

KNAPWEED 1999

Goat Creek Transects

East Half

DENSITY PLOTS ($20 \times 50 \text{ cm} = 0.1 \text{ m}^2$):

Transects 3-20: 9, 1, 10, 8, 3, 0, 0, 5, 11, 8, 0, 21,

6, 2, 4, 3, 5, 10, 12, 2, 3, 6, 1, 2, 20, 6

= 158 plants in 26 plots

= $6.077 \text{ plants} / 0.1 \text{ m}^2 = 60.8 \text{ plants/m}^2$

= 50.8 plants/yd^2

median = $5 \text{ plants/plot}^{0.1 \text{ m}^2}$

AREA of KNAPWEED (# of plots representing
a $3 \text{ m} \times 6 \text{ m}$ area) including interior zeros:

Transects #3-12: 13, 38, 43, 45, 41,

34, 31, 24, 18 = 287 plots

$287 \times 18 \text{ m}^2 = 5166 \text{ m}^2 = 0.517 \text{ ha}$

$0.517 \text{ ha} \times \frac{2.47 \text{ ac}}{\text{ha}} = 1.28 \text{ acres}$

% plots within area that contain knapweed:

$223 \text{ knap. plots} \div 287 \text{ total plots} = 77.7\%$

West Half

DENSITY PLOTS $(20 \times 50 \text{ cm}) = 0.1 \text{ m}^2$

TR #
0-10: 0, 1, 15, 11, 3, 33, 12, 5, 6, 16, 5, 7, 12, 14, 11,
15 = 166 16 plots

11-20: 7, 17, 13, 55, 7, 0, 9, 21, 0, 7, 50, 10, 0, 1,
0, 5 = 202 16 plots

21-38: 2, 9, 5, 2, 14, 0, 0, 9, 11, 21, 19, 1, 0,
15 = 108 13 plots

Σ densities = 476 plants Σ plots = 45 plots

\times density = 10.58 plants / 0.1 m^2 plot

= 105.8 plants / m^2 (126.5 / yd^2)

4: 26

median = 8 plants / plot = 80 plants / m^2

Area of Knapweed

of plots / transect (incl. interior zero plots)

TR #
4-11: 33, 29, 27, 24, 25, 27, 26, 27 = 245

12-20: 19, 23, 19, 15, 18, 14, 20, 18, 14 = 160

21-29: 7, 21, 23, 22, 22, 20, 13, 5, 4 = 137

30-35 12, 9, 14, 2, 5, 3 = 45 TOTAL 587

Plots \times (3m \times 6m) = 10,566 m^2 area

(10,000 m^2 = 1 ha) = 1.057 ha

(2.4700 = 1 ha) = 2.61 ac

(*)

(*)

West Half

Area of Knapweed (continued)

of interior plots with Knapweed present:

TR #
4-11 : 22, 27, 27, 24, 22, 26, 26, 24 = 198

12-20 : 18, 18, 17, 13, 18, 11, 14, 9, 10 = 128

21-29 : 7, 16, 17, 16, 16, 14, 11, 5, 4 = 106

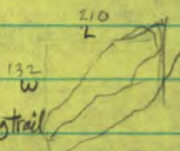
30-35 : 7, 8, 9, 1, 4, 3 = 32 TOTAL = 464

% of plots with Knapweed $\frac{464}{587} = \boxed{79.0\%}$

(*)

Length of Knapweed patch (along trail)

Trail length = $\sqrt{L^2 + W^2} = \sqrt{(35 \times 6m)^2 + (44 \times 3m)^2}$
 $= \sqrt{44,100 + 17,424} = \sqrt{61,524} = \boxed{248.0m}$



*

Area pulled along trail = $992m^2$

Internship time: June 5, 6, 10, 11, 18(1/2),
 19(1/2), ? (1/2) July 25(1/2), 23(1/2) = H+3.

6/22 = H $\frac{K+R=4 \text{ days}}{\text{map}}$ 8/12-B=Ken 9/17, 19=H

36 person days = 288 hrs

FOR KNAWEED REPORT

Compare to MF reports (1997) and integrate Andy's Big Creek info. Chart of sites:

- # of plants
- Size of site ($m^2 \text{ \& } ha + yd^2 / ac$)
- % treated $\hat{=}$ area size

~~time~~

- REC Total man hours for ^{ground} proj (TR + SCA + Pay)
- Reseed w natives grass + snowberry + lupine...
 - Rust skeleton + sulfur cingford present
 - Need to GPS sites
 - Treat sm sites 1st ^{try to} ^{ground} ^{at} ^{the} ^{camp} [→] Soldier Bar ^{hitch rail} ^{+ tent} ^{outfitter camp.}

GOAT CREEK

- 1) Average density ($1/m^2 \hat{=} 1/ya^2$)
 - 2) Total # of plants (count or est. by dens x size)
 - 3) Size of site
 - 4) % treated + area size treated ^{not ac}
- There is also an uphill spread of knapw

TABLE

SITE NAME	##	Species	size of infest	^{area} % treated	density	# plants	New site?
TOTAL	# sites	KNAWEED	TOTAL	TOTAL %			

Sites:

Andys Goat Cr ✓

Goat B1 ✓

Goat B2 ✓

Cougar ✓

Goat E ✓

Goat Str

Gorge

Coug Fl. Skelt

Coug Fl Skelt.

Ours Coug Fl. Knap 50 ptt 100%

Picto cave 1 ptt 100%

Salt Lick 1 ptt 100%

TRE ~40 plants 100%

TR W 890 2 times 100%

Lobauer 4 100%

TR pasture Sulfur ring 0%

Cougar Fl Sulf ring 0%

Soldier Bar 0%

Cliff Cr Camp unk 0%

$$\begin{array}{r} 102.54 \text{ ptt} \\ \times 1'' \\ \hline 32'' \\ \times 114'' \\ \hline 336'' \\ \times 2'' \\ \hline \end{array}$$

Knapweed Sites Documented on Big Creek

Taylor Rch @ Rush Cr: 850 plants (all) pulled 6/18/99
no old seedheads obs; ^{+ 33 flowering heads 9/6/99} All plants pulled ^{summer} in 1998

Goat Creek: - transects/plots surveys summer 1999 ~ 4.5 acres
Control in 1999 - hand pull some dense seedlings ~ 100% veg comp

Goat Basin: ^{6/19/99} 3 sites @ mouth & side of Basin @ Zettel
camp. These sites $\leq 50 \times 50$ M $\hat{=}$ look controllable \rightarrow scattered plants

Cougar Cr: ^{an} 6/19/99 N end of Dry Mdw @ mouth
area size? some dense seedling high % veg cover. ^{SCA contain mt. 7/99}

Cougar Flat: ~ 100 m W of Cougar Cr Dry Mdw. All 50
plants pulled 6/22/99. + SCA ^{found &} pulled more

Pictograph ledge 1 mi E of Taylor Rch on trail: 1 plant found
 $\hat{=}$ pulled 6/22/99

Lobauer Basin ^E end: All (8) plants pulled ^{cked 98} 1/997. ^{99 notes}

Soldier Bar Airstrip: large site 1998 ^{9/3}

Gorge - SCA - scattered pulling 7/99

Cliff Creek outfitter camp.