Ranger
R S Maddox

Date

Examination

Examiner

Established veg.
All brush
incl. yucca
Bitterbrush

Pine reprod.

1911

1912

1914

1915

1917

1919

1920

1922

1924

1925

1926

✓

✓

Dunning Clements Horn

1927, 28, 29, 30, 31

June 11 1941

✓

Phil Haddock, Borris

Sept. 1963

✓

Horn

Tree seedling record

Date of germination	Maps and revisions	Date of exam.	
1911	✓	Aug 1911	
1912		Oct 1912	
1913		June 1914	
stakes changed to wire pins June 1914		Apr 1915	
1915-16	Apr. 1915 (Remap)	May 1917	
Remapped? (1917)-19	May 1917 (Remap) Sept 1919 "	Sept 1919	
1920	Sept 1920 "	Sept 1920	
1921			
1922	June?	July 1922	
1924	June? ✓	July 1922 No 1923 Exam. June 1924	Blue
1925		Oct 1925	
1926		Sept 1926	
1927		July 1927	
1928		Aug 1928	
1929		July 1929	
1930		July 1930	
1931		July 1931	
Last examination by P. G. Haddock and			
Berri's June 11, 1941			

From Portola MC Plots 5-1 Bitterbrush Study MC Thomas

Age - Ring growth Relationship

6/30/42

EHB

Correlation of known-age stems on Pine Reproduction Study Plots (Plot #1) with No. of Rings.

Plant No.	Location			Max. No. of years plants first rec.	Seedling year	Stem dimensions		Age of plant (1942-S.V. Ind)	Number of rings	Difference between Age and No. of rings	Remarks		
	Subplot designation	Subplot sub-division	Position in Sub-division (N.W., E., S.W., C., SE)			Max. diameter	Max. radius				Ring growth	Form of cross-section	Accum. Count
K 1	A	A-6	NW-(N)		5	9	6		21		Early suppression	Concentric	Good
2	A	A-6	NW-(S)			16	9		21		Early suppression	Concentric	Good
3 A	A	A-7	NW-(S)			4	3		17		Early suppression	Concentric	Good
3 B	A	A-7	NW-(S)			5	3		17		Early suppression	Concentric	Fair
4	A	A-8	NE-(S)			3	2		11		Early suppression	Concentric	Poor
5	A	A-8	NE-(N)			7	4		18		Early suppression	Concentric	Good
6	A	A-9	C-(W)										
7 A	A	A-10	SE-(N)			6	4		17		Fairly uniform	Concentric	Good
7 B	A	A-10	SE-(N)			6	4		17		Early suppression	Concentric	Fair
8	A	A-10	C			6	4		20		Crowded	Concentric	Poor
9 A	A	B-10	C-(S)			3	1.5		12		Early suppression	Concentric	Poor
9 B	A	B-10	C-(S)			3	2		12		Early suppression	Concentric	Good
10	A	C-10	NW			11	7		18		Early suppression	Concentric	Good
11	A	G-7	C-(S)			3	1.5		17		Early suppression	Concentric	Poor
12	A	G-7	C-(E)			4	2		13		Early suppression	Concentric	Fair
13	A	H-7	NW			13	9		18		Mod. rapid	Concentric	Good
14	A	H-7	SW	1931	1932	4	2	11	11		Early suppression	Concentric	Fair
15 A	A	H-8	SE			3	2		17		Early suppression	Concentric	Fair
15 B	A					4	2		17		Early suppression	Concentric	Fair
16	A	E-4	SE						19		Early suppression	Concentric	Good
17 F	E	A-1	NE			12	6		20		IR. Con. ov.	Concentric	Good
18 F	E	A-2	C-(W)			16	9		17		IR. Moderate	Concentric	Good
19 F	E	B-3	NE	1931	1932	10	6	11	11		F.U. slightly eccentric	Concentric	Good
20 F	E	G-3	C-(W)	1931	1933	14	10	10	10		Rapid 5 yrs	Concentric	Good
21	E	H-3	SW			15	9		28		IR. Supp.	Concentric	Fair
22 F	E	H-5	NW			18	13		25		IR. Supp. very	Concentric	Good
23 F	E	B-8	SW			8	5		20		IR. Supp. very	Concentric	Good
24	D	G-8	NE	1931	1932	4	3	11	11		IR. Supp.	Concentric	Good
25	D	G-8	SE	1931	1932	4	3	11	11		IR. Supp.	Concentric	Fair
26	D	H-4	SW	1931	1932	4	2	11	11		IR. Supp.	Concentric	Fair
27	D	G-4	NE	1931	1932	6	4	11	11		IR. Supp.	Concentric	Good
28	D	E-2	SW			11	6		17		IR. Supp.	Concentric	Fair
29	D	D-2	C-(N)			15	9		14		IR. Supp.	Concentric	Fair
30	D	D-2	SW	1931	1932	4	2	11	11		IR. Supp.	Concentric	Fair
31	D	C-4	NE			19	10		19		IR. Supp.	Concentric	Good
32	D	C-4	C-(S)	1931	1932	7	4	11	10		IR. Supp.	Concentric	Fair
33	D	C-8	NW			16	11		22		IR. Supp.	Concentric	Good

Plant number	Location			Mature year plant first rec.	Seedling year	Stem dimensions		Age of plant (1942-S.Y.) Incl.	Number of rings	Difference between age and no. of rings	Remarks			
	Subplot designation	Subplot subdivis.	Position in sub- division			Max. diameter	Max. radius							
K 34A	D	D-8	SW	1931	1932	7	4	11	11		Slow uniform	Concentric	Good	✓
34B	D	D-8	SW	1931	1932	6	4	11	11		Family uniform	Eccentric	Good	✓
? 36	C	I-8	SE			5	3		10		Uniform	Slightly eccentric	Good	✓
37F	C	H-8	C	1931	1932	5	3	11	11		Suppressed	Concentric ovate	Good	✓
38	C	H-9	NE	1931	1931	7	5	12	12		Suppressed	Eccentric	Fair	✓
39	C	G-8	SW	1931	?	3	1.5		7		Uniform mod. rapid	Concentric	Good	✓
40	C	G-7	SE	1931	1932	6	4	11	11		IR	Eccentric	Fair	✓
41	C	H-5	SW			28	21		21		Rapid Uniform	Eccentric (Kotenc. anti.)	Good	✓
42	C	H-3	SW	1931	1932	4	3	11	10		Suppressed	Eccentric	Fair	✓
43	C	H-2	SE			14	8		14		IR	Eccentric	Good	✓
44	C	H-2	NE			26	17		20		IR	eccentric	Family good	✓
45	C	D-3	NE	1931	1933	15	10	10	11		Unacc.	Very eccentric	Good	✓
46	C	D-3	NE	1931	(No age)	14	8		11		Uniform	Eccentric	Good	✓
47	C	C-4	SW	1931	1931	14	8	12	12		Rapid Uniform	Eccentric	Good	✓
48	C	D-5	NW			18	9		16		Early suppression	Concentric	Good	✓
49	C	C-6	C			18	14		17		Rapid uniform	Eccentric	Good	✓
50	C	B-6	SE			25	14		18		Varied	Slightly eccentric	Good	✓
51	C	B-6	SW			21	13		17		Uniform	Eccentric	Good	✓
35	C	I-9	SE			9	6		13		F.U.	Eccentric	Good	✓

Bitterbrush Study Pine Reproduction Study Plots

Subplot A, RS Mc-1 Plumas NF, Plot no. 1
Number of bitterbrush

5/29/42
EHB

	A	B	C	D	E	F	G	H	I	J	Dist	Area	Total
1941													
→ 1	3	1	1	1	3	2	0	2	1	0			14
1926	1	1	1	1	0	0	1	2	0	0			7
1963	4	5	5	2	3	6	1	2	2	6	3	33	36
→ 2	4	3	0	3	4	1	0	1	0	2			
1963	3	3	0	2	0	2	0	1	0	2			
→ 3	3	3	2	5	2	3	2	0	1	0			
1963	0	3	1	1	1	3	2	0	0	0			
4	2	4	4	2	1	3	1	2	1	0			
1963	2	4	1	2	0	1	0	0	0	0			
5	2	2	2	4	4	1	2	2	1	0			
1963	2	3	0	1	2	1	0	1	0	0			
6	11	8	3	5	0	1	2	1	1	1			
1963	3	6	0	1	0	1	1	0	1	2			
7	6	6	11	1	2	1	3	2	1	2			
1963	5	6	1	0	1	0	1	1	1	2			
8	2	1	10	5	3	3	2	2	4	1			
1963	1	1	5	3	2	3	1	1	2	1			
9	2	1	3	3	5	2	3	3	2	4			
1963	1	1	5	3	4	2	1	1	2	4			
→ 10	3	5	1	2	3	1	3	2	3	0			
1964	4	1	1	1	1	1	2	0	0	0			

Plants removed from plot for age studies

Bitterbrush Study Pine Reproduction Study Plots

Subplot B, RS MC-1 Plumas NF. Plot no.-1

9/29/42
END

	A	B	C	D	E	F	G	H	I	J	Total
	Number of Bitterbrush										
1	2	1		1	3	4	1	2	3	3	20
1926	1	1	0	1	2	1	0	1	2	1	10
2			1				2	1	1	1	6
	0	0	1	0	0	0	0	0	1	2	4
3		1	4	2		3	5	3	2	1	21
	0	0	1	0	2	1	3	1	2	1	11
4		2	1	2		2	3	6	2	1	19
	0	0	3	1	0	1	2	0	0	0	7
5						1	2				3
	0	2	1	0	0	1	2	0	0	0	6
6	2		1			3	4	3	4		17
	2	0	0	0	0	4	3	1	4	0	14
7		1					2		2	1	6
	1	0	1	1	0	1	1	1	1	0	7
8	1									3	4
	0	0	0	0	0	0	0	0	0	1	1
9				1						1	2
	0	0	0	0	0	0	0	0	0	0	0
10	3								1	1	5
	1	1	0	0	0	0	0	0	1	1	4

1941
1926

103
64

Bitterbrush Study Pine Reproduction Study Plots

Subplot C, RS Mc-1 Plumas NF Plot no.-1 5/29/42 EHB

	A	B	C	D	E	F	G	H	I	J
1	4 2	0	1 0	0	0	1 1	1 2	1 2	1 0	2 0
2	3 3	3 1	1 0	0	1 0	1	1 0	2 0	1 1	1 1
3	2 0	2 4	10 2	1 0	0	0	2 1	2 0	0	0
4	1 1	2 0	6 1	2 1	0	0	4 1	1 0	1 1	0
5	1 1	2 2	0	2 0	0	0	1 1	1 0	3 2	3 3
6	2 1	2 0	1 0	2 2	0	0	0	0	2 1	1 0
7	1 1	0	3 0	2 0	0	1 0	5 2	3 1	1 1	0
8	3 2	1 0	3 0	0	1 1	0	1 1	2 0	2 0	0
9	1 1	0	0	0	1 0	0	0	3 0	0	0
10	1 0	0	0	0	0	0	2 0	0	0	1 1

Bitterbrush Study

Pine Reproduction Study Plots

Subplot D RS MC-1 Plumas NF Plot no. 1

5/29/42
EHB

	A	B	C	D	E	F	G	H	I	J
	Number of Crowns									
1	1 1976	0	0	0	1 1	1 1	0	0	1 0	4 0
2	1 0	0	1 0	2 2	2 1	0	0	0	0	0
3	0	2 0	0	6 0	1 0	0	2 0	0	0	0
4	0	2 2	3 0	2 0	0	0	1 0	2 1	1 0	0
5	0	0	0	0	0	0	0	0	0	0
6	1 1	1	1 0	1 0	1 0	0	1	0	0	0
7	2 0	1 0	0	0	1 3	0	0	1 0	3 4	1 1
8	1 0	2 0	3 1	2 0	0	1 1	4 0	0	0	1 0
9	1 0	5 4	1 0	2 2	2 1	1 1	0	0	0	1 0
10	2 1	4 3	2 2	2 0	2 0	4 1	2 2	1 0	1 0	0

Bitterbrush Study
Pine Reproduction Study Plots

Subplot E, RS MC-1 Plumas NF Plot no.-1

5/30/42
EHB

	A	B	C	D	E	F	G	H	I	J
1	4	1	1			1		1	3	
2	3						3		2	4
3	1		6				2	1		1
4			1	1			1	1	1	
5		2				1		1		
6				1		1		1	1	
7			2				3		1	
8			1	3			1		1	
9		1			1		2	3	1	
10	1	3	7			2		1		1

Bitterbrush Study

Pine Reproduction Study Plots

Subplot E, RS Mc-1, Plumas NF, Plot no. -1

5/30/42
EHB

	A	B	C	D	E	F	G	H	I	J
	Numbers of Bitterbrush									
1	1			1						
2									1	
3	1						2	2		
4			1			1		1		1
5										1
6							1	2		
7			1	1			1	3		2
8			1	1	1			2	2	2
9	1				1	1		3		1
10		1				1	2		2	

Bitterbrush Study
Pine Reproduction Study Plots

Subplot G, RS, Mc-1 Plumas NF Plot no. 1

5/30/42
EHB

	A	B	C	D	E	F	G	H	I	J
1				1	2	1	1		1	1
2		3	2							1
3	1	4	3	2			4	2		2
4	4	1	4	3		1	3	3		
5	2	1		1	2			1	1	
6	1		2					2		
7			3	5	4	1		3		
8		1		3	2					3
9	1	2			1		1	1	2	1
10	2	1	1	2	4				2	1

Bitterbrush Study

Pine Reproduction Study Plots

Subplot H, RS, Mc-1 Plumas NF Plot no. 1

Spencer
EHB

	A	B	C	D	E	F	G	H	I	J
1					1	2	2	2	1	1
2	1			1	1	1		1	1	4
3			5	5	2	4	3	5	4	2
4	1		3	4		1	7	1	3	2
5		1		1			1		3	
6	4	1	1	2		2	1	1		1
7	4	6	7	6					2	1
8	7	5	5	2			2			
9	1	1	4	3	1		1	1		2
10	4	2	1	1			1			