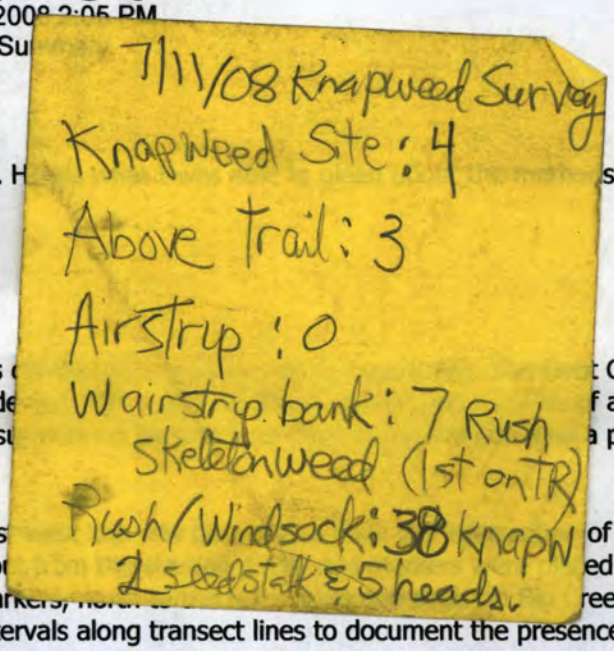
tape measures & flagging & flags GPS plot pin
Clipboard & graph paper & ruler
Daubenmire plots color pencil
Data forms for transects & pencil

Taylor Ranch

From: <ajbrumble@vandals.uidaho.edu>
To: "Taylor Ranch" <tayranch@hughes.net>
Sent: Monday, June 23, 200[illegible] 2:05 PM
Subject: Knapweed Project Su[illegible]



Hi Holly,

I have the knapweed folder here. H[illegible]s. I'm bringing the maps up to you...right now.

~Amie-June

Study Area
Ken Clark writes: "This study was [illegible]t Creek site is approximately 4.7 acres (680' x 130' on the west side[illegible]f a spotted knapweed stand grading into primarily native bunchgrass su[illegible]a pine."

Sampling Procedures
Ken Clark writes: "Initially, an eas[illegible] of Big Creek trail and the center of Goat Creek. A baseline was laid ou[illegible]ed at six-meter intervals. Transects were then laid out from these mar[illegible]reek. Daubenmire plots (20 cm x 50 cm) were used at three meter intervals along transect lines to document the presences or absence of knapweed. Within every twelve Daubenmire plots, one plot was randomly selected and the total number of knapweed plots root crowns counted, in order to estimate total population density.

Transect lines
Knapweed density was determined by calculating the mean density of knapweed in random plots. Transect lines with plots were mapped and a perimeter drawn around knapweed plots. Knapweed infestation was determined by the number of plots within the perimeter of the map x 3m x 18m area represented by each plot.

Control Methods
Ken Clark writes: "A two-meter border was marked from the center of the trail, spanning the complete length of the infestation. All knapweed plants within this two-meter band swath were pulled and removed using garden digging tools. Care was given to remove the entire root so as to avoid regrowth from the rhizomes. Gloves were worn to avoid the possible carcinogenic effects of the knapweed plants. Spot sites were also removed along the edge of Big Creek, in order to minimize potential see spread via the waterway."

Knapweed was burned on-site.

Results:
Holly Akenson writes: "The Taylor Ranch crew spent 288 hours mapping the Goat Creek site, assessing knapweed density, and pulling knapweed at Goat Creek and other sites. Knapweed at West Goat Creek covered a 10,570 meters squared (2.61 acres) area. Seventy-nine percent of plots within the map perimeter contained knapweed. The 248 m long knapweed area included essentially the entire river terrace not covered by trees or shrubs. The site had a mean knapweed density of 106 plants/m2. Knapweed density in plots ranged from 0 to 55 plants, with a median density of 8 plants per plot (80 plants/m2)."