FIRST QUARTERLY DATA REPORT
FOR THE
TERRESTRIAL BASELINE DATA ACCUMULATION PROGRAM
RIO BLANCO OIL SHALE PROJECT

submitted to

RIO BLANCO OIL SHALE PROJECT
Denver, Colorado

from

ECOLOGY CONSULTANTS, INCORPORATED
Fort Collins, Colorado

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2.3. TERRESTRIAL PROGRAMS

2.3.0. Introduction and Summary

This is the first quarterly report for the Terrestrial Baseline Data Accumulation Program on Tract C-a. Its purpose is to transmit information gathered during the period from initiation of the program in October, 1974 to February 28, 1975. For each element of the terrestrial program (such as vegetation, or small mammals) a detailed description of field and laboratory methodology is included. For those programs which have been initiated during this "quarter" the results, including raw and summarized data, discussion of results and preliminary interpretations are also included. To permit the easy acquisition of raw data by personnel from both Rio Blanco Oil Shale Project (RBOSP) and Ecology Consultants, Inc. (ECI) the data are organized in an appendix according to ECI's filing system. All data sheets within each filing category are numbered and this number, prefixed by the appropriate file number, is shown in the upper right hand corner of the sheet. Raw data in subsequent quarterly reports will be appended to data from the first quarter and serially numbered for incorporation into the accumulating data base.

Because few definitive ecological trends are identifiable from the data obtained in just one quarter, complete statistical analyses and interpretations of results are not included. Significant facts, trends, or comparisons evident from the summarized data will be presented, but possible interpretations of their ecological significance are regarded as only tentative, subject to revision in future quarterly reports on the basis of new information contained therein.

Ecology Consultants, Incorporated has been contracted to perform a Terrestrial Baseline Data Accumulation Program for Rio Blanco Oil Shale Project on Tract C-a. Communication of the scope and results of that program will be accomplished in a series of quarterly reports. This first report of that series contains details of methodology, summarized results, preliminary interpretations, and appended raw data for the period October 1974 through February 1975. Future Quarterly Reports will include an update of the developing data base for each subsequent quarter as well as any approved program modifications. Definitive interpretations and a synthesis of program results will be developed in the Second Annual Report which is due in December, 1975.

2.3.1. VEGETATION

2.3.1.1. INTRODUCTION

Vegetation investigations are designed to quantitatively and qualitatively describe the major vegetational types, to help identify and map the distribution of the major types, and to collect and identify plant voucher specimens. These investigations provide reliable quantitative and qualitative phytosociological information that serves as a basis for understanding local ecosystem structure and provides a foundation for future comparative studies on Tract C-a and the surrounding area.

2.3.1.2. METHODS AND MATERIALS

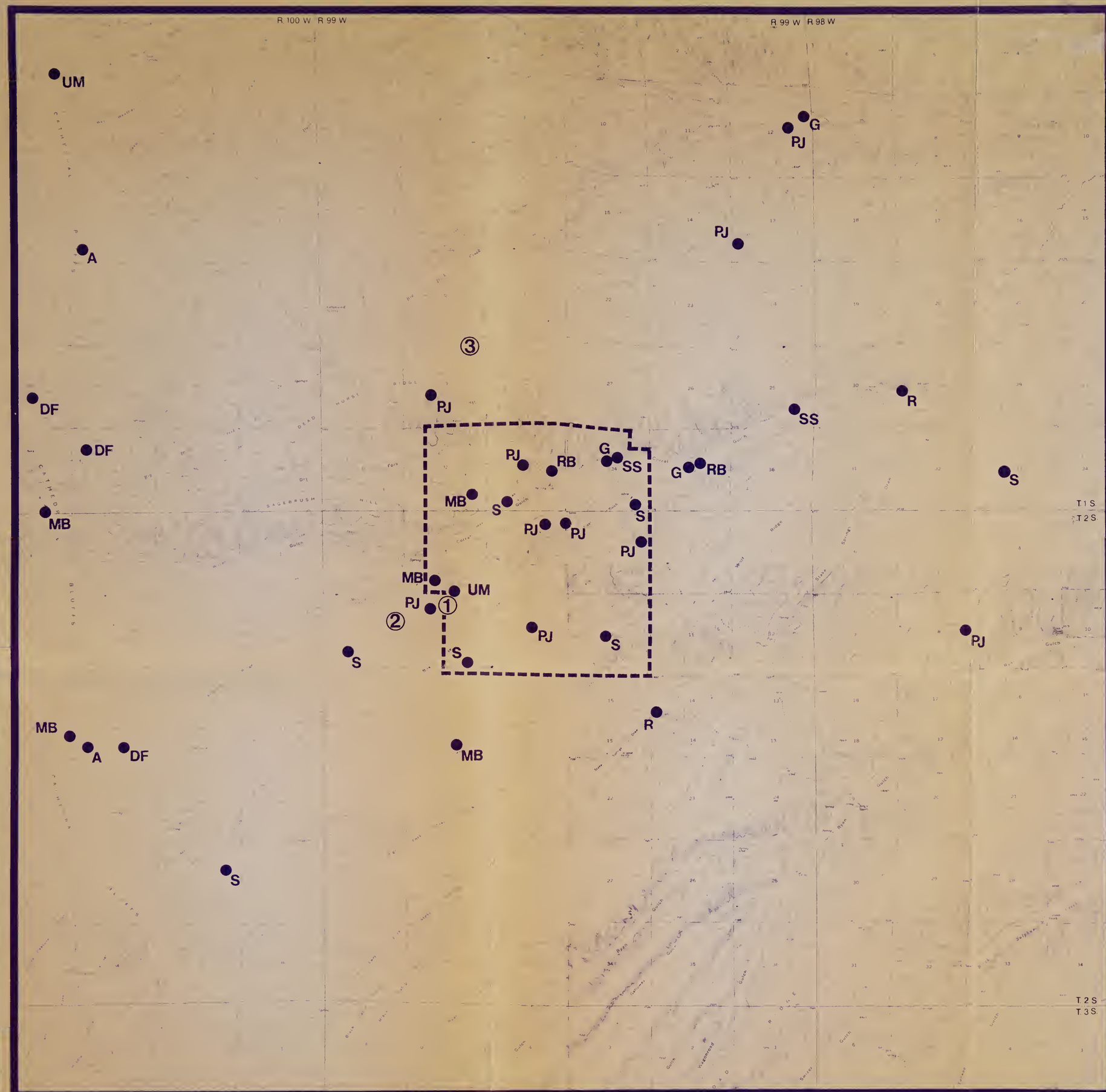
2.3.1.2.1. Phytosociological Investigations

Aerial photographs and pertinent literature were used to identify the major vegetation types on and adjacent to Tract C-a. A preliminary selection of sampling locations in each type was made from aerial photographs to assure good coverage of the entire area and to insure access along existing roads and trails. Locations having two or more vegetation types in close proximity to each other were favored as a means of increasing sampling efficiency.

Each representative of a type thus selected (such as pinyon-juniper) is then surveyed on the ground and the most prevalent variants of the overall type (for example, pinyon-juniper with a sagebrush understory) are identified. The largest block of homogeneous vegetation of each variant is selected for sampling. Sampling sites are shown in Figure 1.

A modification of the line-strip technique as described by Woodin and Lindsey (1954), Lindsey (1955), and Potter (1957) is used during the phytosociological investigations. This method incorporates the attributes of both line-strip and quadrat sampling systems to insure that valid and reliable data are obtained in the field for each identified vegetation type.

The practical field application of this method requires the establishment of 96, 60 m x 6 m (196.8 x 19.7 ft) transects within the major vegetation types occurring both on the tract and in the surrounding area. Of these 96 transects, 38 are being retained as permanent transects to be sampled again



TERRESTRIAL ECOLOGICAL INVESTIGATIONS

RIO BLANCO OIL SHALE PROJECT

VEGETATION SAMPLING SITES

○ Exclosure Sites (1-3)

● Permanent Sampling Sites

A	Aspen
DF	Douglas fir
MB	Mixed Brush
PJ	Pinyon - Juniper
S	Sagebrush
RB	Rabbitbrush
SS	Shadscale
G	Greasewood
R	Riparian
UM	Upland Meadow

0 1/2 1 2 miles

NORTH

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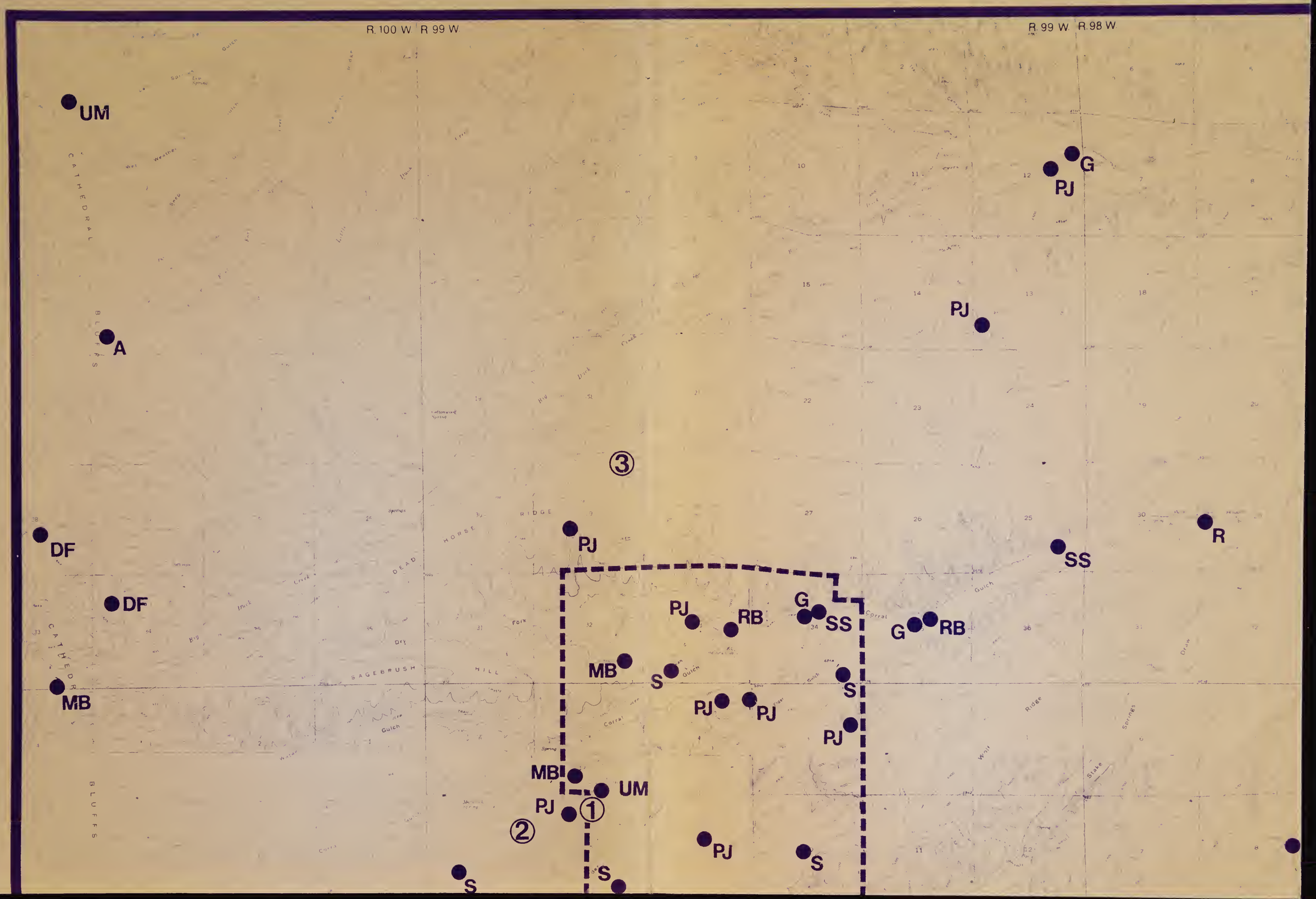
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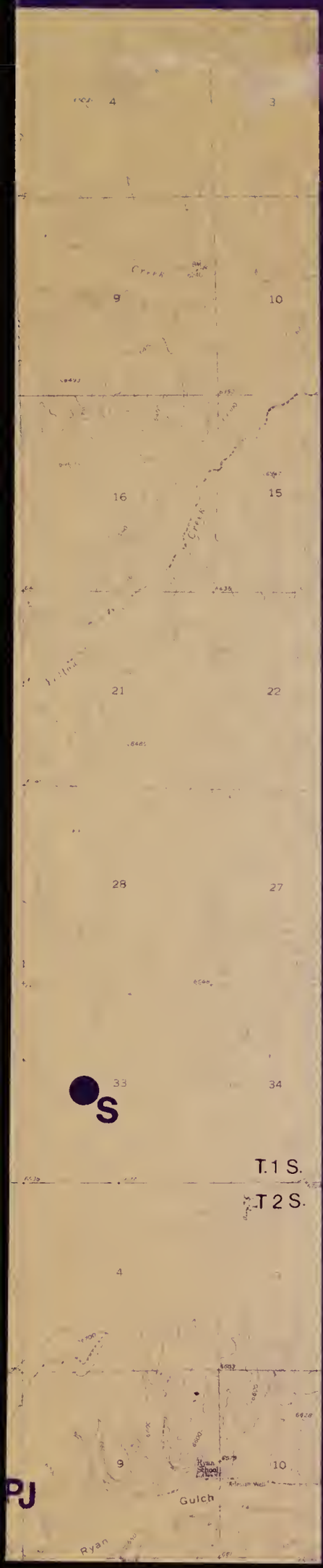
CATHEDRAL BLUFFS
HORSE RIDGE
DEAD
SAGEBRUSH HILL



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RIO BLANCO OIL SHALE PROJECT

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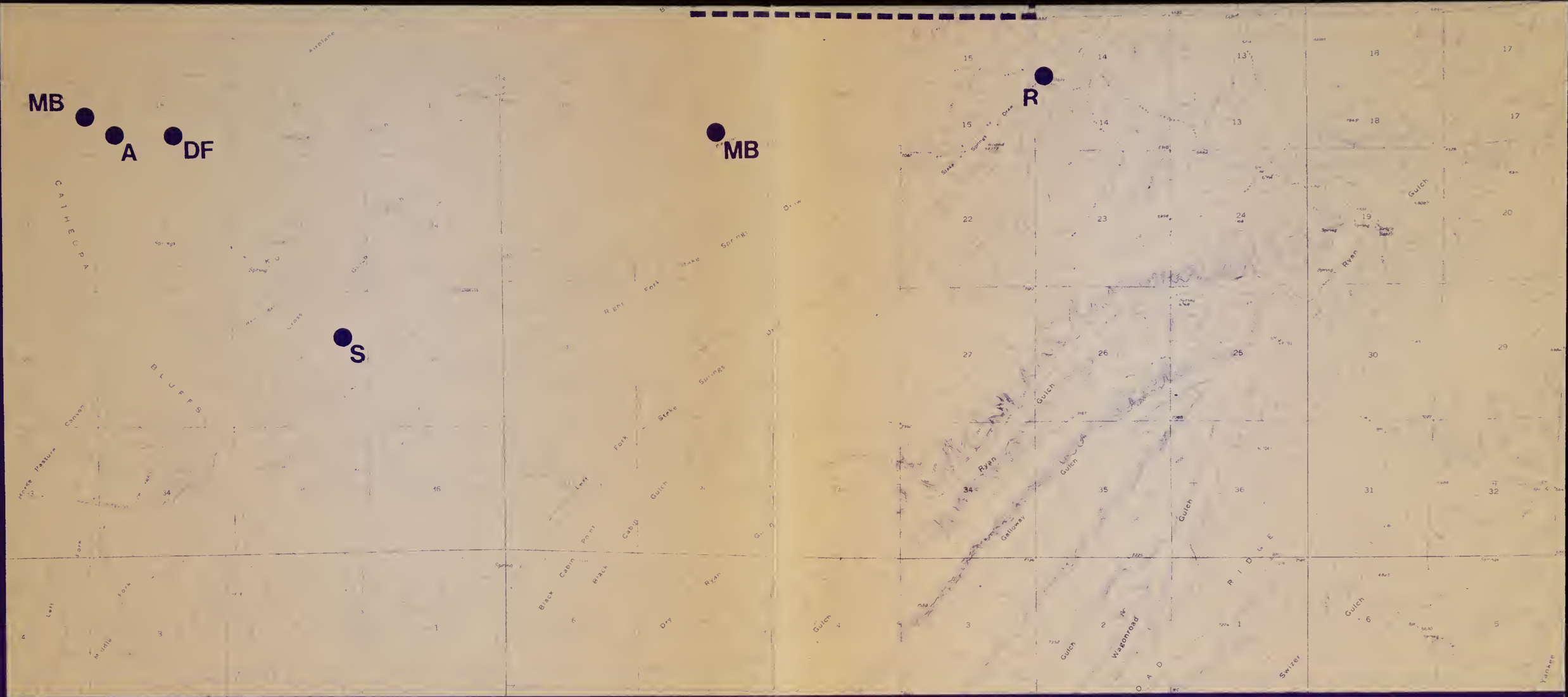
MB
A
DF
MB
R
S
CATHEDRAL
BLUFFS
Ryan
Gulch
Galloway
Wagonroad
Switzer
RIDGE
ROAD
Stake
Springs
Black
Cabin
Point
Dry
Gulch
Airplane
Three Pasture Canyon
Left Fork
Middle Fork
Cross
Gulch
Yankee

RB Rabbitbrush

SS Shadscale

G Greasewood

R Riparian

UM Upland Meadow

0 1/2 1 2 miles

NORTH

ECI

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Figure 1. Location of permanent vegetation sampling sites and grazing exclosures for the Rio Blanco Oil Shale Project.

in all subsequent sampling periods (Figure 1). These will provide data on seasonal and annual vegetation changes. The remaining 58 nonpermanent transects will be relocated during each sampling period to obtain a better statistical representation of each vegetation type, both on and off the tract, than would be possible using only permanent transects.

Location and Orientation of Sampling Transects

Within each sampling plot, the observer walks to a central area of the selected vegetation block and randomly locates a sampling transect using a 5-digit random number table. The observer moved from this point in the compass direction dictated by the first three digits (for a number of steps given by the first two digits) and makes a left or right turn depending on whether the third digit is odd or even, respectively. The observer then takes the number of steps dictated by the last two digits of the 5-digit number, to locate the starting point of the 60 m x 6 m transect. The transect is oriented in a compass direction given by the last three digits of the random number. This procedure provides a better opportunity to sample the major plant associations occurring within each vegetation type.

Data Gathering and Recording

Quantitative and qualitative phytosociological data pertaining to the tree, shrub, and herbaceous strata are gathered and recorded from each transect.

Tree and shrub strata. A taut 30 m (98.4 ft) tape defining the centerline of the transect is used to determine the foliage intercept distance along the line for each of the 60 m transects. The first and last numerical units of the tape which are vertically intercepted by foliage of each tree or shrub are recorded in the I_1 and I_2 columns of the data sheet shown in Figure 2. The difference between I_1 and I_2 gives the total units of foliage cover by an individual plant.

The portion of the data sheet for recording shrub canopy layer data is entitled "Reproductive Class" (Figure 2). A new data sheet is started for

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst:_____ Project:_____ Date:_____

Site:_____ Length of Line:_____

:_____ R:_____ Sec.:_____ ¼ Sec.:_____ Transect Direction:_____

General Description of Land:_____

Vegetation Type:_____ Condition of Foliage:_____

MATURE Class 3" plus diam.						Reproductive class 3' high < 3" diam.				
Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units

Figure 2. Tree and shrub strata field data sheet for the Rio Blanco Oil Shale Project.

each new transect. Species are listed as they are encountered, leaving enough space between entries to allow recording of intercept data in the I_1 and I_2 columns for each. When the space between entries is filled with intercept data, the "Length of Line" in the data sheet heading is filled in with the numerical unit on the tape that corresponds with the end reading in the I_2 column and a new data sheet is begun.

Tree canopy data are recorded in that section of the data sheet entitled "Mature Class" (Figure 2). The numbers corresponding to the start and end of each foliage intercept are recorded for each species as discussed for the shrub stratum. Intercepts for trees with trunk diameters over 7.6 cm (3 in) are recorded in the left hand column while the cover of trees smaller than 7.6 cm (saplings) are accounted for in the right hand column (Figure 2). This size class division allows the separate evaluation of cover values in both the sapling and mature tree classes (James and Shugart, 1970).

In addition to recording foliage intercept, an accurate count is made of shrubs, seedlings and saplings of each species occurring within approximately 3 m (9.84 ft) on either side of the tape measure. The 3 m distance from the tape is measured with a meter stick at the start of each transect and is repeatedly measured when distances of individual shrubs or trees are in doubt. Density values for shrubs and for seedlings and saplings of tree species are determined from this census. Census data are collected and recorded by 15 m (49.2 ft) segments of the transect, effectively making a series of four quadrats, approximately 15 m x 6 m (19.7 ft). This series serves as the basis for frequency values for the shrub and tree strata.

For mature trees located in each quadrat the diameter is recorded in centimeters. The enumeration of these recorded entries serves in determination of density in the mature tree class. The trunk diameters recorded for the mature class of trees are later converted to basal area values. Size-class distribution is also derived from the recorded measurements of trunk diameters. Due to the low branching habit of both pinyon and juniper, trunk diameters are estimated to the nearest centimeter by using a meter stick (Potter, 1971, personal communication) at the 0.5 m (1.64 ft) mark (Barger and Ffolliott, 1972) just below fork swell and above basal fluting instead of the customary

breast height, 1.37 m (4.5 ft), which is used to measure the straight-boled Douglas fir and aspen.

Herbaceous stratum. Herbaceous cover values are estimated with a 0.5 m (1.64 ft) by 1 m (3.28 ft) wire-frame quadrat. The long axis of the quadrat is placed parallel to and centered at 6 m intervals on the right side of the centerline tape. Ocular estimates of the amount of ground covered by vegetation (total cover) are recorded for each quadrat on a field data sheet (Figure 3). Each species is identified and listed. Unknown species are collected from a nearby location, assigned a collection code number which will be recorded on the data form as that species, then a relative cover value for each species (summing to 100% for all species) is recorded for each quadrat. The percentages assigned to each species in this investigation are estimated and recorded by 5 percent increment values in the range from 5 to 95 percent and by 1 percent increments at the extremes. When it is estimated that the total cover or a species cover value is less than 1 percent (e.g., one blade of grass) it is recorded by placing a "T" (trace) on the data sheet in the appropriate space. Frequency values are derived from the recorded occurrence of each species in the ten, 0.5 m x 1 m quadrats sampled along each transect.

2.3.1.2.2. Plant Collection

Collection and Processing of Specimens

Plant specimens collected during each vegetation sampling period are field identified, dated, numbered, and pressed. Location, habitat, and elevation of each collected specimen are noted in field books. Elevation is recorded from topographic maps with periodic checks using an altimeter. Attempts are made to collect all specimens in a manner that adequately illustrates taxonomically important plant characteristics such as roots, tubers, bulbs, stems, leaves, flowers, and fruits. Plants lacking distinguishing taxonomic characters are not taken as voucher specimens.

At the time of collection, pertinent field observations, including any abnormal foliar conditions, which provide phytosociological information in addition to that gathered during routine analyses, are included in permanent vegetation records.

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project__________ Site___________ Date_________________ Size of quadrat_________________

Field Analysts:_______________________________________ Sheet No.________ of _________

General description of land____

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0

Figure 3. Quadrat data sheet for understory and range vegetation for the Rio Blanco Oil Shale Project.

Each plant specimen is given a project designation and numbered sequentially (e.g., plant specimen #83.12 - project #83, specimen #12). Collection numbers are duplicated only if more than one specimen is taken from the same plant at the same time.

The location of each plant specimen collected in the field is documented according to state, county, township, range, section, quarter-quarter section, and/or direction and mileage from a prominent map feature. Additional data including plant height (if only one part of the plant is taken), flower color, degree and aspect of slope, soil conditions, abundance estimate (rare, common, abundant) according to fieldworker's observations, and associated plants are noted in the permanent field books.

Most plants are immediately pressed as they are collected. However, some plants may be assigned a collection number and field tagged and then held in a plastic sack containing a wet towel or placed under refrigeration in a portable ice chest for short periods to preserve their freshness.

Small herbaceous plants are collected and pressed in their entirety. However, only representative portions of large herbaceous and woody species are taken as voucher specimens. Tall, slender herbaceous plants are folded to fit into the press. All small herbaceous plants are collected with their root systems attached. Each plant specimen is placed in a newspaper sheet and appropriate collection numbers, tentative identification name, location, and other distinctive features are noted on the sheet. The newspaper sheet containing the plant specimen is then placed between two drying blotters which are separated from the next unit, within the same plant press, by a piece of corrugated cardboard. When the press has been filled, it is tightened snugly and left to dry in the hot sun or in a warm dry place. Drying blotters are exchanged and the press tightened and repacked as necessary until all specimens are flattened and dried to herbarium specifications. Appropriate precautions are taken to protect all plant specimens from insect pests.

Laboratory Identification and Storage

All plant specimens are field identified to the lowest feasible taxon and routed to ECI laboratories in Fort Collins where they are identified to species level and stored. Plant species which are questionable and/or difficult

to distinguish are positively identified by a professional plant taxonomist at Colorado State University. Following final identification, all plant specimens are catalogued by family and listed alphabetically by genus. Beetle (1970), Harrington (1954), Hitchcock (1971), Kearney and Peebles (1969) are used in identification and for nomenclature in these investigations. Finally, each positively identified voucher specimen is placed in individual, taxonomically arranged folders and permanently stored in the ECI herbarium for future reference.

Plants that become damaged, molded, mildewed, or are otherwise rendered unacceptable as voucher specimens are returned to the original collector. Disposal of such specimens takes place only after the original collector notes the appropriate specimen number in field books. Damaged plant specimens are discarded only if a replacement voucher is available.

2.3.1.3. RESULTS AND DISCUSSION

Ten different vegetative types in 96 separate locations were sampled on and near Tract C-a during October, 1974 (Table 1) utilizing a modification of the line-strip technique as described by Wooden and Lindsey (1954), Lindsey (1955), and Potter (1957). Random and permanent transect data were combined to provide an overall regional view of the general phytosociological characteristics common to each of the ten different vegetative types. The total number of species, total percent ground cover, total density, and predominant species for each stratum of each of the vegetation types are presented in Table 2 and discussed in the text of this report. Table 3 presents a list of species encountered during the October sampling period.

Summarized field data gathered during one sampling period (fall) have been compared to those data presented in the available literature in attempts to qualify our current findings. Comparisons such as these are useful in that they allow tentative identification of certain important phytosociological characteristics of the vegetation types studied, but in no way do these limited data permit definitive conclusions. An increasing base of phytosociological data resulting from future scheduled field sampling efforts

Table 1. Numerical distribution of sampling transects (60 m x 6 m) in the major vegetation types on and adjacent to Tract C-a for Rio Blanco Oil Shale Project, October, 1974

	No. Permanent Transects on Tract C-a	No. Permanent Transects off Tract C-a	No. Non-permanent Transects on Tract C-a	No. Non-permanent Transects off Tract C-a	Total Transects Per Type
Aspen		2		2	4
Douglas fir		3		3	6
Mixed brush	2	3	2	6	13
Pinyon-juniper	5	5	5	11	26
Sagebrush	4	3	6	10	23
Meadow	1	1	1	1	4
Shadscale	1	1	1	1	4
Greasewood	1	2	2	2	7
Rabbitbrush	1	1	2	1	5
Riparian		2		2	4
Subtotal	15	23	19	39	
				Total Transects	96

Table 2. Summary of some phytosociological characteristics of ten different vegetation types sampled on Tract C-a and the surrounding area for the Rio Blanco Oil Shale Project, October, 1974

Vegetation Type/Stratum	Total Number of Species	Total % Ground Cover	Total Density Per Hectare	Predominant Species
Aspen				
Herb	28	29.0	1/	Carex sp., Bromus sp.
Shrub	9	42.8	13,340 2/	Symphoricarpos sp., Amelanchier sp., Populus tremuloides
Tree	1	33.5	479	Populus tremuloides
Douglas fir				
Herb	18	21.5	1/	Carex sp., Aster sp., Galiumboreale
Shrub	8	41.0	12,055 2/	Symphoricarpos sp., Amelanchier sp., Prunus sp.
Tree	2	70.7	518	Pseudotsuga menziesii, Populus tremuloides
Upland meadow				
Herb	33	22.9	1/	Agropyron trachycaulum, Poa sp.
Shrub	3/	3/	3/	
Tree	3/	3/	3/	
Mixed brush				
Herb	36	21.8	1/	Agropyron trachycaulum, Carex sp., Festuca sp., Poa sp.
Shrub	12	41.7	18,622 2/	Amelanchier sp., Symphoricarpos sp., Artemisia tridentata
Tree	2	1.0	11.1	Juniperus osteosperma, Pinus edulis

Table 2. (Continued)

Vegetation Type/Stratum	Total Number of Species	Total % Ground Cover	Total Density Per Hectare	Predominant Species
Pinyon-Juniper				
Herb	63	5.4	1/	Agropyron trachycaulum, Festuca sp., Poa sp.
Shrub	15	8.8	3,730.5	Artemisia tridentata, Pinus edulis, Purshia tridentata, Chrysothamnus sp.
Tree	2	21.5	295	Juniperus osteosperma, Pinus edulis
Sagebrush				
Herb	53	12.6	1/	Agropyron trachycaulum, Poa sp., Festuca sp.
Shrub	13	28.8	13,214 2/	Artemisia tridentata, Chrysothamnus sp., Amelanchier sp.
Tree	0 3/	0 3/	0 3/	
Shadscale				
Herb	13	22.6	1/	Agropyron trachycaulum, Oryzopsis hymenoides, Gutierrezia sp.
Shrub	11	15.5	8,444	Atriplex confertifolia, Chrysothamnus sp.
Tree	1	<1.0	13.9	Artemisia tridentata, Artemisia frigida Juniperus osteosperma
Greasewood				
Herb	11	5.2	1/	Agropyron trachycaulum, Bromus tectorum, Lepidium sp.
Shrub	6	43.5	15,223	Sarcobatus vermiculatus, Artemisia tridentata
Tree	0 3/	0 3/	0 3/	

Table 2. (Continued)

Vegetation Type/Stratum	Total Number of Species	Total % Ground Cover	Total Density Per Hectare	Predominant Species
Rabbitbrush				
Herb	11	11.5	0[1/]	Elymus cinereus, Agropyron sp., Poa pratensis
Shrub	4	40.8	9,055	Chrysothamnus nauseosus, Artemisia tridentata
Tree	0[3/]	0[3/]	0[3/]	
Riparian				
Herb	37	53.5	[1/]	Scirpus sp., Cyperus sp., Unidentified grass
Shrub	0[3/]	0[3/]	0[3/]	
Tree	0[3/]	0[3/]	0[3/]	

[1/] Density is not determined for herbaceous layer.

[2/] Includes stem counts of Amelanchier.

[3/] Strata not present or not encountered during sampling.

Table 3. Tree, shrub, and herbaceous vegetation species encountered in the vicinity of Tract C-a for the Rio Blanco Oil Shale Project, October, 1974

Scientific Name	Common Name
TREES	
Juniperus osteosperma (utahensis)	Utah juniper
Pinus edulis	Pinyon pine
Populus tremuloides	Quaking aspen
Pseudotsuga menziesii (taxifolia)	Common Douglas fir
SHRUBS	
Acer glabrum	Rocky Mountain maple
Amelanchier sp.	Serviceberry
Artemisia frigida	Fringed sagewort
Artemisia tridentata	Basin big sagebrush
Atriplex canescens	Fourwing saltbush
Atriplex confertifolia	Shadscale saltbush
Cercocarpus montanus	True mountain mahogany
Chrysothamnus nauseosus	Rubber rabbitbrush
Chrysothamnus vicidiflorus	Douglas rabbitbrush
Ephedra sp.	Mormon tea
Eurotia lanata	Common winterfat
Gutierrezia sp.	Snakeweed
Prunus sp.	Chokecherry
Purshia tridentata	Antelope bitterbrush
Quercus gambelii	Gambel oak
Rhus sp.	Sumac
Ribes sp.	Currant
Rosa sp.	Rose
Sarcobatus vermiculatus	Black greasewood
Symphoricarpos sp.	Snowberry
Tetradymia canescens	Gray horsebrush
HERBACEOUS SPECIES	
Achillea lanulosa	Western yarrow
Agropyron cristatum	Crested wheatgrass
Agropyron smithii	Western wheatgrass
Agropyron spicatum	Bluebunch wheatgrass
Agropyron trachycaulum	Slender wheatgrass

Table 3. (Continued)

Scientific Name	Common Name
HERBACEOUS SPECIES (Continued)	
Ambrosia sp.	Ragweed
Androsace sp.	Rockjasmine
Angelica sp.	Angelica
Antennaria sp.	Pussytoes
Haplopappus sp.	Goldenweed
Haplopappus spinulosus	Ironplant goldenweed
Arctostaphylos sp.	Manzanita
Arenaria sp.	Sandwort
Aster sp.	Aster
Astragalus sp.	Milkvetch
Balsamorhiza sp.	Balsamroot
Bouteloua gracilis	Blue grama
Bromus ciliatus	Fringed brome
Bromus marginatus	Mountain brome
Bromus tectorum	Cheatgrass brome
Carex sp.	Sedge
Chaenactis sp.	Dustymaiden
Chenopodium sp.	Goosefoot
Cryptantha sp.	Cryptantha
Cyperus sp.	Flatsedge
Descurainia sp.	Tansymustard
Draba sp.	Draba
Elymus sp.	Wildrye
Equisetum sp.	Horsetail
Erigeron sp.	Fleabane
Eriogonum sp.	Wildbuckwheat
Eriogonum alatum	Wing wildbuckwheat
Euphorbia sp.	Spurge
Festuca sp.	Fescue
Fragaria sp.	Strawberry
Galium boreale	Northern bedstraw
Geranium sp.	Geranium
Gilia sp.	Gilia
Hymenoxys sp.	Actinea
Kochia scoparia	Fireweed summercypress

Table 3. (Continued)

Scientific Name	Common Name
HERBACEOUS SPECIES (Continued)	
Koeleria cristata	Prairie junegrass
Lappula sp.	Stickseed
Lepidium sp.	Pepperweed
Lithospermum sp.	Gromwell
Lupinus sp.	Lupine
Mentzelia sp.	Mentzelia
Mertensia sp.	Bluebells
Muhlenbergia sp.	Muhly
Oenothera sp.	Evening primrose
Opuntia polyacantha	Plains pricklypear
Oryzopsis hymenoides	Indian ricegrass
Oxytropis lamberti	Lambert loco
Penstemon caespitosus	Mat penstemon
Penstemon strictus	Rocky Mountain penstemon
Phlox sp.	Phlox
Poa interior	Inland bluegrass
Poa pratensis	Kentucky bluegrass
Poa secunda	Sandberg bluegrass
Panunculus sp.	Buttercup
Rorippa sp.	Cress
Scirpus sp.	Bulrush
Sitanion hystrix	Bottlebrush squirreltail
Sphaeralcea sp.	Globemallow
Stipa sp.	Needlegrass
Stipa comata	Needleandthread
Thalictrum sp.	Meadowrue
Thermopsis montana	Mountain thermopsis
Viola sp.	Violet

should substantiate many of the preliminary interpretations made in this report, and further elucidate the important ecological and phytosociological characteristics of the various vegetation types occupying the study area.

Aspen

Data from four different aspen stands were combined and analyzed to provide an overall view of the aspen type occurring in the study area. Three distinctive strata (herbaceous, shrub, and tree) supporting at least 38 different identifiable plant species, characterized the aspen type in the vicinity of Tract C-a.

At least 28 species made up the aspen herbaceous stratum of which a sedge (Carex sp.) and a grass (Bromus sp.) shared predominance. Only 29% of the ground was covered by the foliage of all herbaceous species combined. Vories (1974) reported 51 herbaceous species and only 1.2% bare ground for the Piceance Basin aspen type. Summer sampling of the herbaceous stratum in this vegetation type should reveal a much more diverse flora in addition to higher cover estimates for the herbacious stratum.

Of the species comprising the aspen shrub stratum, Symphoricarpos sp. and Amelanchier sp. were predominent. Populus tremuloides was also common in the shrub stratum. The foliage of all species in the shrub stratum covered an average of 42.8% of the ground while the total density of shrubs within this stratum was 13,340 individuals per hectare. This large number of individual stems resulted from stem counts of each Amelanchier clone. The two predominant shrubs (Amelanchier sp. and Symphoricarpos sp.) occurred on 90% to 100% of all sample quadrats indicating a fairly even distribution for these plants. Over 70% of the total shrub ground cover was contributed by these two dominant species. The comparatively high density and cover values exhibited by saplings and seedlings in the shrub stratum may be an indication of the relatively young age of the aspen stands sampled.

Populus tremuloides was the only species encountered in the tree stratum of the aspen type. Only 19% of all trees in this stratum were classed as mature [> 7.6 cm (3 in)] and the largest of these was 30 cm (11.8 in) dbh (diameter breast high). Most trees encountered (81%) were classified as

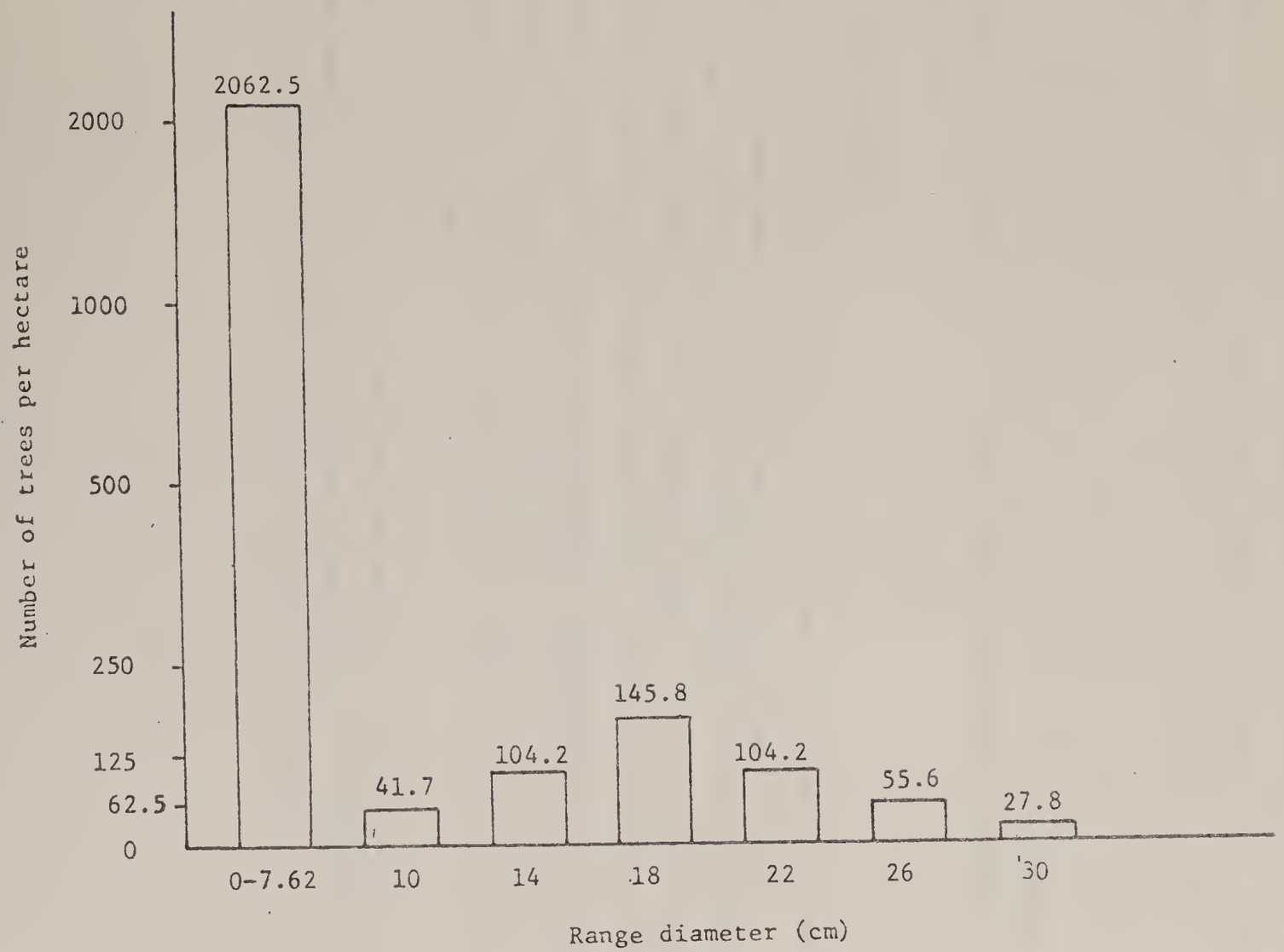

Figure 4. Size class distribution of aspen (Populus tremuloides) for the Rio Blanco Oil Shale Project, October, 1974.

Pseudotsuga menziesii and Populus tremuloides constituted the tree stratum. Douglas fir trees in the mature class ranged in size from 7.6 cm to 46 cm (18.1 in.) dbh, but only 12% of these mature trees were greater than 30 cm dbh. Nearly 50% of all Douglas fir sampled were classed as saplings (7.6 cm dbh). Eighty-three percent of all aspen encountered in this stand were classed as saplings and trees greater than 14 cm (5.5 in.) dbh were not encountered (Figure 5). Aspen were uncommon in the Douglas fir tree stratum, occurring with a frequency of only 8.0%. The total density of both species was estimated to be 518 individual trees per hectare. Both aspen and Douglas fir appeared in the shrub stratum but were absent as seedlings from the herbaceous layer.

Upland Meadow

Phytosociological data gathered at four different upland meadow locations were combined and analyzed. Shrub and tree strata were absent from the different areas of upland meadow sampled and many members of the herbaceous stratum were dormant during the fall sampling period. At least 33 herbaceous species were recorded for the upland meadow type. Cover and frequency estimates indicated that two grasses, Poa sp. and Agropyron trachycaulum shared dominance and accounted for approximately 45% of the total herbaceous foliage cover. These grasses also occurred with a high frequency, being observed in nearly 90% of all sample quadrants.

An estimated 22.9% of the ground was covered by the foliage of all herbaceous species. This condition may be an indication of the inadequacy of sampling in the fall when many herbaceous species were dormant.

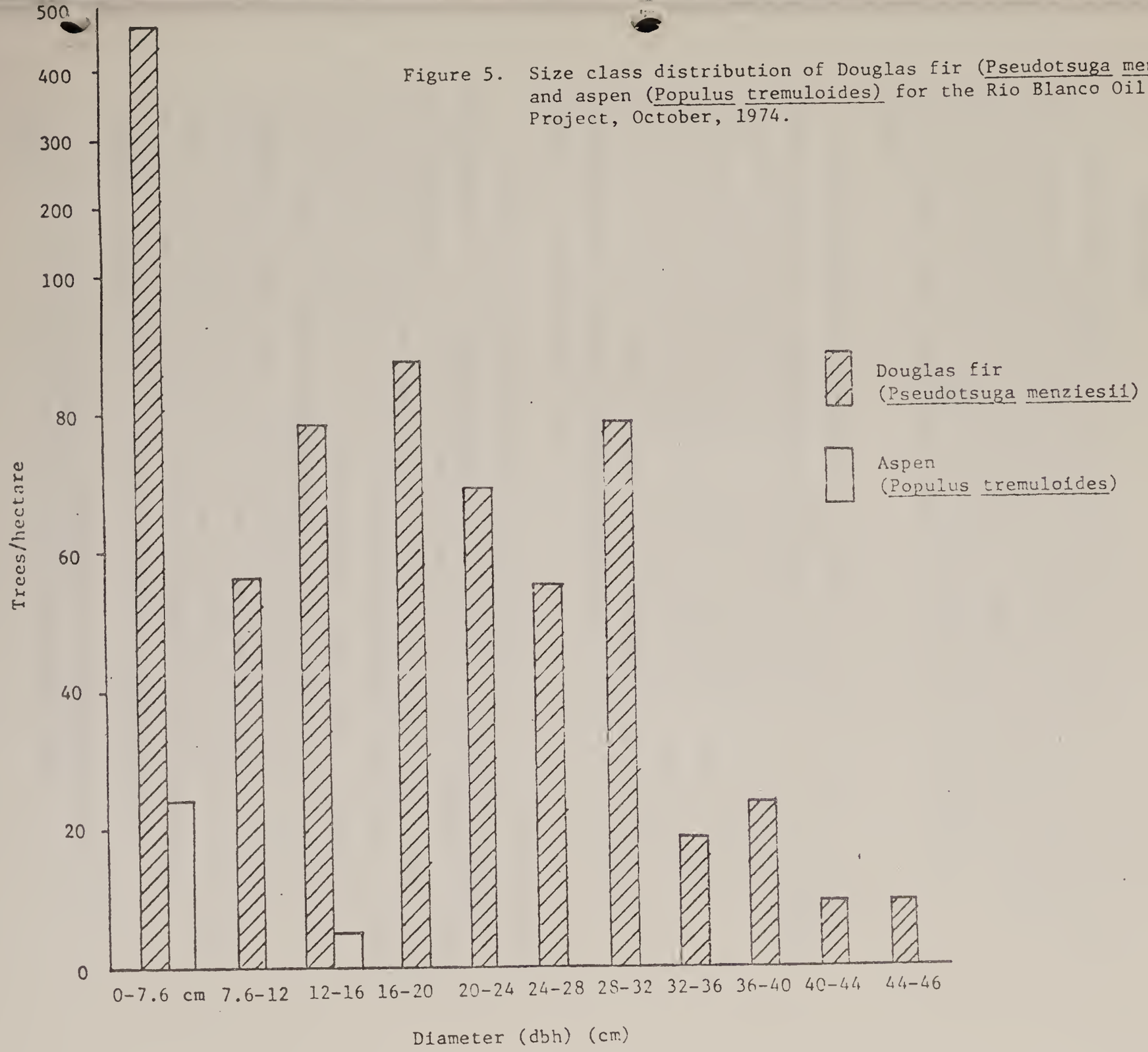

Figure 5. Size class distribution of Douglas fir (Pseudotsuga menziesii) and aspen (Populus tremuloides) for the Rio Blanco Oil Shale Project, October, 1974.

Mixed Brush

Mixed brush communities were sampled at 13 different sites, and data from all sites were combined and analyzed to provide an overall view of the mixed brush type occurring in the study area. Two distinctive strata (herbaceous and shrub), comprised of at least 48 species, were recognized and sampled at all mixed brush sites. Three woody species were dominant in the shrub stratum, while three grasses and a sedge were dominant in the herbaceous stratum.

The herbaceous stratum comprised at least 36 species of which three grasses (*Festuca* sp., *Agropyron trachycaulum* and *Poa* sp.) and a sedge (*Carex* sp.) were dominant based on cover and frequency estimates. An average 21.8% of the ground was covered by the foliage of all species, 50% of which is dominated by the grass and sedge species. Vories (1974) sampled similar plant communities in the Piceance Basin and reported 66 species in the herbaceous stratum, of which *Carex* sp. and *Collinsia* sp. were common. He also reported several introduced grasses (*Agropyron* sp. and *Poa* sp.) as being present in the mixed brush understory.

At least 12 species occurred in the shrub stratum of the mixed brush type. *Amelanchier* sp. and *Symphoricarpos* sp. were dominant. *Artemisia tridentata* and *Chrysothamus* sp. were also common members of the mixed brush shrub stratum. The foliage of species comprising the shrub stratum covered an average of 41.7% of the ground while the total density of shrubs within this stratum was 18,622 individuals per hectare. This large number of individuals is due to the incorporation of individual *Amelanchier* stem counts in the data, rather than *Amelanchier* clone counts. Over 80% of the total shrub ground cover was contributed by the two dominant shrubs. These dominant shrubs were also evenly distributed over the study areas occurring at a frequency of over 85%. The mixed brush shrub stratum was mainly composed of evenly distributed *Artemisia tridentata* and a clumped distribution of *Amelanchier* sp.

Two tree species (*Juniperus osteosperma* and *Pinus edulis*) were rare (density = 11.1 trees/ha; frequency = 5%) in the mixed brush.

Pinyon-Juniper

Data from 26 different pinyon-juniper sites were combined and analyzed. Three distinctive strata (herbaceous, shrub, tree), supporting at least 70 different plant species, characterized the pinyon-juniper vegetation type in the area of Tract Ca. Based on the dominant plant species comprising the herbaceous, shrub, and tree strata, the pinyon-juniper type in the Tract C-a area can be generally described as a *Juniperus osterosperma* - *Pinus edulis* - *Artemisia tridentata* - *Agropyron trachycaulum* community.

At least 63 species made up the herbaceous stratum, of which *Agropyron trachycaulum*, *Festuca* sp. and *Poa* sp. were dominant, based on cover an frequency values. Foliage cover in the herbaceous stratum was sparce, with 5.4% of the ground covered by the foliage of all species.

The shrub stratum was composed of at least 15 different species. *Artemisia tridentata* was the dominant shrub species exhibiting high density, frequency, and cover values. *Pinus edulis*, *Purshia tridentata* and *Chrysothamus* sp. were important members of the pinyon-juniper shrub stratum. The total shrub density was estimated to be 3,730 individuals per hectare and the total percent ground foliage cover for all shrub species was 8.8%.

The average combined total cover of the pinyon-juniper lower strata (herbaceous and shrub) on and near Tract C-a was 14.2% of the ground covered. Late fall sampling, during which many herbaceous species were dormant, may have accounted for apparently low cover values in the herbaceous stratum. Jameson (1961, 1966) suggests that pinyon and juniper little inhibits germination of understory species and may be one cause for low cover values in the lower strata of older stands.

Pinus edulis and *Juniperus osteosperma* were the only two tree species encountered in the pinyon-juniper community and of these, the latter occurred with a greater density and frequency, exhibiting values of 209.7 individuals per hectare and 63.9% frequency of occurrence. Juniper had a total basal area of 3030.07 m^2/ha, while pinyon had a total basal area of 833.28 m^2 ha. These data, combined with relative ground cover values (13.1% for juniper; 8.4% for pinyon) indicate that juniper is dominant in the pinyon-juniper sites studied.

Mature juniper trees ranged in size from 7.62 cm to 118 cm (46.5 in) (diameter) with the majority (80%) falling within the 10 cm (3.9 in.) to 50 cm (19.7 in.) diameter size class. Mature pinyon trees ranged in size from 7.62 cm to 98 cm (38.6 in.) in diameter, with the majority (66%) falling within the 10 cm to 30 cm diameter size class (Figure 6).

Sagebrush

Sagebrush communities were sampled at 23 different sites and data from all sites were combined and analyzed to provide an overall view of the sagebrush type occurring in the study area. Two distinctive strata (herbaceous and shrub) were recognized and sampled at all sagebrush sites. Sagebrush communities occurring in the area of Tract C-a are best described collectively as an *Artemisia tridentata* - *Agropyron trachycaulum* type based on the predominant species occupying the shrub and herbaceous strata.

At least 53 different species composed the herbaceous stratum. Comparatively high frequency and cover values indicate that dominance in the herbaceous stratum is shared by three grasses: *Agropyron trachycaulum*, *Poa*

Figure 6. Size class distribution of pinyon (Pinus edulis) and juniper (Juniperus osteosperma) for the Rio Blanco Oil Shale Project, October, 1974.

sp. and Festuca sp. An average 12.6% of the ground was covered by the foliage of all herbaceous species but nearly 50% of this ground cover was contributed by the three predominant grasses. Vories (1974) reported 117 herbaceous species for sagebrush communities analyzed in the Piceance Basin, suggesting that the fall sampling period missed many of the herbaceous species which were probably dormant at the time of sampling.

At least 13 different species were listed for the shrub stratum, of which Artemisia tridentata occurred with the highest frequency and density and contributed the greatest percent ground cover. Chrysothamnus sp. and Amelanchier sp. also appeared as important components of the sagebrush shrub stratum over all sites sampled. The sagebrush type shrub stratum covered an average 28.8% of the ground and occurred at a density of 13,214 individuals per hectare.

Shadscale

Phytosociological data gathered at four different shadscale communities were combined and analyzed. Three distinctive strata (herbaceous, shrub, and tree) supporting at least 24 different plant species, characterized the shadscale communities samples in the area of Tract C-a.

At least 13 different species were recorded for the herbaceous stratum of which Agropyron trachycaulum, Oryzopsis hymenoides, and Gutierrezia sp. were predominant. An average of 22.6% of the ground was covered by the foliage of all herbaceous species combined but over 60% of this ground cover was contributed by the dominant species. Vories (1974) samples shadscale communities in the Piceance Basin but reported a total of 10 species for the herbaceous stratum with Stipa comata, Bromus tectorum, and Doeleria gracilis as the predominant species.

At least 11 different species were recorded for the shadscale shrub stratum with Atriplex confertifolia and Chrysothamnus sp. being predominant. These plants contributed nearly 80% of the total shrub ground cover and were evenly distributed in the shrub stratum appearing in about 80% of the sample gradrats. Artemisia frigida and Artemisia tridentata were also common in the shrub stratum. Pinus edulis was present but scantily distributed in the

shrub layer. A total density of 8,444 individual shrubs/hectare was calculated for the shadscale type and all shrubs covered a total of 15.5% of the ground.

Juniperus osteosperma appeared as a mature tree in the shadscale type. Trees were generally small, 1.81 m^2 basal area/ha (48.1 sq ft basal area/A), uncommon (12.5% frequency) and sparse (13.9 individuals/ha).

Greasewood

Data gathered at seven greasewood sites were combined and analyzed to provide an overall view of the greasewood type in the area of Tract C-a. Two distinctive strata (herbaceous and shrub), supporting at least 17 different plant species, were recognized and sampled. Greasewood communities occurring in the area of Tract C-a are best described collectively as an Artemisia tridentata - Sarcobatus vermiculatus - Agropyron trachycaulum type based on the predominant species occupying both shrub and herbaceous strata.

At least 11 different herbaceous species composed the herbaceous stratum of which Agropyron trachycaulum was dominant based on density and frequency estimates. Bromus tectorum and Lepidium sp. were also common in the herbaceous stratum and can be considered the major associated species in the type. An average of 5.2% of the ground was covered by the foliage of all herbaceous species with 85% of this ground cover contributed by the dominant species and two major associated grasses. Similar Piceance Basin greasewood types analyzed by Vories (1974) exhibited a much greater percent ground cover and a higher species diversity (15 species) for the herbaceous stratum. He also reported a luxuriant growth of annuals and moderate livestock use in the greasewood type.

The shrub layer included at least six species, with Artemisia tridentata dominant. Sarcobatus vermiculatus, for which this type was named, appeared as a shrub species of secondary importance in the greasewood communities sampled. The greasewood shrub stratum covered 43.5% of the ground and occurred at a density of 15,223 individuals per hectare. Both Artemisia tridentata and Sarcobatus vermiculatus were homogeneously distributed throughout the greasewood type occurring in 100% of all shrub sample quadrats.

Rabbitbrush

Rabbitbrush communities were sampled at five different sites and data from all sites were combined and analyzed to provide an overall view of the rabbitbrush type occurring in the study area. Two distinctive strata (herbaceous and shrub) were recognized and sampled at all rabbitbrush sites. Rabbitbrush communities occurring in the area of Tract C-a are best described collectively as a Chrysothamnus nauseosus - Artemisia tridentata - Elymus cinereus type based on the dominant species occupying both shrub and herbaceous strata.

At least 11 different species composed the herbaceous stratum of which Elymus cinereus was dominant based on cover and frequency estimates. Agropyron sp. and Poa pratensis were also common in the herbaceous stratum. An average of 11.5% of the ground was covered by the foliage of all herbaceous species with nearly 70% of this ground cover contributed by one dominant and the two common grasses. Similar rabbitbrush types analyzed by Vories (1974) exhibited a greater percent ground cover and a higher species diversity (37 species) for the herbaceous stratum than was observed in the rabbitbrush communities sampled in this study.

Four different species were listed for the shrub stratum of which Chrysothamnus nauseosus was dominant, occurring with the highest frequency and density and contributing the greatest percent ground cover. Artemisia

tridentata also appeared as an important shrub over all rabbitbrush communities sampled. The rabbitbrush type shrub stratum covered an average of 40.8% of the ground and occurred at a density of 9,055 individuals per hectare.

Riparian

Data gathered at four different riparian locations were combined and analyzed. Shrub and tree strata were absent from the different areas of riparian habitat sampled. The poor condition of most members of the herbaceous stratum rendered them unidentifiable. At least 37 species were listed for the riparian herbaceous stratum, of which two sedges (Scirpus sp. and Cyperus sp.) and an unidentifiable grass were dominant based on cover and frequency values. Heavy overgrazing in most riparian areas of the Piceance Basin has reduced the herbaceous stratum to a group of sedges and herbs which are unpalatable to livestock (Vories, 1974). Ellison (1954) found that grazed riparian and wet meadow communities of the Wasatch Plateau, Utah, were also dominated by a few sedge species, while similar areas receiving less grazing pressure showed several shrub and forb species as their principal constituents. An estimated 53.5% of the ground was covered by the foliage of all herbaceous species combined.

2.3.1.4. SUMMARY AND CONCLUSIONS

Ten different vegetation types in 96 separate locations were sampled during October 1974. Resulting data have been summarized, compared to the available literature, and tentatively interpreted.

The four aspen stands sampled in the study area supported a total of at least 38 different plant species, most of which were herbaceous. Aspen was the only species encountered in the tree stratum.

Douglas fir dominated the tree stratum of all six Douglas fir communities sampled. Aspen saplings were scattered throughout these stands.

The four upland meadow sites lacked shrub and tree strata. At least 33 species were recorded for the herbaceous stratum of this vegetative type but it is certain that many other herbaceous species were dormant and thus unidentifiable during October sampling. Upland meadows sampled displayed a sparce ground cover.

At least 48 species comprised both herbaceous and shrub strata of the 13 mixed brush sites sampled. Two different species of trees (juniper and pinyon) were scantily distributed throughout the mixed brush study areas. Shrub strata analyzed at the mixed brush sites were composed mainly of evenly distributed Sagebrush and clumped serviceberry.

Distinctive tree, shrub, and herbaceous strata supporting at least 70 plant species characterized the 26 different pinyon-juniper sites samples. Understory vegetation was sparce. Pinyon (*Pinus edulis*) and juniper (*Juniperus osteosperma*)were the only two tree species encountered; juniper was dominant over all sites sampled.

At least 66 different plant species composed the herbaceous and shrub strata of the 23 sagebrush sites sampled. Well developed shrub strata (average density 13,214 stems/ha; average cover 28.8% of the ground) and sparse herbaceous strata (average cover 12.6% of the ground) characterized the sagebrush sites sampled during October, 1974.

Herbaceous, shrub, and tree strata supporting at least 24 plant species characterized the four shadscale sites sampled. Juniper was uncommon in the shadscale sites sampled.

At least 17 plant species were recorded for herbaceous and shrub strata of the greasewood sites sampled. A sparce herbaceous ground cover and relatively dense shrub layer of vegetation characterized the seven greasewood sites sampled during October, 1974.

The five rabbitbrush sites sampled in the study area supported a total of at least 15 different plant species. The herbaceous stratum afforded a relatively sparce ground cover but the rabbitbrush shrub stratum was fairly dense (9,055 stems/ha) and covered 40.8% of the ground.

The four riparian locations sampled lacked tree and shrub strata but displayed a rather dense herbaceous stratum (at least 37 species; 53.5% total ground cover).

The poor condition of many herbaceous species encountered in all vegetative types studies during October 1974 resulted in some species identification problems and may have influenced cover value estimates. In many instances calculated cover values were low relative to those reported in the literature (Fories, 1974), probably reflecting the late fall sampling during which time many herbaceous species were dormant.

Rio Blanco
Oil Shale Project

SECOND QUARTERLY DATA REPORT

OCT, NOV, DEC, JAN & FEB
FALL & WINTER 1974 -75
BOOK 5 OF 11

TERRESTRIAL STUDIES (RAW DATA)

Gulf Oil Corporation
and
Standard Oil Company (Indiana)
9725 East Hampden Avenue, Denver, Colorado 80231

2.3. Terrestrial Studies
APPENDICES (Raw Data)

2.3.1. VEGETATION (Phytosociological Investigations)

Type and File Number

Aspen (2.2.1)
Douglas Fir (2.2.2)
Greasewood (2.2.3)
Mixed Brush (2.2.4)
Pinyon-Juniper (2.2.5)
Rabbitbrush (2.2.6)
Riparian (2.2.7)
Sagebrush (2.2.8)
Shadscale (2.2.9)
Upland Meadow (2.2.10)

Aspen (2.2.1)

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley-Ellis Project: F3 Date: 10/15/78
Site: Permanent Length of Line: 50 m
T: 5 R: 100W Sec.: 15 ¼ Sec.: SW SW Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: Asp/Rel Condition of Foliage: Leaves fallen
Aspect 340° Slope 9%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Populus tr	60	170	110	10, 13, 15,	
	270	420	150	15, 15, 25,	
	500	680	180	14, 15, 13,	
	880	1140	260	13, 23	
	1220	1480	260		
	1610	1630	20	0	
	1770	1850	80		
			590	13, 15, 20,	
			880	18, 18	
	0	590	270	15, 21, 13,	
	1100	1980	2800	15, 29, 25,	
	2730	3000		19, 26	
Acer glabrum	0	0		Const.	
	0	0			
	0	0			
Acer glabrum	2320	2300	20	4	
	2870	2900	30		
			50		
Ribes	0	0		0	
	2845	2850	5	15	
			20	2512	
	100	120	20	3, 6	
	160	180	45		

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
	0	0		5, 5, 4
	1560	1620	60	
	1850	1880	30	6, 3
	1970	2240	270	
	2930	3000	70	5, 4
			15	
	0	0	445	4, 21, 8
	2115	2130		
Prunus				0
				0
				8
Amal	1020	1050	30	1, 5, 4, 12, 18 40
	1125	1180	55	
	1320	1440	120	3, 1
			220	
	2530	2750	425	2, 3, 3
	0	0		
	0	0		0
Symp	100	105	5	10, 15, 20, 8
	240	270	30	
	430	470	40	9, 7, 6, 12
	575	610	35	
	700	820	120	
	860	900	40	25, 7, 30
	1180	1210	30	
	1230	1280	50	
	1430	1500	70	2, 4
	1500	1540	40	
	1560	1650	90	
	1850	2150	300	
	2260	2360	100	
	2335	2435	100	
	2530	2660	130	
	180	280	100	
	310	360	50	
	570	660	90	
	690	720	30	
	850	1020	170	
	1040	1060	20	
	1270	1340	70	
	1340	1420	80	
	0	0	1730	
Rosa	400	410	10	3, 4
	830	845	15	0
	910	930	20	9, 5
	0	0		
	510	520	55	
	0	0		

Shrub → Ribes

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Permanent Area Date 10/10/74 Size of quadrat

Field Analysts: Kelley - Ellis Sheet No. 1 of 1

Legal description of land T15 R100W Sec 15 ¼-¼ SW SW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total cover	50	75	75	40	40	75	85	25	60	5
Bromus (not Bromus)	5		10		10	10		10	10	100
Carex sp	90	100	75	70	75	90	90	80	85	
umbel sp (parsley)	5		5							T
Fragaria	T		10	10	10			10	5	
Erigeron (small)				10						
large Compositae				10						
Galio					5					
Apso							10			
Stipa columbiana							T			
Acla									T	

•2 miles north of fence gate
Cathedral Bluffs north

2.2.1-2

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Aspen permanent

Field Analyst: Eros · Ellinwood Project: 83 Date: 10/13/79

Site: Permanent Length of Line:

T: 25 R: 100W Sec.: 15 ¼ Sec.: SW/4 SW/4 Transect Direction: 295°

General Description of Land: A. 90° S. 1-202

Vegetation Type: ASPEN Condition of Foliage:

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Aspen	1290	1680	290		
I - 12cm	2130	2460	330		
II - 12cm,	120	800	680		
6, 10, 21	1400	1810	410		
			1710		
II - 20, 18,					
21,					
II - 30, 28					
15,					

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Aspen	610	790	180	Aspen I - 21
	950	1070	120	II - 31
	1800	1960	160	
	2450	2530	80	I - 7
	2780	2930	150	II - 8
	60	110	50	
	1750	1980	230	
	2670	2900	230	
			1200	
art.	350	390	40	
				Snowberry I - 63
				II - 82
lupine	540	555	15	
	980	985	5	
			20	I - 31
				II - ~~32~~ 4
Snowberry Symph.	140	180	40	20
1650-1660	210	280	70	
2095-2760	295	330	35	
2790-2810	570	600	30	
	750	785	35	
	1060	1080	20	Serviceberry I - 1
	1140	1270	130	II - 2
	1310	1430	120	
	1760	1840	80	I - 13 6
	1910	1930	20	
	2470	2680	210	II - 9
	2760	2800	40	
	2960	3000	40	
	0	40	40	
	60	100	120	Chokecherry - I - 0
	140	260	90	II - 0
	1260	1260	1215	
Serviceberry angl.				I - 11
				II - 0
	1370	1500	130	
			30	
	1640	1670	50	Antennaria I - 6
	1670	1720	210	II - 0
				I - 0
				II - 0
Rose	465	500	15	Rose I - 29
720-750	1110	1120	10	II - 46
910-960	1710	1720	10	
	1660	1870	25	I - 81
			32	II - ~~32~~ 2
	75	100		
	120	150	145	152
	510	545		

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2.2.1-4

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project_____ Site_____ Date_____ Size of quadrat_____

Field Analysts:_____ Sheet No._____ of _____

...ral description of land Aspen - permanent

T.D. 2950 A. 90° 1-20% T 2S, R 100W S 15 SW1/4 SW1/4

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	20	45	25	10	80	20	20	15	15	20
Aster sp.	20		10			10		50	50	
Carex	70	70	80		95	80	20			
Galium boreale	10	5						5		
Arnica sp.		5								
Bromus marginatus		5		70		T	20	30		30
Smilacina		10								
Thermopsis montana		5		10						
Thalictrum			10	10	5					5
Achillea lanulosa				5						
Geranium sp.				5				5		5
Lupinus sp.						20		5		
Stipa columbiana							60			
Symphoricarpos oreophilus								5		
Pteridium aquilinum									50	50
Mertensia ?										5
Fragaria ovalis										5

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2.2.1-2

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Aspen - Random

Field Analyst: Ellis - Ellenwood Project: 82 Date: 10-12-74

Site: Random Length of Line:

T: 25 R: 100W Sec.: 21 ¼ Sec.: NE SE Transect Direction:

General Description of Land:

Vegetation Type: Aspen Condition of Foliage: Browned - Dormant

T. 25 R100W S4 - NE¼ SE¼

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
	70	560	490		
	1240	1270	30		
	1370	1820	450		
	1940	2270	330		
	0	540	540		
	1640	2000	340		
	2240	2400	160		
	2400	3000	600		
			2940		
					60
					130
					160
					50
					40
					130
					60
					380
					50
					30
					70
					30
					20
					30
					2765

Aspen I-20, 15, 20, 15 20 II-12, 10 10, 20, 15 I-12, 10, 13, 12, 17 15, 17, 28, 25 19, 16, 21 23, 17, 21 26, 21.

QED

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Aspen	190	205	15	Aspen. I-10
	220	235	15	II-3
	280	320	40	
	550	630	80	
			150	
	0			I-2
				II-0
Ribes	2410	2430	20	
	2940	2970	30	
			50	
Snowberry Symphr.	0	130	130	Currant I-0 Ribes I-0
	170	290	120	I-0 II-0
	260 - 420	270	150	
	570 - 700	696	130	Snowberry. I-6
	790 - 940	870	80	II-7
	1000 - 1040	970	15	
	1070 - 1220	1240	140	
	1270 - 1440	1405	35	I-58
	1300 - 1690	1500	10	II-30
	1730 - 1780	1690	35	
	1910 - 1940	1810	20	
	2070 - 2140	2220	330	Rose. I-1
	2340 2370	2280	60	II-29
	2450 2470	2400	50	
	2470 3000	2690	190	
		2700	20	I-17
		240	30	II-30
Prunus Chokecherry.		280	220	70
		790	785	15
		980	950	20
		1070	1090	20
		1215	1250	35
		1510	1525	15
		1630	1690	60
		2545	2570	25
		2620	2650	50
		2370	2490	250
Serviceberry		2910	3000	90
		470	560	90
		2520	2570	50
		2620	2700	80
				310
Rose		0	120	120
		2820	2825	5
		2910	2930	20
				90
		140	220	80
		290	320	30
		2570	2580	10
		2770	2880	110
				415

Serviceberry and I-0 II-6

I-7 II-8

Prunus. Chokecherry I-27 II-49

I-3 II-3

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2.2.1-6

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date 10-13-74 Size of quadrat _____

Field Analysts: Ellis Ellinwood Sheet No. _____ of _____

Physical description of land Random Aspen

A. 35° T.D. 3/10° S. 30° T. 25 R. 100W S. 4 NE 1/4 SE 1/4

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total cover	5	5	5	10	10	10	20	30	20	5
Viola sp. ✓		10								
Carex sp. ✓	40	80	90	90	80	100	85	90	95	
B. ciliatus	20	5		10	10		10		5	40
Thermopsis montana		5								
Thalictrum	40									
Achillea lanulosa			10				5			
Aquilegia sp.					10					40
Galiorosale								5		20
Stipa columbiana							5			
Smilacina							T			
Fragaria							5			

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: EK + SLE Project: 83 Date: 10/11/74
Site: CATTLEMAN BLUFFS, 8450' RANDOM Length of Line: 1 / 20
T: 1 S. R: 100W Sec.: 33 ¼ Sec.: SW¼ SE¼ Transect Direction: [illegible]
General Description of Land:
Vegetation Type: ASPEN Condition of Foliage:
[illegible] 15+ 30m

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						3-13m	(15+) 30m			
Popr aspen				11			310	450	140	5, 4, 3, 1 14
				11, 10			610	695	85	10, 14, 17, 47
							1330	1480	150	14
									230	17
							1660	1890	280	78
							2420	2700	40	
							2760	2800	40	
							2960	3000	965	
Rhus glabra							1190	1340	150	12
Gambel oak							430	445	15	10, 13, 7, 3
Symp							1550	1610	60	4, 9, 11, 5 67
									75	
									505	
									580	
										97
										54
							70	74	4	5, 4, 18, 13, 27
Amar							268	273	5	21, 23, 26 54
							530	680	150	Tot 172
							740	1190	450	
							1615	1780	165	
							1970	2180	210	
							2270	2420	150	
							2830	2890	60	
							2910	2930	20	
							2960	2990	30	
									1244	

2.21-8

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellar – Ellis Project: [illegible] Date: [illegible]
Site: Random Length of Line: [illegible]
T: 15 R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage: [illegible]
Aspect NE

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
POKY	160	345	185	11, 11			0	108	108	6, 3, 4, 10, 10,
	345	520	175	11			170	180	10	
	2390	2610	220				1390	1430	40	16, 21, 6
			580				1490	1590	100	
									190	178
							1500	1690	190	76
							1840	2020	180	154
							2290	2350	10	
							2680	2730	50	
							2860	2910	60	
									748	
									965	
									1713	
						1294 965 2209				
Pinal							80	110	30	25, 47, 35, 10
							160	170	10	3
							205	220	15	
							330	760	430	20, 9, 26, 17, 9
							700	750	50	
							2340	2430	50	
							2560	2610	90	
							2750	2920	170	
							2930	3000	70	
									965	
Symp						15	240	255	2250-2340	
						80	1240	1320	2430 2520	11, 5, 12 } 100
						30				
						30	1360	1390	2830 - 3000	18, 5, 35, 8, 16
						20				
						20	1460	1490		
						180				
						90	1660	1650		
						90	1840	1860		
						50	2000	2180		
						505				3, 11, 5, 4
Prenus							1080	1200	120	
							1340	1360	20	
							1420	1450	30	
									20	
							1750	1750	20	
									210	
							1780	1800		

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project _____ Site _____ Date 10/11/79 Size of quadrat _____

Field Analysts: _____ Sheet No. _____ of _____

Legal description of land Aspen, Gordon T15, 100W, 33 SW¼ SE¼

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOTAL COVER	30	10	40	30	15	30	15	20	30	20
CAREX sp generic	95	50	90	95	80	90	60	75	80	100
HIEROCHLOA	5	50	10		20			15		
Galium sp				5			30			
Cirsium sp ?						10				
Thalictrum						1	10	5		
Heterotheca sp								5	20	
Arctostaphylos sp.										

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Douglas Fir (2.2.2)

2.2.2-1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: SCE SE Project: R3 Date: 10/13/74
Site: Permanent Length of Line: 60 m
T: 2S R: 16OW Sec.: 5 ¼ Sec.: NE/SW¼ Transect Direction: [illegible]
General Description of Land:
Vegetation Type: Doug fir-PEEM. Condition of Foliage:
Aspect 350° Slope 15%

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Aspen. I-13					
Fir	1110	1750	640		
I-21	1890	2480	590		
II-20	2640	2810	130		
-14	350	1790	1440		
-15	[illegible]				
-10	2540	2880	340		
-10			3140		
-25					
-10					
-20					
-20					
-17					
-11					
-10					
I- 30					
28					
30					
15					
29					
23					
II- 12 18					
30 30					
18 28					
20					

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Chokecherry	30	60	30	Chokecherry - I-
2440 2520	100	120	40 20	Pun. Vig. II-6
	170	190	140 40	
200 - 240	370	410	30 190	I-32
470 - 800	440	630	190	II-0
576 - 615	690	860	150	
[illegible] -	870	980	110	
	1040	1100	60	
	1200	1295	95	
	1340	1360	20	
	1430	1570	140	
	1170	2000	530	
	2220	2280	60	
Amyl.	530	530	0	Amyladaris I-2
	1000	1030	30	Senecio henry. II-
			40	
	2980	2920	120	I-14
			70	II-9
	700	840	140	
	1240	1340	100	
	1550	1690	115	
	2640	2740	100	
	2885	3000		
Snowberry	230	340	110	Snowberry I-4
Symp.	400	470	70	Symp. II-2
2000 - 2045	640	681	25 30	I-70
2440 2470	1220	1280	30 50	II-31
2740 2810	1710	1750	40	
	1790	1840	50	
	2100	2125	25	
	2400	2440	40	
	550	590	25	
	935	960	15	
	1210	1225	30	
	1840	1860		
Rose	1300	1325	25	Roses - I-26
			15	II-3
	2175	2190	15	
	2275	2290	20	I-21
			10	II-30
	460	480	25	
	650	660	25	
	835	860	20	
	890	915	20	
	990	1010	175	
	2550	2900		
Aspen	660	690	30	Aspen I-2 II-0
				I-0
				II-0
Doug fir	2210	2430	220	Doug fir - I-0 II-2
	1390	1510	100	
			65	I-5
			25	II-29
	1550	1615	490	
	1710	2715	1080	

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2.2.2-2

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: SCB SB Project: 83 Date: 10/13/74
Site: Permanent Length of Line:
T: 25 R: 100W Sec.: 15 ¼ Sec.: NE¼ SW¼ Transect Direction: 225
General Description of Land:
Vegetation Type: Douglas fir-PECM Condition of Foliage:
Aspect 350° Slope 15%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Rocky Mt. maple				Rocky Mt. maple Hs. Lab. I-0 II-0
						Ar. lab.				I-0 II-5

2.2.2-2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Permanent Douglas Fir Date 10-13-74 Size of quadrat _____

Field Analysts: Ellis Ellinwood Sheet No. _____ of _____

Legal description of land Douglas Fir. T 25, 100W, S15 NE1/4 SW1/4

T.D. 325° A 350°. S.11-15%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Tolmiea menziesii	25	40	30	30	25	20	30	20	15	40
Polystichum munitum	70	10								
Rubus spectabilis	30	85	100	100	95	100	95	100	100	100
Galium aparine		5			5					
Thalictrum sp.							5			

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2.2.2-4

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis-Ellwood Project: 83 Date: 10-13-74
Site: Permanent Length of Line: 60M
T: 1S R: 6W Sec.: 28 ¼ Sec.: NW¼SE¼ Transect Direction: 300° A 320°
Oral Description of Land:
Vegetation Type: Doug. Fir perm. Condition of Foliage: Dormant.

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Doug Fir	0	800	800		
I-21,11,	910	3000	2030		
	0	1290	1290		
12, 25, 12	1490	2870	1390		
5, 27, 25			5510		
II-20, 25					
10, 12, 25					
30,					
II-15, 28					
9, 40					
I-16, 12,					
20, 10, 19					
19, 16, 15					
,					

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Oak-	2120	2125	5	Oak-I-14
	2160	2180	20	II-67
	2220	2250	30	
	2320	2340	20	I-47
	260	280	20	II-0
	460	500	40	
	560	570	10	
			145	
				Sonnibury I-[illegible]
Sonnibury	250	290	40	II-25
	140	170	30	
	2410	2460	50	I-1
	2790	3000	210	II-17
			330	
Douglas Fir	1480	1490	10	
	2530	2600	70	
			80	
Rose				
				Hong Fir-2
				II-2
				I-46
				II-9
Syng	910	1010	100	
	1650	1710	60	
	1770	1800	30	
	1830	1840	10	Snowberry I-[illegible]
	1930	1960	30	II-72
	2000	2040	40	I-72
	2085	2100	15	II-38
	2840	2860	10	
			50	
	320	380	60	Rose I-0
	920	990	30	II-11
	1300	1330	10	
	2110	2140	30	I-8
	2240	2270	475	II-0

20	
15	
10	
20	
540	

2360-2380	
2445-2460	
2560-2570	
2610-2630	

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L.L.L. 2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project _____ Site _____ Date 10/13/74 Size of quadrat _____

Field Analysts: Ellis – Ellerwood Sheet No. _____ of _____

General description of land Laylor Ex permanent

T. D 300° A. 320° 5% T. P 15. R. 100W S. 28 NW¼ SE¼

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
total cover	10	7	35	15	3	2	3	0	3	40
Carex (unidentified)	95	85	80	40	75	100			80	95
Astragalus [illegible]	5		20		20					
Galium aparine		5								5
Astragalus sp.		10	5	10	5		70			
Carex sp (unidentified)				50			30			
Aster sp				10						
Berberis repens									20	

1 year

Berberis repens

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2.2.2-6

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: FK & SLF Project: 82 Date: 10/11/74
Site: Permanent Length of Line: 50 m at 60
T: 45 R: 120 W Sec.: 24 ¼ Sec.: NW NW Transect Direction: 45°
General Description of Land: Head of [illegible]
Vegetation Type: Douglas fir Condition of Foliage: [illegible]
Aspect 335° Slope 18%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Doug fir	100	805	705	35		Symp	130	145	15	35, 18, 7, 23
	960	1500	540	25			320	480	160	52, 69
			20	33			690	730	40	
	1500	1520	1195	30			900	920	20	
	1805	3000	2460				1010	1105	95	
							1170	1280	110	
							1540	1580	40	
							1590	1620	30	
							1670	1680	10	
							1800	1850	50	
							1890	1930	40	
							1990	2060	70	
									680	
						Prunus				4, 3
										0
						Amal				0
										14
						Rosa				0
										2

Photo #3 w along transect.

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2.2.2 - 7

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: [illegible] Date: [illegible]
Site: Permanent Length of Line: [illegible]
T: [illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: NW NW Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: Doug Fir Condition of Foliage: [illegible]
[illegible]

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Doug fir	0	130	130	0	
	470	1010	540		
	1230	1500	270		
			830		5.714
	1500	2330	1770	27, [illegible]	
			2160	43	
			4230		

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Doug fir				2
Amal				4
				16
	2005	2440	435	
	2875	2920	45	
	2960	3000	40	
			520	
Symp	120	140	20	47, 32, 17
	220	370	150	
	405	620	215	37, 14, 27, 13
	640	680	40	
	830	920	90	39, 72
	1120	1260	140	
	1296	1436	140	
	1460	1500	40	
	1500	1760	260	
	1860	1910	50	
	2223	2273	50	
	2390	2425	35	
	2460	2495	35	
	2540	2590	50	
	2670	2680	10	
	2770	2870	100	
			1425	
			660	
			2105	

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Permanent Douglas Fir Date 10/11/74 Size of quadrat

Field Analysts: SLR + EK Sheet No. 1 of 1

Legal description of land Douglas Co., T.15. R 10W S.34 NW1/4 NW1/4

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Oxalis oregana	10	15	20	40	10	10	30	10	25	20
Carex	100	100	95	100	95	100	100	100	80	90
Polystichum sp.			5							
Pteridium					5					
Thuja plicata seedlings									20	5
Galium triflorum										5

Mountain ash, Douglas squirrels.

Porcupine damage on fir. Small

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

2.2.2.-9

Field Analyst: Ellis - Ellinwood Project: 83 Date: 10-12-74
Site: Rainbow - Length of Line:
T: 25 R: 10W Sec.: 10 ¼ Sec.: SW SW Transect Direction: 250
General Description of Land: Steep slope - grass - dense service berry.
Vegetation Type: Douglas fir Condition of Foliage: A. 335°
Slope 25%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Doug fir.	320	1530	1210		
I-21, 25	1530	3000	1470		
15, 25, 10	~~1130~~	~~2220~~			
II-6, 18,	0	750	750		
17, 20, 16	800	1000	200		
13,	0	750			
	~~800~~	~~1000~~	200		
	~~2000~~	~~2220~~			
	1780	~~2270~~	490		
II-15, 13	2460	2740	280		
10, 13,			4600		
15					
15, 21					

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Service berry	240		? ?	Service berry I-22
	~~040~~	~~060~~		26
	450	520	70.	I-58
	690	920	230.	II-184
	1450	1500	50.	I-323
	1500	3000	1500.	II-324
	2120	2070	~~1010~~ 2440	
	Cover continuous		Blank	
				Doug fir. I-4
				I-6
				II-8
				I-1
				II-1
Snow berry..	040	060	20	
				Chokecherry - I-2
				Snowberry Symp - II_2-6
Doug fir - - -				Rose ~~Bross~~ - II_2-5
Chokecherry				

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2.2.2-10

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random Douglas fir Date 10/13/74 Size of quadrat

Field Analysts: SLB – SJ Sheet No. 1 of 1

Legal description of land T25, R.100W, S 10 SW 1/4 SW 1/4

Douglas fir – random T.P. 355° A 235° S. 2m.

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0	
Total Cover	70	75	40	40	25	20%	40	25	25	80%	80
Grass sp	80	100	100	100	100	100%	100	90%	95%	100	100
Antennaria	10							20			
Bromus ciliatus									5%		
~~Carex~~								~~20~~			

2.2.2-10

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2.2.2-11

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: SLE-FK Project: F3 Date: [illegible]
Site: Random Length of Line:
T: 13 R: [illegible] Sec.: 32 ¼ Sec.: NE¼ NE¼ Transect Direction: [illegible]
General Description of Land:
Vegetation Type: Doug Fir [illegible] Condition of Foliage:
Aspect - 20° Slope 2[illegible]

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Doug fir	170	610	440,	25	
				15	
1	625	1290	665	37	
	1310	1500	190	28	
	1500	1820	320	40	
2	2580	3000	420	15	
	0	430	430		
3	580	740	160	12, 12	
			110	10	
4	1830	1940	60		
	2620	2680			
			2795		

Reproductive class 3' high < 3" diam.

Species		I_1	I_2	I_2-I_1	Number Per 50' Units
Doug fir	1				1,1
	2	2980	2995	15	1
	3				2,2,3,
		2650	2675	25	2
				40	
Amel	1	250	350	100	8
		780	930	150	
	2	1930	1933	3	6
		1935	1971	10	
	3	770	820	50	6, 7, 4
		1260	1370	110	
				409	6
SYMP	1	380	465	85	18, 10, 11
		1105	1135	30	
		1410	1460	50	
		1980	2005	25	6, 4, 25
	2	2230	2245	15	
		1950	2040	90	
	3	130	270	140	18, 12
	4	2220	2255	35	13, 20
		2870	2880	10	
		2470	2500	30	
				510	
Pipr	1				
	2				
	3				
	4	2670	2730	60	3
Artr	1				0
	2				2
	3	1008	1020	12	8
		1350	1360	10	5, 15
		1750	1860	110	
	4	[illegible]	[illegible]	50	
				182	

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2.2.2-1

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random Douglas Fir Date 10/11/74 Size of quadrat

Field Analysts: SLR - PK Sheet No. 1 of 1

Legal description of land Douglas fir - Ponderosa T. 15. R 100 W, 33 NE¼ NE¼ Marked Punch

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	10	5	10	15	0	10	15	50	5	30
Galium boreale	50	10	30	5		10		15	40	15
Carex (sp.) (dry land)	50	40		35		5	15	65		70
Aster sp.		50	50	50			5	15	10	
Lupinus caudatus			20				80			
Achillea millefolium				10		10				5
Bromus marginatus						5			50	
Poa sp.						5				
Sisyrinchium sp.								10		
Achillea lanata										5
Antennaria sp.										15

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2.2.2-13

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Killian - Ellis Project: 83 Date: 10/10/74
Site: Rattlesnake Length of Line: 50 m
T: 15 R: 100 W Sec.: 9 ¼ Sec.: SW NE Transect Direction: 357°
General Description of Land:
Vegetation Type: Douglas fir Condition of Foliage: Good
Aspect 270° Slope 12%

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Doug fir	0	1470	1420	38, 28, 9		Doug fir				2
	1600	2440	840	32, 13, 31,						7
	2510	3000	490	24, 22, 19,						4
			230	30						3
	0	230	1850							
	250	1500	120	15, 30, 10,						
	1500	1620	200	30, 30, 15						
	1810	2010	640							
	2090	2730	5190	30, 85, 10, 11, 11, 16						
				45						
						Amal	1390	1500	110	3, 2
							1500	1840	340	5
									450	6
										6, 9, 3
						Swamp	0	0		7
							2070	2090	20	5
										23
										41

2.2.2-13

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2.2.2-14

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random Fix Date 10/10/74 Size of quadrat

Field Analysts: Kelly - Ellis Sheet No. 1 of 1

Legal description of land T1S R100W Sec 9 ¼ Sec SW/NE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	5	5	0	10	20	5	5	10	20	15
Eriogonum sp	80									
Poa	20									
Carex		100		100	90	100	100	100	75	50
Galium					10					5
Arctos									20	
Sec Compositae									5	45

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Greasewood (2.2.3)

2.2.3-1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: E. Ellis Project: 83 Date: 10-12-74

Site: C-a Permanent X Length of Line: 60 meters - Aspect 120° Slope

T: 15 R: 99W Sec.: 32 ¼ Sec.: SW¼ of NE¼ Transect Direction: 60°

General Description of Land: 75' S of Rd. East End Pl. Near water Rd. - ll to Rd.

Vegetation Type: Greasewood Condition of Foliage: Dormant - autumn

Prickly Pear 0.85 miles East of C-a boundry -

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
			30		30 - 30
			25		150 - 180
			30		225 - 310
			20		415 - 480
			30		595 - 610
			20		755 - 855
			55		1555 - 1570
			5		1600 1650
			40		1750 - 1770
			120		1874 - 1900
			30		1955 1970
			30		2010 2015
			30		2160 2175
			195	2440 - 2450	2540 2590
			65		620 - 710
			12		910 - 1080
			100		1150 - 1225
			15		1665 - 1695
			50		2440 - 2490
			20		
			25		
			20		
			55		
			100		
			30		
			10		
			1162		490 - 500
					710 - 715
					1650 - 1665
					1760 - 1845
					2490 - 2500
					2665 - 2710

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ad. Tri	1390	1420		Ad. Tri I-27
	2990 - 3000	1540	1565	II-54
	2670 - 2790			I-60 Total
	2635 - 2675	1690	1720	II-89 230
	2605 - 2610			
	2420 - 2485	1820	1910	
		2485	2575	
		2590	2660	
Atr. Can		1720	1760	40 Atrip. Can. I-3
				II-4
				I-0 Total
				II-0 7
Sarc. Squarrosa		735	820	85 Sar. sq. I-9
		1670	1730	60
		1760	1860	80 II-25 Total
		2250	2255	5
		2290	2310	20 I-26
		2540	2630	90 II-41
				170
Chry. Nau.		1390	1450	75 Chry. nau. I-17
160		2685	2695	30
10		2790	2805	10 II-46 Total
15		2715	2750	625 I-61 191
35				II-67
120				
Chry. Nau. Afghanicum		190	260	70 Chry. nau. I-8
				II-0 Total 8
				I-0
				II-0
Juniper Occ. Juns.				Ostrogonus os. I-
				II-0 Total 1
				I-0
				II-0

2.2.3-2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date 10/12/74 Size of quadrat _____

Field Analysts: SLR & SE Sheet No. 1 of 1

General description of land Oversaturated - Dry - pum T15 R99W sec 35 Bear Tank T.P. 60 Grand Mesa Slope: 120

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOTAL COVER	0	2	0	3	0	5	5	0	5	0
Bromus tect		50	T	100	T			100		T
Elymus cinereus						100				
Artemisia tridentata							100			

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2.2.3.-3

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellison Project: 43 Date: 10-15-74
Site: C-C permanent on site Length of Line: 100 meters
T: 21 R: 9W Sec.: 34 ¼ Sec.: SE¼NW¼ Transect Direction:
General Description of Land: flat - mesa - dry - dense open sage
Vegetation Type: Pattison and Greasewood Condition of Foliage: dormant - leafless

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Aster	20	90	70	Sarcobatus
	100	140	40	I-10
1350-1660	250	350	100	II-15
1820-1850	200	450	250	
1340-1660	670	700	30	
1780-2320	740	800	60	I-8
2330-2365	880	940	60	II-3
2390-2440	1010	1045	35	
2440-2690	1070	1180	110	
2640-2695	1260	1340	80	
2770-2860	1550	1640	90	
2920-3000	1690	1840	150	
	1920	1990	70	Artemisia I-4½
	2120	2140	20	II-99
	2220	2265	45	
	[illegible]	2370	20	
	2480	2660	180	I-108
	2870	[illegible]	20	II-112
	0	50	40 50	
	140	215	140 75	
	260	300	210 40	
	340	420	240 80	
	[illegible]	[illegible]	10 20	
	[illegible]	[illegible]	10 45	
	[illegible]	545	50 50	
	642	695	110 25	
	745	770	80 90	Atriplex - I-0
	840	930	3095	II-2
Sarcobatus.	2150	2170	20	I-
	2320	2340	20	II-
	2520	2560	50	
	2725	2740	15	
	260	300	40	
			145	
				Chrysothamnus Nauseosus I-0 II-0
				I-0 II-1

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2.2.3-4

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PERM. Date 15 OCT. 74 Size of quadrat

Field Analysts: ELLIS - ELLINWOOD Sheet No. of

General description of land MIXED ~~[illegible]~~ - GREASEWOOD - (BOTTOMLAND)

T.D. 110° A. 160° S. 8% T. 15 R. 99N S. 34 - SE NW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
T. Cover	0	0	0	0	0	0	0	0	0	1
Ag. tracey										50
Bromus										50

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Pam. Greenwood

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

2.2.3-5

Field Analyst: Ellis - Ellwood Project: 83 Date: 10-15-74
Site: Buck Creek Permanent Length of Line: 60 meters
T. 15 R: -19W Sec.: 12 ¼ Sec.: SE/NE¼ Transect Direction: 165°
General Description of Land: Gentle - 155° - Slope 5%
Vegetation Type: - Mature Greenwood Condition of Foliage:
- Young aspen

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Aster	290	310	20	Sarcobatus - I - 58
							470	480	10	
						2480-2495	760	770	10	II - 62
						2600-2700	805	820	15	
						2850-2970	1305	1320	15	I - 79
							1505	1560	55	II - 72
							2120	2170	50	
							2590	2670	80	
							2726	2770	50	
							2560	2570	20	
							2440	2500	60	
									40	Artemisia I - 172
							125	165	100	II - 161
							225	300	75	
							[illegible]	[illegible]	25	I - 118
							[illegible]	[illegible]	80	II - 110
							[illegible]	[illegible]	390	
							[illegible]	755	75	
							1000	[illegible]	45	
							1190	[illegible]	40	
							1320	[illegible]	80	
							1390	[illegible]	20	
							1630	[illegible]	20	
							1920	1940	100	
							[illegible]	[illegible]	35	
							2390	[illegible]	1570	
						Sarco	270	340	75	
						1740-1790	475	480	50 5	
						1470-1580	[illegible]	683	10 30	
						2230-2375	830	860	45 40	
						2440-2510	1030	1300	70 220	
						2730-2850	1335	1350	160 15	
						2895-2910	1390	1550	160	
							1600	1720	40	
							1780	1870	90	
							1930	2130	150	
							2261	[illegible]	60	
							[illegible]	2450	130	
							2630	2660	30	
							2730	[illegible]	120	
									10	
							[illegible]	[illegible]	10	
							660	670	40	
							1250	1290	20	
							1360	[illegible]	1605	

2.2.3-6

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Permanent Date 15 Oct 74 Size of quadrat

Field Analysts: Ellis - Ellinwood Sheet No. of

Legal description of land Greasewood T.15 R.9EW S.10 SENE

(Cloy Windmill, Bank Co.) T.D. 165 A. 155° S. 124 oz.

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	1	5	5	5	5	5	2	2	3	1
Ag. trachycaulum	100	100	60	80	100	100	100	100	100	100
Sitanion hystrix			40	20						

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2.2.3-7

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: ELLIS BAKER Project: 03 Date: 17 Oct 79
Site: Raldon - on site Length of Line:
T: 5 R: 49 W Sec.: 24 ¼ Sec.: SW SE Transect Direction: EO
General Description of Land: Rolling Grassland
Vegetation Type: Grassland Condition of Foliage:
aspect 130 slope 3°

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
	2310	2360	50		
	2610	2640	30		
	2720	2730	10		
	2550	2600	50		
	50	120	70		
	240	260	20		
	320	390	70		
	470	530	60		
	555	620	65		
	715	835	120		
	935	1070	135		
	1140	1180	40		
	1270	1350	80		
	1440	1465	25		
	1560	1585	25		
	1720	1740	20		
	1895	1990	95		
	2015	2120	105		
	2170	2210	40		
	2250	2290	40		
	2310	2350	40		
	2450	2470	20		
	2580	2595	15		
	2720	2770	50		
	2755	2795	40		
			2030		

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Artemisia	70	110	40	E 171
	230	310	80	
	310	320	10	E 178
	420	435	15	
	590	600	10	T 190
	715	725	10	
	765	810	45	
	1055	1095	40	II 198
	1180	1250	70	
	1270	1300	30	
	1330	1370	40	
	1450	1500	50	
	1605	1615	10	
	1675	1720	45	
	1820	1840	20	
	1900	1940	40	
	2020	2180	160	
Sarcobatus	0	40	40	E 31
	120	190	70	
	230	320	90	
	480	590	110	II 23
	820	850	30	
	890	910	20	T 19
	1080	1200	120	
	1235	1300	65	II 10
	1450	1480	30	
	1535	1570	35	
	2160	2420	260	
	2590	2650	60	
	2760	2840	80	
	1145	1165	20	
	1290	1315	25	
	2300	2340	40	
	2580	2690	110	
			1205	
C. nauseosus	2080	2100	20	E 5
Atriplex				T 1

2.2.3-8

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 03 Site Pardon Date 17 Oct 74 Size of quadrat

Field Analysts: R McIll E Ellis Sheet No. of

Legal description of land Grimmond 15. 99W S. 34 SWSE

T.V. 50° A. 130' S. 330

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Cured Grass	1	0	0	0	0	0	0	20	0	30
Sitanion hystrix	100									
Sulbrush								100		100

Many Small Sagebrush [illegible] dead

Some [illegible] Changes

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2.2.3-9

Random-GN

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellenwood Project: #3 Date: 10-K-74
Site: - Duck Creek - Crescent Length of Line: 60 meters
T: 15 R: 9W Sec.: 12 ¼ Sec.: SE/NW/ Transect Direction: [illegible]
General Description of Land: Gullies - Flat - Valley, Aspect 110 Slope 1%
Vegetation Type: Crescent - Sage Condition of Foliage: Immature - [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Sarco.	170	195	50 ·25	Sarco. I - 81
						190-240	400	425	100 ·25	II - 52
									25 ·15	
						400-500	510	525	165 ·30	I - 63
						775-820	580	610	15 ·100	II - 62
						970-1125	750	850	160 ·15	
						1285-1400	910	924	20 ·20	
						1490-1610	960	980	40 ·40	
						1680-1700	1050	1090	60 ·30	
						1830-1870	1390	1410	35 ·20	
						2010-2070			310 ·15	
						2070-2125	1090	[illegible]	20 ·95	
						2070-2250	1755	1770	55 ·80	
						2250-2310	1935	1950	115 ·80	
						2540-2575	2010	2070	80 ·60	
						2575-2620	2190	2270	·60	
						2910-2990	[illegible]	2930	·40	
									1820	
						Ante.	080	135	55	Ante. I - 39
							390	430	40	II - 7
							885	900	15	
							1050	1150	100	I - 6
							1350	1375	25	II - 3
									235	
						Atriplex Corn.	1410	1415	5	Atriplex I - 6
										II - 1
										I - 1
										II - 3

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2.2.3-10

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site RAUDON Date OCT. 14, 74 Size of quadrat

Analysts: ELLIS ELLINWOOD Sheet No. of 8

General description of land GREASEWOOD T. 15 R. 99W S 12 ~~NE~~ NW

T.D. 170 A. 110 S. 6/2.

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	1	3	8	1	2	1	2	3	1	2
Ag. tracy	100	100	100	100	100	80	100	80	100	100
Lappula redowskii						20				
Ba-like sp.								20		

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Random — Greasewood

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

2.2.3 — 11

Field Analyst: Ellis - Ellmwood Project: 93 Date: 10-15-74

Site: Bull Creek Length of Line: 60 meters

T: 15 R: 94 W Sec.: 9 ¼ Sec.: SW¼NE¼ Transect Direction: 125°

General Description of Land: Gently 100' — Slope 2%

Vegetation Type: Greasewood Condition of Foliage: Dormant

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Sarcob.	680	750	70	Sarcobatus
							1250	1280	30'	
									80'	I-39
							1590	1670	85'	II-31
							1945	2030	30'	
							2370	2400		I-32
							2760	2780	20'	II-51
							2910	2980	70'	
							175	220	45'	
							720	840	120'	
							1120	1160	40'	
							1350	1380	30'	Atri. I-29
							1375	1400	25'	II-38
							1510	1590	80'	
							1560	1595	35'	
							1960	1985	25	I-38
							2290	2400	110'	II-34
							2460	2560	100'	
							2760	2920	160'	
									1155	
						Atri.	640	670	30'	Ang. Vivid. I-6
							1090	1110	20'	II-0
							1780	1910	130'	
							2320	2350	30'	I-0
							2400	2440	40'	II-6
							2470	2480	10'	
							2600	2670	70'	
							2780	2910	130'	
							2980	3000	20'	
							030	080	50'	
							130	220	90'	
							240	250	10'	
							540	600	60'	
							1070	1120	50'	
							1430	1440	10'	
							1980	2025	45'	
							2120	2170	50'	
							2340	2420	80'	
							2580	2620	40'	
							2900	2940	30'	
									995	

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2.2.3-12

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site RANDOM Date 15 OCT. 74 Size of quadrat

Field Analysts: ELLIS Ellikwood Sheet No. of

General description of land Greasewood T. 15 R. 98W S. 9 SW NE

T.D. 195° A. 160° S. 2%

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total cover	20	15	15	10	25	20	10	15	10	15
Lepidium sp.	100	100	100	100	100	100	100			100
Kochia scoparia sp								100	100	

2.2.3-12

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

2.2.3.-13

Field Analyst: Kellen-Ellis Project: E3 Date: 10/17/74
Site: [illegible] on site Length of Line: [illegible]
T: 25 R: 90W Sec.: 9 ¼ Sec.: NE NE Transect Direction: 35°
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage: [illegible]
Aspect 110 Slope 10%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft. No Reproduct	Species	I_1	I_2	I_2-I_1	Number Per 50 Units
Artr	0	30	30		13,10,11,8,3		30	70	40	15,8,9,8,4
	333	370	37				450	480	30	
	420	465	45				580	600	20	~~12,12,10,11~~
	510	530	20		12,5,9,7		660	690	30	
	930	955	25		18		1330	1360	45	53,46
	1050	1140	90				1230	1275	30	
	1195	1210	15		120				40	
	1245	1340	95				1580	1620	20	
	1400	[illegible]	100				1670	1690	20	
	1500	1520	20				1715	1750	35	
	1575	1620	45				1905	2080	175	
	1640	1740	100				2110	2180	70	
	1900	1940	40				2220	2320	100	
	1960	1980	20				2350	2360	10	
	2040	2070	30				2440	2540	100	
	2120	2210	90				2640	2740	100	
	2320	2390	70				2880	2930	50	
	2485	2600	115						1895	
	2695	2860	65						1082	
	2920	2950	30						1977	
			1082							
Sarc	280	290	10		3,6,4,7,4	67				9,10,12,8
	390	450	60		3,10,11					5,8,14,4 106
	480	500	20							
	720	750	30		3,4,5,11		0	30	30	18,18
	955	965	10				90	120	30	
	1020	1080	60				490	560	70	
	1270	1340	70				650	770	120	
	1410	1450	40				890	930	40	
	1610	1630	20				1010	1130	120	
	1865	1895	30				1190	1300	110	
Atco	1945	2000	55		2		1540	1560	20	
	2450	2490	40				1960	1970	10	
	2500	2545	45		2,3		2010	2020	10	3,2,4
	2951	3000	50				2130	2140	10	
			510		1,1,1		2770	2810	40	6,5
							2830	2840	10	
							2940	2975	35	
									655	
									510	
Chva					1,3,2,2					2,1,4
					2,1					8,2
					3,2,3,3					

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2.2.3-14

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Carlon Date Oct Size of quadrat

Field Analysts: Kelley Ellis Sheet No. of

Legal description of land Greenwood T. R. S.

A 110° T.D. T25 R99W Sec 8 NENE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	0	5	5	15	10	30	10	20	3	30
Ca. Trachy	T								100	
Ei. tec		100	100	100	100	100	100	100		100

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2.2.3-14

Mixed Brush (2.2.4)

2.2.4-1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ell B. Baker Project: 83 Date: 10/16/74
Site: Permanent on site Length of Line:
T: 25 R: 99W Sec.: 8 ¼ Sec.: NE of NW Transect Direction: 340
General Description of Land: [illegible]
Vegetation Type: Mixed Brush Condition of Foliage:
[illegible] 240 [illegible] 10%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Big Sage	360	380	20	I 52
							910	940	30	II 68
							525	535	10	
							685	750	65	
							835	910	75	
							1150	1230	80	
							1280	1300	20	
							1510	[illegible]	25	
							2060	2175	115	
							2260	2345	85	
						Rabbitbrush	2865	2910	45	
									570	I 21
										II 23
										I 20
										II 21
						[illegible]	1375	1440	65	I 1
							1910	1960	50	II 3
									115	I 11
										II 7
						[illegible]	790	870	80	I 15
							1500	1550	50	II 41
							1540	1570	30	56
							1720	1800	80	
							1820	1900	80	
							2350	2370	20	
							2940	[illegible]	60	
									540	
						[illegible]	1800	1820	20	I 11
							1900	1995	95	II 41
							2105	2160	55	52
							2605	2620	15	
									115	
						Pinon	785	815	30	I 1
										I 1
										I 2

8.2.4-1

2.2.4-2

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Baker Project: E3 Date: 10/16/74
Site: Permanent Length of Line:
T: 5 R: 90 W Sec.: 8 ¼ Sec.: N E of NW Transect Direction:
General Description of Land:
Vegetation Type: Mixed Brush Condition of Foliage:

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Big Sage	240	280	40	I 61
							740	770	30	II 31
							850	880	30	
							1195	1240	45	
							1325	1345	20	
							1580	1680	100	
							2300	2320	20	
									1285	
									570	
									855	
						Snowberry	0	235	235	I 26
							1680	1875	195	II 26
							1960	1975	15	
							2320	2390	70	
							2740	2790	50	
									555	
									540	
									1105	
						Snowberry				I 2
										II 3
										I 0
						Juniper				II 2

2.2.4-3

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project [illegible] Site [illegible] Date 10/16/74 Size of quadrat

Field Analysts: [illegible] Sheet No. of

[illegible]al description of land [illegible] T 2S R 99W [illegible] NE [illegible]

A. 340 T. 340 S [illegible]

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
[illegible]	3	10	3	10	3	5	5	1	10	5
Muhlenbergia sp. [illegible]	50									
Koeleria pirolata [illegible]	50					60	45		70	40
[illegible] sp. [illegible] ✓		100		100	100			100		
Stipanica hystrix [illegible]			30							
Agropyron trachycaulum [illegible]			70			40	50		30	60
P. Aplopappus spinulosis [illegible]							5			

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2.2.4-4

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis Baker Project: _____ Date: 16 Aug 74

Site: Yorta Canyon [illegible] on site Length of Line: _____

T: 15 R: [illegible] Sec.: 32 ¼ Sec.: N.W. SE Transect Direction: 30°

General Description of Land: _____

Vegetation Type: Mixed Brush Condition of Foliage: _____

Aspect 110° Slope 25%

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pinon.				18 I_2		Juniper	740	1080	340	I, 19
							510	575	65	I, 25
							2120	2300	180	
							40	110	70	I_2 18
							430	460	30	
Juniper	790	1080	290	11 I_2			480	540	60	I_2 36
							1220	1370	150	
							1435	1460	25	
							2790	2915	125	
									1045	
						Juniper				I, 2
										I, 1
										I_2 1
Oak					I, 3	Pinon				I, 1
					II_2 1					II_2 1
							1815	1860	45	I, 12
							1380	1430	50	I, 3
							2640	2720	80	
									175	I_2 7
										II_2 7
						Sage	2220	2345	125	I, 3
										II, 3
						C nans.				I, 3
										I, 1
										I_2 2
						Sac brush				I, 3
										I, 4
										I_2 4
										II_2 5

2.2.4-4

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2.2.4-2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PARM Date 16 /OCT 74 Size of quadrat

Field Analysts: [illegible] Sheet No. of

General description of land MIXED PINYON

T.D. 300° A. 110° S. 256 15 R99W S. 22 NWSE

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	T	0	2	3	1	3	0	T	2	0
Oryzopsis hymenoides	100		100	100	100			100	20	
A. tridentata				T						
Hap spin						100				
Gutierrezia s.									20	
Wet Pi. ponderosa var. scopulorum									60	

2.2.4-2

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2.24-6

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: 83 Date: 10/15/84

Site: [illegible] Length of Line: 150 m

T: [illegible] R: [illegible] Sec.: 17 ¼ Sec.: SW SE Transect Direction: N

General Description of Land: Ridge top

Vegetation Type: Mixed [illegible] Condition of Foliage: [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper	120	130	10		5,15,21,14		1665	1685	20	15,11,15,10,9
	[illegible]	[illegible]	50		21,30,20		1701	1712	11	13,10
	[illegible]	735	34		6,4,		1895	1910	15	
	1145	1220	75				2205	2243	38	
	1198	1270	72				[illegible]	[illegible]		
	1300	1320	20				2243	2276	33	
	[illegible]	[illegible]	17						120	
			278							
					42					4
Juniper	212	294	82		3,5,8,2		1825	1845	20	10,19,9,25,12,3
	330	345	15		10,12,14		1942	1953	11	27,15,15,19
	[illegible]	[illegible]	8				2122	2133	11	
	[illegible]	[illegible]	32		14,12		2145	2165	20	
	[illegible]	[illegible]	35				2350	2380	20	
	1140	[illegible]	20				2480	2490	10	
			192				2675	2732	57	
									149	
										3,2,2
Cercocarpus										
[illegible]	456	571	115		4,3,3,17		2101	2111	10	14,3,5,19,6,4,
	612	657	45		7,10,2,1		2133	2145	12	
	[illegible]	[illegible]	20				2480	2485	5	
	[illegible]	[illegible]	12				2390	2480	90	
			192				2519	2592	73	
[illegible]	173	190	17		5,2,3,4,1		2490	2500	10	3,3,2,2,1,2
	[illegible]	[illegible]	14							
	[illegible]	[illegible]	20							
	[illegible]	[illegible]	13		3,4,2					
			64						200	

50 ft from edge of Road

2.2.4-1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen-Carcelesi Project: F2 Date: 10/15/74
Site: Permanent Length of Line: [illegible] m
T: [illegible]S R: [illegible] W Sec.: 17 ¼ Sec.: SWSE Transect Direction: N
General Description of Land: Ridge top
Vegetation Type: Mixed Brush Condition of Foliage: [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	1st 1st I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Other	124	146	22		13,11,8,19		1560	1525	25	10,12,23,30,12,13
	172	185	13		13,15,15,10		1656	1671	15	
	249	277	28		9,		1820	[illegible]	30	12,1
	396	492	96				1878	[illegible]	94	
	525	[illegible]	20				[illegible]	[illegible]	22	
	955	1068	113				2060	2130	70	
	1150	1191	41				2230	2248	18	
	1210	1238	28				[illegible]	[illegible]	15	
	1255	1329	74				[illegible]	[illegible]	23	
	[illegible]	[illegible]	21				2395	[illegible]	15	
	[illegible]	[illegible]	59				2430	2560	230	
			508				[illegible]	[illegible]	60	
			278		2.1				617	4,4
			786						786	
									120	
Sagebrush	201	211	10		2,3,6,7,6		1683	1750	67	
	245	265	20		12,2,17,25		1760	1772	112	17,12,16,9,19,11,1
	[illegible]	[illegible]	1						12	
	863	[illegible]	22				2160	2172	25	25,1
	930	[illegible]	15				[illegible]	[illegible]		
			68						216	
Juniper	755	863	108		1,2,2,2,7, 34,16,5		2665	[illegible]	25	24,12,3,3,9,4,14
	[illegible]	[illegible]	27							7
			135							
Grass					1,2,3					1,1

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 23 Site Permanent Mixed [illegible] Date 10/15/[illegible] Size of quadrat

Field Analysts: Kellogg Cantrell Sheet No. 1 of 1

Legal description of land T25 R[illegible] Sec 17 ½ Sec SWSE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
[illegible]	40	15	45	40	10	60	10	55	30	30
Festuca	[illegible]	75	70	60	50	50		50	50	20
[illegible]	25	10		30	25			05	20	
[illegible]	[illegible]		20							
Poa		10								
[illegible]		5								05
[illegible]		1				10				05
[illegible]			10							
[illegible]				10		05	15		05	
[illegible]					25	05	[illegible]	05	20	
Eriogonum sp. [illegible]								10		70
unknown comp [illegible]									05	

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND
SPARSE FORB-GRASS COVER

Field Analyst: EK and SLB Project: 83 Date: 10/11/74
Site: mixed brush - [illegible] Length of Line: 60 m
T: 1S R: 10W Sec.: 33 ¼ Sec.: SW ¼ SE ¼ Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: mixed brush Condition of Foliage: after leaf fall
Aspect 165° Slope 11%

MATURE Class 3" plus diam. Reproductive class 3' high ≤ 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Artr	38	44	6	13, 3
							63	80	17	6, 2, 6
							1040	1120	80	
									21	
							2190	2211	70	
							2930	3000		
									174	
						Sym-P	270	285	15	5, 7, 6
							1320	337	17	8, 3
							1915	1923	8	
									40	
						Amal	83	240	157	5, 18, 31,
							1500	1635	135	21, 16, 5, 15, 7
							2040	2170	130	
							2440	2950	510	
							2950	2980	30	
									962	
						Quga gambel oak	410	430	20	31, 23
							460	990	530	5, 37
							1155	1500	345	
							1761	2080	319	
									1214	
						Dougfri Psme				0/2

photo # 2 R2

2.2.4 -10

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: T3 Date: [illegible]
Site: [illegible] permanent Length of Line: [illegible] 60
T: 15 R: 10[illegible]W Sec.: 22 ¼ Sec.: SW-SE Transect Direction: [illegible]
General Description of Land:
Vegetation Type: Mixed [illegible] Condition of Foliage: [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Amal	70	105	35	9, 35, 17
							275	285	10	12, 33, 19, 11, 17
							520	540	20	
							750	1110	360	
							[illegible]	1720	115	
							1845	2150	305	
							2180	2350	170	
							2375	2430	55	
							2480	2610	130	
							2770	3000	[illegible]	
									1430	
						Artr			962	3, 5
									2392	
						Bouc	190	610	420	18, 15
									1214	
									1634	
						Cerv	1370	1395	25	3, 5, 6
							[illegible]	1605	75	15, 3
							1750	1845	95	
									195	
						Symp				4, 3
							2890	2910	20	7, 8, 3
						Pie				2
							[illegible]	2755	30	2

2.2.4-11

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project _____ Site _____ Date 10/11/74 Size of quadrat _____

Field Analysts: _____ Sheet No. _____ of _____

General description of land Mixed brush

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	25	80	15	40	25	50	3	20	40	0
Carex sp.	80	100	95	40	30	85		80	100	-
Composite sp. (Lygodesmia?)	15			10						
Unidentified [illegible]	5						100			
Polygonum sp.			5						T	
Galium [illegible]				5						
Erigeron sp.				5						
Erigonum [illegible]				35	60					
Gilia sp.				5						
Lepidium sp.					10					
Thelichtrum						10				
Artemisia [illegible]						5				
[illegible]								20		
[illegible]										

Oth plants: Balsamorhiza sagittata, Frasera sp. (viviri candle), Linum lewisii, Dryopteris sinuata, Carsium sp., Mahonia repens

2.2.4-11

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2:2.4-12

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: [illegible] Date: [illegible]
Site: Permanent Length of Line:
[illegible] R: [illegible] Sec.: 12 ¼ Sec.: [illegible] Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage: [illegible]
[illegible] DEPARTMENT

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
[illegible]	20	[illegible]			5		0	[illegible]	40	[illegible]
	[illegible]	[illegible]					940	[illegible]	560	11, 8, [illegible], [illegible]
	[illegible]	[illegible]	280		[illegible]		[illegible]	[illegible]	40	
							[illegible]	[illegible]	290	
									930	
									220	
									1150	
[illegible]	20	150	[illegible]		205		[illegible]	720	180	
	[illegible]	[illegible]	130				260	[illegible]	50	7[illegible], 9
	380	[illegible]	30		1301.[illegible]		[illegible]	[illegible]	30	64, 13,
	530	440	110				490	560	70	
	930	550	320				[illegible]	[illegible]	50	
	1010	[illegible]	130				[illegible]	[illegible]	70	
	1520	1520	350				[illegible]	[illegible]	50	
			300				2820	[illegible]	500	
			10						1640	
			180						2140	
			140							
			1.640				790	830	40	
[illegible]	490	[illegible]	[illegible]		27,3		50	140	90	[illegible]
	1410	[illegible]	50		1619		[illegible]	[illegible]	105	14, [illegible], [illegible]
	930	[illegible]	80				[illegible]	[illegible]	80	
	[illegible]	[illegible]	40				[illegible]	[illegible]	120	
	1270	2310	80						435	
	[illegible]	[illegible]	40						555	
			15						990	
			75							
			235							
			555		9,3					
	[illegible]	[illegible]	20		12.5		310	340	30	3/4

2:2.4-12

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2.2.4-72

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project [illegible] Site _____ Date 10/11/74 Size of quadrat _____

Field Analysts: SLL - [illegible] Sheet No. _____ of _____

General description of land [illegible] — T25, [illegible], S18, NE¼ [illegible]

S. side [illegible] Hills

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
[illegible]	[illegible]	10	15	70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	100			[illegible]				
[illegible]					100	[illegible]	[illegible]	[illegible]	70	[illegible]
[illegible]				[illegible]		[illegible]			[illegible]	[illegible]
[illegible]								[illegible]		
[illegible]								[illegible]		
[illegible]								[illegible]		

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X.X.1-13

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: SLE - [illegible] Project: F3 Date: 10/16/74
Site: [illegible] on site Length of Line:
T: 2 S R: 56 W Sec.: 8 ¼ Sec.: NE of NW Transect Direction: 270
General Description of Land:
Vegetation Type: [illegible] Condition of Foliage:
[illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
	2450	2520	40			[illegible]	780	825	45	I 56
	2650	2720	70				1210	1270	60	I 49
	2755	2810	55				1610	1690	80	I 26
	2970	3000	10				2260	2340	70	I 76
			910				2470	2530	60	
							2[illegible]	[illegible]	50	
							2720	2770	55	
							505	560	80	
							750	770	15	
							1275	1290	80	
							1890	1940	90	
							1950	2000	50	
							2160	2210		
						[illegible]	10	150	50	I 26
							[illegible]	[illegible]	65	
							2000	2140	140	I 26
							[illegible]	[illegible]	120	I 10
							[illegible]	[illegible]	15	
							530	545	40	II 46
							1620	1660	15	
							1750	1765	10	
							2000	2040	455	
	2520	[illegible]	15			[illegible]	35	130	55	
			120				1160	2180	20	II 10
							555	575	20	I 19
						[illegible]	[illegible]	2400	50	I 14
	1400	1480	20				[illegible]	[illegible]	20	I 15
	1600	1610	210				[illegible]	[illegible]	10	I 16
	1870	[illegible]	20				[illegible]	[illegible]	25	III 13
	[illegible]	[illegible]	15				2340	2355	15	I 17
	[illegible]	[illegible]	15				2360	2375	15	I 12
	2890	2930	445				2[illegible]	[illegible]	30	I 0
						Bi[illegible]	1880	1900	90	
							1200	1245	45	
							1875	1920	45	
									180	
						Juni. pr				I 1
										I 2
										II 1
						Pinus				II 1
										I 3
										II 1
						[illegible]				II 1
						Tetra				I 1

2.2.4-15

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 23 Site Rowan Date 10/16/74 Size of quadrat

Field Analysts: SLB Baker Sheet No. of

General description of land Mixed brush

T.D. 270° A. 340° S 20% T25. R99W. S9 NE/NW

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
total cover	5	10	10	3	10	5	15	10	3	-
[illegible]	[illegible]	[illegible]	20				30	45		[illegible]
K. crotalia	[illegible]	30			65	40				
[illegible]		10	30	100		20	5		5	
Stipa coloradensis			20		10	20		30		
[illegible]			20							
Fremont sp.			10							
[illegible]					10					
Helianthus annuus					5	10	40			
Sporobolus sp.					10					
Phlox							30			
Hedy. spinosa							5	5		
[illegible] sp.								[illegible]		
Melilotus [illegible]									[illegible]	

[illegible], loose dry soil

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2.2.4-16

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley - Ellis Project: 83 Date: 10/10/78
Site: Random Length of Line: 2.5 mi
T: 15 R: 100 W Sec.: 9 ¼ Sec.: NENE Transect Direction: 183°
Oral Description of Land:
Vegetation Type: Mixed Brush Condition of Foliage: Leaves fallen
Aspect 245° slope 2%

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	~~Basal Area Sq. Ft.~~ No.
Artr	0	25	25		13, 11, 15, 8, 18
	130	170	40		
	1260	1310	50		30, 12, 21, 17, 6
	1708	1721	13		
	2200	2210	10		
	2285	2310	25		
	2365	2440	75		
	2550	2610	60		
	2650	2790	140		
			438		
Amal	620	670	50		5, 15, 3
	770	750	30		
	1780	2075	295		40, 9, 8, 1
	2140	2195	55		
	2990	3000	10		
			440		
Symp	0	0			3, 3, 6, 10
	2925	2950	25		15, 12, 8, 8, 2
Buga gambel oak					0
					3, 1, 2, 2

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per ~~50'~~ 15M Units
	100	117	17	6, 8, 7, 8
	470	488	18	
	690	715	25	4, 4, 6, 10, 10, 7, 14
	1210	1270	60	
	1470	1500	30	
	1500	1505	5	
	1620	1670	50	
	1690	1710	20	
	1825	1860	35	
	2140	2195	55	
	2470	2510	40	
	2915	2920	5	
	2985	3000	15	
			375	
			439	
			812	
	119	235	116	30, 5, 8, 10
	502	575	73	8, 5, 10, 10, 5
	805	910	105	
	1140	1365	225	1, 9, 4, 6, 9, 1
			25	
			15	
			559	
	1540	1565	440	
	2510	2575	999	
	235	255	20	4, 8, 5
			25	
	1365	1390	10	4, 2, 5, 7
	2525	2535	15	
	2920	2935	20	
				0
				3, 6

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2.2.4-97

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random mixed grass Date 10/10/74 Size of quadrat

Field Analysts: Kelley - Ellis Sheet No. 1 of 1

General description of land T1S R100W Sec 9 ¼ sec NE NE

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	70	30	20	70	25	25	60	20	60	25
Geranium	10	5	T	5	10					
Carex	80	60	50	80	40	35	75	40	75	45
Eriogonum umbel	5	T		10						5
Poa sp	5	20	10		30		5		10	
Oxytropis lamberti		10								
Gilia		5								
Solidago sp		T								
Eriogonum small sp		T				10	20		15	10
Compositae			40			5		5		
Bromus sterile non sterile			T					15		
Frasera				5						
Allium lar					10		T			
Umbelliferae sp					10					
stco						45		40		40
Gabo							T			
Agsm								T		

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2.2.4-18

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: B Kaple Project: Q3 Date: 10/11/74
Site: Random Length of Line: [illegible]
T: 5 R: 100W Sec.: 34 ¼ Sec.: SW ¼ NE ¼ Transect Direction: [illegible]
General Description of Land:
Vegetation Type: [illegible] Condition of Foliage: [illegible]
Aspect 175° [illegible]

MATURE Class ~~3" plus diam.~~ Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	~~Basal Area Sq. Ft.~~	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Anal	70	[illegible]	40		53,5		0	[illegible]	60	12, 3, 16
	[illegible]	[illegible]	270		11,8,17,6		1135	1170	35	18, 3, [illegible]
	1500	[illegible]	280				[illegible]	1880	300	
	[illegible]	[illegible]	70						435	
			660						660	
									1095	
Sympo	130	180	50		8,21		80	105	25	
	[illegible]	[illegible]	70		13,4,3,8		458	461	3	6, 10, 9, 3
							1490	1500	10	
	2395	2440	45				[illegible]	[illegible]	110	
	2460	2475	15				[illegible]	[illegible]	95	9, 25, [illegible]
			150				[illegible]	2370	10	
							2220	[illegible]	253	
									140	
									433	
Gritr	210	230	20		18, 8, 14		190	215	25	18, 23, 6, 9
	[illegible]	[illegible]	75				[illegible]	720	70	
	[illegible]	[illegible]	50		10, 19, 23		845	[illegible]	30	5, 31, [illegible]
	[illegible]	610	70				1040	[illegible]	10	
	715	750	35				1170	1200	30	
	1295	1350	17				[illegible]	[illegible]	90	
	1429	1445	55				[illegible]	[illegible]	50	
	[illegible]	[illegible]	60				[illegible]	[illegible]	55	
	[illegible]	[illegible]	30				[illegible]	[illegible]	15	
	2175	[illegible]	80						445	
	2310	[illegible]	70						552	
	2670	[illegible]	552						997	

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2.2.4-14

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date 10/11/74 Size of quadrat _____

Field Analysts: SLE + EK Sheet No. _____ of _____

General description of land Mixed brush, Random; T15, R100W; S34 SW ¼ NE ¼

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOTAL COVER	10	25	40	25	30	20	15	15	20	25
C. Ade + Sp (Cover)	85		15				5		15	25
Artemisia Sp.	5	5	10			10			10	
Forbs Sp.	5	5								
Agropyron Smithii	5	10		T		50	60		15	15
Eriogonum Umbellatum		20	10			20			20	15
Carex Sp. (Cover Only)		100	65	100	100		10	100		
Poa Sp.				T			5		20	
Bromus marginatus							5			
Lupinus Sp.							5			25
Stipa Sp.							5			
Smooth Sp.							5			
Pine Sp.										20

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4A. ✗ 2.2.4-20

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelly Cancelosi Project: F3 Date: 10/14/74
Site: [illegible] Length of Line: [illegible]
T: [illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: Mixed [illegible] Condition of Foliage: [illegible]
Aspect SE Slope 10%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	1ST 15 M I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	2ND 15 M I_2-I_1	Number Per 50' Units
AMEI	762	797	35		10,10,7,5		2202	2321	319	4,29,3,4,7,
	855	891	36		8,12,5		2330	2379	49	
	902	924	22				2388	2550	162	
	933	962	29				2621	2632	11	
	981	1006	25						541	
	1061	1072	11						221	
	1211	1221	11						732	
	1247	1256	9						1495	
	1342	1353	11							
1474-1486	1361	1382	21							
	1391	1396	5							
	1326	1332	6							
Sym	505	512	221		15,3,2,4,2		2481	2503	22	8,6
			7						7	
rter	660	669	9		1,3,13,4,4		1559	1571	12	3,6,7,4,10,5
	660	670	10				1582	1593	11	
	725	750	25						23	
	1137	1181	44							
	1269	1291	22							
	1299	1311	12							
	1357	1361	4							
	1355	1390	5							
	1401	1411	10							
			141		5					2
lir										

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4B.

2.2.4-21

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen-Cancalosi Project: 83 Date: 10/14/74
Site: Random Length of Line: [illegible]
T: 25 R: 100W Sec.: 21 ¼ Sec.: SENE Transect Direction: NW
Physical Description of Land: Top of Cathedral Bluffs
Vegetation Type: mixed brush Condition of Foliage: lower [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	1ST 15 I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	2ND 15 I_2-I_1	Number Per 50' Units
AMEL	680	1072	392		2.2, 6, 1					8, 14, 13, 15, 7
	1492	1498	6		18, 24, 12					
	1658	1731	73							
	1734	1745	11							
	1827	1886	59							
	1886	1970	84							
	2165	2222	58							
	2190	2240	50							
			733							
	165	182	17		10, 5, 16, 4					5, 4, 6, 14, 3, 4
	624	635	11		4, 3, 7, 10					12, 14
	701	727	26							
	780	825	45							
	1128	1150	22							
	1429	1453	24							
	1645	1652	9							
	[illegible]	[illegible]	7							
	[illegible]	[illegible]	10, 20							
	[illegible]	[illegible]	91							
	[illegible]	[illegible]	18	27	3, 3, 3, 16					5, 6, 12, 5, 4
	211	296	85							6
	359	382	23	220						
	471	508	37							
	1318	[illegible]	23							
	[illegible]	1652	15							
	[illegible]	[illegible]	87							
	[illegible]	[illegible]	92							
			[illegible]							
			320							
			14							
			23	4						
			40							

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2.2.4.-22

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 43 Site 4 Date 10/14/74 Size of quadrat _____

Field Analysts: _____ Sheet No. _____ of _____

General description of land _____

4

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	30	70	1	35	05	10	10	90	05	80
unidentified [illegible]	50									
[illegible] bigelovii	10				05	05			10	
[illegible]	10		95		70					
[illegible]	10									
[illegible]	20		65			80	40		20	
chrysothamnus		t								
cactus		100		100				65		75
[illegible]					t					
[illegible]					05					
[illegible]					20	t	10		10	
poa						10	40			
[illegible] composite						05				
composite							10			
artemisia [illegible]								35		25
[illegible] (scleno?)									60	

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2.2.4 - 2

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Bill Baker Project: _____ Date: 10/16/74

Site: [illegible] Length of Line: _____

T: [illegible] R: [illegible] Sec.: 22 ¼ Sec.: [illegible] Transect Direction: 220

General Description of Land: _____

Vegetation Type: Mixed Brush Condition of Foliage: _____

Aspect 100° Slope 15%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Serviceberry	1270	1345	75	I, 17
							1385	1700	315	II, 34
							1430	1760	330	I₂ 14
							1950	2170	220	II₂ 32
									940	
						Mahogany				II₂ 1
						Snowberry	1530	[illegible]	50	I, 8 II, 3 I₂ 6
						Cliffrose				I, 4 II, 6 II₂ 9
						Chamisa	2920	2940	20	I, 2 I, 1
						Bitterbrush				I, 1 I, 1 I₂ 1
						Sage	850	950	100	I, 15
							1010	1150	140	I, 16
							1180	1250	70	I₂ 6
							2230	2250	20	
						Juniper	2980	3000	20	I, 1
									350	
						Bitterbrush	2560	2610	50	I₂ 4 II₂ 6

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project CR Site RANDOM Date 16 Oct 79 Size of quadrat

Field Analysts: [illegible] Sheet No. 1 of 1

Detail description of land mixed brush

T. D. 320° A 100° S 15%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Tall Grass	0	5	0	3	0	0	1	0	T	1
Bro. tectorum		[illegible]		100			1/90		T	100
Hog spine										
P. crotonum sp.									T	

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6A

12.2.4-25

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: _____ Date: 10/14/7[illegible]

Site: Random Length of Line: 15[illegible]

T: 2 R: [illegible] Sec.: 2[illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]

General Description of Land: [illegible]

Vegetation Type: _____ Condition of Foliage: _____

Aspect NW Slope 10%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	1ST 18 I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	2ND 15 I_2-I_1	Number Per 50' Units
[illegible]	0	40	40		1,7,12,		1584	1592	8	7,8,25,13,11,1[illegible]
	53	84	31				2042	2061	19	
	91	102	11		5,3,6,7		2092	2103	11	12,9
	109	145	36		4,		2184	2210	26	
	130	166	26				2245	2280	35	
	909	[illegible]	3				[illegible]	2420	14	
	1070	1138	68				2845	2890	45	
							1748	1781	33	
[illegible]	325	340	15				[illegible]	[illegible]	49	
	351	372	21		2,5,2,1		[illegible]	[illegible]	30	1,5,2,7,5,5
	[illegible]	[illegible]	12		15,5,2,5				112	
	[illegible]	[illegible]	22						57	
	[illegible]	[illegible]	11							
	1075	1146	87							
[illegible]	1292	1392	100		2,3,3,2		2223	2231	8	14,9,3,5
					2,6,11					
										2
					1,3					
			31							
			22							
			22							
			10		2,4,6,2					
							1925	1932	7	
[illegible]	2	53	[illegible]		8,11,3,12		[illegible]	1955	11	3,6,6,7,4,6,3
[illegible]	164	[illegible]	15		6		2220	2245	25	
	[illegible]	[illegible]	39				2282	2301	19	4
	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	4	
	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	10	
			659						76	
	14[illegible]	[illegible]	7		2,3,4,3,2		[illegible]	2511		1,4,5,5
	[illegible]	[illegible]	22		3		[illegible]	[illegible]	7	
			27						10	

B

2.2.4-26

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellogg-Cardaloni Project: P7 Date: 10/14/74

Site: Baldam Length of Line: 2nd Tam

T: 25 R: 100W Sec.: 25 ¼ Sec.: NW NW Transect Direction: NE

General Description of Land: redacted

Vegetation Type: Mixed Brush Condition of Foliage: Leaves [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ceanothus	104	114	10		21, 18, 12		1530	1539	9	4, 15, 15, 7, 5
	354	414	60		6, 2, 15, 10		1591	1602	11	5, 17, 5, 17
	594	643	49				1719	1741	22	
	855	880	25				1723	1735	12	
	1232	1281	49				1809	1885	76	
	1440	1459	19				1895	1910	15	
			212				2120	2150	30	
							2230	2251	21	
							2324	2367	43	
							2368	2391	23	
				659			2763	2771	8	
				76			2783	2791	8	
				61			2979	3000	21	7, 6, 8, 4, 5, 2, 6
							2455	2454	299	
Manzanita	25	25	5		5, 3, 8, 8, 4					1, 15, 6
	60	67	7		7, 3		2538	2559	8	
	812	840	28				2902	2911	21	
	1281	1302	21						12	
			61						48	
				193						
				112						
				205						
				87						
				197						
			20				1915	2120	205	5, 3, 2, 2, 3 3, 2
			39							3, 4, 1
Chamisal	0	20	15		1, 4, 8, 3, 10					
	296	329	119		5					
	820	835	193							
	1302	1421								
Ceanothus	495	513	18		4, 2, 3, 6		2190	2211	21	4, 4, 3, 1, 3
	1421	1430	9		2					
			27							
			27							
			19							
			21							
Water										
Bedrock										

2.2.4-27

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site 6 Date 10/14/74 Size of quadrat _____

Analysts: Kellog-Cavalosi Sheet No. 1 of 1

General description of land T2S R100W Sec 25 ¼ sec NW NW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
[illegible]	05	50	30	40	25	40	25	35	50	20
Poa	100	20	[illegible]	[illegible]	40	10			10	05
[illegible]		50		15			40	25	30	05
[illegible]		20	60	10		05	10	10	10	
[illegible]		10	10			15	10	40	10	50
[illegible]		t								
[illegible]			[illegible]	50		60	40		15	40
[illegible]			t	[illegible]			t			t
[illegible]				[illegible]					10	
[illegible]				[illegible]						
[illegible]					10	10			10	
[illegible]								10		t
[illegible]								15	05	
[illegible]										

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2.2.4-28

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: [illegible] Date: 10/10/[illegible]

S: [illegible] Length of Line: [illegible]

T: [illegible] R: [illegible] Sec.: 15 ¼ Sec.: NW NW Transect Direction: SW

General Description of Land: [illegible]

Vegetation Type: [illegible] Condition of Foliage: [illegible]

Acant ECE Clade 153

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	2 NP I_1	I_2	15 I_2-I_1	2 to 15 Diam. In.	Basal Area Sq. Ft.	Species	15 M I_1	I_2	I_2-I_1	Number Per 50' Units
Symph					3, 14, 3, 6, 7, 3, 20	Symph	195	321	126	2, 10, 9, 3, 4, 11, 23,
							349	353	14	9, 4, 6, 35, 4
							435	443	8	
							472	494	22	
							559	567	8	
							581	593	12	
							668	691	23	2, 10, 9, 3, 4, 11
							768	803	35	
							926	949	23	
							1028	1093	65	
									335	
					2, 4, 2	Chr	99	114	15	5, 4, 7, 2, 2, 5
					2, 2		902	921	19	3, 3, 3, 9, 3
									34	
						Arter	60	77	17	10, 15, 16, 5, 11,
							196	164	18	14, 6, 12, 10, 7
Arter					17, 6, 13		374	388	14	
					6, 10, 26		594	653	59	
					15, 16, 5		938	984	46	
							1164	1181	17	
						1412 1444	1326	1358	32	
							1492	1501	9	
						Amal	532	538	212	6, 12, 7, 4, 6, 2,
							703	769	6	15, 3
							810	819	66	
							853	874	9	
							1098	1127	21	
									29	
									131	
Amal					5, 4, 9					
					14, 4, 7					

2.2.4-29

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

ield Analyst: [illegible] Project: [illegible] Date: [illegible]
ite: [illegible] Length of Line: [illegible]
: [illegible] R: [illegible] Sec.: 15 ¼ Sec.: [illegible] Transect Direction: [illegible]
el [illegible] Description of Land: [illegible]
egetation Type: mixed shrub Condition of Foliage: [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

pecies	15 ft I_1	I_2	15 mt I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	2nd 15 meter I_1	I_2	I_2-I_1	Number Per 50' Units
jmph	427	[illegible]	20	2,9,3,5						7,4,9,4,3
	678	687	9							
			12	2,5,10						
	1071	1083	91							
	1101	1192	25							
	1312	1357	89							
	1647	1736	17							
	1768	1795	2							
	1869	1871	26							
	1912	[illegible]	24							
	1984	[illegible]	315							
			335	5,3,3,3						2,4,3,7,3
ry			650	2,2,2						
ter	0	29	29	20,12,10						4,7,6,6,12,9
	362	368	6	7,5,5,7						
	570	652	82	13,						
	710	801	91							
	826	879	53 18 31							
	901	[illegible]	2 22 65 11							
	1020	1022	18 30							
	1346	1411	23 12							
	1432	[illegible]	24 46							
	1458	1511	563							
	1738	1762								
	120	169	49	2,1,3,6						5,2,6,47,30,
	191	362	171 30	3,12,6,						6
	368	[illegible]	26	3						
	2157	[illegible]	25							
	2375	[illegible]	301							
			131							
			1132							

[illegible] 2232
2260 - 2288
[illegible] 1972
[illegible] - 2041
[illegible] - 3102
2096 - 2140
2147 - 2180
[illegible]

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2.2.4-30

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project [illegible] Site [illegible] Date [illegible] Size of quadrat

Field Analysts: [illegible] Sheet No. 1 of 1

General description of land [illegible]

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	05	35	20	15	40	05	15	30	0	0
[illegible]	40	30	40	25	40	100	25	40		
[illegible]	60	10	05				25	10		
[illegible]		30	10					t		
[illegible]		30	40	70	30		20	40		
[illegible]			05	05	10					
[illegible]					t					
[illegible]					30		10			
[illegible]							10	10		
[illegible]							10	t		
[illegible]								t		

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2.2.4-2

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelly Carnahan Project: 83 Date: 11-14-72
Site: [illegible] Length of Line: 155 31 m
T: [illegible] R: [illegible] Sec.: 7 ¼ Sec.: SE NE Transect Direction:
General Description of Land:
Vegetation Type: Mixed conifer Condition of Foliage: [illegible]
Aspect north Slope 47%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Pinyon.				2/1
						Sym.	682	733	21	5, 3, 2, 2, 3, 2
							730	759	9	
							1305	1330	25.	5, 2, 7, 4, 4, 3, 1
							2793	2804	11	
						Amel	2594	2721	66	12 2, 4, 2
							30	43.	77.	
							61	72	43.	2, 4
							245	248	11.	
									3.	5, 5, 2, 5, 7, 4,
							299	435	136.	
						66	755	761	11.	
						66			48.	
						132	2132	2180		
							2220	2408	188.	
							2485	2506	21.	
							2859	2893	34.	
									572	
						Chry.	1919	1932	13	3, 2, 1, 4, 3, 3,
							[illegible]	753	9	
							[illegible]	1922	14	4, 4, 10, 1, 2
									36	9, 5
						Ater	150	181	31	15, 12, 12, 10,
							[illegible]	362	91.	14, 10, 8
							754	[illegible]	12.	
							856	879	23.	9, 21, 12, 19,
							1149	1184	35	12, 16, 14, 17
							1219	1253	34.	
							1433	[illegible]	37.	
							1516	1554	38.	
							[illegible]	1628	23.	
							[illegible]	[illegible]	13	
						Persia	[illegible]	2233	20	
							2532	2540	8.	1, 1, 1
							[illegible]	2601	34.	
							[illegible]	[illegible]	11	
									[illegible]	
									434	
									444	
									878	

2.2.4-32

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: [illegible] Date: [illegible]

[illegible] Length of Line: [illegible]

T: [illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]

General Description of Land: [illegible]

Vegetation Type: [illegible] Condition of Foliage: [illegible]

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Pinyon				1
						Symp	[illegible]	[illegible]	17	3, [illegible], 3
							[illegible]	[illegible]	31	1,3,1
						Chry	[illegible]	[illegible]	3	4 5 3 2
									15	
									66	2,3,3,4,2,1
						68	1315	1365	50	
						36	1835	1853	18	
						104			68	
						Amel	[illegible]	[illegible]	205	8,3 5 1
							[illegible]	[illegible]	25	15,9,1,2,5,4
							2554	[illegible]	82	
							2605	[illegible]	65	
							[illegible]	[illegible]	67	
							[illegible]	[illegible]	71	
									515	
									572	
									1087	
						A, tern	392	481	89	[illegible], 103, 11
							550	596	46	
							[illegible]	[illegible]	7	21,12,14,12,[illegible]2
							[illegible]	[illegible]	45	3
							1590	1635	107	
							1655	[illegible]	19	
							1805	[illegible]	54	
							[illegible]	[illegible]	13	
							[illegible]	[illegible]	7	
							[illegible]	[illegible]	47	
							[illegible]	[illegible]	10	
							[illegible]	[illegible]	444	
							[illegible]	[illegible]		
							[illegible]	[illegible]		
										1
						Jumpe.				

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2.2.4-32

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project F3 Site Random [illegible] Date [illegible] Size of quadrat

Analysts: [illegible] – [illegible] Sheet No. 1 of 1

General description of land T2S R99W Sec 7 ¼Sec SENE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total cover	30	25	10	35	30	20	25	25	35	10
[illegible]	5	10	10		10			30	05	
Poa	60	10	05	20	80	95	30	40	90	30
Erigeron	15		15			05		10	t	
[illegible]	20	10	70	20						05
Bromus		60								
chrys. [illegible]		10		20			10			20
mat penstemon				20			20	20		05
[illegible]							30			
[illegible] 2				20	10					
[illegible]							10			
[illegible]									03	
[illegible]										20

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Pinyon-Juniper (2.2.5)

2.2.5-1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Elis Baker Project: 83 Date: 10/16/79
Site: Permanent Cal Site Length of Line:
T: 2 S R: 90W Sec.: 4 ¼ Sec.: NE of NE Transect Direction: 35°
Legal Description of Land: [illegible] A 118° S 48%
Vegetation Type: Pinyon-juniper Condition of Foliage:
Aspect 115° Slope 48%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper	2190	2210	20	II_1 35		Serviceberry	655	720	65	I_1 53
							975	990	15	II_1 10
							1260	1300	40	
							1320	1580	260	
							1500	1540	40	
							1830	1860	30	
							2480	2490	10	
							230	250	20	I_2 8
							280	490	210	
									690	
Pinon				II_2 12						
						Juniper Fremont Wolfberry	390	490	100	I_2 2
									90	I_1 5
							2100	2190	190	II_1 0
										II_2 1
						Pinyon	2080	2120	40	I_1 1
							50	100	40	II_1 3
									80	I_2 3
										II_2 5
						Mountain mahogany	2480	2530	50	II_1 16
							790	940	150	I_2 13
							1440	1490	50	II_2 2
							1510	1525	15	31
							1790	1810	20	
									285	
						Sage	2680	2700	20	I_1 2
							40	150	110	II_1 6
							1280	1350	70	I_2 9
							1700	1750	50	
									270	II_2 9
						Rabbitbrush nauseosus	1170	1185	15	I_1 5
							2275	2330	55	II_1 10
									70	I_2 9
										II_2 9
						Viscidiflorus				II_1 1
						Pinyon				II_1 1
						B. Herbaceous	1660	2010	350	I_2 1
										II_2 2

Sixteen

2.2.5-2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PERM Date 10/16/74 Size of quadrat

Field Analysts: BAKER - ELLIS Sheet No. of

Legal description of land P.J. T.25R.99WS. 4 NE SW

T. 0° 35° A. 115° S. 48%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Lower	3	3	0	0	0	0	3	1	0	1
Oryzopsis hymenoides	80	40					100	100		100
Hilo spin.	20									
MAre		60								

Shale slope, broad period, [illegible]

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2.2.5-3

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis-Baker Project: 83 Date: 10/16/74

Site: Ullm. R.S. Permanent on site Length of Line: 60 m

T: 2 S R: 99 W Sec.: 4 ¼ Sec.: NW NE Transect Direction: 212

General Description of Land:

Vegetation Type: Pinyon - Juniper Condition of Foliage:

A: 320 Slope 15%

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper	1910	2080	170	I, 15		Juniper				I, 1
	2350	2610	260	60						I_2 1
			430	25						II_2 3
				15						
				II, 40		Bitterbrush				I, 7
				26						
				20						
				15						
				45						
				II_2 15		Sage	2450	2520	70	I, 3
				12			450	490	40	
							760	820	60	II, 12
							1120	1150	30	I_2 21
							1215	1245	30	II_2 21 57
							1540	1555	15	II_2 1
Pinon	1100	1170	70	I 35		Pinon			245	II, 2
	2370	2740	370	45					15	II_2 3
	1400	1420	20							II_2 3
	1670	1890	220	II, 45		Snowberry	1200	1215		II, 9
	2070	2160	90	20			1230	1230	I_2-II_2	I_2 9
	2680	2820	140	I 20			1375	1380	5	II_2 17
	2940	3000	60	25		Rabbitbrush	2745	27	10	II_2 3
			970	II_2 15			2820	2840	55	
				20			2860	2875	20	
				14		Sarcobatus	2890	2895	15	
				16					5	
				17					40	II 6
				18						
				14						
				17						

14
17
18

2.2.5-4

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site RANDOM Date 16 oct. Size of quadrat

Field Analysts: BAKER-BLUG Sheet No. of

General description of land P.J. 2S. R 99W/S4 NW NE

T. N. 312° A. 320° S. 150°

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	2	4	5	1	3	5	1	2	2	5
Poa sp	100	50	90		100	70			50	30
Artemisia		10		100				40	40	30
Phlox			10					50		
Eriogonum microthecum						20				
Cryptantha sp.						5			10	30
Sitanion hystrix						5				
Bromus sp. (sterile)							30			
Bromus sp.							70			
Orthocarpus sp. (annual)								10		
Penstemon sp										
Erigeron sp										20

Bromus rubens
O. polycarpa

Low sweet-Sagebrush

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2.2.5-5

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellmwood Project: 43 Date: 10-15-74
Site: C-6 on site Length of Line: 60 m.T.L.
T. 15 R: 17W Sec.: 33 ¼ Sec.: SW¼NW¼ Transect Direction:
General Description of Land: [illegible] Slope - [illegible] - Special growth.
Vegetation Type: PJ Condition of Foliage: Permanent -

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper	0	590	90			Gray Nas				Gray, Nas. - I-6, II-2
	2950	2970	20							I-9, II-15
			110							
						Atriplex	2220	2260	40	Atr. dis. I- [illegible]
										I-R, II-
										Lindauell - I-8
										II-7
						Amel.	2510	2540	30	II-8
							65	130	65	II-16
							780	800	20	Atriplex Atrifolia
							620	650	30	I-0, II-0
							1610	1640	30	
							1910	1940	30	I-0, II-8
							2290	2305	15	Coleocarpus
									220	
						Coleocarpus	2[illegible]	2[illegible]	150	I-1
							145	220	75	II-3
									225	II-2, II-R
						Piñon	120	140	20	Piñon - I-0, II-6
						Sump	1830	1855	25	I-6, II-7
							2125	2130	5	
							2350	2420	70	Symphoria I-0
							2440	2480	40	Sagebrush II-1
							2650	2720	70	I-4
									210	II-10

Juniper II, R, I-1

found nest of some animal under large Juniper Tree - collect some seeds.

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2.2.5-6

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PERM Date 15 OCT. 74 Size of quadrat

Field Analysts: ELLIS - ELLINWOOD Sheet No. of

General description of land PINYON-JUNIPER T. R. S. 33

T. D. 160° A. 130° S. 35%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOTAL COVER	10	1	1	2	0	5	3	10	2	0
Eriogonum sp (Cryptantha)	95	100	50	60		60				
Ag. trachycarpum	5					40				
Hapl. spin.			50	40			100			
Oryzopsis hymenoides								100		
Sitanion hystrix									100	

Bromus sp. (grass short spike tipped)

Thin soil - 2" - broken shale - small Chrysanth gathering A. confertifolia seeds

Elymus cinereus

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2.2.5-7

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen Sinz Project: 83 Date: 10-16-94
Site: [illegible] on site Length of Line: 200'
T: [illegible]S R: [illegible] Sec.: 3 ¼ Sec.: [illegible] Transect Direction: SSW
General Description of Land:
Vegetation Type: [illegible] Condition of Foliage:
Aspect NW Slope 15% along [illegible] Smith [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Pied				4/1,2 1 30m
							0			1/13 60m
							2589	2615	26	
Juni	0	0		30		Juni				1/1 30m
	2120	2370	250	35						
30	2590	2915	325	55						
				55						
	880	910	30	50						
60m	2820	2900	180			Artr				12/3,3 30m
			785							2/0 60m
						Amal				1/0

2.2.5-11

2.2.5-

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 23 Site [illegible] Date 10-16-94 Size of quadrat

Field Analysts: Kellen Same Sheet No. of

Legal description of land [illegible]

[illegible]

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOT. COV.	5	20	15	10	5	15	1	5	T	1
Ha SP	95	10	70	40	60	35	80	35		20
Spinus [illegible]	5	50	15	35	15	70				
[illegible]		10								
Festuca		20								
Euti		5	5							
Agtr		5	5			35		65	100	
Cryptantha			5			T				
Aster (shrubby)			T							
Arenaria			+	10	5		T			
Draba			T	T	T		T			
Erisimum [illegible]				10		T				
[illegible]				T	20		20			80
[illegible] mustard				T						
Seedling				5	T	T				

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2.2.5-9

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Sanz Project: S3 Date: 10-[illegible]-74
Site: Pon. P.J. on site Length of Line: 200'
T [illegible] R: [illegible] Sec.: 9 ¼ Sec.: [illegible] NE Transect Direction: NE
General Description of Land:
Vegetation Type: Ponderosa - Juniper Condition of Foliage:
Aspect NW Slope 22%

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Pi ed	0	420	420	52 cm	
	1180	1455	275	27	
	2591	2750	159	13	
	0	0		14	
	0	0	854	12	
				22	
Ju. os	620	840	220	45 cm	
	1620	1930	310	100	
	0	130	130	15	
	220	310	90	40	
	1160	1500	340	30	
	1500	1820	320	12	
	2390	2591	201	38	
			1611	25	
				75	
				23	
				19	
				50	
				67	
				12	
				14	
				15	
				42	

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ar. tr.	1830	1850	20	1 7
	0	0		0 5
	0	0		
				3 3
				2 0
Pi ed	0	0		1/2
	0	0		0/4
	0	0		
	0	0		

2.2.5-9

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Pem. P.J. Date 10-16-74 Size of quadrat _____

Field Analysts: Kelley, Sanz Sheet No. 1 of _____

General description of land Piñon - juniper

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOT. COV.	5%	1%	1%	0%	2%	3%	3%	0%	1%	1%
[illegible]	100		70		100	10	20		90	100
Ad. tenu.		100				40				
descurania			30							
[illegible]						10				
[illegible] mat							70			
Alyssaria							10		10	

lots of old horse sign

2.2.5-11

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellwood Project: 8.3 Date: 10-14-74
Site: Permanent Length of Line:
T: [illegible] R: [illegible] Sec.: 13 ¼ Sec.: SW SW Transect Direction: [illegible]
General Description of Land: Cement 3240 [illegible]
Vegetation Type: Pinyon - Juniper Condition of Foliage: Cement - [illegible]

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Pinyon	1150	1570	420		
I-37	1770	2080	310		
II-33, 27	1410	1690	280		
I-65, II-0			1010		
Juniper	0	360	360		
I-42, 30	2560	2650	90		
II-25 35			450		
I-90, 35					
I-30, 45,					

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Cover	170	190	20	Cover I-99
	330	360	30	II-9
	520	535	15	I-17
	735	750	15	II-9
	910	935	25	134
	560	580	20	
	1420	1425	5	
	2050	2105	55	Chry. Visid. I-25
	2650	2690	40	II-0
			225	
				I-0
				II-0
Chry. Visid	360	400	40	

2.2.5 - 12

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date 10/14/74 Size of quadrat _____

Field Analysts: Ellis - Ellinwood Sheet No. _____ of _____

General description of land P. J. permanent. T 15 R. 9W S. 13

T. P. 215 A. 320° 3%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
T. C.	3	5	5	5	4	0	10	10	15	10
Agropyron ~~cristatum~~ trachycaulum	100	20	30		30		70	70	80	10
Koeleria cristata		80	70	80	60		75		10	
Bromus sp.				20	10		15			
Poa sp. sertichiana								30	10	8
~~Muhlenbergia sp.~~ Poa secunda										80
Festuca octoflora??										10

large mature juniper seedlings

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2.2.5 - 12

2.2.5-13

Permanent PJ

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Elmwood Project: 83 Date: 10-15-74
Site: South Fork [illegible] Length of Line: 50 meters
T: 15 R: [illegible] Sec.: 12 ¼ Sec.: SW¼ NE¼ Transect Direction: 355°
General Description of Land: aspect 355 Slope 7%
Vegetation Type: Pinion - Juniper Condition of Foliage: —

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper I-115, 17, 55, 60	1010	1350	340			Pinion	700	760	60	Pinion I-0 II-0
	1800	1860	60							I-7 II-1
I-15, 35, 2, 13, 25, 20	820	1070	250							
	1780	2150	370							
	2380	2850	470							
			1490			aster				aster I-14 II-0
I-35, 40, 20, 20, 30, I-55 55, 2, 22, 2,										I-2 II-14
inlen 0 13	2650	2870	220			Juniper				Juniper I-0 II-0
										I-1 II-0
										Chrys. [illegible]
										I-22 II-4
										I-11 II-.
										Bitterbrush Persha - I-0 II-1
										I-6 II-1

Chrysothamnus.

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2.2.3.5-14

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PERM. Date 14 Oct. 74 Size of quadrat

Field Analysts: Ellis - Ellwood Sheet No. of

General description of land P. Junnier T. 15 R. 99W S-12 SW NE

T. Q. 355° A. 355° 7%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	0	20	1	1	1	1	1	0	1	1
Phlox sp		5					90			
moss sp.		95								
Lithospermum			100						100	50
Toxrendia sp.				50						
Eriogonum umbellatum				50						
Lupinus sp.					100	50	10			
Cruciferae sp (dessicated leaves)						50				
Rosa sp.										50

Litter

2.2.5-14

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2.2.5-1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley - Sanz Project: 83 Date: 10/13/73
Site: [illegible] Length of Line:
T: [illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: S[illegible]
General Description of Land: [illegible]
Vegetation Type: Pinon [illegible] Condition of Foliage: Good
Aspect-West Slope 13 1 of 2

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Paroh. trid	55	58	3							
	1100	1120	20	18	35					
	1364	1370	6							
	1378	1389	11	17						
	1439	1481	44							
			17							
			13	114						
Pi. et.	230	375	40			Large Pinon	880	920	40	
	1069	1224	45	22 d.b.h.						3/2 5
	1635	1819	11							
	1820	2370	182			~~Pinon~~ ~~debrb.~~				
	2380	2560	430	12 cm						
			170 375							
Ar tr.	784	806	22							10
	978	[illegible]	12 34							4/2 6
Purshia	1520	1537	17							
	1635	1648	13							1/4
Chysath.				1						

2.2.5-16

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelly Sanz Project: 93 Date: 10-13-74
Site: monument Length of Line:
T.: 2 S R: 18 W Sec.: 6 ¼ Sec.: NE NW Transect Direction: SW.
General Description of Land:
Vegetation Type: [illegible] Condition of Foliage: Good
Aspect-West Slope 10% 2 of 2

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units	
J. os	710	850	140	60 cm	1	Ar tr	2097	2107	9	5	36
				40 cm			2123	2179	56		
				70 "			2273	2375	102	10	48
	1910	2090	180	45 "	2		2439	2478	39	15	84
				40 "			2538	2584	46	84	
			320	58 "			2849	2963	14	99	
									266		
									34	4	4
									300		
						Pun tr.				1	2
										3	2
				95 cm dia.							
										0 0	
										1 0	
						Cupressus				0 0	
						J. os				1 1	
						Pi ed.	1728	1732	4	6 2	6 12
									800	2 2	1

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2.2.5-17

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Permanent Date 10/13/74 Size of quadrat

Field Analysts: Kelley Sauer Sheet No. 1 of 1

General description of land Ridge top (Permanent) Pinyon - Juniper

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	10
Total cover	5%	15%	5%	15%	5%	10%	<%	20%	10%	5%
mat penstemon	[illegible]	20	60	30	T	5	0.5			
Ag. Tr.		40	10		90			50	90	100
[illegible] ([illegible])	100	40		40						
lepidium		T					T			
rhamnetis			5							
Dyst.			5		5					
Penstemon ? other sp.			5	T						
Cryptantha			15					30	5	
Or. hu.				30						
Eriogonum sp.				T	5			10		
Bistara						95	5	10		
[illegible]									5	

photo # 3 down transect, roll # 2

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2.2.5-18

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelly Gancalosi Project: 73 Date: 10/14/74
Site: Dermanisset Length of Line: [illegible]
T: [illegible] R: 69W Sec.: 8 ¼ Sec.: NW NW Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage: [illegible]

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Pinyon					
Juniper					

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pinyon				1,
				1, 2
AMAL	1572	1609	37	3, 3
	1837	1854	17	
	2524	2540	16	
			70	6, 5
Juniper	690	775	85	1, 0
			51	
			136	
Symp				0, 1
				1
Arte	110	127	17	59, 62
	153	160	7	54, 43
	254	310	46	120
	655	693	38	62
	865	873	8	43
	1279	1286	7	328
	1301	1321	20	
	1472	1471	29	
	1512	1528	16	
	1563	1571	3	
	1611	1692	81	
	2019	2024	5	
	2180	2184	4	
	2543	2558	15	
	2909	2912	3	
			299	

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2.2.5-19

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen-Cancelosi Project: [illegible] Date: [illegible]
Site: [illegible] Length of Line: [illegible]
[illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]
General Description of Land:
Vegetation Type: [illegible] Condition of Foliage:

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Pinyon	578	821	243	15c.m	
Juniper					

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pinyon	533	602	69	4 / 3
Putr	972	1029	57	5
	1039	1057	18	2,7
	1601	1612	11	
			86	
Juniper	2220	2271	51	1
Amel	1871	1876	5	5 / 4;6 / 13
Artr	160	212	52	63
	848	891	43	25, 32
	1254	1260	6	32
	1363	1421	58	120
	1576	1599	23	
	1630	1672	42	
	2740	2779	39	
			263	
			299	
			562	
Symph				1

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2.2.5-20

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project [illegible] Site Permanent [illegible] Date 10/10/94 Size of quadrat .

Field Analysts: [illegible] Sheet No. 1 of 1

Legal description of land T25 R99W Sec 2 [illegible]

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total cover	10	20	15	25	10	30	10	25	25	20
Gutti	50									
Festuca	40	25	40	30	90			10		10
Chenopodium	10			20				10		
med [illegible]		25	10	30	05		20	15	40	40
Poa		40	50	20	05	95	20	10	10	30
Plantago like		10								
chru						05				
Ag sm							60		10	20
Muhlenbergia?								05	40	

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2.2.5-21

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: ELLIS-ELLINWOOD Project: 83 Date: 10/14/74
Site: PERMANENT Length of Line:
T: 15 R: 99N Sec.: 29 ¼ Sec.: NE SW Transect Direction: 80°
General Description of Land: A. 175° T.O. 80° S. 15°
Vegetation Type: PINYON-JUNIPER Condition of Foliage:

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pinion	1180	1390	210			Artem.	440	515	75	Persha. -- I-3
I-15, 14,	400	970	570				640	710	70	II-5
20,			780				1060	1160	100	I-0 II-0
							1490	1510	20	
I-65,							2310	2410	100	
									365	
										Artem. -- I-18
										II-13 ≥1
	0	0								
Juniper	1440	2940	1540							I-0 II-0
I-0										
16, 63										
										Cercocarpus I-2
										II-0
										I-0 II-0
										Chry. Viscid. I-2
						Persha.	40	140	100	II-0
							2110	2180	70	I-0 II-0
							2210	2245	35	
									205	Juniper - I-0
										II-0
										I-0 II-0
										Pinion - I-0
										II-2
										I-0 II-0

2.2.5-22

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PERM. Date 10/19/74 Size of quadrat

Field Analysts: Ellis Billinwood Sheet No. of

General description of land Perrine-[illegible] - [illegible] T 1 S R 99W S29

T.D. 80° A. 175° Slope 15% NESW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	5	3	0	1	5	0	3	0	0	0
Acinella	60	100		100	100		100			
Poa Sp. fendleriana	35									
~~[illegible]~~ bascuria	5									
						Grass Area		Grass Area	Grass Area	

2.2.5-22

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22.5 - 23

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley, Sanz Project: 83 Date: 10-16-74
Site: Random P.J. in site and site Length of Line: [illegible]
T: 2 S R: [illegible] Sec.: 4 ¼ Sec.: SE NSE Transect Direction:
General Description of Land: Piñon Juniper [illegible]
Vegetation Type: [illegible] - Juniper Condition of Foliage: Good
Aspect NW Slope 10%

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In. cm.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units	
Pi ed	1360	2220	860	27 cm		Artr.	1350	1380	30	10	10
	1702	2830	1128	30			1455	1480	25		
	0	0		43			0	0	55	36	34
			1988	20							
				43			0	0		6	0
				53							
				65			0	0		12	4
										64	58
										58	
										122	
Qu. os.	1170	1360	190	42 cm							
	2850	3000	150	40							
	0	100	100	45		Ce. mon.				1	0
	1050	1180	130	55		Mt. mah				3	0
				33							
			570	32							
				17		Chrys				1	0
						Pi ed.				1	
										0	0

22.5 - 23

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2.2.5-24

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 23 Site Pantom P.J. Date 10-16-94 Size of quadrat

Field Analysts: Velney, Sam Sheet No. 1 of 1

General description of land Pinon - Juniper Hilltop.

N.W. aspect. [illegible] slope

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Tot. cov.	3%	1%	15%	5%	5%	1%	2%	T	2%	3%
Bouteloua	95	50	80	95	60	100	95		100	95
Ag. trac.	5			5	40					
Si[illegible]		45	15				5	100		
Aquilegium		5								5
Bouteloua			5							

2.2.5-24

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2.2.5 - 25

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellan Sing Project: 83 Date: 10-16-74
Site: Rockham P.A. on site on site Length of Line: 200'
T: 2 S R: 11 W Sec.: 10 ¼ Sec.: NE ¼ NE Transect Direction: W
General Description of Land:
Vegetation Type: P.A. Condition of Foliage:
Area of NW Slope 2% [illegible]

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Pi ed	93	[illegible]	397	33 31	
30m	1750	[illegible]	690	50	
			1087	35	
60m					
Ju. os.	410	330	410	51	
30 m	1110	[illegible]	120	37 39	
	[illegible]	[illegible]	70	40 32	
	2740	[illegible]	210		
				51	
	590	960	370	14, 20	
60m	1722	1890	168	10, 30	
	[illegible]	[illegible]	60		
				38, 26	
			1408	30, 31	
				37, 30	
				68 165	

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ar. tr.	80	83	3	17 7
30m				4 8
60m	201	250	49 / 52	13, / 3,2
Ju os 30m	1740	1753	13	2
60m				
Pi ed 30m				1
60m				1 / 1

2.2.5-26

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 82 Site on site Date 10-16-74 Size of quadrat

Field Analysts: Kellien Sang Sheet No. 1 of 1

General description of land P.J. [illegible] 500 [illegible] up [illegible]

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOT cover	15%	10%	10%	5%	5%	15%	5%	10%	5%	10%
[illegible]	[illegible]	90		90	100	90	15	50		50
[illegible]	T	10	90	10						
[illegible]		T				5		15		25
[illegible]			T							
[illegible]			10	5						
[illegible]				5			T			
[illegible]						5				
[illegible]							80		40	
mt [illegible]							5	15		20
other								10		
[illegible]								5	15	
[illegible]								5		
[illegible]								T		
mt [illegible]									20	
arenaria									25	
Ag. tri.										5

2.2.5-26

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2.2.5-21

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen-Sanz Project: 83 Date: 15/16 Aug 76
Site: Random - on site on site Length of Line: 200'
T: 25 R: -19W Sec.: 9 ¼ Sec.: SW SW Transect Direction: SE
General Description of Land:
Vegetation Type: P. J. Sage Condition of Foliage: Good
Aspect SE Slope 2% 0.2 mi. NE of [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
J. os.	2830	2915	65	14	
	2932	3000	68	13	
			100	15	
			12	21	
			371	19	
			386		
Pi. ct	855	1054	169	10	
	2301	2491	190	21	
				18	
	100	362	262	14	
	1001	1120	119	13	
	2465	2753	288	18	
			1028	11	
				10	
				15	
				10	
				17	
Juni. os.	0	100	100	14	
	810	822	12	12	
	1120	1491	371	14	
	2034	2420	386	11	
			1871	17	
				23	
				14	

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ari. tr.	25	49	24	19 16 35
	345	370	25	
	701	749	46	30 18 48
	1140	1148	8	
	1514	1581	67	
	1732	1804	72	35 20 55
	1914	1920	06	
	2001	2011	10	24 14 38
	2068	2093	25	
	2188	2205	17	170
	761	773	12	
	1491	1500	9	
	1500	1503	3	
			324	
Simp.				1/2
[illegible]				1
Annual	1920	1944	24	3/11
	2040	2068	28	
			62	
Pl. ct.				6/2/6/4
				2/3/4/
J. os	240	257	17	2/1/2/2
				4/4/3/3
Cerco.				1/2/3

2.2.5-28

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site random-on site Date 10-16-74 Size of quadrat

Field Analysts: Kelley - Sam Sheet No. 1 of 1

General description of land P.J. and sage (.2 mi NE of [illegible] and)

T25 R99W Sec 9 ¼ sec SW SW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOT. COV.	2%	5%	25%	25%	15%	5%	10%	5%	1%	5%
mat (perennial)	80	5	25	T				20		
[illegible]	20	25	65	40	80	90	30	20	100	20
[illegible], dwarf [illegible]		70	10	10						
mat penstemon		T								
[illegible]				40		10				
[illegible]				5				T		
[illegible]				5						
Arctopuron					10					20
mat. [illegible]					10					
pinon seedling							70			
shrubby aster										60

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2.2.5 - 29

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Barsa Project: 83 Date: 10/17/74
Site: Random on site Length of Line:
T: 5 R: 19W Sec.: 33 32 ¼ Sec.: NW NE Transect Direction:
General Description of Land: random pj
Vegetation Type: Pinyon - Juniper Condition of Foliage:
Project [illegible] slope 20 %

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pinus edulis	1750	2480	730	65 II_1		(+) triplet Ceanothus	110	190	80	I_1 57
	2750	3000	250	75 II_2			290	380	90	I_2 2
			980				440	450	10	
							485	495	10	
							605	655	50	
							735	770	35	
							950	980	30	
							1000	1050	50	
									355	
Juniperus osteosperma	2010	2110	100	55 I_2		Cercocarpus montanus	1190	1250	60	I_1 7 11/14
				45 I_2			240	290	50	I_1 4
							410	480	70	I_2 18
							840	970	130	I_2 5
							1020	1040	20	
							1555	1750	125	
							1860	2010	150	
									665	
						Ceanothus fendlerii	400	440	40	I_1 7
						Chrysothamnus viscidiflora				I_1 2
										I_2 3
						Cir[illegible] [illegible]				2
										II_1 1
										II_2 3
						Amelanchier	2460	2550	60	I_1 2
										II_1 9
										II_2 2
										I_2 5

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2.2.5 - 30

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Rippy Date 17 Oct. 74 Size of quadrat _____

Field Analysts: Ellis - Bailey Sheet No. _____ of _____

General description of land P.J. T 1S 99W 532 NWNE

TP 125° A 155° S 30%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	2	3	0	0	1	0	0	0	0	5
Opuntia polyacantha	100	60								100
Hap spin		40			100					

eroded shale, thin soil (2")

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: J. Baker Project: 93 Date: 10/16/74
Site: Random on site Length of Line: 50 meters
T: 25 R: 5 W Sec.: 8 ¼ Sec.: NW of NE Transect Direction: 125
General Description of Land: Mountain D.J.
Vegetation Type: Pinyon-Juniper Condition of Foliage:
Aspect 185 Slope 30%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
pinyon	1410	1500	90	21	I. 1	big sage	40	80	40	I_1 31
							400	490	90	
					II. 0		850	~~890~~	40	II 4
							1900	1940	40	
					I				210	
										I_2 1
										II 3
						rabbitbrush, chrys. viscid				I. 5
										II 0
										I 0
										2
pinyon					I 0		2880	2925	45	I 1
				E 0						
				II 20	II 2	pinyon				
	1790	1820	30							I. 6
	2290	2490	200	100'						II 2
	420	1090	670	35	I					I 0
			900	32						II 0
			220	50						
			1120	40						
				25						
				40						
				50		bitterbrush				
	0									I. 2
	1470	1690	220	65						II 0
				55						I 0
				55						
							2050	2110	60	II 2
							2390	2400	10	
									70	

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2.2.5-32

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 23 Site Ranton Date 10/16/79 Size of quadrat

Field Analysts: Ellis Baker Sheet No. 1 of 1

General description of land Ranton P.J. T25 R.99W S.3 NW NE

S Cov

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	5	1	1	0	10	10	2	0	5	5
Organic Litter	100	100	100				100			
Cirsium sp.										
Ch. tridentata					96	95			95	95
Sarcobatus sp.					2	5				
Grass sp.					2					
Dicot herbs									5	
Lactuca sp.										5

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2.2.5-3

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley - Cancelosi Project: F7 Date: 10/15/82
Site: Random Length of Line: 30m 15m or 2
T: 35 R: 90W Sec.: 15 ¼ Sec.: SW NE Transect Direction: F
General Description of Land: Rolling hills
Vegetation Type: Juniper - Turkey Condition of Foliage: Good
Aspect SE Slope 10%

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Pied	1302	1500	198		0
	1500	1530	30		35
	1550	2110	560		25
			788		
Juni	0	0			0
	2110	2150	40		11,10

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pied	0	0		3,1
				2
Juni				0
				1,8
Artr	0	0		0
	2501	2550	49	3,7
	2738	2780	42	
			91	
chNa	0	0		3,2
				6,1
Putr	0	0		9
	0	0		0
symp	0	0		0
	2780	2832	52	1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellogg-Cancelosi Project: E3 Date: 10/15/74
Site: Random Length of Line: 2nd 30 m
T: 25 R: 99W Sec.: 15 ¼ Sec.: SWNE Transect Direction: E
General Description of Land: Rolling hills
Vegetation Type: Pinyon-Juniper Condition of Foliage: Good

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pied	0	360	360	25,30		Pied	2760	2845	85	3,6
	2210	2380	170	24						3,2
			530							
			788							
			1318							
						Putr	0	0		0
							1550	1590	40	3,4,
							1610	1620	10	
							1628	1650	22	
									72	
	830	1101	271	25		Juos				2
			40							
			311	13						
						Artr				7,16
										8,3,2
						chna	1240	1262	22	10
							1320	1340	20	1
									42	

2.2.5 - 22

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random PINYON-JUNIPER Date 10/15/74 Size of quadrat

Field Analysts: Kellogg - Consalosi Sheet No. 1 of 1

General description of land T25 R99W sec 15 SWNE

Aspect SE Slope 5% Transect Location E

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total	5	1	T	0	5	1	2	0	1	2
Aq tr	60	100			95		5		100	90
orhy										
Brickl. mal	40									
sphaeralcea			100			10				
Descurainia lim septam crucifera					5					
Cryptantha						90				
Gili							95			
Draba										10

2.2.5-36

Random

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellwood Project: 83 Date: 10-14-74
Site: [illegible] Length of Line:
T 13 R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]
General Description of Land:
Vegetation Type: Pinyon - Juniper Condition of Foliage: [illegible]
Exposure 340° 1st 30m 85° last 30m Slope 22

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper	0	30	30			Ephedra -	—	—		Ephedra - I-1
I-10,50	107	150	80							Juniper II
40-	1270	[illegible]	130							II-0
II-50,80	1940	[illegible]	330							I-0
75,	[illegible]	3000	340			Mormon Tea				II-0
										Pinyon I-0 II-
I-45,35	0	200	200							I 0
II-40-	[illegible]	3000	220							II 1
			1330			Pinyon	1900	1905	5	Sh. Juni. - I-0
										II-0
										I - 1
										II - 8
						Clay. Used.				Clay. Used.
										I-0
										II-0.
										I-2
										II-
						Sowed plow, Dry Farmed				Sowed plow
										I-0
										II-0
										I - 2
										II 0

2.2.5-37

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date 10/14 Size of quadrat _____

Field Analysts: Ellis Ellwood Sheet No. _____ of _____

General description of land P.J. Pondom T15. R 99 W. S.35 NW NE

T.D. 5° IA. 340 - 1st 30 m. 95° - last 30 m. S. 20% (4-5% p. 1st 20m.

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
T.C.	15	1	2	10	30	1	2	0	1	1
Bromus sp.	0n				10	1m				
C. Hospitum	5				40					
Aegilops triuncia	5	1m		90	50		1m			
Hap Spin.	10		1m							
Native sp.	T			5						
Erodium sp. - dried				5						
Avena sp.									1m	
Chamaesyce sp.										Rm

Abs = Lack of top of branch above O. hypomicrus
floral control prosopis
ants for prosopis

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2.2.5-38

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Wolla. Sumo Project: 93 Date: 10-13-74
Site: Reason Length of Line: 2000'
T: 5 R: 42 W Sec.: 4 ¼ Sec.: SE SW Transect Direction: 17°11
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage: [illegible]
Aspect SW Slope 22

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Pi. Et.	103	148	45	1	
				2	
				2	
				2	
Ar. tr.	0	4	4	2	
	140	151	11	39	
	455	476	21	32	
	740	751	11	46	
	934	937	3	47	
	993	1044	51	165	
	1073	1085	12		
	1138	1153	15		
	1210	1219	9		
	1423	1471	48		
	1853	1872	19		
	2104	2139	35		
	2157	2193	36		
	2304	2321	17		
	2348	2426	78		
	2391	2402	11		
	2668	2690	22		
	2732	2755	23		
	2823	2854	31		
			457		
			419		
			876		
[illegible]thain	1334	1386	19	3 | 1	
				2 | 2	
Ju. Os.				2	

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pi. Et.	1020	1165	145	2 | 2
				3 | 2
				22
Ar tr	97	120	21	26
	205	218	13	
	228	254	46	
	1960	2001	41	36
	2177	2204	27	165
	2290	2508	218	249
	2620	2633	13	
	2635	2657	22	
	2870	2888	18	
			419	
Crypothram				2
				1
	Gauge Juniper			Diam. cm
				0 | 17
				5 | 15
J. u OS	240	750	510	12
	2610	3000	390	2 | 15
			900	

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2.2.5-39

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random Pinyon-Juniper Date 10-13-74 Size of quadrat

Field Analysts: Kelly Sanz Sheet No. 1 of 1

General description of land 2S - 98W SE ¼ of SW ¼ of Sec. 4 - [illegible]

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	5%	5%	5%	5%	25%	10%	1%	1%	15%	10%
Lolium	5	5			30				5	
Poa	95	90		90	10	80			90	[illegible]
Gutierrezia		5	15		10			100		
Bromus			85		40					
Orig. hum.				10						
Hap. [illegible]					10					
Sp. [illegible]						5				
Br [illegible]						10				
Haplopappus						5				
Chaenactis							100			
Stipa									5	5
[illegible]										5

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2.2.5 - 40

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley - Cancelosi Project: F3 Date: 10/15/79
Site: Random Length of Line: 300' 1st of 2
T: 5 R: 20W Sec.: 15 ¼ Sec.: SW NE Transect Direction: N
General Description of Land: [illegible] hills and [illegible]
Vegetation Type: Pinon - Juniper Condition of Foliage: Good
Aspect NE Slope 1-5%

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Ped	1045	1170	125	14 22 17	
JUPS	0 2450	2461	11	0 22	

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ped	2019	2058	39	2 3,1
Artr	1480	1500	20	4,8
	1786	1792	12	19,21
	2398	2450	52	12
	2461	2481	20	[illegible]
	2496	2519	23	[illegible]
	2611	2629	18	
	2870	2892	22	
			167 55 222	
JUPS	~~2450~~			0 1
Chna				1,2

2.2.5 -41

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen-Crawford Project: [illegible] Date: 10/15/78
Site: [illegible] Length of Line: [illegible]
[illegible] R: [illegible] Sec.: 15 ¼ Sec.: SW NE Transect Direction: N
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage: [illegible]

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Pied				25	
				13	
	2080	2210	130		
			125		
			255		
JUNI	820	1015	195	10,10	
			11		
			206	18,13,	
				18,20	

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pied				2,4,7 / 3,2
Amal				1 / 16
JUNI	0 / 1540	0 / 1579	39	1,3 / 1
Artr	1470	1500	30	5,0 / 16,4
	1500	1510	10	
	1725	1740	15	
			55	
Chna	0 / 1599	0 / 1618	19	1,3 / 2,4
	1631	1659	28	
			47	
Symp				3,2
Putr				1

57 / 20 / 77

2.2.3 - 42

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site RANDOM Date 10/15/74 Size of quadrat

Field Analysts: Kelley - Cancalosi Sheet No. 1 of 1

General description of land T25 R99W Sec 15 SWNE

Transect direction N.

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total cover	0	T	1	2	2	0	5	1	5	1
Aasm		100								
Erieronum			100	1						5
Festuca				100	65					
Artr					35				100	
Bromus					T					
Prickly mat							60	60		
Oryzopsis							40	40		T
Acter										95

2.2.3 - 42

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2.2.3-42

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen-Cancalosi Project: E3 Date: 10/15/74
Site: Random Length of Line: 30 m 1st of 2
T: 25 R: 48W Sec.: 3 ¼ Sec.: NW NE Transect Direction: ENE
General Description of Land: Hill top
Vegetation Type: Pinyon-Juniper Condition of Foliage: Good
Aspect SE Slope 5%

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pied	0	230	230	40						
	2110	2630	520	63						
			750							
UOS	1270	1470	200							
	2630	2820	190	36, 44						
			390	35		Artr	30	65	35	9, 39, 7, 38
							185	200	15	44, 69
							250	330	80	
							400	445	45	
							460	470	10	
							593	638	45	
							1215	1233	28	
							1340	1450	110	
							1588	1605	17	
							1660	1738	78	
							2150	2175	25	
							2205	2215	10	
							2405	2455	50	
							2583	2635	52	
							2760	2780	20	
									620	

1
28
38
76
69
74
179

2.2.5-43

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen - Cancelosi Project: E3 Date: 10/15/78
Site: Parson Length of Line: 100 50
T: 5 R: 9EW Sec.: 3 ¼ Sec.: NWNE Transect Direction: ENE
General Description of Land: Hilltop
Vegetation Type: Juniper - Turbinella Condition of Foliage: Fair - old growth

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juni	40	420	380	65						
			390	90						
			770							
										0
										1
						Artr	115	140	25	58, 52 110
							185	260	75	
							340	380	40	32, 36 68
							400	440	40	
							454	495	41	179
							525	560	35	110
							573	620	57	68
							725	745	20	357
							1045	1085	40	
							1135	1180	45	
							1405	1440	35	
							1485	1495	10	
							1500	1546	46	
							1817	1828	11	
							1843	1900	57	
							1908	1954	46	
							2145	2193	48	
							2205	2290	85	
							2535	2560	25	
							2565	2575	10	
							2610	2640	30	
									821	
									620	
									1441	
						Chrysothamnus viscidiflorus				0
										1

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2.2.5-45

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Obrien Date 10/15/84 Size of quadrat _____

Field Analysts: Kellen - Gonzalez Sheet No. 1 of 1

General description of land T25 R48W Sec 3 NW NE

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total	5	50	10	2	10	1	3	10	0	2
orhy	35			95						
Prev. ant	30	20	15							
Cryptantha	10	35	75				60			
Aqcm	35				15		T			
Festuca		30			60		40	15		
Guti		15	5					20		
Draba		T								
Artr seedling			T							
Sitanion hystrix			5		10	100				
Chenopodium alba				15						
Poa					15					
Bouteloua gracilis								65		
Carex										100

2.2.5-1

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2.2.3-46

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellen-Carnahan Project: 53 Date: 10/15/80
Site: Pendleton Length of Line: 30m 150 of 2
T: 25 R: 98W Sec.: 9 ¼ Sec.: NE NE Transect Direction: NE
General Description of Land: Low ridge
Vegetation Type: Ponderosa Timber Condition of Foliage: Good - old growth
Aspect SW Slope 59%

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ped	620	1450	830	75						
				53						
						Arlr	1720	1750	30	1/7
Tuos	250	330	80							
	2060	2280	220	95						
	2450	2700	250	85						
			550							

2.2.5. 7/6

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2.2.5-47

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: [illegible] Date: [illegible]
Site: [illegible] Length of Line: [illegible]
[illegible] S R: [illegible] Sec.: 9 ¼ Sec.: NE NE Transect Direction: [illegible]
General Description of Land:
Vegetation Type: [illegible] Condition of Foliage:

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pied	2970	3000	30	22						
					51 55 35 20 2	Artr				2
	1270	1470	200	72 19 46						10, 16
							2070	2100	30	
	2730	2765	35	34						
	2785	2880	95	17 80						
			330 550 580							

2.2.5-47

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project [illegible] Site RANDOM [illegible] Date 10/15/[illegible] Size of quadrat

Field Analysts: [illegible] Sheet No. 1 of 1

General description of land [illegible] ridge

T2S R98W Sec 9 ½ NE NE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total	5	0	2	10	5	3	1	5	1	5
Agrow	65							95		
Draba	35				5			5	5	
Unknown composite shrub	T					50				
Agtr			100	100	40	30			20	
Festuca									75	
Mat Polygonum					55					
Cryptantha						10	60	100		
Eriogonum						10	40			

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2.2.5-49

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Rankin - Pinon-Juniper

Field Analyst: [illegible] Project: 43 Date: 10-13-74

Site: Outside C-a Pinon Juniper Length of Line: 60 metres

T. 25 R: 98W Sec.: 6 ¼ Sec.: SW¼ & NW¼ Transect Direction: 125°

General Description of Land: [illegible] 75° - [illegible] 15°

Vegetation Type: Pinon - Juniper Condition of Foliage: Dormant

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Osteospermum	360	570	210		
Juniper.	1420	1500	80		
I-0	1500	1860	360		
II-0	2530	2910	380		
I-15, 22, 20			1030		
~~II-[illegible]~~					
65, 100					
II-40					
Pinon					

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ost.	0	50	50	Ost I-8
	155	225	70	II-8
	[illegible]	442	17	
	1449	1500	51	II-20
				II-13
	1755	1825	70	Opuntia can
	2700	2720	20	II-1
	2740	2780	40	
Chrys	425	442	17	Pinon I-1
	525	542	37	II-8 & 5
	1720	1785	55	I-1
				II-1 & 2
	1115	1175	60	
	2265	2280	15	Purh - I-5
			154	II-1
Juniper	No con 1st 50			
	0	0		
				Juniper - I-1
				Osteospermum
				II -
	No con 1st 20			
Tetra. can.	1015	1075	60	I-0
				II-1
				Conf. I 0
				II 0
				II 1
Pinon	No con 1st		5 N	Juniper - I-14
	2665	2715	2nd 15	II-13
	0	0	110	I-8
	0	0		II-12
				Consol. I 0
				II 0
				I-0
				II-3

2.2.5-49

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2.2.5 – 50

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project [illegible] Site _____ Date 10/12/74 Size of quadrat _____

Field Analysts: [illegible] and SG Sheet No. _____ of _____

General description of land [illegible] T 2.5, 0 93 [illegible] of NW Quadr.

[illegible] slope, T.7250 [illegible] 750 [illegible] 15%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total cover	10	2	4	3	4	0	10	5	10	[illegible]
Gutierrezia sarothrae	75						90			
Bouteloua sp.	25		100	50			5			
Euphorbia sp.		80								
Aristida purpurea				15				25	10	
Oryzopsis hymenoides				15						
Poa sp. ??		20			T					
Erioneuron pulchellum (Fluff)				20	20					
Hedeoma spinulosum					20			25	40	
Dithrichia							5			
Aristida sp. (spin)								50		
Aristida sp. (decumbent)									50	100

Ocotillo sp. Aristida sp. broken Sandstone - coarse

Desert [illegible]

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Random - P.J. #

225-53
2.2.5-51

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: E. Clu - Elbuwood Project: 83 Date: 10-15-74
Site: Buckeye - Smith ranch P.J Length of Line: 60 meters
T 15 R: 99 W Sec.: 12 ¼ Sec.: NW¼ NW¼ Transect Direction: 165
General Description of Land: Dry rocky - Soil Sand - clay - Sandstone gravel
Vegetation Type: Pinion - Juniper Condition of Foliage: Dormant - Seedling

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper	540	890	350			Mosha winterfat.				Eurotia I-5
I-0	1910	2300	390							II-2
II-15cm			740							I-0
I-25,40,										II-0
20,										
II-60,										Artemisia tridentata
										Atriplex-I-D
										II-1
										I-0
										II-0
						Aster sage	755	790	35	Aster I-34
							1370	1380	10	II-66
							1690	1740	50	I-60
							1960	1980	20	II-13
							2190	2210	20	173
							2230	2250	20	
							1350	1365	15	
							2540	2560	20	Juniper-I-1
										I-0
							570	625	55	
							840	890	50	I-0
							930	1010	80	II-1
							1270	1280	10	
									385	

last 30 meters of Transect has been disturbed — Many of the larger Juniper trees have been uprooted

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2.2.5-52

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Ransom Date 16 Oct. 74 Size of quadrat

Analysts: Ellis Ellmwood Sheet No. of

General description of land pinyon-juniper (5 Foot) - wic. Notrespassing site on Dick Creek. upper 15m burned by bulldozer A-165 T.D. 1650 T.15 R.99W S. 12 NWNW Sec. 5

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
total cover	.5	2	1	0	0	1	0	2	3	30
Phlox sp	100	20	50							
Gutierrezia sarothrae		80	50			100		50	80	20
Sitanion hystrix		20								
Salsola kali								60		
Draba sp.									5	T
Lithospermum sp									15	
Mentzelia sp.										80

Penstemon sp.
A. arenicola

Soil: broken - Sandstone loam clay loam
broken

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2.2.5 - 53

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Baker Project: 83 Date: 17 Oct 74
Site: Random Length of Line:
T: 15 R: 59 W Sec.: 3 ¼ Sec.: NW-NW Transect Direction: 115
General Description of Land: random on P. J.
Vegetation Type: Pinyon-Juniper Condition of Foliage:
Aspect 360 Slope 10%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Pinus edulis	1285	1750	465	40 I_1		Pinus edulis				I_1 1
	2180	2830	650	30						I_2 1
			1115	32 II_1						II_2 1
				25						
				45						
						Atriplex confertifolia				I_1 1
						Purshia tridentata				I_1 1
				20 I_1						
Juniperus	405	435	30	30						
	1150	1265	115	32		Juniperus				I_2 2
	190	390	200	20						
	820	1120	300							
	2000	2130	130	25 I_2						
	2220	2330	110	20						
	2510	2940	430	20		Artemisia				I_2 1
			1315	50						II_2 3
				40 II_2						
				40						
				65						
						Cercocarpus				II_2 4

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2.2.5 - 54

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 93 Site [illegible] Date 17 Oct 79 Size of quadrat

Field Analysts: Ellis - [illegible] Sheet No. of

General description of land P.J. T. 15 R. 99W S. 3 NWNW

[illegible] T 115° A 360° [illegible]

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Juniperus	3	1	1	5	1	2	3	5	20	1
Poa sp.	100	100	100	75	80	85	90		90	
[illegible]				20	90					
[illegible] sp.				5						
[illegible] sp.						15				100
[illegible] sp.							10	50	10	
[illegible]								50		

Cont sp.

[illegible] Sandy [illegible]
[illegible] dark [illegible]

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2.2.5 - 55

Random PJ

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: 83 Date: 10-14-74
Site: [illegible] - Random Length of Line: 60 Meters
T: [illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: 105°
General Description of Land: [illegible] 15% [illegible]
Vegetation Type: [illegible] Condition of Foliage: [illegible]

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper II-40	220	320	100			Pinion				Pinion I-6 II-1
	370	450	80							I-0 II-0
I-10	1670	2090	420							
II-95			600			artem. sage				ader I-7 II-7
										I-5 II-4
						Chry. Visid. Rabbitbrush	430	450	20	Chry. Vis. I-25 II-15
							1690	1770	80	
									100	I-12 II-13
						Ostrosanna Juniper				Ostro. Sanna I-2 II-0
										I-0 II-0
						Tetrademia Horsebrush				Tetrademia I-5 II-14 / I-0 II-0
						Ant. Frig.				Ant. Frig. I-0 II-1
										I-0 II-0

2.2.5-55

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2.2.5 – 56

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 82 Site Random Beyond-Turlip Date 10/14/74 Size of quadrat

Field Analysts: Chris Ellwood Sheet No. 1 of 1

Legal description of land R - P. Jungen T 13 R 90W S 25 1

T.P. 105 A.D. S150

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	7	0	5	2	2	0	5	0	2	5
[illegible]	80		50	50			20	50		20
[illegible]	20				80		50	100		
H. [illegible]			50				30			
[illegible]				30	20					
Cryptantha sp.										50
Oenothera sp.										30

Gutierrezia Pershing Polygonum douglasii jepsen
S. lycioides (1 tree)

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Random - Piñon - Juniper

Field Analyst: [illegible] Project: [illegible] Date: 10-14-74

Site: Piñon - Juniper Random Length of Line: [illegible]

Twp. 15 R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]

General Description of Land: [illegible] - Slope 1-5%

Vegetation Type: Pinyon - Juniper Condition of Foliage: [illegible]

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
Piñon I-13, II-45	1900	1900	40		
Juniper I-35, 27, 11, 37, 40, II-27, 20, 75, 40, 20, 24, 17.	110	150	40		
	1760	[illegible]	370		
	995	[illegible]	50		
	0	195	195		
	355	615	260		
	935	1410	475		
	1400	2240	840		
			2230		
I-25, 20, 35, 40, 35, 30					

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Piñon	875	915	40	Piñon I-2, II-5
				I-3, II-3
Juniper	885	890	5	Juniper I-1, II-0
	1915	[illegible]	310	I-7, II-11
	1670	1700	30	
	2080	2090	10	
			355	
Jumper	2750	2970	220	Jumper I-1, II-0
				I-0, II-1
Bitterbrush Peach				I-5, II-0
				I-2, II-4

2.2.5-7
2.2.5-58

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random 5-T Date 10/14 Size of quadrat

Field Analysts: SLE Ellinwood Sheet No. 1 of 1

Soil description of land pinyon-juniper - Random T15, R99W. S21? (no date site)
T-R 3160 A. 640 S. 1-39.

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	5	4	10	2	3	5		5	10	3
Poa sp. Indiensis	50			90		50				
Ag. (Lodg.)	50	50	100			20		80		90
Bromus Spin.		50								
Intermediate Intermontana sp.				5						
Oryzopsis hymenoides					100					
Lupinus sp.						10				
Arnoria sp. (short sp)						20				
Bromus secunda ~~Antennaria~~ sp.								80	65	
Balsamorhiza sag.									10	
Erigeron pumila??									10	
Antennaria sp. (Globrae)									15	
Eriogonum umbellatum										10

Balsamorhiza Juniper base girth

2.2.5-58

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Rabbitbrush (2.2.6)

2.2.6-7

35 [illegible] measured
15 Vertical segment measured

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: 83 Date: 10/12/74
Site: Permanent Length of Line: 200'
T: 15 R: 19 W Sec.: 35 ¼ Sec.: SW¼ NE¼ Transect Direction: 250
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage:

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Chrys. nau.	60	75	15	Chrys. nau.
							310	395	85	I - 94
							440	475	35	II - 120
							610	615	5	[illegible] - 82
							765	830	65	[illegible] - 55
							960	1050	90	[illegible] - I-1
							1260	1270	10	[illegible] - 3
							1800	1840	40	I - 1
							2850	2905	55	II - 2
							1490	1500	10	
							1500	1520	20	
							705	735	30	
							1262	1295	35	
							2000	2015	15	
							2190	2240	50	
							2320	2355	35	
							2490	2505	15	
							2535	2600	65	
							2640	2670	30	
							2770	2825	55	
							2890	2950	60	
							2970	3000	30	
						Chrys. nau.	95	105	10	
							175	190	15	
							270	290	20	
							310	400	90	
							435	460	25	
							520	585	65	
							690	715	25	
							1050	1160	110	
							1220	1240	20	
							1420	1500	80	
							1540	1640	100	
							1640	1675	35	
							1760	1810	50	
							1920	1970	50	
							2040	2110	70	
							[illegible]	[illegible]	45	
							[illegible]	[illegible]	40	
							2670	2710		

1726

burned stems of Sagebrush present.

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(5)

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site permanent Rabbitbrush Date 10/12/74 Size of quadrat —

Field Analysts: SLF & SF Sheet No. 1 of 1

Legal description of land rabbitbrush - permanent T15 R99W sec 35 Lrec SW NE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
T. Cover	30	70	15	10	40	5	5	10	3	50
Elymus cinerus	50		95		90				10	75
Ac smithii	10	10		95		100	100	100	80	
Ra sp. pruinosa	40	90	5	5	10	—			10	25

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis-Baker Project: 83 Date: 10/16/74
Site: [illegible] ON site Length of Line:
T: 8 S R: 99 W Sec.: 33 ¼ Sec.: NE SE Transect Direction: 90°
General Description of Land: A 160° S 22°
Vegetation Type: Rabbit Brush Condition of Foliage:
Aspect 160° Slope 22°

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						C. Arnsoosns	0	440	440	I, 71
							470	510	40	
							530	800	270	II, 55
							955	1080	125	
							1245	1316	71	I_2 58
							1300	1380	80	
							1400	1480	80	II 2 58
							1550	1615	65	
							1750	1760	10	
							1910	1920	10	
							2090	2120	30	
							2115	2230	115	
							2290	2345	55	
							2545	2660	115	
							2530	2580	50	
							2960	3000	40	
							0	100	100	
							110	150	40	
							200	285	85	
							330	345	15	
							390	565	175	
							600	685	85	
							850	1020	170	
							1160	1260	100	
							1320	1350	30	
							1425	1450	25	
							1475	1485	10	
							1530	1700	170	
							1730	1840	110	
							1925	2170	245	
							2285	2380	95	
							2325	2595	270	
							2595	2645	50	
							2780	2820	40	
							2985	3000	15	
									3426	

2.2.6-4

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site pcm Date 10/16/74 Size of quadrat

Field Analysts: Ellis - Baker Sheet No. of

General description of land Rabbitbrush.

T.D. 90 A. 150° S. 270 T. 15 R 99W S 33 NESE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total cover	0	25	20	25	15	15	10	10	5	5
Elymus cinereus		100	100	100	100	100	100	100	100	100

Site was burned, old sagebrush stumps

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2.2.6-3

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelly Sanz Project: 23 Date: 10-13-94
Site: random rabbitbrush Length of Line: 2000
T: 30 S R: 90 W Sec.: 14 ¼ Sec.: SE of NW Transect Direction:
General Description of Land: Sand Springs bottom
Vegetation Type: rabbitbrush, sage Condition of Foliage:
Average 10% 100% < 1%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Excurse/unit ~~Diam.~~ ~~In.~~	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Chrysothamnus	0	30	30	45		Chrysothamnus	0	70	70	77
	55	215	160	46			90	130	40	60
	265	275	10	40			150	171	21	63
	324	351	27	46			190	270	80	68
	390	595	205				295	390	95	
	610	705	95				407	580	173	
	780	890	110				630	721	91	
	980	1001	21				755	815	60	
	1130	1270	140				838	890	52	
	1570	1645	75				1030	1040	10	
	1801	1865	64				1070	1150	80	
	1960	1975	15				1300	1370	70	
	2132	2204	72				1370	1380	10	
	2245	2370	25				1430	1480	50	
	2395	2411	16				1780	1825	45	
	2421	2435	4				1940	1978	38	
	2500	2511	11				2191	2210	19	
	2560	2610	50				2180	2185	5	
	2675	2710	35				2330	2385	55	
	2732	2745	13				2468	2470	2	
	2700	2741	41				2670	2708	38	
	2825	2850	25				2725	2750	25	
	2882	2898	16				2780	2804	24	
	2938	2971	33				2860	2910	44	
	2990	3000	10						1197	
			1464						1464	
									2661	
Ant. trid.	749	760	11	27		Ant trid.	805	910	115	34
	1001	1130	129	26			1055	1095	40	20
	1270	1300	30				1105	1119	14	40
	1455	1500	45				2095	2145	50	
	1500	1550	50	29			2230	2320	90	68
	1650	1790	140	33			2498	2605	107	
	1878	1897	19				2960	3000	40	
	2060	2075	15						456	
	2070	2085	15						466	
	2906	2918	12						922	
			466							

2.2.6-7

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site [illegible] Date 10-13-74 Size of quadrat _____

Field Analysts: Kelly, Sammy Sheet No. 1 of _____

General description of land rabbitbrush bottom (stake springs gulch)

T: 2S R: 9W Sec: 14 SE 1/4 of NW 1/4

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	10
TOTAL COVER	0	0	5%	10%	20%	T	5	3	1	10
lepidium			100							5
grass ?				100	70					
Aes ?					30	100	100	100	100	80
Acton										15

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2.2.9-3
2.2.6-8

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Baker-Ellis Project: F3 Date: 10/13/81
Site: Random on site Length of Line: 60m
T: 25 R: 94W Sec.: 4 ¼ Sec.: SESW Transect Direction: 530
General Description of Land: rolling & ls.
Vegetation Type: Rabbitbrush Condition of Foliage:
Aspect 145° Slope 39%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Chrys.	25	85	60	~~I~~ 40
							70	80	10	
							340	450	110	
							710	750	40	II_1 31
							850	905	55	I_2 79
							930	1015	85	
							1110	1240	130	II_2 67
							1250	1540	260	
							1910	2060	150	
							2180	2270	90	
							2480	2720	240	
							2850	2930	80	
							0	125	125	
							180	230	50	
							320	340	20	
							370	450	80	
							470	620	150	
							780	820	40	
							850	960	110	
							1150	1360	210	
							1250	1260	10	
							1850	1870	20	
							1960	2080	120	
							2290	2560	270	
							2630	2675	45	
							2770	2810	40	
							2820	2860	40	
							2890	2950	60	
						Stam.	15	20	2700	2
							450	460	10	II_1 2
							2570	2630	60	I_2 2
									70	II_2 14
						Sarc.				I_1 1
										II_1 3
										II_2
						Atriplex canescens				II_2 1

2.2.6-7
2.2.6-7

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 02 Site Pomeroy Date 17 OCT 74 Size of quadrat

Field Analysts: 111.15 - Bulbrook Sheet No. of

Legal description of land Valdez Heads

T. R. 50° A. 145° S 50%.

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	10	5	25	20	10	0	10	0	0	0
K. simplicia	100	100	100	50	100					
Elymus arenarius				50						
C. vanuxemii sellowii							100			

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2.2.6-9
2.2.6-10

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis-Baker Project: 03 Date: 17 Oct-74
Site: Random on site Length of Line:
T: R: Sec.: ¼ Sec.: Transect Direction: 290
General Description of Land: Random R 12.
Vegetation Type: Rabbitbrush Condition of Foliage:

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Gymnosporus	[illegible]	[illegible]	20	I_1 6
									15	
							2075	2090	5	
							2615	2620	160	I_1 15
							180	200	20	I_2 13
							1030	1070	155	
							[illegible]	1270	100	II_2 42
							[illegible]	1270	15	
							1285	1995	490	
							2365	2390		
						Lycium	1040	1095	55	I_1 2
							1540	1570	30	
							—		30	I_1 2
							2015	2045	20	I_2 0
							2465	2485	135	II_2 10

2.2.6-10

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2.2.6-11

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

roject O2 Site Pinyon Date 17 Oct. 74 Size of quadrat ______

ield Analysts: Ellis-Bates Sheet No. 1 of 1

eral description of land RABBITBRUSH

T.D. 290 A 55° S slope T1S 99W S33 SE SW

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
T. Cover	15	2	2	15	4	5	1	5	70	10
Elymus cinereus	100	100	100	100	40	100				100
Bromus tect					10		100			
Poa secunda					50			100		
Chrys. nau. [illegible]										
									100	

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Riparian (2.2.7)

2.2.7-1

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site prm. rip. Date 10-13-74 Size of quadrat

Field Analysts: Kelly Sanz Sheet No. 1 of 1

General description of land riparian bottom

T2S R99W Sec 14 ¼sec SW-NW Stake Springs

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOTAL COVER	95%	90%	80%	90%	95	70	90	80	95%	95
Cynodon (Bermuda)	45	50	30	85	95		35	30	100	60
Sporobolus ? [illegible]	—		10			45	35	15		
[illegible] plantain	T		10				—	20		10
Rorippa - Yellow		50	40		5					
Succulent Baked leaves			5							
Convolvulus ?			5							
Paspalum				5						
Triglochin maritima						20	25	15		
Scirpus						20				
Hordeum jubatum						—		5		
Sporobolus —							25	10		
Polygonum ?								5		5
Equisetum										
Malo										5

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: SE i Ellis Project: 83 Date: 10-12-74
Site: Permanent Length of Line: 60 Meters
T. 15 R: R98W Sec.: 29 ¼ Sec.: NW¼ SW¼ Transect Direction: 230°
General Description of Land: Aspect 135° - Slopes > 1%
Vegetation Type: ~~Rabbit brush sage~~ Plagiobothrys kennedy Condition of Foliage: Dormant - autumn

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Art.	~~140~~ 0	0		Art. I - 2,1 0,
							140	150	10	II - 7, 1
							0	0		I 4, 1
							2894	2990	96	II - 103, 15
									106	Chry. visc. ~~nauseosus~~
										I 2, 1
										II 16, 8
										I 16, 18
										II 2, 1
						Art. Measured 885				
						Chry.	0	0		
							420	475	45	
							490	520	30	
							680	700	20	
							750	765	15	
							785	880	95	
									50	
							540	590	121	
							904	1025	376	

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

roject 83 Site C-a Date 10-12-74 Size of quadrat

Sheet No. 1 of 1

ld Analysts:

eneral description of land Cleared - Grazed T15 R98W Sec 29 ½ sec NW SW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total cover	5%	10%	Sham	10%	35	15	20	25	40	40
Bite.	50%		1							
Hger.	50%	5%				90		15	5	
~~Total cover~~		~~10%~~	1							
Ambrosia - Ragweed										
~~Ag. cr~~			1							
Ag. Sm.		5%	1							
El. ci.		85%								
Chenopod		Trace 5%	↓				10		5	
"Ag. Tr." intermig.				50%	75		40			30
Bum. cln.				50%	25					
[illegible]						10				
Salsola Kali							50	85	50	70
									20	
Descurainia tuberculata										

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random Riparian Date 10/15/74 Size of quadrat

Field Analysts: Kellen-Cancalosi Sheet No. 1 of 1

General description of land T2S R99W Sec 12 NW SE

Spring site in Stake Springs Draw

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total cover	100	80	55	85	95	70	50	45	80	100
Taraxacum	5	5								5
Poa	1	1		T	T	15	30		95	70
Arrow	1									
Bromus anomalus	85	65	50	20	70	80				
Plantago	10				15	5				5
Hordeum pus					5	T				
Ranunculus cymbalaria		T			T					
Wide leaf [illegible]										
Rumex crispus?			5	5	5			5	5	
Scirpus Δ stem		20	45	75	T		65	80		10
Cyperus					5		5	15		
Typha						T				
							T			
					T			5	T	
Aster								+		
Senecio										10

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2.2.0 -4
2.2.0 -
2.2.0 - 5

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 53 Site Random Riparian Date 11/15/74 Size of quadrat

Field Analysts: Kellam - Concalosi Sheet No. 1 of 1

General description of land Valley floor -

T15 R9W Sec 30 ½ Sec NW SE

Species	Quadrat Number							Alkali 1		
	1	2	3	4	5	6	7	8	9	0
Total cover	99	100	100	90	35	15	40	2	1	75
water grass	90	100	50	5		5		T	30	45
Poa	10									
Hordeum	T	T	5		50	5			T	5
Ranunculus aquatilis	T		30	70	10	T	50			45
Schoenoplectus lacustris		T	15	T		T	50	50		
Scirpus ¥				15	30	70				
cheiranthoid					5	20		50	20	
Bromus tec								T	T	
seedling									50	
AgRe										5
Ag cr										T

Tamarix pentandra

Sagebrush (2.2.8)

Form

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: SLB + SE Project: 83 Date: 10/17/79

Site: [illegible] Length of Line:

T: [illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]

General Description of Land: [illegible]

Vegetation Type: [illegible] Condition of Foliage: [illegible]

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Arty	190	255	65	Arty I - 32, 23
							380	430	50	
							[illegible]	[illegible]	70	
							[illegible]	[illegible]	35	II - 37, 47
							[illegible]	[illegible]		
							510	540	30	I - 44, 46
							[illegible]	800	50	
							[illegible]	[illegible]	40	II - 81, 23
							[illegible]	[illegible]	90	
							[illegible]	[illegible]	35	
							[illegible]	[illegible]	10	
							2875	2420	35	Cryptantha I 30, [illegible]
							0	[illegible]	20	
							[illegible]	[illegible]	70	II - 15, [illegible]
							[illegible]	[illegible]	30	
							340	[illegible]	70	I - 19, 10
							[illegible]	[illegible]	145	
							[illegible]	[illegible]	10	II - 8, 5
						?	[illegible]	[illegible]	70	
							[illegible]	[illegible]	60	
							[illegible]	[illegible]	5	[illegible] I 0, 1
							[illegible]	[illegible]	35	
							[illegible]	[illegible]	21	I 7, [illegible]
							[illegible]	[illegible]	110	
						Clay nu	[illegible]	[illegible]	10	I - 1, 8
							[illegible]	[illegible]	5	
							[illegible]	[illegible]	20	I 0.1
							[illegible]	[illegible]	60	
									95	
										[illegible] I - 0
										II - 0. [illegible]
										I 0.0
										II 0.0
										Spec. I 0.0
										II 0.0
										I - 1.0
										II 0.0

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

(1)

Field Analyst: [illegible] Project: _____ Date: 10/12/61
Site: [illegible] Length of Line: _____
Twp. 15 R: [illegible] Sec.: 32 ¼ Sec.: [illegible] Transect Direction: [illegible]
General Description of Land: _____
Vegetation Type: Sagebrush Condition of Foliage: _____

MATURE Class 3" plus diam.						Reproductive class 3' high < 3" diam.				
Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
										Juniperus
										I - 00
										II 00
										I 00
										II 1,0

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date 10/12/74 Size of quadrat _____

Field Analysts: SCK - SB Sheet No. _____ of _____

Legal description of land Carlsbad Department T R. S.

T.P. 350° (NNW), Aspect Aspect 270° (W) · Slope - 1-3%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Tidestromia	2	4	30	30	15	20	50	20	70	10
Arenaria sp	100			30	15	75	15	20	15	30
Draba sp.		50			10	T		5		
Agropyron smithii		30		25	40	10	10	10	15	25
Gilia sp		20								
Lichen		T								
Moss			100	15			30	50		
O. Oenothera hilgardii A				15			20			
Eriogonum alatum B				5						
Astragalus sp. C				5	5			5		5
Haplopappus spinulosus D				5	5	5			5	
Cryptantha					15				20	
Poa sp.					10		10	5	10	4 m.
Agropyron trachy.						5				
Sphaeralcea						5				
Koeleria cristata							15		5	
Townsendia incana								5		

O. hypericoides

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelly Sonz Project: 87 Date: 10-16-74
Site: [illegible] ON site Length of Line: 200' 40 yards
Field 25 R: [illegible] Sec.: 10 ¼ Sec.: NE & SW Transect Direction:
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage: good
Aspect NW Slope 2% on [illegible] dull and [illegible] to [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

1st 30 m Species	I_1	I_2	I_2-I_1	accum ~~Diam.~~ In.	Basal Area Sq. Ft.	2nd 30 m Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Ant. trid.	455	470	15	34			24	60	36	29
	510	520	10	26			241	300	59	47
	578	585	7				552	574	24	32
	1670	1757	87	43			731	781	50	20
	1789	1825	36	34			886	895	9	
	1970	1988	18				940	1009	69	
	2048	2101	53	137			1225	1233	8	
	2147	2183	36				1622	1634	12	
	2491	2562	71				1782	1895	13	
	2867	2910	43				1990	2010	20	
	2943	3-00	57							
			433						300	
									433	
									733	
Juos ?										1
Chrysothamn.	1413	1440	1 22		4 9					4,4
	1542	1562	19							5,10
	1655	1685	30		10 3					
			71							
[illegible] ed.			2							1

2.2.8.-5

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project B3 Site per. on site soil Date 10-16-74 Size of quadrat

Field Analysts: Kellow, Sanz Sheet No. 1 of 1

Legal description of land T: 2 S R: 99 W sec. 10

to N W side of road. [illegible]

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOT. cover	10%	10%	10%	T	25%	10	5	20	10	50
Artemisia tridentata	70	10	50					T		
prickly pear	30	20		50		80		20		10
[illegible]	T	10								
Stipa comata sp.		10								15
Bouteloua		10	10						40	15
Notrophus		10								
Festuca		10	30	50	75				60	50
Koeleria		10							T	T
Bromus		T			T			5		
Oenothera hirsutissima			10			5	50	30		
Lupinus					10			50		
Oxytropis					15	15	50			10
Cryptantha								5		
[illegible]								7		
~~Gutt~~									T	T

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Permanent

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellwood Project: 83 Date: 10-15-74

Site: C-a - Sage on site Length of Line: 60 meters

T: 15 R: 99W Sec.: 34 ¼ Sec.: SESE Transect Direction: 255°

General Description of Land: A25° S. 30%

Vegetation Type: Sage Condition of Foliage: Dormant

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
artem:	60	110	50	artem:
	165	240	75	I-166
	280	315	35	II-120
	370	410	40	95
	456	475	25	210
	560	590	30	
	640	675	35	
	800	840	40	I-116
	1090	1130	50	II-69
1st 1.30	1130	1190	60	
	1370	1420	50	
	1580	1660	80	
	1780	1825	45	
	1940	2080	140	chry. nau.
	2240	2270	30	I-0
	2195	2450	255	II-0
	2520	2533	13	
	2590	2670	80	I-0
	2800	3000	200	II-9
	060	090	30	
	110	170	60	19
	375	400	25	166
2d 30	320	720	400	210
	830	1300	470	116
	1930	2205	275	69
	2280	2560	280	562
	2610	2620	10	
	2750	2780	30	
			2913	
chry. nau:	2585	2620		
			35	

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2.2.8-9
2.2.9-8
2.2.8-1

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PERM Date 15 Oct, 79 Size of quadrat

Field Analysts: Ellis Ellinwood Sheet No. of

General description of land Bottomland Sage

T.D. 255° A. 25° S. 3%

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	2	1	2	1	3	1	2	0	0	5
Ag. trachy.	100	100	100	100	100	100				100
Oryzopsis hymenoides (streambed)							100	Streambed		

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2.2.4-8

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis-Baker Project: 83 Date: 10/16/74

Site: Permanent on tract Length of Line:

T: 15 R: 99W Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: 185°

General Description of Land: [illegible] A 140° S 2%

Vegetation Type: Sagebrush Condition of Foliage:

Aspect 140° Slope 2%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
	1150	1190	40		
	1195	1210	15		
	755	875	120		
	1160	1250	90		
	1480	1660	180		
	1680	1870	190		
	1915	2010	95		
	[illegible]	2120	70		
	2145	2210	65		
	[illegible]	[illegible]	70		
	[illegible]	[illegible]	45		
	[illegible]	1910	270		
	2960	2985	25		
			1275		
	1260	1295	35		
	2020	2035	15		
	2300	2335	35		
			85		
			215		
			300		

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Sage	60	180	120	I. 91
art. tri	315	350	35	II. 134
	990	1070	80	I₂ 110
	590	630	40	II₂ 140
	880	920	40	
	930	970	40	
	1030	1070	40	
	1285	1310	25	
	1400	1440	40	
	1520	1580	60	
	1630	1670	40	
	1720	1880	160	
	1940	2260	320	
	2320	2350	25	
	2430	2520	90	
	2550	2620	70	
	2680	2750	70	
	2730	[illegible]	40	
	[illegible]	[illegible]	45	
	70	215	145	
	260	365	105	
			1630	
Greasewood Sarcob.	890	960	70	I. 21
	1240	1290	50	II. 2
			120	I₂ 9
				II₂ 4
Rabbitbrush Chryso.	190	210	20	I. 10
	370	400	30	II. 25
	0	60	60	I₂ 29
	620	680	60	II₂ 29
	700	735	35	
	910	920	10	
			215	I. 6
4 wing saltbush Atriplex ?				II. 3
			10	I₂ 2
	430	440	I₂-II₂	II₂ 3

2.2.8-9

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PERM. Date 10/16/74 Size of quadrat

Field Analysts: ELLS-BAKER Sheet No. 1 of 1

Legal description of land Sagebrush. T 15 R. 94W S. 33 SE SW

T. D 125 A. 140 S. 220

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Tiled Grass	0	0	0	0	0	0	1	0	0	0
Br. Lutheum							100			

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2.2.8-10

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley - Sanz Project: 83 Date: 10/16/74
Site: Proposed on site on site Length of Line: 60 M 1 of 1
T: 25 R: [illegible] Sec.: 8 ¼ Sec.: SW SE Transect Direction: NW
General Description of Land: small beach area on NW facing slope
Vegetation Type: Sagebrush Condition of Foliage: Good
Aspect NW Slope 27% near [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	~~Diam. In.~~ Crown	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Art. tr.	103	160	57	58		Cut. tr.	74	91	17	46 40
	710	734	24	42			230	270	40	42 43
	1128	1150	22				694	701	7	
	1180	1201	21	49			830	850	20	
							1152	1163	11	
	1209	1258	9	44			1145	1591	46	
	1610	1684	74				1701	1750	49	
	1755	1770	15				1848	1860	12	
	1809	1823	14				1870	1900	30	
	1840	1852	12				2010	2030	20	
	2250	2260	10				2385	2404	19	
	2298	2322	24				2758	2781	23	
	2540	2550	10						294	
	2930	2951	21							
			313							
										171
						Am. al.				2/1 / 1/4
						Chrysothan				1 1
Hyse tram.				½		Pi ed.				1/1
Am. Al.	1209	1241	32	½		J. Os.				1

Transect on north edge of mammal grid

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Permanent on site Sandbrook Date 10/15/74 Size of quadrat

Field Analysts: Kelley - Sinz Sheet No. 1 of 1

[illegible]al description of land T2S R9W sec 8 NE sec SWSE

Transect direction NW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
TOT. cover	5%	15%	40%	10%	15%	5%	20%	10%	40%	20%
[illegible]	40	30	65	60	50	50	25	80	50	40
[illegible] mat	40	30	10	30	30		5	5	20	10
[illegible] small	5	10	5	10	5	5	T			10
[illegible] Chrysothamn	15	5	20			10	55		5	
[illegible]		15								
[illegible]		10			10					
[illegible]			T			5	5		5	
[illegible] aster					15			10		15
[illegible]							5			
[illegible]							5			
draba							T			
mat penstemon								5		25
oxytropis									30	

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2.2.0 - 12

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: FV & SLE Project: ER Date: [illegible]
Site: Permanent Length of Line: [illegible]
T: 25 R: 99W Sec.: 26 ¼ Sec.: SENE Transect Direction: NW
General Description of Land:
Vegetation Type: Sagebrush, Perm Condition of Foliage:

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	~~Diam. In.~~	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Artr	80	90	1520-1530	10			80	140	60	12, 5, 25, 2
	155	185	2305-2335	30			340	360	20	
		195	2480-2525	45			480	490	10	11, 19, 26, 15, 3
	230	275	2670-2676	45			520	580	60	
	295	340	2850-2860	81			610	660	50	
	839	960	2925-2940	9			780	805	25	21, 24, 11, 18, 14
	901	1010		10			985	1070	85	
	1330	1340		10			1160	1215	55	76
	1470	1470		30			1353	1410	57	Total 312
				25			1516	1580	64	
				45			2140	2205	65	
				20			2460	2510	50	
				6			2700	2930	230	
				10			2880	2920	40	
				15			2950	2980	30	
Arnl	2660	2705	45	331					901	1, 1, 8, 3, -
				901						2, 1, 2, 1, -6
				1232						2, 5, 2, 5, 2
										13
Symp										1, 1, 3 -
										3, 2, 1, 1
										3, 2, 1
										2, 3
Thuja	275	295	20							1, 6,
	1710	1715	5							2, 1, 3, 6, 3
	1890	1920	30				2455	2470	15	
			55				2515	2570	55	
							2920	2940	20	3, 1, 3, 5, 4
									90	5, 4
Potrica										1
Pstr										
									4-	1

2.2.8 43

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 93 Site _____ Date 10/11/74 Size of quadrat _____

Field Analysts: Sc + FK Sheet No. _____ of _____

Legal description of land Sanhuch T. 2 S. R. 4 W. 1519, SE¼, SW¼, 17

PERMANENT

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total cover	20	25	20	15	15	20	25	25	40	25
Wed mondanum	[illegible]	40		40		10	20			10
Lupinus	10									
Bromus	10	45	75	45	100	55	20	60	[illegible]	35
Bromus	60	10	20	15				10		5
Artemisia		5								
Eriogonum			5							
Heterotheca						15		30	[illegible]	[illegible]
M.										

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

2.2.8 - 14

Field Analyst: Miller - Ellis Project: 83 Date: 10/10/74
Site: Permanent Length of Line: 50m
T: [illegible] R: [illegible] Sec.: 7 ¼ Sec.: NE SW Transect Direction: 340°
General Description of Land: Gentle sloping hillside
Vegetation Type: Sagebrush Condition of Foliage:
Aspect 340° Slope 7%

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	~~Basal Area Sq. Ft.~~ number	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
rtr	170	240	70		635		60	70	10	85
	580	630	50				220	280	60	
	705	770	65		84		340	370	30	61
	990	1016	26				535	590	55	
	1240	1350	110		147					
	1460	1500	40		146		1750	1780	30	
							1920	1960	40	
	1560	1710	150		293		2530	2610	80	
	1945	1990	35				2815	2860	45	
	2170	2245	75							
	2450	2460	10						350	
	2620	2650	30							
	2720	2770	50							
	2960	2975	15							
			726							
	0	0					0	0		0
	2700	2770	70		6		1970	2020	50	8
	2940	2970	30		19					
			100							
rmp	340	360	20		6					11
	2030	2060	30		6					5
			50							
ryso							850	890	40	22
					12		0	0		24
					10					
d										2
										2
r										2
										2

726
350
1076

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2.2.8—13

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Permanent Sagebrush Date 10/10/74 Size of quadrat

Field Analysts: Kelley - Ellis Sheet No. 1 of 1

Legal description of land T2S R99W sec 17 ½sec NESW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	15	15	20	10	15	15	10	20	5	15
Poa	70	50	20	50	70	50	70	50	50	50
Mat penstemon	10				T			25		
Koeleria cristata	10				10		T			10
Lupinus	10		80	50	10	50		25	50	20
Astragalus sp		50								
Hedysarum sp					10					20
Sphaeralcea							30			

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2.2.8-16

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Random Style

Field Analyst: Ellis - Ellingwood Project: 83 Date: 10-14-74

Site: Parkman Length of Line: 50 meters

T: 15 R: 89W Sec.: 21 ¼ Sec.: Transect Direction: [illegible]

General Description of Land: [illegible]

Vegetation Type: Sage Condition of Foliage:

Aspect 100° Class 5%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Bouig	310	380	70	Bouig I-1 II-1 I-0 II-4
						artr	345	350	5	artr I-34
							390	430	40	II-61
							1040	1075	35	I-52
							1115	1180	65	II-26
							1224	1285	60	
							1400	1470	70	
							1655	1675	20	Pinus-I-1
							1840	1900	60	II-2
							2370	2385	15	
							2540	2570	30	I-0
							2920	[illegible]	25	II-2
									425	
							0	125	125	
							135	[illegible]	25	
							865	875	10	
							960	970	10	Juniper-I-2
							985	1010	25	
							1275	[illegible]	35	II-2
							1750	[illegible]	32	
							2079	[illegible]	12	I-3
									274	II-2
						Juniper	150	225	75	
										Chry. Vis'd I-5
										II-1
										II-6
						Pinus				
						Chry. Vis'd.	2310	2410	20	

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41 ~ 7 44·6 ~ 3 mi. from [illegible]

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date 10/14/74 Size of quadrat _____

Field Analysts: Ellis Ellyrwood Sheet No. _____ of _____

Legal description of land Sagebrush - random T 15 9 W S 31 E SW

T.D 2850 A. 100° S. 5%

(min. drive site on road)

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
T. Cover	10	40	6	3	5	15	10	10	20	10
Stipa comata	50	90			70	60			10	95
Poa sp.	30		5							
Festuca sp.	20									
Ag. smithii	T		95	50	30					
Muhlenbergia sp.		5		50		5		30	6	
Arenaria sp		5			50	30			75	
Bromus tect.		T								
Oryzopsis hymenoides						5	100	30	10	5
Cirsio sp.						T				
Haplopappus spin.								40		

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2.2.8.-18

Random - Sage

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellwood Project: 83 Date: 10-12-74

Site: Canyon Length of Line: 600 ft.

T: 25 R: 99W Sec.: 1 ¼ Sec.: SE¼ SE¼ Transect Direction: 110°

General Description of Land: aspect 165° slope 2%

Vegetation Type: Sage Condition of Foliage: Dormant - Mature

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Art. Tri	100	175	75	Art. tri I - 134
							390	440	50	II - 128
							460	540	80	
							610	665	55	I - 124
							740	770	30	II - 141
							900	910	10	Chrys. Nau. I - 0
							935	1000	65	II - 0
							1090	1110	20	I - 2
						Sarc.	1200	1300	100	II - 1
							1310	1350	40	
						525-595	1420	1500	80	
				I_2-I_1			1590	1640	60	Save. I - 0
				= 70			1660	1710	50	II - 0
						art.	1790	1895	105	I - 9
						1900-1970	1945	1994	50	II - 1
						2000-2065	2050	2200	150	
						2135-2190	2230	2290	60	
						2310-2410	2350	2465	115	
						2460-2505	2530	2550	20	
						2540-2650	2630	2655	25	
						2700-2800	2770	2920	150	
							2950	2970	20	
							070	220	150	70
							245	260	15	25
							280	300	20	45
							330	385	55	200
							390	405	15	45
							435	595	160	110
							655	750	95	300
							895	955	60	3240
							985	1015	30	
							1100	1160	60	
							1200	1205	5	
							1225	1340	115	
							1410	1445	35	
							1443	1463	20	
							1520	1595	75	
							1720	1810	90	
							1842	1866	35	

2.2.8

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project________ Site________ Date________ Size of quadrat________

Field Analysts: SCB - SK Sheet No.______ of ______

General description of land Sagebrush

Stake [illegible] T.D. 100° Aspect 165° Sl. 1-2%

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	0	0	0	0	2	0	0	0	0	2
Chenopodium album					1/D					1/[illegible]

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellinwood Project: 83 Date: 10-14-74
Site: North of Tract C-2 Kaibab Lim Length of Line:
T: 13 R: 99W Sec.: 21 ¼ Sec.: NW¼NW¼ Transect Direction:
General Description of Land: Mostly sage brush - Aspect to North - Slope 20%
Vegetation Type: Sage - Mt. Brush Condition of Foliage:
Sagebrush

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Acer	0	065	65	Acer I-58
							175	195	20	II-40
							220	225	5	
							215	265	50	I-33
							695	750	55	II-31
							845	885	40	
							1170	1230	60	Symph - I-0 II-0
							1855	2000	45	I-6 II-9
							2030	2070	40	
							2655	2670	15	Chryl. - I-8
							2870	2920	50	II-14
							150	170	20	I-23
							545	580	35	II-34
							660	690	30	
							1580	1650	80	
									610	
						Symph.	2980	3000	20	Bitterbrush I-2 Peasha II-0
										I-2 II-0
						Chry. Vis.	1395	1415	20	
							1570	1610	40	
							2520	2560	40	Chrys. Visid. I- II-21
							2615	2635	20	
									120	I-9 II-12
						Chryl	225	210	85	
							2190	2210	20	Juniper - I-1
									105	II-0
							190	290	100	
							710	840	130	I-0
							890	1110	220	II-0
						Pinion	1430	1870	40	
							1940	2100	160	
							2230	2330	100	Pinion I-1
							2430	2460	30	II-0
							2750	2670	90	I-0
							2915	2980	65	II-0
									935	

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 93 Site _____ Date 14 Oct. 74 Size of quadrat _____

Field Analysts: Ellis Elkinwood Sheet No. _____ of _____

General description of land Sandwash – Navajo

T.D 45° A 340° Cov 60%

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	10	20	10	15	25	5	10	25	5	25
[illegible]	40	10				30				
[illegible]	50		90	30	40	50		15	10	
[illegible] sp.	10	5	5				5	20		
[illegible] sp.	10									
[illegible]	10									
[illegible]		5							10	
Agavaceae sp. (shrub)		80								
[illegible]			5							
[illegible]				60						
[illegible]				5						
Sarcobatus sp.				5						
[illegible]					10	5				20
[illegible] sp.						15				20
[illegible]							15			
Pinus sp.							90	15	50	60
Bouteloua gracilis								50		

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-2.2.8-II

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

& Random

Field Analyst: Chris SE Project: #3 Date: 10-12-74
Site: Random Length of Line:
T: 1S R: 92W Sec.: 30 ¼ Sec.: NW¼ SW¼ Transect Direction: 100°
General Description of Land: Aspect 145° – Slope >1% - flat
Vegetation Type: Sagebrush – [illegible] Condition of Foliage:

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
CHRY.			10			Art	40	80	40	Art I - 82
			30						80	II - 29
			40			2770-2850	[illegible]	[illegible]	> 80	I - 113
			30				[illegible]	[illegible]	65	II - 95
			30				5[illegible]	[illegible]10	30	
			110				1065	1110	45	Chrys lae.
			15				1250	1390	140	I - 36
			90				2785	2830	45	II - 36
			25				2970	2990	20	I - 39
			70							II - 35
			10							
			20				2[illegible]0	2[illegible]0	60	
			10				[illegible]	[illegible]	55	[illegible]
			80				530	570	40	I - 21
			30				780	[illegible]	20	II - 32
			10				855	880	25	I - 23
			50				1330	[illegible]	100	II - 26
			130							
			40				[illegible]	[illegible]90	40	
			45				1530	[illegible]	20	
			15				[illegible]	1435	15	
			80				2330	[illegible]	30	
			55				[illegible]	[illegible]	50	
			60						930	
			25			Chrys. vicd	30	180		
			90		1810-1820	0-15	[illegible]	295		
			25		2160-2210	60-120	5[illegible]5	[illegible]		
			30		2540-2580	170-195	[illegible]	[illegible]		
			40		2640-2670	780-820	1520	1585	-	
			10		2710-2740	[illegible]0-900	[illegible]	[illegible]	-	
			1305		2[illegible]-2950	970-990	[illegible]	765	-	
						1210 1220	[illegible]	2100	-	
						[illegible] 1240	[illegible]	[illegible]	-	
						1430 1460	[illegible]	2670		
						14[illegible] 1480	27[illegible]	2755		
						1600 1630	[illegible]	2850		
						1690 17[illegible]				
						Chrys. nau.	[illegible]	320	70	
						2295-2330	500	560	30	
						2610-2630	[illegible]	[illegible]	20	
							1[illegible]0	[illegible]	80	
							2[illegible]0	[illegible]	20	
							[illegible]	[illegible]	25	
							1[illegible]5	[illegible]40	45	
							[illegible]	[illegible]	30	
							[illegible]	[illegible]	20	
									20	
									40	
									20	
									10	
									35	
							[illegible]	670	20	
							1150	1192	485	
							1210	1630		
							2250	2310		

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date _____ Size of quadrat _____

Field Analysts: _____ Sheet No. _____ of _____

Legal description of land Sagebrush grassland mixture (Cowlumnar grass)

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total cover	5	5	25	10	3	3	3	2	2	1
Ag smithii	100	95	80		100					
Poa sp		5								
Phlox caespitosa			20			10	50			
Leptodium sp.				100		40	50	100	20	
Sitanion hystrix						50			80	100

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis-Ellmwood Project: 83 Date: 10-14-74
Site: Ranson Length of Line:
T: 1S R: 99W Sec.: 13 ¼ Sec.: SW Transect Direction:
General Description of Land:
Vegetation Type: Sagebrush Condition of Foliage:
Aspect 55° Slope 3°

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Ceno.	0	80	80	I-76
							150	180	30	II-65
							270	290	20	
							305	362	57	I-52, II-74
							460	465	5	
							1070	1072	2	
							1110	1140	30	
							1330	1360	30	
							1475	1504	29	
							1515	1570	55	
							1712	1723	11	
							1925	1995	70	
							2105	2132	27	
							2170	2175	5	
							2560	2600	40	
							2624	2625	1	
							2845	2859	14	
							2880	2910	30	
							162	231	69	
							1255	1310	55	
							1748	1784	36	
							2170	2210	40	
							2286	2300	14	
							2640	2685	45	
							2812	2860	48	
							2979	2990	11	
									854	

2.2.8 – 25

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site _____ Date 10/14/74 Size of quadrat _____

Field Analysts: Ellis / Ellinwood Sheet No. _____ of _____

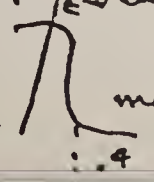
General description of land Sagebrush – Bunchgrass

T.P. 2950 A 55° | 30 T 15 R 19W S13 SW SW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total cover	20	20	25	20	20	15	15	10	30	20
Artemisia tridentata spiciformis	30	20	30	10	10	5	30	50		20
Festuca v. (cana) (seed heads) Agropyron sp	50	70	40	30			20	50	15	
Poa sp.	10									
Bromus sp	10		30	20	30		50		5	
Stipa comata		10		40	10				80	80
Koeleria cristata					50	5				

Oryzopsis hymenoides
Bromus tectorum

4 mi by side rd. to where entire juniper-pinyon



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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley, Sanz Project: 83 Date: 10-16-74
Site: [illegible] Length of Line: 200'
T: 25 R: 99 W Sec.: 3 ¼ Sec.: [illegible] Transect Direction: 41
General Description of Land:
Vegetation Type: [illegible] Condition of Foliage:
Aspect NE Slope 10% terrain [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	occ. ~~Diam. In.~~	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units	
ar tr.	85	110	25	87		Ar tr	120	140	20	133	91
	125	135	10	104			190	230	40	103	87
	165	178	13				245	255	10		
	331	347	16	93			360	430	70		
	401	410	9				470	480	10		
	435	439	4	121			670	685	15		
	[illegible]	[illegible]	15				760	850	90		
	[illegible]	[illegible]	18				870	910	40		
	660	693	23				970	1010	40		
	701	710	9				1030	1120	90		
	785	919	134				1205	1223	18		
	985	1037	32				1268	1331	63		
	1104	1112	8				1345	1455	110		
	1258	1311	53				1480	1500	20		
	1420	1430	10				1500	1520	20		
	1509	1558	49				1609	1670	61		
	1671	1692	21				1742	1773	31		
	1702	1710	8				1789	1820	31		
	[illegible]	[illegible]	55				2222	2233	11		
	[illegible]	[illegible]	22				2314	2318	4		
	[illegible]	[illegible]	16				2461	2473	12		
	[illegible]	2300	206				2553	2640	87		
	[illegible]	[illegible]	14				2658	2672	14		
	[illegible]	[illegible]	59				2789	2800	11		
	[illegible]	[illegible]	64						918		
	[illegible]	[illegible]	31								
	[illegible]	[illegible]	25								
	[illegible]	[illegible]	26								
	[illegible]	[illegible]	8			Sarcobatus	1455	1478	23	1	4
			1013							4	1
			919								
			1931								
Chap.			2								

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2.2.8 - 27

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site m. sage Date 10-16-74 Size of quadrat

Field Analysts: [illegible] Sheet No. 1 of 1

General description of land [illegible]

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
TOT COVER	1%	20%	1%	1%	0%	0%	0%	1%	T	10%
Descurainia	100									
Oryzopsis		60							100	
Br. tec.		40	100	100				50		90
A. sm								50		10

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2.2.8-28

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellon Sanz Project: 93 Date: 10-16-74
Site: [illegible] Length of Line:
[illegible] R: [illegible] Sec.: 4 ¼ Sec.: NW 4 of S.E. Transect Direction: SW
General Description of Land: [illegible] (upper terrace slope)
Vegetation Type: [illegible] Condition of Foliage: [illegible]
Aspect SE Slope 15%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	occur. ~~Diam. In.~~	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units	
Ar tr	345	370	25	63 49		Ar tr	245	274	29	60	52
	460	475	25				330	333	3		
	575	632	57	38 19			780	801	21	58	60
	780	795	15				820	833	13		
	835	853	18				870	881	11		
	1005	1081	76				1110	1285	175		
	1204	1220	16				1310	1352	42		
	1329	1355	26				1408	1445	37		
	1370	[illegible]	32				1462	1481	19		
	1468	1505	37				1510	1653	143		
	1610	1658	48				1745	1842	97		
	1862	1883	21				1880	1935	55		
	1978	[illegible]	81				2030	2090	60		
	2240	2312	58				2110	2165	55		
	2455	2463	8				2220	2380	160		
	2498	2510	12				2420	2460	40		
			555				2480	2490	10		
			1209				2590	2680	90		
			1764				2765	2780	19		
							2740	2810	70		
							2940	3000	60		
									1209		
Small shadscale sheet [illegible] box [illegible]											
Eurotia lanata	2658	2670	12	6		Eurotia lanata	40	53	13	10	14 9 12
							189	195	6		
							625	638	13		
				1			801	820	19		
Chrys.	950	960	10			Chrys.			51	1	1
Cont.	510	524	14								
	1170	1198	28	5 11		At. cont.	2490	2510	20	9 7	8 5
	1400	1466	66								
	2098	2115	17	23 14							
			125								
Canes.				1		At. Canes.				1	1
				2 10							

2.2.8-29

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project CB Site [illegible] zone Date 10-16-74 Size of quadrat ____

Field Analysts: Kelley. Sanz Sheet No. 1 of 1

General description of land sage - rabbitbrush gulch bottom - Box Elder Gulch (upper terrace [illegible]

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
TOTAL COVER	0%	1%	30%	80%	40%	5%	15%	3%	1%	T
Br. tec.		40	40	90	90	90	20	90	60	
Si hy		60	25	5					40	100
Oryzopsis			35		10	10	80	10		
micrantha				5						

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Tak

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

2.2.8-30

Field Analyst: Keller-Carvalosi Project: 83 Date: 10/14/74
Site: Random Length of Line: 15 [illegible]
T: [illegible]S R: [illegible] Sec.: 24 ¼ Sec.: [illegible] Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: Random [illegible] Condition of Foliage:

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
[illegible]rtem	0	69	69		14 28		1970	38	18	3,21,6,5
	80	85	5		1		2001	2019	18	6,10,10,9 (70)
	135	183	48		10,11,10,		2189	210	21	
	819	822	3				2230	2240	10	
	841	865	24		11,10,12		2245	2257	12	
	1010	1051	40		(98)		2326	2371	45	
	1073	1089	16				2960	2965	5	
	1134	1166	32				2965	2981	16	
			237						145	
[illegible]res.	[illegible]	[illegible]	20		2,2,3					2,2,2,3,2,3,
	[illegible]	[illegible]	10		1,3,2,3		1654	1671	7	17
			30		16					
[illegible]mal					2,1,2,1		1570	1572	2	1,1,3,3
					4,2,2,1		[illegible]	[illegible]	22	
					2		[illegible]	2230	20	
							[illegible]	2245	5	
							[illegible]	3000	10	
[illegible]gum	[illegible]	1971	3		2,2		~~	~~	59	1

ECI

: 1b

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

2.2.8-31

Field Analyst: Kellen - [illegible] Project: E3 Date: 10/10/79
Site: Radcam Length of Line: [illegible]
T: 25 R: [illegible] Sec.: 24 ¼ Sec.: SW SE Transect Direction: NW SW
[illegible]al Description of Land: [illegible]
Vegetation Type: Sagebrush Condition of Foliage: good

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
[illegible]rtem	25	86	61		14, 15, 14		1698	1729	31	6, 10, 10, 8, 18, 11
	220	230	10		21, 10, 2		1740	1781	41	18
	263	315	52		Tot. 76		1[illegible]	[illegible]	41	Tot. 81
	389	450	61				2[illegible]	[illegible]	30	
	610	633	23				2440	2503	63	
	743	753	12				2580	2620	40	
	934	950	16				2748	2782	34	
	1395	1410	15						280	
			251							
[illegible]hrys	373	385	12		6, 7, 3, 2, 4		1809	1815	6	
	451	462	11		3		[illegible]	[illegible]	24	8, 4, 9, 2, 4, 4, 10
	711	719	8		Tot. 35		2162	2171	9	12 Tot. 53
	942	949	7				[illegible]	[illegible]	13	
	1417	1425	8				[illegible]	[illegible]	4	
			46						56	
[illegible]imal	462	464	2		1, 2, 3		1973	2043	73	5, 1, 3, 2
			59		6		[illegible]	[illegible]	20	Tot 11
			93						93	
			154							
[illegible]gnipt							[illegible]	[illegible]	11	5
							[illegible]	[illegible]	23	
									34	

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2.2.8-32

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random Date 10/11/74 Size of quadrat

Field Analysts: Kelly -- Cancelosi Sheet No. 1 of 1

Legal description of land T25 R10W sec 24 [illegible] SE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
[illegible]	15	25	10	15	30	20	15	10	25	20
[illegible]	[illegible]	50		25	40		20	10	75	05
[illegible]	25			05					15	50
[illegible]	[illegible]									
[illegible]		20	30	50	10	40	20	33		20
[illegible]		20	15	20			30	60	10	05
[illegible]		[illegible]								
[illegible]			5			40				
[illegible]						10				
[illegible]						10				
[illegible]							20	10		10

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: 83 Date: 10/14/74
Site: [illegible] Length of Line:
T: R: Sec.: ¼ Sec.: Transect Direction:
General Description of Land:
Vegetation Type: Condition of Foliage:
Aspect [illegible] - Slope 22

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
artem	160	170	10	I	37.12		1500	1510	10	15,9,17,2,7,1
	559	570	11		12.32		1609	1651	42	27
	609	621	12		96		1699	1768	69	II - 87
	755	780	25				1854	1876	22	
	799	835	36				1868	1879	11	
	881	938	57				2021	2092	71	
	1172	1193	21				2130	2163	35	
	1240	1251	11				2240	2249	9	
	1460	1500	40				2315	2321	6	
			223				2335	2350	15	
			418				2580	2591	11	
			641				2780	2805	25	
							2811	2853	42	
							2918	2968	50	
									418	
					93					
					I - 53					II - 93
Chrys	780	791	11		29,9,7,8		1663	1698	35	10,14,12,3,3,2
	858	872	14				1842	1861	19	6,2
	1332	1342	10				1982	1993	11	
	1354	1371	17				2092	2114	22	
			52				2351	2369	18	
			146				2394	2405	11	
			198				2505	2522	17	
			191				2728	2741	13	II - 3
			389		I - 5				146	1,1,1,
Tomat					4,1					
					I - 20					II - 13
Symph	1145	1161	16		5,8,3,4		2112	2131	19	3,2,3,3,2
			19							
			35							
			108							
			142							

5B

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kellner-Gonzalez Project: E3 Date: 10/14/74
Site: Random Length of Line: 20 m
T: 25 R: 100W Sec.: 27 ¼ Sec.: SE NW Transect Direction: NNE
General Description of Land:
Vegetation Type: Sagebrush Condition of Foliage: good

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	15 I_1	I_2	15 I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
artem	0	25	25		16, 21, 14		1500	1505	5	21, 18, 17, 23, 14
	138	150	12		17, 22, 19		1552	1557	5	7, 8, 7
	175	190	15		27. Tot.		1571	1581	10	Tot. 115
	231	292	61		136		1642	1691	49	
	321	378	57				1766	1722	16	
	398	415	17				2019	2042	23	
	554	612	58	10 14			2055	2110	55	
	710	780	70	641			2244	2296	52	
	610	638	28	1655			2342	2384	40	
	[illegible]	[illegible]	28				2401	2445	44	
1251-1292	875	888	13				2519	2547	28	
1371-1390	916	937	21				2600	2605	5	
[illegible]500	[illegible]	[illegible]	11				[illegible]	2712	26	
	[illegible]	[illegible]	24				2829	2845	16	
	[illegible]	[illegible]	21		6, 9, 3.3		2872	2893	21	9, 5, 3, 4, 5, 4, 4
Chry	[illegible]	[illegible]	71 → Tot.	542		Chry	[illegible]	[illegible]	23	
	615	715	3	472	5, 12, 12		[illegible]	[illegible]	44	4, 3
	1255	1257	95	1017	Tot. 50		1852	1871	472	Tot 41
	1250	1251	3	Tot			1965	1982		
			11				2560	2581	12	
							2990	3002	19	
			112						17	
			79		2, 4, 4				21	
			191						10	
Syn			Tot.		2, 2 / Tot 14	Symp.	2240	2244	79	9, 8, 14, 12, 7, 8
							2343	2345	4	2 / Tot 55
							2427	2475	5	
							2742	2780	8	
							2890	2924	39	
							2929	2967	34	
Tetradenia	1924	1931	7		1, 1, 2 / Tot 4		1957	1963	18	1, 1, 1 / Tot 3
									Tot 168	
									16	1, 1 / Tot 2
							[illegible]	[illegible]	6	

2.2.8 — 31
2.2.8 — 35

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random sagebrush Date 10/14/74 Size of quadrat

Field Analysts: Kellar - Consalosi Sheet No. 1 of 1

General description of land T25 R100W sec 27 [illegible]

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total	35	30	40	40	30	35	25	20	35	50
Poa	60	30	05	15	15	10	20	20	20	20
Festuca	35	60	60	25	35	40	30	10	20	10
Microstegium	05	05			15					10
Artemisia		05		30		20		30		10
Amaranthus			10	10	10	20	35			
Chaenactis douglasii			25	20	20	10	10	20	10	10
[illegible]					05					
[illegible]							15	10		
[illegible]								t		10
[illegible]									20	[illegible]
[illegible]									10	
[illegible]										t

2.2.8 — 3a

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: [illegible] Project: [illegible] Date: 10/13/74
Site: Random on site Length of Line: 50 m
T: [illegible] R: [illegible] Sec.: 4 ¼ Sec.: NW SE Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: [illegible] Condition of Foliage: Good
[illegible] (47)

MATURE Class ~~3" plus diam.~~ Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	No./unit ~~Diam. In.~~	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Art. tri	20	30	10	49		Ar tr	0	40	40	52
	227	260	33	58			72	81	9	73
	434	465	31	34			135	233	98	
	514	545	31	38			287	362	75	66
	749	797	48	~~52~~			422	431	9	54
	820	855	35	~~73~~			450	455	5	
	947	953	6				475	594	119	
	1018	1070	52				675	691	16	
	1162	[illegible]	16				720	790	70	
	1379	1418	39				879	911	32	
	1598	1628	30				940	958	18	
	1645	[illegible]	35				1041	1068	27	
	1749	[illegible]	17				1088	1132	44	
	2215	2302	87				1191	1308	117	
	2544	2563	19				1459	1495	36	
	2738	2746	8				1690	1704	14	
	2876	2924	48				1730	1805	75	
	2936	3000	64				1889	1911	21	
							1930	1983	53	
							1994	2011	17	
							2170	2193	23	
							2251	2273	22	
							2324	2336	12	
							2561	2573	12	
							2580	2592	12	
							2632	2669	37	
							2730	2739	9	
							2806	2851	45	
						J. os.			1,067 — incorrect	
									1676 — correct	
										2

2.2.8 = 37

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 23 Site Sagebrush Date 10/13/74 Size of quadrat

Field Analysts: Kelley Sanz Sheet No. 1 of 1

Legal description of land T2S R98W Sec 4 Lyons NW/NE SE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	10
Festuca ~~sp.~~ tot. cover	15%	35%	15%	15%	10%	5%	10%	5%	25%	10%
Ar. Spiculum	40%									
Eriogonum sp.	60%	10		20			5			
Opuntia		100	10	20						10
Penstemon sp.		10		T						
Poa		10		T				5	5	
Carex		5	T	20	80			5	10	60
Symphoricarpos longiflorus		5								
Ar. Smithii			80	20	20		5	90	50	10
Gilia			10							
Gutierrezia				20		100			25	
Br tect.							90			
Ch. ler.									5	5
Stipa sp.									5	
Mat penstemon										15

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2.2.8 – 38

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kolleen Project: 83 Date: 10/18/74

Site: [illegible] Length of Line: 60 m

[illegible] R: [illegible] Sec.: 10 ¼ Sec.: [illegible] Transect Direction: NW

General Description of Land: [illegible] top

Vegetation Type: [illegible] brush Condition of Foliage: [illegible]

[illegible] Slope 29 [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Artr	910	908	98		35,32,31		0	41	41	90
	958	1002	44				81	110	29	77
	1332	1361	29		44,41		235	258	23	
							950	1010	60	
	1603	1623	19				1145	1152	7	
	1801	1818	17				1201	1220	19	
	1976	2032	56				1354	1380	26	
	2602	2641	39				1460	1498	38	
	2770	2790	20				1512	1610	98	
			322				1930	1993	63	
			264				2128	2172	44	
			588				2188	2205	15	
							2227	2233	6	
							2360	2372	12	
							2718	2792	74	
							2830	2841	11	
									566	
[illegible]	220	245	25		2,1 / 0					1 / 2,3
[illegible]	0 / 1947	0 / 1972	25		0 / 5,1					2 / 1
[illegible]	0 / 2640	0 / 2680	40		0 / 3,2		2301	2342	41	4 / 3
[illegible]	1030	1041	11		4,3 / 2,3		41 / 2537	53 / 2591	12	5 / 3,3
			24						12	
			25						24	

2.2.8 - 39

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project E3 Site random [illegible] Date 13 [illegible] Size of quadrat

Field Analysts: Kelley Sheet No. 1 of 1

General description of land T25 R24W Sec 10 [illegible]
between drill pads [illegible] of tract

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total cover	15	5	20	10	10	T	5	5	20	5
Festuca	20	30	50				15		30	
Aster	35	10	5	5	10	100	10	75	10	95
Erigeron	15		T		5		5	15		5
Ivesia	25		15					10		
Arenaria	5	T	T							
Koeleria cristata		60	5	20			40			5
Prickly mat			20	15			20		40	
Crypantha			5							
Hedysarum				40						
Cuti[illegible]				10						T
Carex				5			5		10	
[illegible]				5			5		10	
Penstemon strictus					25					
mat penstemon					10					
Sphaeralcea					T		T	T		5

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Kelley Project: F3 Date: 10/15/80
Site: [illegible] on site Length of Line: 50 m
T: 25 R: 95W Sec.: 5 ¼ Sec.: SW SE Transect Direction: NW
General Description of Land: Slope from road to branch on S side of [illegible]
Vegetation Type: Sagebrush Condition of Foliage: Good
Direct [illegible] Slope 15%

MATURE Class 3" plus diam. — Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Artr	41	83	42		43		219	231	12	6, 2, 17 — 25
	332	371	39		36		720	750	30	23, 30 — 53
	763	791	28		79 total		1190	1210	20	78
	852	933	81				1370	1410	40	
	1154	1163	5				1710	1750	40	
			195				1819	1832	13	
	-0						2070	2107	37	
							2150	2172	22	
							2350	2385	35	
							2620	2710	90	
									339	
									195	
									534	
Artr							0	0		
							2010	2038	28	3, 4, 2
							2455	2485	30	1
									58	
[illegible]					1					1
					2					2
[illegible]mal					3		0	0		
					5		2810	2950	40	5, 3, 3, 1
										2, 8
[illegible]mp							0	0		
							2720	2723	3	0
							2950	2971	21	1, 3
									24	
[illegible]M	0	0								
	1550	1560	10		4		830	839	9	4, 3
	1951	1972	21		8		2740	2751		5
	2890	2902	12							
			43							2
[illegible]vi					1					1
					1					

2.2.8-4

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random Date 11/18/79 Size of quadrat

Field Analysts: Kelley Sheet No. 1 of 1

Legal description of land T25 R97W Sec 5 W½ SWSE

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total cover	10	20	10	5	20	25	30	40	40	20
Koeleria c.	20	25	50	100	40	40	50	10	20	5
Poa secunda	20	10			10	10	5	60	40	5
Hordeum	45		20							
Aster	15	10			10	15	5	5	10	10
Halogeton		15								
cover		10			5		10	10	5	10
Erigeron		15	T				5	5	15	60
Pediomeris [illegible]		15			5					
Arenaria			T		5		5	5	5	
Dr. aizoid			5				5			
Eriogonum			T			15				
Datura			25		20	15	10	5	5	
mat aristemid						5				
Astragalus sp.							5			
sphaeralcea									T	
Gutt										10

X

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2.2.8-42

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: BLUIS-BAKER Project: 93 Date: 17 OCT 74
Site: [illegible] on site Length of Line:
[illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: SW-NE Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: Sagebrush Condition of Foliage:
[illegible] 5.5 [illegible] 5%

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
	800	890	90			[illegible]	0	25	25	
	[illegible]	[illegible]	70			[illegible]	[illegible]	[illegible]	20	
			25			[illegible]	[illegible]	[illegible]	10	I, 250
	1540	1600	60				[illegible]	1140	80	II, 209
	1460	1510	150				[illegible]	[illegible]	110	I, 230
	1770	1780	10				[illegible]	[illegible]	30	
	[illegible]	[illegible]	40				[illegible]	[illegible]	30	II, 143
	[illegible]	2080	90				[illegible]	[illegible]	20	
	2090	2380	290				[illegible]	[illegible]	50	
	2420	[illegible]	50				[illegible]	[illegible]	30	
	2500	2555	55				[illegible]	[illegible]	60	
	[illegible]	[illegible]	20				[illegible]	[illegible]	10	
	[illegible]	[illegible]	40				[illegible]	[illegible]	110	
	[illegible]	[illegible]	20				[illegible]	[illegible]	40	
	[illegible]	[illegible]	15				[illegible]	[illegible]	250	
			1025				[illegible]	[illegible]	80	
							[illegible]	[illegible]	10	
							[illegible]	2180	100	
							[illegible]	[illegible]	60	
							[illegible]	[illegible]	90	
							[illegible]	[illegible]	15	
							[illegible]	[illegible]	270	
							[illegible]	[illegible]	30	
							0	[illegible]	65	
							170	[illegible]	20	
							[illegible]	[illegible]	20	
							[illegible]	[illegible]	25	
							[illegible]	[illegible]	100	
						Eurotia	[illegible]	[illegible]	45	
									1805	I, 18
									1025	
									2830	II, 2
										I, 14
						Chrys. nau.				
						C. nauseosus	[illegible]	[illegible]	35	
							[illegible]	[illegible]	20	I, 12
							[illegible]	[illegible]	15	I, 14
							[illegible]	[illegible]	10	I, 27
							[illegible]	[illegible]	10	I, 25
							[illegible]	[illegible]	70	
							740	765	25	
							[illegible]	[illegible]	45	
							[illegible]	[illegible]	20	
							[illegible]	[illegible]	40	
						[illegible] of				
						Conifer	[illegible]	[illegible]	290	I, 7
							[illegible]	[illegible]	15	
							2420	300	20	
									20	
									55	

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2.2.8-43

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Rabbitbrush Date 17 Oct 74 Size of quadrat

Field Analysts: Billie Baker Sheet No. 1 of 1

General description of land Greasewood T15 R94W1 Sec 27 Green SWNE

TD 80 A 55 S 5%

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Halogeton	0	0	2	70	5	0	1	20	0	1
Chrysothamnus viscidiflorus			100				100			
Atriplex (spathulata)				100				100		
Salsola (kali pestifer)					100					
Grass seedlings										100

Many seedling sage filling in interspaces in stand

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2.2.8-44

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: ELLIS - BREER Project: 83 Date: 10/19/74
Site: Random on site Length of Line: [illegible]
T: [illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: [illegible] Transect Direction: [illegible]
General Description of Land: [illegible]
Vegetation Type: SALGEROSA Condition of Foliage: [illegible]
[illegible] 17%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	~~Basal Area Sq. Ft.~~	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Artemisia tridentata	140	[illegible]	60	
							410	[illegible]	90	I, 127
							540	[illegible]	30	
							590	[illegible]	30	II, 160
							940	1080	40	
							1090	[illegible]	100	I_2 179
							1370	[illegible]	30	
							1460	[illegible]	45	II_2 119
							1730	[illegible]	10	
							1800	[illegible]	50	
							1940	2170	230	
							2320	2420	100	
							2790	2830	40	
							2380	2520	140	
							2240	[illegible]	110	
							0	30	30	
							60	200	140	
							480	710	230	
							770	810	40	
							840	1060	220	
							1125	1230	105	
							1230	[illegible]	50	
							[illegible]	[illegible]	100	
							[illegible]	[illegible]	20	
							[illegible]	[illegible]	55	
							[illegible]	[illegible]	180	
							[illegible]	[illegible]	110	
							[illegible]	[illegible]	35	
							2460	[illegible]	245	
							2705	2735	30	I 4
							2740	[illegible]	2715	
						C. nauseosus	[illegible]	[illegible]	$-I_2$	II, 1
									85	II, 3
										II_2 4
[illegible]rotia	2570	2595	25		II_2 6	Eurotia	1225	1290	65	I, 1
							1350	1360	10	I, 2
							1610	1620	10	I, 2
							2570	2595	25	II_2 6
									110	
						Symphoricarpus				II, 1
										I_2 2
						C. viscid				I_2 1

2.2.8 — 45

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project _____ Site RANDY Date 10/17/74 Size of quadrat _____

Field Analysts: ELLIS - BIRKER Sheet No. _____ of _____

Legal description of land SAGEBRUSH T 15 R 99W S. 32 SW NE

TD. 190 A 100° SLOPE 100

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	2	2	3	10	1	0	7	3	0	5
Artemisia	100	100	100	100	100		80	10		80
Eriogonum							20			
Stipa hymenoides								90		
Cryptantha sonchus										80

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LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: FILIS BAKER Project: 85 Date: 10/17/74
Site: RANDOM on site Length of Line: 50 M
T: [illegible] R: [illegible] Sec.: [illegible] ¼ Sec.: NE SE Transect Direction: [illegible]
General Description of Land:
Vegetation Type: SALTBRUSH Condition of Foliage:
[illegible] Slope [illegible] 20%

~~MATURE Class 3" plus diam.~~ Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	~~Basal Area Sq. Ft.~~	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						[illegible]	0	40	40	
							290	300	10	I, 89
							500	525	25	II, 57
							610	635	25	
							710	735	25	I₂ 87
							1130	1180	50	
						? —	[illegible]	[illegible]	30	II₂ 7
							[illegible]	[illegible]	25	
							1720	1775	55	
							1930	2040	110	
							[illegible]	[illegible]	80	
					II₂ 6		0	6	6	
							250	270	20	
[illegible]	2215	2245	30				405	480	75	
	2370	2480	110				770	815	45	
	2715	2760	45				790	860	70	
			185				[illegible]	[illegible]	30	
							1150	1190	40	
							1420	1460	40	
									851	
						Lower center:	130	200	70	I, 19
[illegible]					II₂ 39		[illegible]	[illegible]	25	
							[illegible]	[illegible]	40	II, 41
							[illegible]	[illegible]	80	I₂ 26
							2230	2280	50	
							[illegible]	[illegible]	65	II₂ 5
							[illegible]	[illegible]	30	
[illegible]					I₂ 2		90	140	50	
							250	260	10	
							[illegible]	[illegible]	20	
							2180	2210	30	
							2850	2910	60	
									530	
[illegible]					II₂ 2	Cercocarp.	375	395	20	I, 4
							2715	2730	15	
							2920	2930	10	I, 3
									45	II₂ 30
						Cornus				I, 1
										II, 2

2.2.8-47

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project _____ Site Rowlem Date Oct. 17 79 Size of quadrat _____

Field Analysts: ELLIS BAKER Sheet No. _____ of _____

Physical description of land soil mesh

T.D. 700 A. 50 1st 30. 5% 2-130 5-25%. T. 15. R 40W. S 33 NE NE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Tridentata	2	3	4	2	0	0	0	3	1	5
Ag dasylus	100	30	100	40				100	T	
Pos sp.		70								
S. hastata				50						
O. longiflorus									100	80
Cryptantha sp.										20
"										

2.2.0 - 10

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellmwood Project: 93 Date: 10-13-74
Site: Rarlem Length of Line: [illegible]
T: 15 R: [illegible] Sec.: 30 ¼ Sec.: NW¼ NE¼ Transect Direction: [illegible]
General Description of Land: [illegible] - Class 3 - 50%
Vegetation Type: Sagebrush Prairie Condition of Foliage: Normal - [illegible]

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Art.	240	345	105	Art I-26
							1170	1210	40	II-11
							[illegible]	[illegible]	20	
							[illegible]	[illegible]	30	I-20, II-2
							[illegible]	1410	30	
							1530	1590	60	Oreo. I-0
							1500	1515	15	Juniper I-1
								1520	20	
							225	240	5	I-0
							310	360	50	II 0
							925	970	45	
							925	950	25	Sev. I-4
							955	[illegible]	30	
						Sev.	[illegible]	[illegible]	475	I-1
						Aco.	690	705	15	I-0
										II-1
						Tetra Lan.	70	80	10	[illegible]
										I-3
										II-14
										I 6
										II 0
										Chokecherry
										I 1
										II 0
						Grya. Vis.	400	450	50	[illegible]
							260	300	40	I-5
							1465	1480	15	Grya. I-14
									105	II-7
										I-9
										II-4

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2.2.8-47

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project _____ Site _____ Date _____ Size of quadrat _____

Field Analysts: _____ Sheet No. _____ of _____

General description of land Sagelands

NE part — [illegible] A. [illegible] 3-5%

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
—	10	2	20		10	15	2	3	5	5
Aronia sp.	35		20	—				100	40	
Eriogonum sp. (sage)	35		20		30	40				
Hydrophyllum sp. (waterleaf)	30					10		10	10	90
Ranunculus hortensis		50								
Poa sp.		50								
Ac. tenella			10		20			10		10
Ballonwort sonchus					60				5	
Oxytropis lagomiensis						40	100	20	40	
Dicots sp.						+				
Stipa comata									5	

Western Sandstone Soil.

Shadscale (2.2.9)

2.2.9-1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: SCE - SE Project: [illegible] Date: 10/12/74
Site: Permanent Length of Line:
T: 5 R: 99W Sec.: 25 ¼ Sec.: [illegible] Transect Direction: 140°
General Description of Land: [illegible] - Sand stone [illegible] - shale Aspect 150° Slope 15-2
Vegetation Type: [illegible] Condition of Foliage: [illegible]
Stratified perch

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Su ost.				45cm		Artr	700	870	40	Lobr I-11 II-0
										I-0 II-0
						Tet. ca.				Tet. Ca. I-0 II-0
										I-1 II-0
						Artr conf.	490 500 600	490 540 620	30 40 30	w. Conf. I-19 II-1
						Chrysothamnus			100	I 0 II-0
Juniperus				45cm		Pred				Pred. I-0 II-1
										I-0 II-0
						Chrysothamnus.	820	855	20	Chry nau. I-0, II-20
										I-3 II-3
						Ar-fr.				Ar. fr. I-12 II-1
										I-0 II-0
						Rhus trilobata Gosh.				Rhu tri I-1 II-0
										I-0 II-0

2.2.9.-2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project Q3 Site _____ Date 10/12/74 Size of quadrat _____

Field Analysts: SCR FSR Sheet No. 1 of 1

[illegible]al description of land Shadscale T15 R99W Sec 25 ½ Sec NESW

(T.D. 190°) Aspect 150° Slope 15-20 %.

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	10	0	5	1	0	1	10	10	10	5
Artemisia tridentata	100									
Oryzopsis hymenoides			100				100			95
Elymus [illegible] (Agropyron smithii)				100		100		20	15	
Lepidium perfoliatum								50	5	[illegible]
Hymenoxys richardsonii								30	75	
Cryptantha [illegible]								T		5
Penstemon [illegible]										5
									5	

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2.2.9-3

Permanent - Shadscale

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis - Ellmwood Project: 83 Date: 10-15-74

Site: Tract - C-a onsite Length of Line:

T 15 R: 99W Sec.: 34 ¼ Sec.: SW¼NE¼ Transect Direction: 65°

General Description of Land: - Steep slope - dry sparse vegetation - aspect

Vegetation Type: Shadscale Condition of Foliage: Leafing - Stage

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Atr.	240	245	5	Atriplex - I-2
Juniper I-0	—	—	—	#50cm			340	400	60	
							730	750	20	II - 7
							1030	1060	30	
							1120	1140	20	I - 22
							1210	1240	30	II - 7
							670	720	50	
							1040	1120	80	Only. I-0
							1290	1330	40	II - 4
							2990	3000	10	
									345	I-0 II-0
						Atr	250	380	130	Atr. vil. Tri. I-2
							1260	1300	40	
									170	II - 0
										I-2 II-0
						Cond.	1990	2060	70	
										atr frig I-7
										II-36
										I-1 II-1
						Atr frig	820	830	10	
							935	955	20	
							1080	1100	20	
							1320	1345	25	chrysothamnus.
							1460	1480	20	I - 65
							1650	1660	10	II - 2
							1720	1730	10	
									115	I - 1 II - 0
						Chry. Nas.	1340	1350	10	Chrysothamnus Na
						2170-2255	1920	1960	40	I - 1
							40	180	140	
							540	650	110	II - 10
							1100	1140	40	I-15 II-8
						Chry. Viod	570	580	10	Pinion II-0
							700	715	15	
							900	920	20	
							950	970	20	II - 1
							1170	1195	25	
									90	

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QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site PERMANENT Date 15 OCT 74 Size of quadrat _____

Field Analysts: Ellis - Ellinwood Sheet No. _____ of _____

General description of land shadscale.

T. O. 65° A. 170° S. 15% T. 15 R. 99W S 34 SW NE

Species	Quadrat Number									
	1	2	3	4	5	6	7	8	9	0
Total Cover	1	1	1	3	5	0	0	1	1	0
Oryzopsis hymenoides	100	100								
Eriogonum sp. (gray leaves)			100	100	95			100	100	
Grasses sp.					5					

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2.2.9-5

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: B. Ker-Ellis Project: Date: 10/17/74

Site: Random cw site Length of Line:

T: R: 9W Sec.: 34 ¼ Sec.: SE · SE Transect Direction: 25°

General Description of Land: Random Shadscale

Vegetation Type: Shadscale Condition of Foliage:

Aspect - 135° Slope - 50%

MATURE Class 3" plus diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.
	2680	2700	20		
	110	120	10		
	1645	1650	5		
			435		
	970	1000	10		
	1125	1160	35		
	2030	2070	40		
	2140	2815	675		
			1135		

Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Atriplex	1840	1860	20	I_1 21
	1930	1940	10	
Confertifolia	2610	2640	30	II_1 21
	640	660	20	I_2 40
	710	735	25	
	1010	1020	10	II_2 44
	2150	2180	30	
	2400	2420	20	
			165	126
C. nauseosus	550	560	10	I_1 12
	1330	1375	45	II_1 31
	1500	[illegible]	35	I_2 13
	1575	1590	15	II_2 4
	1690	1720	30	60
	2035	2060	25	
	2080	2310	230	I_1 249
	2250	2260	10	
C. [illegible]	90	[illegible]	10	I_2 [illegible]
	230	[illegible]	15	
	285	300	15	II_2 75
	495	510	15	
	560	580	20	II_2 25
	860	880	20	
	1025	1030	5	207
	1260	1275	15	
	10	30	20	
	65	90	25	
	180	195	15	
	210	230	20	
	385	415	30	
	440	[illegible]	60	
	[illegible]	[illegible]	60	
	835	865	30	
Sarcobatus	2590	2600	II_2	I_2 9
			30	II_2 2
Artemisia	1590	1600	II_2 10	I_1 9
	2885	2920	35	II_1 5
			45	I_2 17
				II_2 25
				56

2.2.10-1
2.2.9-6

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Pinyon Date 17 Oct. 79 Size of quadrat _____

Field Analysts: ELLIS - BAKER Sheet No. _____ of _____

General description of land Chaparral 1S 99W S39 SE SE

T.D. 35° A 135 S. 50%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Pinus monophylla	0	1	0	0	0	0	0	0	3	0
Purshia tridentata		100								
Salvia leucophylla									100	

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Random - Shadscale

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

2.2.9-7

Field Analyst: Ellis - Ellmwood Project: 13 Date: 10-15-74
Site: Duck Creek - South facing slope Length of Line: 60 meters
T: 5 R: 91W Sec.: 12 ¼ Sec.: NW NW Transect Direction: 250
General Description of Land: Basin - aspect 142 Slope 12%
Vegetation Type: Shadscale Condition of Foliage: Dormant

MATURE Class 3" plus diam. | Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
						Atriplex confertifolia	595	610	15	Atriplex - confertifolia
							850	860	10	
							980	1040	60	I - 36
									70	II - 7
							595	605	10	
							1400	1415	15	I - 20
									20	II - 5
							1660	1675	40	
							2450	2470	240	4
							2520	2560		6
						Artemesia tri	0	50	50	artem. I - 8
							220	230	10	II - 7
							432	495	63	I - 20
							990	1070	80	II - 0
									203	
						Tetradymia				Tetradymia I - 2
										Horsebrush II - 6
										I - 0
										II - 0
						Ate. tridentata	15	30	15	art. tri. - I - 153
							100	130	30	
							180	210	30	II - 43
							230	260	30	
							2530	2540	10	I - 0
							2530	2545	15	II - 0
							2570	2585	15	
							2670	2680	10	
							2810	2820	155	
						Chrysot. Viri.				chry. - I - 8
							260	275	15	II - 7
							1450	1480	30	
									45	I - 28
										II - 19
										62

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2.2.9-8

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Barlow Date 10/14/79 Size of quadrat

Field Analysts: Ellis - Ellinwood Sheet No. of

General description of land Shadscale -

T.D. 95° A. 195° S 1290 T. 1S R. 99W S 12 NW NW

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	10	15	10	2	20	0	5	5	3	10
Gutierrezia sarothrae	50				70		70			
Oryzopsis hymenoides	50	20					30			60
Eriogonum sp (hairy leaves)		30	20							
Hap. spar.		30						5	50	10
Phlox sp.		20	10						50	10
Ag. trachy.			70	100	20			90		20
Br tectorum					10					
Astragalus sp. (seedling)										

Mentzelia sp.

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Upland Meadow (2.2.10)

2.2.10-1

LINE STRIP DATA SHEET FOR WOODY VEGETATION AND SPARSE FORB-GRASS COVER

Field Analyst: Ellis Baker Project: 5-3 Date: 10/

Site: Permanent on site Length of Line: [illegible]

25 R: 99W Sec.: [illegible] ¼ Sec.: SW ASE Transect Direction: [illegible]

General Description of Land: [illegible] Permanent [illegible] meadow

Vegetation Type: Upland meadow Condition of Foliage: [illegible]

Aspect 315° Slope 20% Slope 20%

MATURE Class 3" plus diam. Reproductive class 3' high < 3" diam.

Species	I_1	I_2	I_2-I_1	Diam. In.	Basal Area Sq. Ft.	Species	I_1	I_2	I_2-I_1	Number Per 50' Units
Juniper				27	II_1 1	Big Sage	1000	1030	30	I_1 3
							1150	1170	20	II_1 4
							2300	2330	30	
							2420	2450	30	
							2500	2530	30	
							2500	2585	85	
							2690	2775	85	
							2900	2950	50	I_2 11
							2195	2205	10	II_2 20
							2910	2915	5	
									315	
						Serviceberry				I_1 5
						Pinon				II_1 2 I_2 1
						Rabbitbrush				I_1 7 II_2 1

2.2.10-2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Perry Date 10/16/79 Size of quadrat _____

Field Analysts: BAKER - ELLIS Sheet No. _____ of _____

General description of land Upland grass

T.D. 240 A. 315° S 20%, T.25 1 R.99W S.5 SW SE

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0	Σ Rc
Total Cover	10	15	10	10	15	15	10	10	15	20	1
Penstemon sp.	10				5	5	5		T		2
Aquilegia sp.	5			5	5		T	5			2
Ag. Hooker	20	10	40		10	10	15	20	20		1
Heuchera sp.	15	10	5		5	5		5	10		5
Phlox	20	40		45						25	1
Poa sp.	10	10	30	40	10		20	5	20		1
"Hieracium"	5	5		10	5	5	15			5	5
Gutierrezia	10					10	5	10	5		4
Unknown	5										
Hydrocotyle sp. (wet)		20			55	10	20	50	40	70	3
Sphaeralcea		5									
Ipomopsis			15		5						2
Oenothera hygrophila			10								1
Hep. Spen.						5	20	5	5		3
Σ Columns											

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2.2.10-2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project F7 Site Permanent wetland meadow Date 10/10/74 Transect direction 198° ~~Size of quadrat~~

Field Analysts: Kelley - Ellis Sheet No. 1 of 1

Legal description of land T15 R100W sec 4 NE SE

Aspect 280° slope 11% Soil: fine ebent 4" deep to shale bedrock

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0	
Total cover	50	30	50	25	25	40	25	20	50	15	3
Eriogonum cerumbonum (sericeum?)	30		25	5		10		5	30	—	10
Artemisia frigida	10	5			5			T	5		
Oxytropis lambertii	5				T	5	5	T	T	5	
Agropyron trachycaulum	20	75	30	40	30	20	50	70	30	50	4
Koeleria cristata	5	T	10	T	T	5					
Hoplopappus spinulosus	10	T		5	10	20	10	5	T	30	9
Mat Penstemon	5		5	15	15	5	5	T		T	
Poa sp	10	10	25	30	5	15	20	15	30	5	
Hymenoxys sp (woolly bass?)	5	5		5	T	T	T	T		5	2
Androsace septentrionalis	T					T			T		>
Draba sp	T			T	T						>
Arenaria sp	T				T		T	T		5	
Hedysarum boreale		T				20	10		T		3
Gutierrezia sarothrae		5					T	5			1
Astragalus sp (large pods)		T									>
Crypantha				T							>
Tetradymia?					30						3

Photo. Looking south along transect

Lupinus
Oryzopsis

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2.2.10-4

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 83 Site Random on site meadow Date 10/18/74 Size of quadrat _____

Field Analysts: Kelley - Ellis Sheet No. 1 of 1

General description of land T25 R99W Sec 05 SW 05E

Ball Knoll Aspect NW Slope 30%

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total Cover	30	20	15	15	10	30	10	15	10	20
"Hymenoxys"	5	T			5	T	10	5		
Poa	30	15	5	5		5		5	20	10
Arenaria	5	T	10	5	25	5	10	5	5	10
Chen seed	15	15		5						
Koehleria cristata	5			T					5	
Haplopappus mat ?	10	40	65	50		25		50	35	
Chvi	15 ✓	✓		✓	✓	✓	✓	✓	✓	✓
Agtr	10 ✓	5 ✓	10 ✓	5	30 ✓	15 ✓	30 ✓	10 ✓	5 ✓	35
Guti	5	5	5			10			10	
Hasp		20	5	10	10	5	15	10		5
mat pinstemon				5	25		20		5	
Opuntia				5						
Crypto plant silvery leaf				10	5					
Erigeron					T					
Eriogonum						35	15	10	15	
Astragalus sweet vetch							T	5		
Hedysarum										35
Erak										5

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2.2.10-2

QUADRAT DATA SHEET FOR UNDERSTORY AND RANGE VEGETATION

Project 93 Site Upland Meadow (Random) Date 10/10/74 Size of quadrat –

Field Analysts: Kelley - Ellis Sheet No. 1 of 1

Legal description of land T1S R100W Sec 4 Yusec NENE

Aspect 260° Slope 8% Soil - shallow - bedrock at 6"

Species	Quadrat Number 1	2	3	4	5	6	7	8	9	0
Total cover	40	25	20	30	20	40	30	25	20	30
Agropyron trachycaulum	55					40	30	15	20	25
Oxytropis lambertii	5			T	1	5				
Artemisia frigida	2	5			5		5	10		20
Arenaria	1	T	T	10	1	T	5		5	5
Haplopappus spinulosus	2	5			1	10		5	10	10
Poa sp	10	35	25	70	50	30	40	20	15	25
Eriogonum (brish) compositum ?	10	15		10				T	10	
Hedysarum boreale	15					T			25	
mat Penstemon		35	50	5	35	10		5	5	T
Gutierrezia sarothrae		T					10	30		
Koeleria cristata		T		T	1		5	10	T	10
Hymenoxys (woolly base) ?		5	15		5	5	5		10	
Poa		T			T					
Erigeron sp				5						
Androsace septentr-					1		T		T	5
Eriogonum alatum							T	5		

Cryptantha sp.
Artemisia tridentata - Artemisia tridentata appears to be invading into this meadow from downslope.
Lot of rodent activity here

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2.3.2. GRAZING EXCLOSURES

2.3.2.1. INTRODUCTION

The grazing exclosures established on and near Tract C-a are designed to demonstrate and monitor vegetative responses to the exclusion of particular groups of grazing or browsing herbivores. Various forage species can be expected to respond to protection according to their position in the hierarchy of consumer preferences. Thus, the most desirable components of the plant community should react more dramatically to a release from the restraints exercised upon them by herbivores.

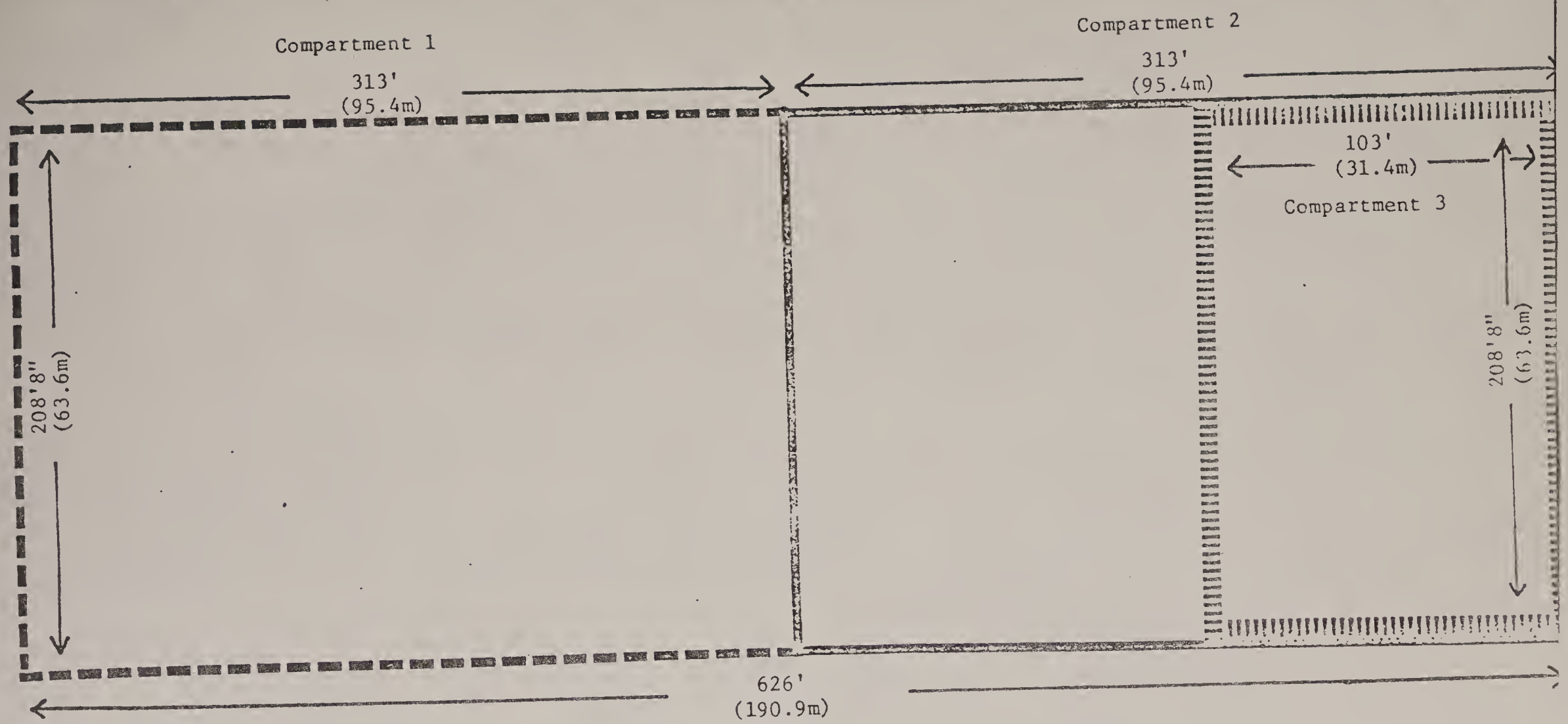
Both quantitative and qualitative study techniques, plus photoplots, will be utilized to measure these responses. All techniques, however, will focus on the incremental forage production resulting from the degree or quality of protection being afforded.

Careful evaluation of data obtained during this study should reveal several important aspects of ecosystem interactions. It may be possible to determine plant species preferences for each class of herbivore. The protected exclosure will serve as a basis for comparisons to similar communities outside the exclosures.

2.3.2.2. METHODS AND MATERIALS

2.3.2.2.1. Exclosure Design and Sampling Technique

Three exclosures have been situated in scattered pinyon-juniper types (Figure 1). All the key browse species, serviceberry (Amelanchier sp.), bitterbrush, (Purshia sp.), snowberry (Symphoricarpos sp.), chokecherry (Prunus sp.), and mountain mahogony (Cercocarpus sp.) are distributed on the exclosure sites. Substantial use by livestock and wildlife was evidenced by browse condition and density of fecal groups at each site. Each exclosure encompasses (3A) 1.21 ha measuring 190.9 m (626 ft) x 63.6 m (208.7 ft) (Figure 7). An exclosure contains three compartments or sections, each constructed to prevent access by particular groups of herbivores (National Academy of Sciences - National Research Council, 1962). The largest compartment contains 0.61 ha (1.5 A) and is constructed of standard 4-strand barbed wire fence (with a wooden rail as the top strand) on three sides of the compartment. This compartment excludes domestic livestock and wild horses but allows free access to big game able to leap the fence and small wildlife that can enter through or under the wire. The other one-half of the exclosure is constructed of 2.74 m (9 ft) high woven-wire. The second compartment, located within this half and enclosing 0.4 ha (1 A), excludes big game and livestock, but not smaller mammals. The third compartment, 0.2 ha (0.5 A) in size, with the addition of 0.91 m (3 ft) poultry wire buried to a depth of 25.4 cm (10 in) is designed to prevent entry by all mammalian herbivores, including lagomorphs and other small mammals. In order to prevent disruption of established plots, it is most important that reliable means be implemented to prevent intrusion by herbivores. Some residents will remain after construction is complete and others will probably gain entrance by circumventing the physical obstacles. Burrowing rodents could totally destroy the area for sampling purposes in a short time. It is therefore necessary to scrupulously maintain trapping stations inside these compartments as an extra precautionary measure



4 strand barbed wire fence

9 ft (2.74m) high woven wire fence

3 ft (0.91m) high poultry netting fence

Figure 7. Design of the grazing exclosures used for the Rio Blanco Oil Shale Project.

and check frequently for rodent encroachment.

In addition to the three compartments within the exclosure, one study area commensurate in size to the largest exclosure compartment is established outside each exclosure. This comprises the control or "non-treatment" plot subjected to normal foraging pressures. The site is next to the exclosure and permanently marked by metal stakes.

A minimum 7.62 m (25 ft) buffer zone between the fence and sampling areas is strictly observed in an attempt to reduce several of the prejudicial factors inherent in exclosure studies. Fences intercept precipitation and accumulate snow drifts, significantly altering soil moisture conditions below and adjacent to them. Site disturbance during fence construction may have long-lasting effects. The partial shading by fences can affect light and soil seed dispersal, and thereby, plant establishment and distribution. Sampling is undertaken once each year near the completion of the growing season in late July or early August. Different sampling techniques are implremented for each of the three principal strata of the plant community.

Grass-Forb Stratum

This stratum is sampled by a combined ocular estimate - clipped plot method (National Academy of Sciences - National Research Council, 1962) on a permanent grid. Size of the grid and numbers of samples are commensurate with the size of the exclosure compartment. In the 0.2 ha compartments, a 15.24 m (50 ft) x 30.48 m (100 ft) grid is established. In the 0.4 ha

compartments, 30.48 m grids are used. In 0.61 ha compartments and on the external (control) plot, grids measure 45.72 m (150 ft) x 30.48 m.

Permanent grids are centered in each exclosure by locating each corner via cross-sightings with a transit and a tape measure. Each corner is then marked with a metal stake. The number of sample plots within each grid is directly proportionate to the compartment (and grid) size. In 0.2 ha compartments, there are 5000 possible sample points; 10,000 in 0.4 ha compartments; and 15,000 in 0.61 ha compartments. Sample plot locations measure 15.24 cm (6 in) x 60.9 cm (24 in) and are assigned a number according to column and row.

Prior to actual sampling, one percent of all possible sample points is selected from random number tables. Thus, there are 50 sample points in 0.2 ha, 100 in 0.4 ha and 150 in 0.61 ha compartments.

Sample plots are located by the following procedure: A reel-type tape is stretched along the lower (relative to the position of the exclosure) axis of the grid. Columns are located at 15.24 cm (6 in) intervals along this baseline tape. Rows are located by stretching another tape at a right angle to the first, using a transit to maintain a perpendicular position. This procedure locates the lower right corner of the plot for the observer. A rectangular guadrat frame, hinged in order to circumvent woody plants, is then placed at that point.

The rectangular quadrat shape was selected because it is widely regarded by quantitative plant ecologists as the most efficient plot shape (Kershaw, 1966; and Grieg-Smith, 1964). "Comparative studies have shown that relatively

long plots are more efficient than isodiametric plots as sampling units, especially when some of the elements of the vegetation are highly aggregated in their occurrence patterns," (Cain and Castro, 1959). The quadrat size 0.15 m (0.5 ft)x 0.59 m (1.92 ft) was selected because its area,0.08 sq m (0.96 sq ft) is amenable to conversion to a per acre basis (grams/plot x 100=lbs forage/acre).

After a short training period, during which repeated ocular estimates followed by clipping comparisons are made until acceptable reproducibility of results is achieved, a trained observer orients the quadrat frame to the lower left corner of each plot location, then ocularly estimates the green herbage (grass and forbs only) in grams and records his estimate on a standard field data form (Figure 8). At each fifth plot, the herbage is clipped and weighed with a hand-held spring scale. All plot clippings are recorded and coverted to (lbs/acre) kg/ha dry weight.

When sampling is completed, clipped and ocularly estimated plot weights can be compared to obtain a "correction factor", which, when multiplied by the ocular estimate, yields the "corrected" weight. When, for example, clippings have a mean (or total) weight that is 12 percent higher than ocular estimates, each plot estimate is "corrected" by multiplying it by 1.12. Corrected estimates of each grid can then be averaged to obtain a green herbage production estimate.

A further "correction factor" is applied to conver "green forage weight" figures to "dry forage weight". Bags of clippings are marked for identification and transported to the ECI laboratory. Clippings are "oven-dried" in

Project _____ Site _____ Date _____

Observer _____ Page _____ of _____

Ocular Estimate	Clipped Weight	Ocular Estimate	Clipped Weight	Ocular Estimate	Clipped Weight	Ocular Estimate	Clipped Weight
1		26		51		76	
2		27		52		77	
3		28		53		78	
4		29		54		79	
5		30		55		80	
6		31		56		81	
7		32		57		82	
8		33		58		83	
9		34		59		84	
10		35		60		85	
		36		61		86	
12		37		62		87	
13		38		63		88	
14		39		64		89	
15		40		65		90	
16		41		66		91	
17		42		67		92	
18		43		68		93	
19		44		69		94	
20		45		70		95	
21		46		71		96	
22		47		72		97	
23		48		73		98	
24		49		74		99	
25		50		75		100	

Figure 8. Data form for recording ocular estimates and clipped weights of the grass-forb stratum for Rio Blanco Oil Shale Project.

a Thelco oven at approximately 40°C for at least 24 hours. Bag contents are then weighed and these weights compared to the undried weights. A mean of the proportions thus obtained is then applied to all plot estimates to yield "dry weight" forage production.

Shrub Stratum

It is necessary to use qualitative rather than quantiative sampling techniques on the shrub stratum. Quantitative measurements of browse production would require herbage removal on shrubs within the exclosures. This would introduce extreme bias because of the limited number of browse plants occurring within the sample areas. Clipping would thus reproduce the impact the exclosure is designed to negate, such as concentrating growth hormones in clipped areas of the plant, altering growth forms, and causing other negative side-effects.

It becomes necessary, therefore, to utilize methods which yield useful relative and qualitative information but cannot provide net production data. The method chosen is to locate a .004 ha (1/100 A) circular plot in the center of each grid. The disadvantages inherent in the shape of the plot are mostly offset by the large size of the plot in proportion to the grid area; a larger percentage of the area is sampled (Cain and Castro, 1959).

A stake is driven in the center of the permanent grid and another near the perimeter of the plot to mark a starting point. A full circle is then circumscribed with an 3.6 m (11.8 ft) radius. Every shrub rooted within the plot is recorded on a field data form (Figure 9) to species, maximum height, mean crown diameter, percent of the canopy that is alive, and percent of the plant available to a potential browsing animal.

Maximum shrub height is measured with a pocket tape and recorded in cm as the greatest distance of live portions of the plant from ground level. Mean diameter is the average of the greatest and least diameters of the shrub and is also measured with a pocket tape placed horizontally at the level of maximum canopy development. Percent of the shrub which is alive and percent available as browse are both ocular estimates.

roject ____________ Site ____________ Date ____________

bserver(s) ____________ Page ____ of ____

Species	Maximum Height	Mean Crown Diameter	Percent Alive	Percent Available	Remarks

Figure 9. Data sheet for 1/100 acre shrub plots for the Rio Blanco Oil Shale Project.

Tree Stratum (Pinyon-Juniper Canopy)

The tree canopy need be measured only at the beginning and end of the study period or at infrequent intervals if the study is of long duration. The simplest procedure available is to measure the canopy intercepting a line which traces the perimeter of the established grass-forb grid. Tapes are stretched between corners of each grid and the distances of canopies intercepting those tapes recorded by species.

The importance of pinyon and juniper as a component of wintering mule deer diets has not been adequately established. Many researchers credit the species with providing large quantities of browse during critical winter periods (Kraiger, Ron. 1974, Colorado Division of Wildlife's Little Hills Experimental Stations, Personal Communication). The appearance of pinyon and juniper trees in the Piceance Basin seems to support this supposition. Most large trees are browsed to a uniform height (high line level) of about 1.83 m (6 ft). The importance of these species will be reflected in a minor change to the standard line-intercept procedure implemented to measure browsing effects on pinyon and juniper. Canopy intersecting the line that is less than "high-line level" or 1.83 m high (De Vos and Mosby, 1971) will be recorded separately (Figure 10). The proportion of lower canopy can be expected to increase in the protected compartments of the exclosures if those plants are ordinarily browsed heavily by deer.

2.3.2.2.2. Photoplots

"Photographic plots provide a visual record of change or lack of change in the vegetation cover. They are useful for illustrative purposes but in themselves do not provide a quantiative measure of the vegetation. When used in conjunction with quantiative methods, they become valuable records", (National Academy of Sciences - National Research Council, 1962).

At each exclosure, three individual shrubs of each major browse species are selected for photographic documentation in each sample grid (for a total of 12 individuals/species at each exclosure site). Plants selected are healthy and of medium size. During the first photo-sampling season, shrubs are tagged and permanently marked.

LINE STRIP [illegible]

SPARSE FORB-GRASS COVER

eld Analyst: _____ Project: _____ Date: _____

n: _____ Length of Line: _____

_____ R: _____ Sec.: _____ ¼ Sec.: _____ Transect Direction: _____

neral Description of Land: _____

Condition of Foliage: _____

egetation Type: _____

Reproductive class/ht high < diam.

MATURE Class: plus diam.

ecies	I_1	I_2	I_2-I_1	Diam. cm	Basal Area m^2	Species	I_1	I_2	I_2-I_1	Number Per 50' Units

Figure 10. Line strip data sheet for woody vegetation and sparse forb-grass cover for the Rio Blanco Oil Shale Project.

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A white-painted 1.22 m (4 ft) x 1.83 m (6 ft) masonite sheet, cut in two and hinged to facilitate handling, is used as a backdrop for photographing each shrub (modified from Springfield, 1974). Gradations are marked in black on the borders of this sheet.

In the first season, photoplots are permanently located by driving rebar stakes at a point indicated by a plumbline suspended from the camera tripod and at corners of the backdrop sheet. In succeeding years, plots are relocated and rephotographed by use of those reference points. Photoplots are taken each year unless comparison of the first two years' photographs indicate that extended sampling intervals would be more efficient. Sampling is timed to correlate with the important phenological stage of the shrubs in mid-summer, at the completion of twig elongation.

The grazing exclosures and control sites will be sampled during August 2-7, 1975. The data obtained during this sampling period will be included in the Third Quarterly Report.

2.3.2.2.3. Soils Studies

INTRODUCTION

Soil sample collections are designed to characterize the soils at each vegetation sampling site in terms of specific physical and chemical properties which have ecological significance and to identify land stabilization problems in terms of identifiable soil characteristics.

This serves to define the plant-soil relationships operating in the various ecosystems in the project area. It, in turn, provides a basis for engineering and rehabilitation decisions. Work outlined here provides average soil characteristics at each of the vegetation sampling sites and at the exclosure sites.

METHODS AND MATERIALS

Soil Sample Collection

Soil samples are collected from each of the permanent vegetation sampling sites and the three grazing exclosures (Figure 1) during spring 1975, when the ultimate soils contractor is in the field. The following technique, as defined by the Soil Conservation Service (Jim Crabbe, personal communication) is used to collect soils for determination of average nutrient and texture values of the upper portion of the soil profile. Five soil samples are taken from each site and thoroughly mixed in a closed container to provide a composite sample for that site. Soil samples are taken to a depth of 30.5cm (12 in), or to bedrock if shallower, with a 2-inch diameter hand auger. Subsamples weighing 250 g are taken from each composite sample for laboratory analysis. Soil depth is determined after extracting the sample by extending two of the auger holes in each set of five to a maximum depth of 61cm (24 in), or to the limit of hand augering if the soil is deeper. Soil erosion conditions in the vicinity of each sampling site are rated as stable, slight, moderate, critical, or severe based upon standard criteria for these classes (Bureau of Land Management, 1971).

Laboratory Analysis

The laboratory procedures used to analyze the soil samples, as developed by the subcontractor, provide data on the physical and chemical properties necessary to define the plant-soil relationships of the area of investigation. These properties include:

a. Physical Properties
   (1) Textural classification for each soil type
   (2) Water-holding capacity
      (a) Saturation water percentage, determined gravimetrically with oven drying.
      (b) Water retention percentage after suction at 20 cm H_2O; provides an index of plant-available water capacity of soil sample.

b. Chemical Properties
   (1) Available plant nutrients, ppm
      (a) NO_3
      (b) P; $NaHCO_3$-extractable
      (c) K; NH_3OAc-extractable
      (d) Ca, Mg, Zn, Fe
   (2) pH; H_2O system and 0.02 M $CaCl_2$ system
   (3) Cation exchange capacity; NaOAc-extractable, Meg/100 g
   (4) Salinity; electrical conductivity of soil extract, Mmhos/cm
   (5) Na, Meg/100 g
   (6) Lime percentage
   (7) Organic matter percentage
   (8) Organic N, Kg/ha

The above determinations of physical and chemical soil properties were selected to provide data appropriate to the climatic and edaphic conditions in the project area.

Soil samples will be collected during May 24 - June 4, 1975 and subsequently analyzed by the subcontractor. The results of these analyses should be available for inclusion in the Third Quarterly Report.

2.3.3. SMALL MAMMALS

2.3.3.1. INTRODUCTION

The small mammal census program is designed to identify the species of small mammals that occur within Tract Ca and its contiguous area, to determine their densities in dominant habitats, and to develop a designation of important species. Seasonal periodicity of activity, reproductive effort and trophic relationships are to be described. Small mammal habitat preferences will be determined and species diversity values will be calculated for the various habitats.

2.3.3.2. METHODS AND MATERIALS

2.3.3.2.1. Live Trapping

A live trapping program, consisting of 12 trapping periods during the 2-year baseline inventory, was initiated during October 1974. To coincide with periods of increased small mammal activity and to provide adequate data on reproduction and other population parameters, sampling is being conducted during October 1974, May, June, July, September, and October, 1975 and during May, June, July, and September 1976. Trapping periods during December 1974 and 1975 will provide information on small mammal winter activity patterns. Within and adjacent to Tract Ca, five - 7.29 ha (18 A) grids were established to sample small mammal activity within the major vegetation associations (i.e., pinyon-juniper on north and south facing slopes, sagebrush, greasewood-sagebrush and mixed brush). Each grid has dimensions of 270 x 270 m and consists of 133 stations, permanently marked with numbered stakes and flagging. The center of each grid consists of 49 stations, in a 7 x 7 pattern, spaced at intervals of 15 m. The remaining 84 stations, forming the boundaries of the grid, are spaced 30 m apart (Figure 11). This grid size and pattern is designed to aid in estimating population densities and home ranges for both the smaller rodents (mice and voles) and the larger, wider ranging chipmunks and most ground squirrels.

Thirteen - 0.81 ha (2 A) grids and two - 1.35 ha (3.3 A) grids are also used in the trapping program. These grids are designed to sample

additional major vegetation types not sampled by the 7.29 ha grids (Table 4).

To provide a basis for comparison of population data from different sized grids, the 0.81 ha grids consist of 33 permanently marked stations in the same configuration as the center three lines of the larger grid (Figure 12). As the Aspen and Douglas fir communities contain species of voles not generally found in other vegetation types in the area, four rows of seven stations each are added to the center of the 0.81 ha grids established in these communities (Figure 13). The resulting 1.35 ha grids will provide more accurate population density and home range estimations. The types of vegetation sampled by the different grids are listed in Table 4 and grid locations are shown in Figure 14.

At every station for all grids, a 3x3x10" Sherman live trap is set during spring, summer and fall sampling periods. Since small mammal activity is greatly curtailed during the winter season, and because repeated captures of the same individuals during cold weather will produce an unacceptably high number of trap deaths because of hypothermia, an extensive trapping program during December 1974 and 1975 could reduce population numbers and preclude objective interpretation of results. Consequently, during these periods only 33 stations of the 7.29 and 1.35 ha grids in the same configuration as the 0.81 ha grids (Figure 12), and all stations of the 0.81 ha grids are operated.

Traps are baited with a mixture of peanut butter, rolled oats and cracked corn and checked for five consecutive days during each of the 12 sampling periods. To minimize desiccation and death of trapped animals from intense solar radiation in the Piceance Basin, cardboard is positioned over each trap in a ∧ shape to provide shade for animals captured during the day. During winter trapping periods, a wad of dacron or cotton batting is placed at the back of each trap for bedding material to minimize the number of deaths from hypothermia.

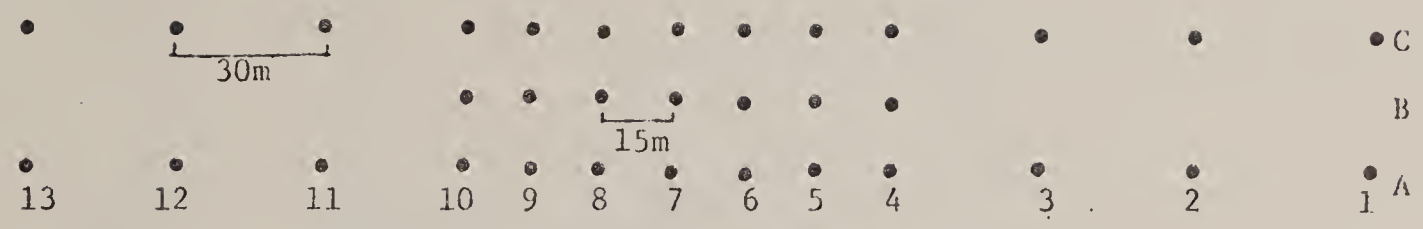


Figure 12. Pattern and spacing of trapping stations for the 0.81 ha grids used for the Rio Blanco Oil Shale Project.

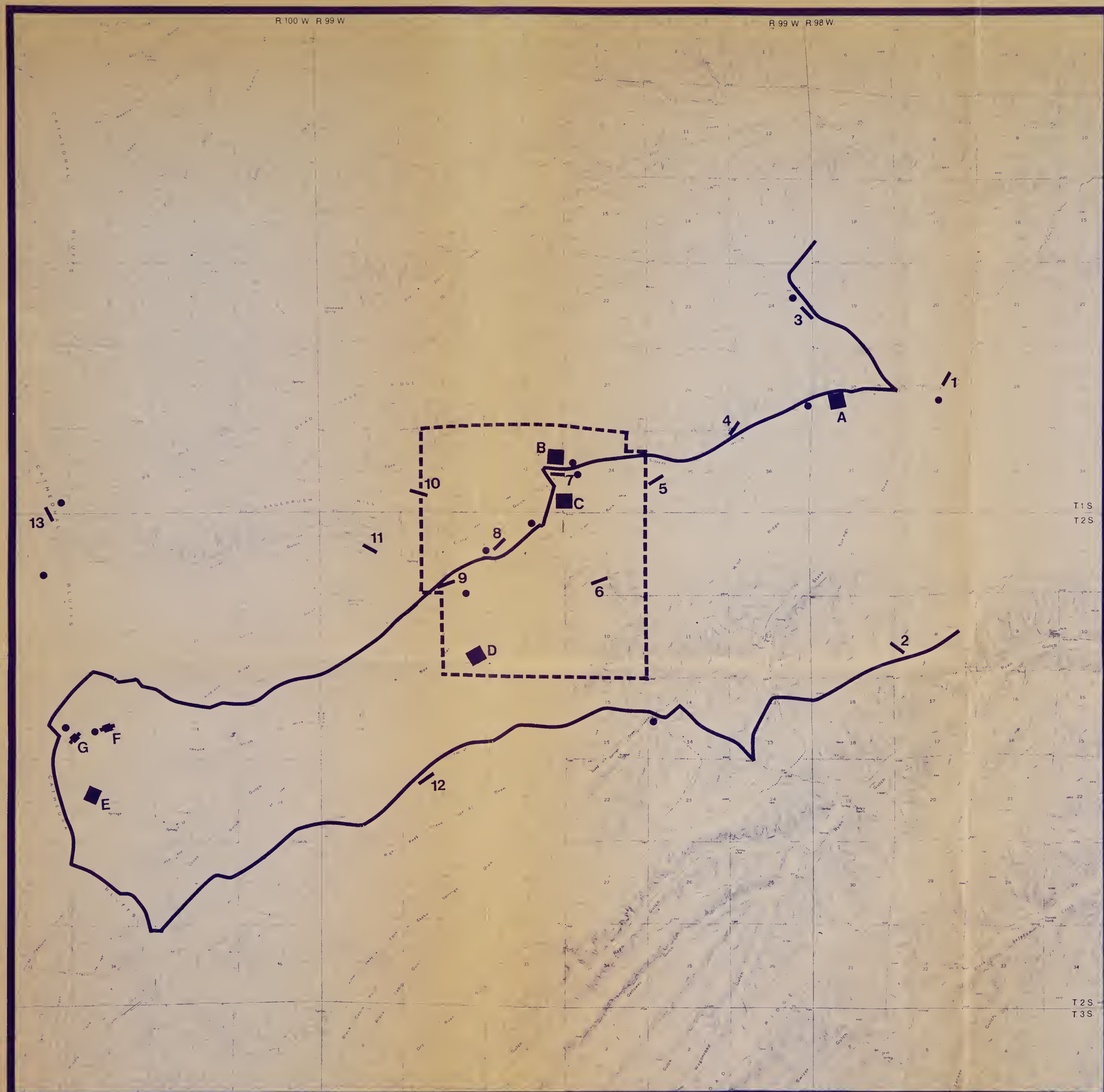
Figure 13. Pattern and spacing of trapping stations for the 1.35 ha grids used for the Rio Blanco Oil Shale Project.

Table 4. Sizes and distribution of small mammal live trapping grids within different vegetative communities on and near Tract C-a for Rio Blanco Oil Shale Project

Vegetative Community	7.29 Hectare Grids		0.81 Hectare Grids		1.35 Hectare Grids	
	On Tract	Off Tract	On Tract	Off Tract	On Tract	Off Tract
Aspen						1(G)
Douglas fir						1(F)
Mixed brush		1(E)		1(11)		
Upland meadow			1(9)	1(13)		
Bottomland meadow				1(1)		
Pinyon-juniper (southern slope)	1(B)[1/]			1(4)		
Pinyon-juniper (northern slope)	1(C)			1(6)		
Pinyon-juniper (western slope)				1(2)		
Pinyon-juniper/sagebrush				1(12)[2/]		
Pinyon-juniper/mixed brush			1(10)[2/]			
Sagebrush (northern slope)	1(D)		1(8)	1(3)		
Greasewood-Sagebrush		1(A)	1(5)			
Rabbitbrush			1(7)			

[1/] Figures in parentheses indicate the grid designation as shown in Figure 14.

[2/] Grid established in edge habitat.



TERRESTRIAL ECOLOGICAL INVESTIGATIONS

RIO BLANCO OIL SHALE PROJECT

SMALL MAMMAL SAMPLING SITES

- Pitfall Traps
- Night Spotlight Census Route
- Live Trapping Grids
- 7.29 Ha (18 A) grids
  - A Greasewood – Sagebrush
  - B Pinyon - Juniper (southern slope)
  - C Pinyon - Juniper (northern slope)
  - D Sagebrush (northern slope)
  - E Mixed brush
- 1.35 Ha (3.3 A) grids
  - F Douglas fir
  - G Aspen
- 0.81 Ha (2 A) grids
  - 1 Bottomland meadow
  - 2 Pinyon - Juniper (western slope)
  - 3 Sage
  - 4 Pinyon - Juniper (southern slope)
  - 5 Greasewood - Sagebrush
  - 6 Pinyon - Juniper (northern slope)
  - 7 Rabbitbrush
  - 8 Sagebrush (northern slope)
  - 9 Upland meadow
  - 10 Pinyon - Juniper / Mixed brush
  - 11 Mixed brush
  - 12 Pinyon - Juniper / Sagebrush
  - 13 Upland meadow

0 1/2 1 2 miles

NORTH

ECI

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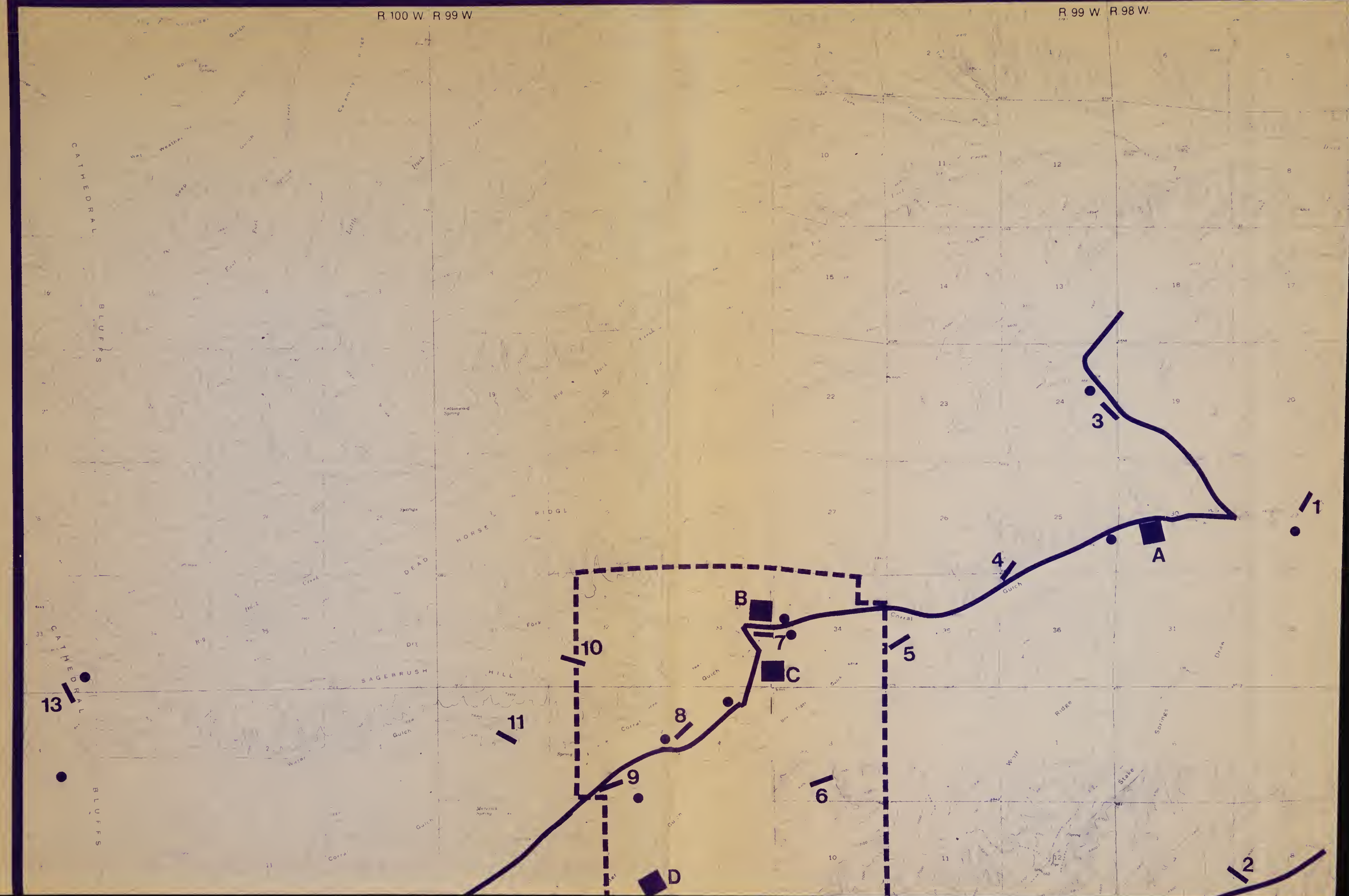
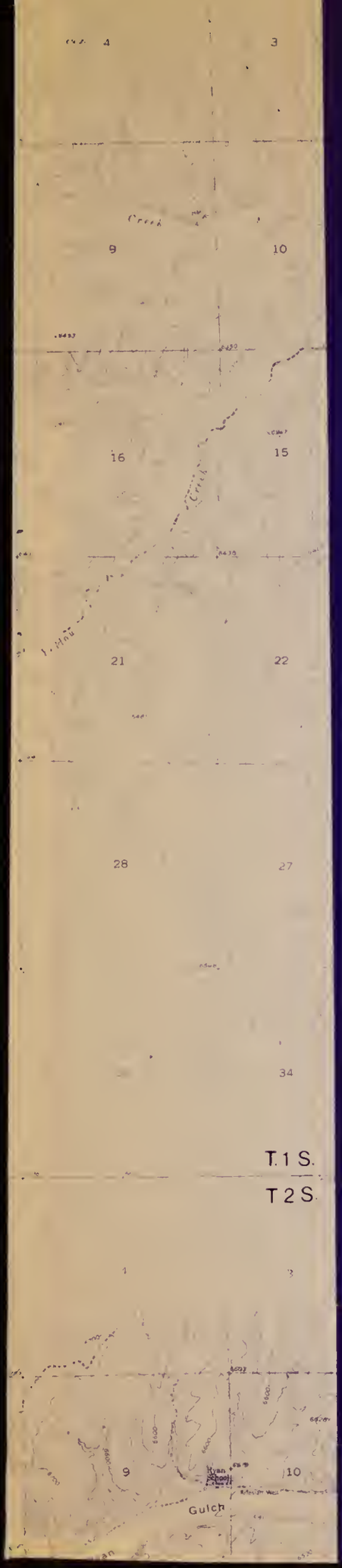

R 100 W R 99 W
R 99 W R 98 W
CATHEDRAL BLUFFS
HORSE RIDGE
DEAD
SAGEBRUSH HILL
A
B
C
D
1
2
3
4
5
6
7
8
9
10
11
13



TERRESTRIAL ECOLOGICAL INVESTIGATIONS

RIO BLANCO OIL SHALE PROJECT

SMALL MAMMAL SAMPLING SITES

• **Pitfall Traps**

⌒ **Night Spotlight Census Route**

Live Trapping Grids

■ **7.29 Ha (18 A) grids**

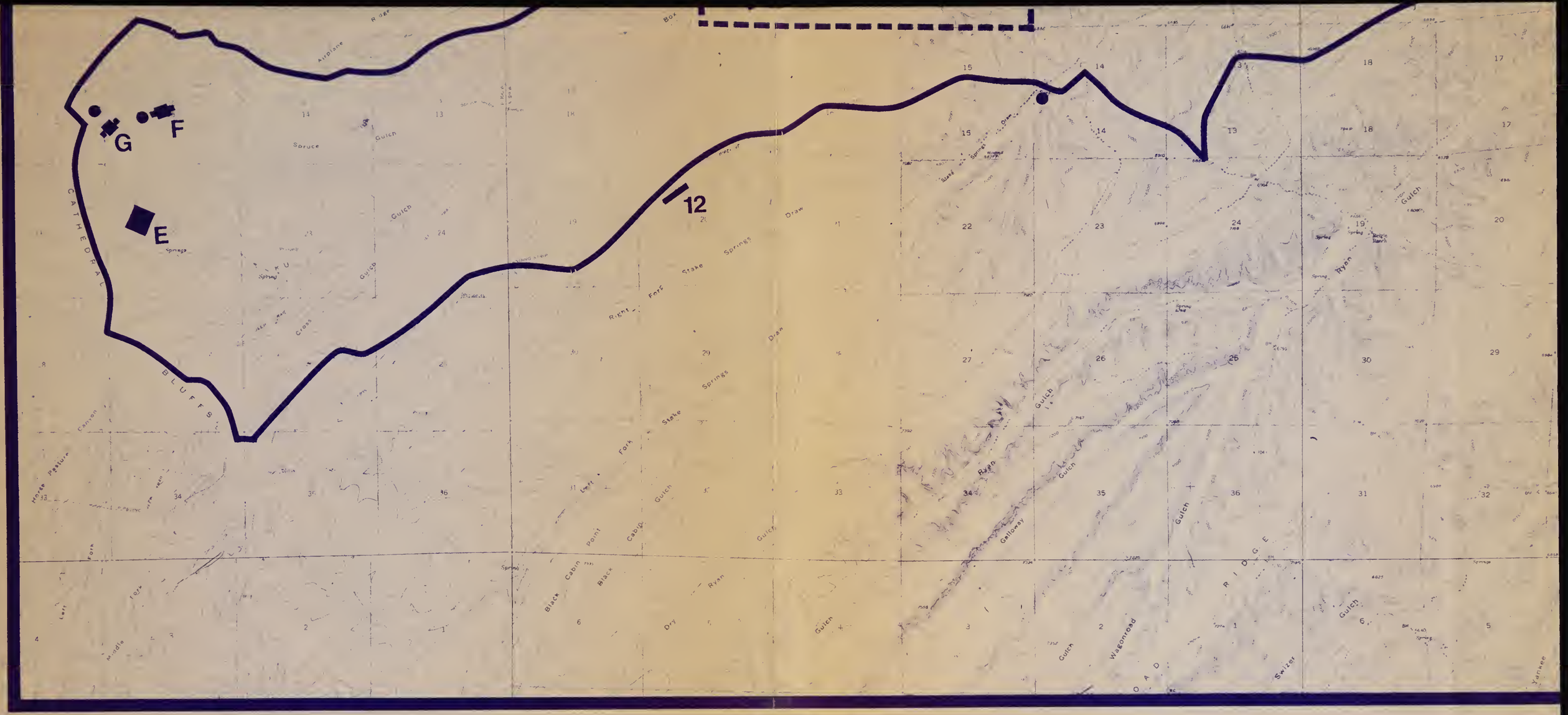
A Greasewood — Sagebrush
B Pinyon - Juniper (southern slope)
C Pinyon - Juniper (northern slope)
D Sagebrush (northern slope)
E Mixed brush

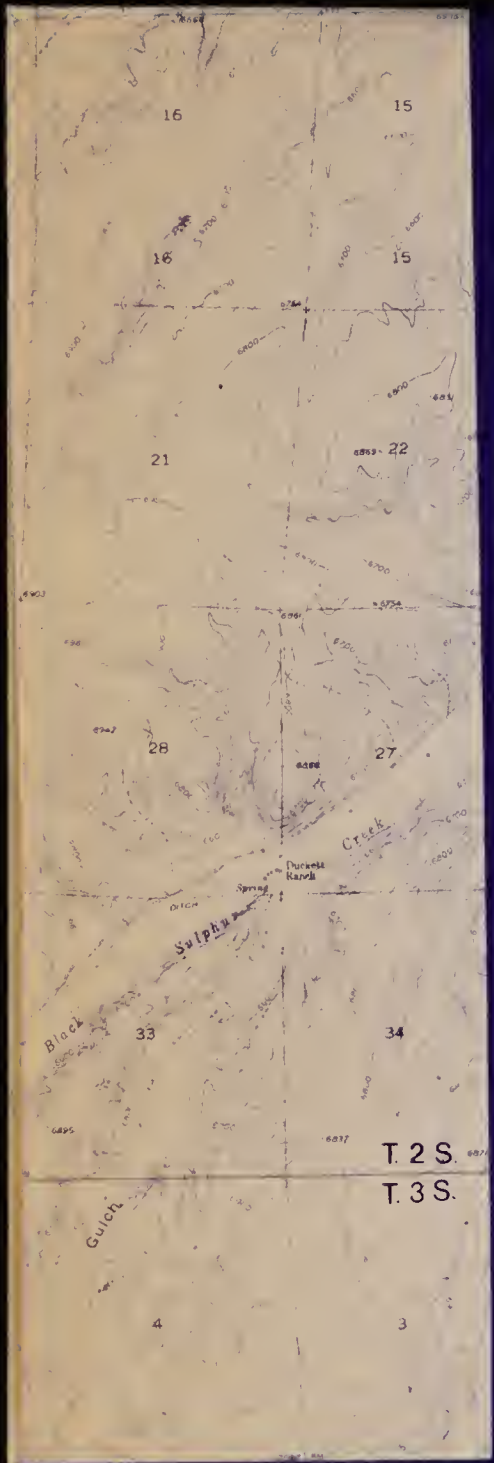
▬ **1.35 Ha (3.3 A) grids**

F Douglas fir
G Aspen

— **0.81 Ha (2 A) grids**

1 Bottomland meadow


G
F
E
12
CATHEDRAL BLUFFS
Airplane Ridge
Box
Spruce Gulch
Cross Gulch
Right Fork Stake Springs Draw
Left Fork Stake Springs Draw
Black Cabin Point Gulch
Black Cabin Gulch
Dry Ryan Gulch
Ryan Gulch
Galloway Gulch
Wagonroad Gulch
Switzer Gulch
Ryan Gulch
Yankee
Horse Pasture Canyon
Left Fork
Middle Fork
RIDGE
ROAD



2 Pinyon-Juniper (western slope)
3 Sage
4 Pinyon-Juniper (southern slope)
5 Greasewood-Sagebrush
6 Pinyon-Juniper (northern slope)
7 Rabbitbrush
8 Sagebrush (northern slope)
9 Upland meadow
10 Pinyon-Juniper / Mixed brush
11 Mixed brush
12 Pinyon-Juniper / Sagebrush
13 Upland meadow

0 1/2 1 2 miles

NORTH

ECI

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Figure 14. Location of small mammal live trapping grids, pitfall traps, and night spotlight census route used for the Rio Blanco Oil Shale Project.

Traps are reset and rebaited as necessary. All animals captured are distinctively marked by unique toe-clipping combinations and released (Figures 15 and 16). For each animal captured, the species, sex, age class, weight, reproductive status, general physical condition (if other than normal), capture location and animal identification number are recorded on a standard trapping form (Figure 17). Weights are determined to 0.5 g accuracy using a Pesola calibrated spring scale. Distinguishing characteristics between all morphologically similar species that might occur in the Piceance Basin have been identified by ECI. Measurements of these characteristics are routinely taken for all species captured whose identification is dependent upon such measures.

At certain times of the year, trap success may be very high. When a large proportion of traps are filled during one night, some animals may not have an opportunity to enter trap stations located within their home range. This phenomenon, indicated by a high ratio of new animals to recaptures from previous nights, may yield erroneous population data for some species. To insure adequate data for all species, an increased trapping effort, either more traps per night or more nights of trapping, is necessary. Therefore, on girds where the ratio of new to recaptured animals is unacceptably high (as determined from the literature) on the last day of the normal 5-day trapping period, the trapping effort will be extended for as many as five day to obtain adequate data.

2.3.3.2.2. Removal trapping and Laboratory Analysis

A removal trapping program designed to collect small mammals for laboratory analysis of reproductive effort or stomach contents will occur. Animals are being collected for analysis of stomach contents during October and December 1974; during May, July, October and December 1975; and during May and July 1976. Animals are being collected for analysis of reproductive effort during May, June and July, months of peak small mammal breeding activity, 1975 and 1976. The removal program is conducted sufficiently far from the live trapping grids to prevent interference with the live trapping operations. Ideally, for each of the three most common small

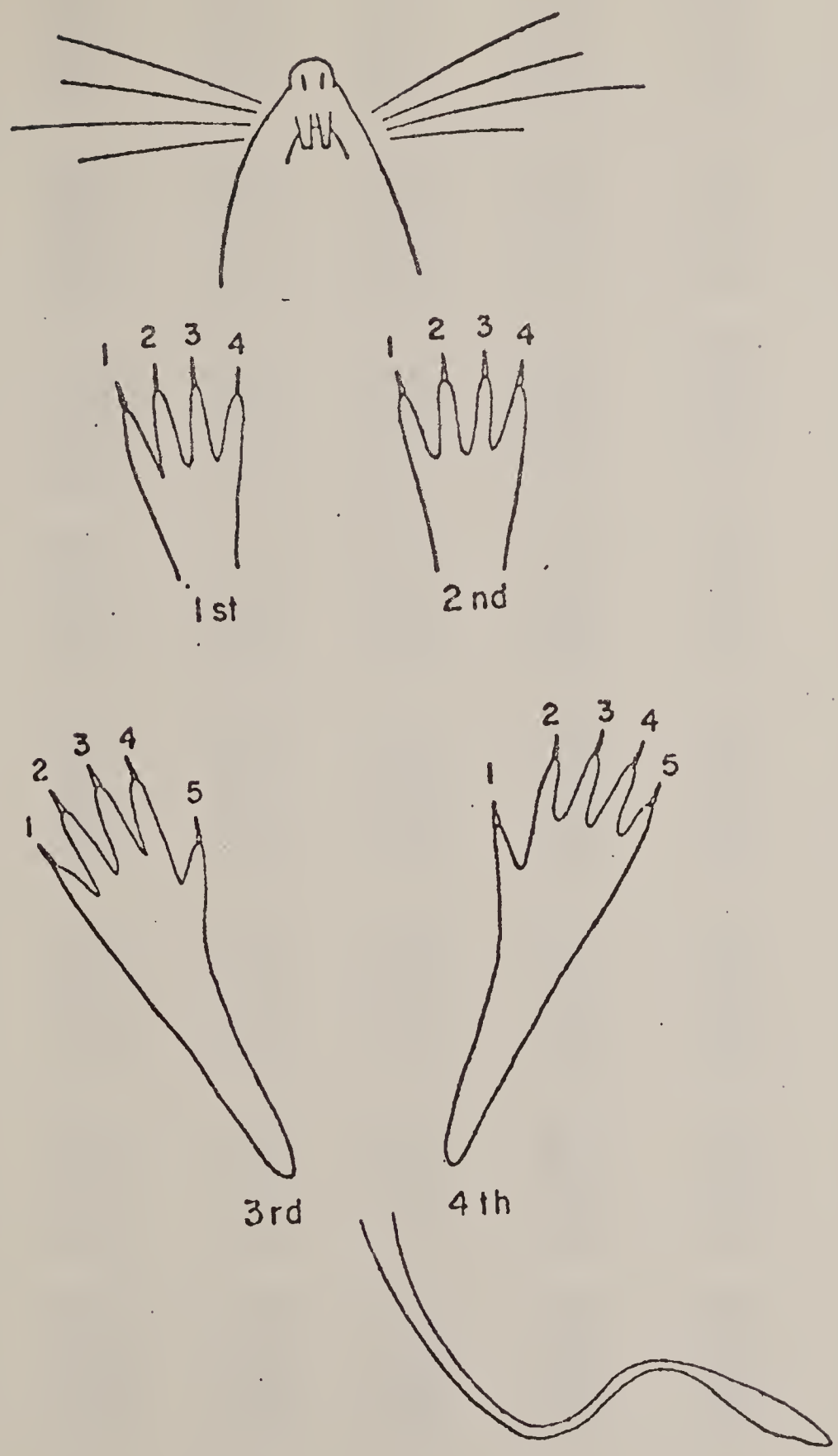

Figure 15. Small mammal toe marking scheme for the Rio Blanco Oil Shale Project.

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

0001	0103	1030	4100	1403	0245	0435	1225	1415
0002	0104	1040	4200	1405	0251	0441	1231	1421
0003	0105	1050	4300	0111	0252	0442	1232	1422
0004	0201	1100	4400	0112	0253	0443	1233	1423
0005	0202	1200	1011	0113	0254	0444	1234	1424
0010	0203	1300	1012	0114	0255	0445	1235	1425
0020	0204	1400	1013	0115	0311	0451	1241	1431
0030	0205	2001	1014	0121	0312	0452	1242	1432
0040	0301	2002	1015	0122	0313	0453	1243	1433
0050	0302	2003	1021	0123	0314	0454	1244	1434
0100	0303	2004	1022	0124	0315	0455	1245	1435
0200	0304	2005	1023	0125	0321	1111	1251	1441
0300	0305	2010	1024	0131	0322	1112	1252	1442
0400	0401	2020	1025	0132	0323	1113	1253	1443
1000	0402	2030	1031	0133	0324	1114	1254	1444
2000	0403	2040	1032	0134	0325	1115	1255	1445
3000	0404	2050	1033	0135	0331	1121	1311	1451
4000	0405	2100	1034	0141	0332	1122	1312	1452
0011	0110	2200	1035	0142	0333	1123	1313	1453
0012	0120	2300	1041	0143	0334	1124	1314	1454
0013	0130	2400	1042	0145	0335	1125	1315	1455
0014	0140	3001	1043	0151	0341	1131	1321	2111
0015	0150	3002	1044	0152	0342	1132	1322	2112
0021	0210	3003	1045	0153	0343	1133	1323	2113
0022	0220	3004	1051	0154	0344	1134	1324	2114
0023	0230	3005	1052	0155	0345	1135	1325	2115
0024	0240	3010	1053	0211	0351	1141	1331	2121
0025	0250	3020	1054	0212	0352	1142	1332	2122
0031	0310	3030	1055	0213	0353	1143	1333	2123
0032	0320	3040	1101	0214	0354	1144	1334	2124
0033	0330	3050	1102	0215	0355	1145	1335	2125
0034	0340	3100	1103	0221	0411	1151	1341	2131
0035	0350	3200	1104	0222	0412	1152	1342	2132
0041	0410	3300	1105	0223	0413	1153	1343	2133
0042	0420	3400	1201	0224	0414	1154	1344	2134
0043	0430	4001	1202	0225	0415	1155	1345	2135
0044	0440	4002	1203	0231	0421	1211	1351	2141
0045	0450	4003	1204	0232	0422	1212	1352	2142
0051	1001	4004	1205	0233	0423	1213	1353	2143
0052	1002	4005	1301	0234	0424	1214	1354	2144
0053	1003	4010	1302	0235	0425	1215	1355	2145
0054	1004	4020	1304	0241	0431	1221	1411	2151
0055	1005	4030	1305	0242	0432	1222	1412	2152
0101	1010	4040	1401	0243	0433	1223	1413	2153
0102	1020	4050	1402	0244	0434	1224	1414	2154

Figure 16. Small mammal toe clip checklist for the Rio Blanco Oil Shale Project.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location:__________ Grid #:______ Trap Night:______ Checked By:__________

Date, Time Traps Set:__________ Date, Time Traps Checked:__________

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*

diagnostic characters, parasites, etc.

Figure 17. Small mammal live trapping field data sheet for the Rio Blanco

mammal species, five specimens (including at least two females) are collected by a line of 40 snap traps in the major vegetation types where that species occurs. Trapping effort is increased in those vegetation types where capture success is low. However, if sufficient numbers of animals are not collected after four nights, trapping in terminated. All captured animals are immediately injected with 70 percent ethanol to prevent deterioration of internal organs. Prior to the laboratory analysis of reproductive effort or stomach contents, any internal parasites and general internal condition, if other than normal, will be noted. The species which are being collected and the vegetation types being sampled are listed in Table 5.

Laboratory Analysis of Reproductive Effort

The number of placental scars, pigmented areas of the uterus occurring at sites of previous placental attachments, has been used to determine litter size in small mammals (Davis and Emlen, 1948; Corthum, 1967). Since placental scars become increasingly lighter with increased age (Corthum, 1967) the degree of scar pigmentation can be used to indicate the approximate time of parturition (birth). Thus by examining the reproductive tract of adult females of selected species at regular intervals during the breeding season, information on litter size, number of litters per season, and time of parturition can be provided.

The laboratory procedures for examining placental scars involve removal of the female reproductive tract, which is placed in a watch glass filled with water. The scars are readily visible with the naked eye in the family Cricetidae (includes mice and voles) but Bouins Solution, wintergreen oil, or diluted hydrogen perioxide must be used to clear the tract of larger rodents, such as chipmunks, which have thick uterine walls. The uterus is stretched to insure that all scars become visible, and a count is made and recorded on a standard data sheet (Figure 18). If the female is pregnant the number of fetuses will be counted and their age will be estimated to give the approximate time of conception.

Table 5. Approximate number of individuals of the three most common species being collected for laboratory analysis of reproductive effort and stomach contents within major vegetation types during each sampling period for the Rio Blanco Oil Shale Project.

Vegetation Type	Number of Individuals for Each Species[1/]		
	Least Chipmunk (*Eutamias minimus*)	Deer Mouse (*Peromyscus maniculatus*)	Montane Vole (*Microtus montanus*)
Aspen			5
Mixed brush	5	5	
Pinyon-juniper (southern slope)	5	5	
Pinyon-juniper (northern slope)	5	5	
Sagebrush	5	5	
Greasewood-Sagebrush	5	5	
Bottomland meadow			5
TOTAL	25	25	10

[1/] These species were selected because they are among the most abundant small mammal species in the vicinity of Tract C-a and are representative of three different groups of rodents (sciurids, cricetids, and microtines).

REPRODUCTIVE STATUS DATA SHEET

Project____________________ Date____________________ Investigator____________________

Location____________________ Habitat____________________

pture Technique____________________

Comments____________________

Species____________________

							Embryos		Placental Scars		
	TL	T	HF	E	grams	Inactive	R	L	R	L	Comments
A											
B											
C											
D											
E											

Species____________________

							Embryos		Placental Scars		
	TL	T	HF	E	grams	Inactive	R	L	R	L	Comments
B											
C											
D											
E											

Species____________________

							Embryos		Placental Scars		
	TL	T	HF	E	grams	Inactive	R	L	R	L	Comments
A											
B											
D											
E											

Figure 18. Reproductive status data sheet for the Rio Blanco Oil Shale Project.

Laboratory Analysis of Stomach Contents

Basic dietary preferences or food niches of small mammal species have recently received attention by mammalogists, and literature is now available to support interpretation of trophic relationships of mammals within various plant communities. The International Biological Program's Grassland Biome work has provided recent data on small mammal diets through its Diet Laboratory in Fort Collins (see, for instance, Grant, 1972; Hansen and Moir, 1971; Flinders and Hansen, 1972). These data will be utilized whenever feasible to support interpretation of dietary habits and trophic level position of the small mammal species found on or near Tract C-a.

Stomach contents of animals are emptied into a Petri dish containing alcohol and examined under 30 x magnification through a dissecting stereoscope. The material within the dish is sufficiently agitated to insure randomization, the particle on or closest to an X marked in the center of the dish is characterized as to whether it is of arthropod, vertebrate or vegetal origin, and the data are recorded on data forms (Figure 19). Vegetation is being differentiated between seeds and succulent parts. A total of 50 particles is examined from each stomach.

Collection of Voucher Specimens

To confirm field identification and to provide evidence of species encountered during the baseline inventory, up to five voucher specimens of each small mammal species captured are being prepared. Voucher specimens, provided by both the removal and live trapping programs, are being processed and curated by ECI personnel and identifications checked by Dr. Robert B. Findley, a mammalogist with the National Fish and Wildlife Laboratory. Dr. Findley is presently involved in a study to determine the distribution of mammals in western Colorado, particularly the Piceance Basin, and is knowledgable of all small mammal species likely to occur in the area.

2.3.3.2.3. Pitfall Trapping

Pitfall traps for trap-shy animals and for animals not attracted to peanut butter bait are established in each major plant community on and

STOMACH ANALYSIS DATA SHEET

ecology consultants, Inc.

Project_____ Date_____ Investigator_____

Location_____ Habitat_____

Capture Technique_____

Comments_____

Species_____

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1						11						21						31						41					
2						12						22						32						42					
3						13						23						33						43					
4						14						24						34						44					
5						15						25						35						45					
6						16						26						36						46					
7						17						27						37						47					
8						18						28						38						48					
9						19						29						39						49					
10						20						30						40						50					

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A											
B											
C											
D											
E											

Food Categories	Symbol	Total % F
Empty fields	-	
Vertebrate	V	
Invertebrate	I	
Succulent	Su	
Seed	S	

Figure 19. Stomach analysis data sheet for the Rio Blanco Oil Shale Project.

2.3.62

near Tract C-a (see Figure 14). The trap system consists of three plastic buckets, approximately the size of number 10 cans, placed in the ground open end up, flush with the ground surface and in a straight line. A 1-foot high drift fence (wire window screen) stretched over the center of the cans guides animals into the traps (Figure 20). A thin coating of glycerin is deposited on the bottom to minimize the possibility of small animals jumping out of the trap cans. Each set of pitfalls is operated for 4 days during each small mammal sampling period and is inspected daily for captures.

Species, sex, age, habitat type and pitfall location are recorded for each captured animal on a standard field data form (Figure 21). Up to five individuals of each species found dead in the traps are being prepared as voucher specimens, while live animals are released.

2.3.3.2.4. Night Spotlight Census

A night spotlight census route has been established to record activity, distribution and abundance of nocturnally active mammals, particularly rabbits, hares and predators. This census is being conducted on two clear nights during February, June, and October of each year along a 48.4 km (30 mi) route which traverses all major vegetation associations within and adjacent to Tract C-a (Figure 14). The route is driven at approximately 16.1 km (10 mi) per hour with an observer situated on the right top of the vehicle operating a spotlight. All mammals sighted within a strip up to 25 m (82 ft) wide on the right side of the vehicle are being recorded to species. Odometer readings to the nearest 0.16 km (0.1 mi) are recorded at the start of the census and each time a mammal is observed. Habitat is also noted. All data are recorded on a standard field data sheet (Figure 22).

Because of variations in topography and vegetation density it is not possible to census accurately all active mammals within a 25 m strip. To account for these variations, the census route is driven once during the evening when the "observable distance", up to 25 m, is determined. The portion of the survey route located in each vegetation type is determined to the nearest 0.1 m by direct measurement during the day. Multiplying width times length in each vegetation type provides an estimate of the total area sampled per type by the night spotlight census route. The number of animals sighted in each type, divided by the area of that type sampled, gives an estimate of density per unit area.

16

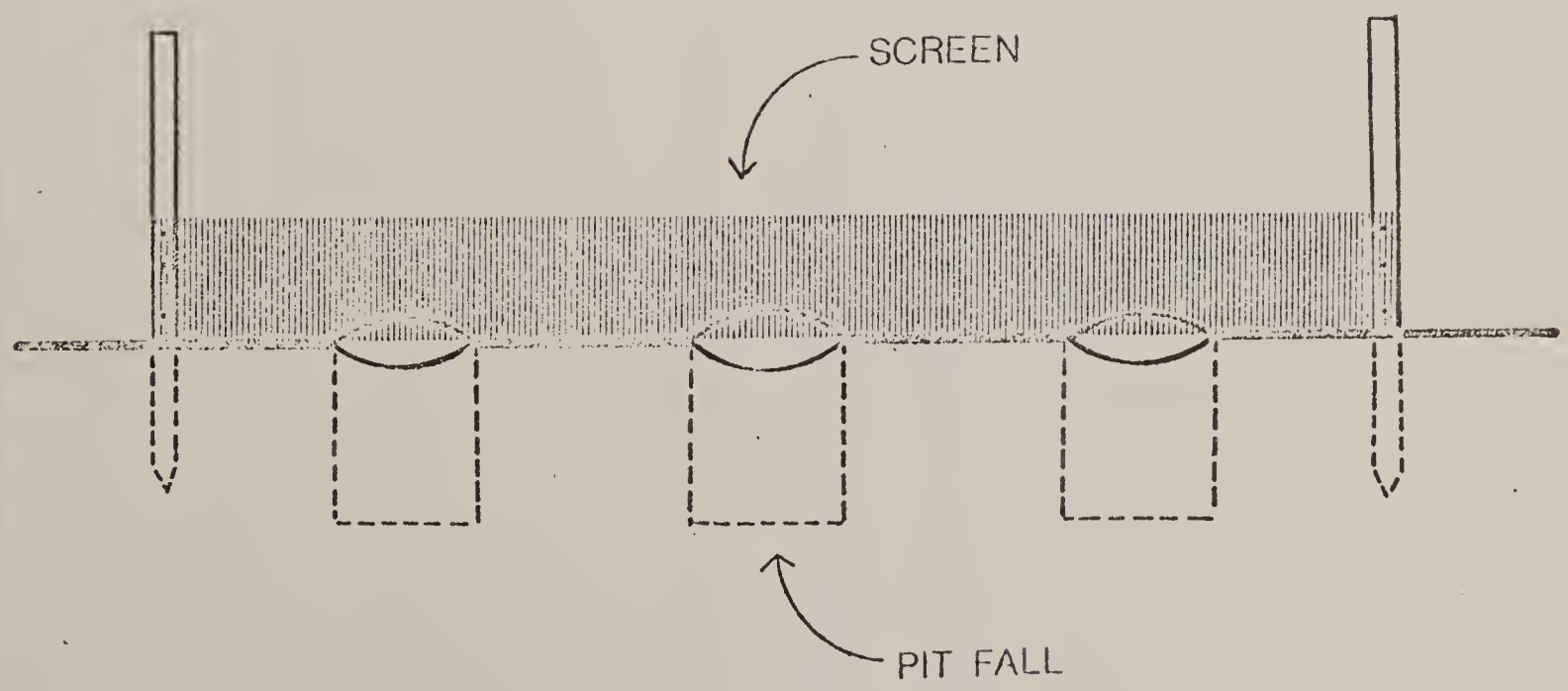
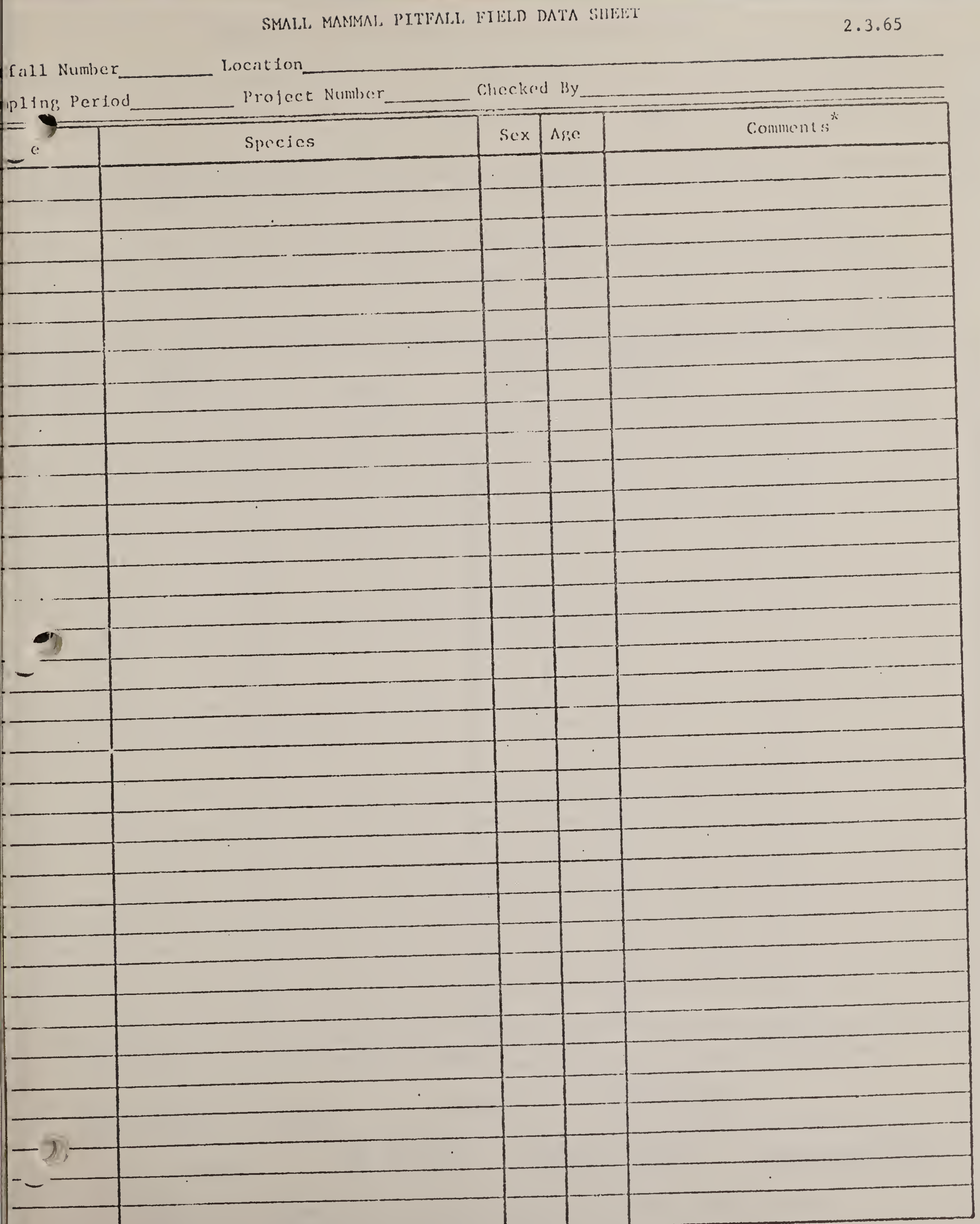


Figure 20. Typical pitfall can and drift fence arrangement used to capture trap-shy small mammals for Rio Blanco Oil Shale Project.



SMALL MAMMAL PITFALL FIELD DATA SHEET

fall Number________ Location________________________________

pling Period__________ Project Number________ Checked By____________________

e	Species	Sex	Age	Comments*

*Reproductive condition, diagnostic characters, future use of specimens, etc.

Figure 21. Small mammal pitfall field data sheet for the Rio Blanco Oil Shale Project.

MAMMAL NIGHT ROAD CENSUS DATA AND SUMMARY SHEET 2.3.66

Project_____ Transect #_____ Date_____ Sunset Time_____

Time Begun_____ Temp._____ Time Completed_____ Temp._____ Cloud Cover_____%

Starting Point_____ Finish Point_____ Length of Transect_____

Observable Distance Estimates up to 25 meters.

Mile 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_____.

Odometer Reading	Species Observed	Habitat	Odometer Reading	Species Observed	Habitat

1. $\bar{x}$ est. dist._____m. x transect length_____m. = _____ sq. m. of coverage.

2. $\frac{\text{sq. m. coverage}}{\text{sq. m./hectare}} = \frac{\quad}{10{,}000} =$ _____ hectares; $N = \frac{\text{number sited}}{\text{total hectares}} =$ _____/hectare.

Species	No. Sighted	Hectares Covered	Pop. Est./Hectare

Figure 22. Mammal night road census data and summary sheet for the Rio Blanco Oil Shale Project.

2.3.3.2.5. Bat Investigations

During the summer months of June and August 1975 and 1976, ECI is to employ two techniques to determine the distribution and relative abundance of bat species within and adjacent to Tract Ca.

During daylight hours, old buildings, rock overhangs, crevices and other likely places are searched for roosting bats. Active bats in the vicinity of Tract Ca are sampled by mist netting. At dusk on four consecutive nights during the sampling periods, these nets are placed in a vertical position with the bottom shelf less than 0.3 m (1 ft) above ponds or water tanks which bats are visiting. Bats striking the net while sweeping low over the water to drink are captured in the pocket of the net. The mist net is examined as often as necessary through the night to prevent escape or death of captured bats. The first individual of each species captured is sacrificed and prepared as a voucher specimen. For subsequent captures, the species and sex of the animal, the date and location of sampling and the collector's name are recorded. The bat is then released.

2.3.3.3. RESULTS AND DISCUSSION

2.3.3.3.1. Live Trapping

Twenty separate locations were sampled by live trapping grids during October and December 1974. Grid locations represented a variety of different vegetation types, slope aspects and elevations (Table 4). Data were summarized to provide a preliminary view of the ecological distribution and relative abundance of trappable rodents captured during the two sampling periods.

Ten rodent species native to the Piceance Basin were represented in fall and winter live-trapping samples. These species and the total number of each captured during October and December 1974 sampling are presented in Table 6. Trapping results for each grid are summarized in Table 7.

The ecological distribution and abundance of each species, expressed in numbers of rodents captured per 100 trap nights for 15 selected areas are summarized in Table 8.

Table 6. Total number of all small mammal species captured on all live trapping grids for the Rio Blanco Oil Shale Project, October and December, 1974

Family Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-11, 1974) Male	Female	Total
Sciuridae (Squirrels, ground squirrels, chipmunks)						
Least chipmunk (*Eutamius minimus*)	216	189	406	1	0	1
Colorado chipmunk (*Eutamius quadrivittatus*)	21	24	45	3	0	3
Golden mantled ground squirrel (*Spermophilus lateralis*)	3	0	3	0	0	0
Cricetidae (New World mice and rats)						
Deer mouse (*Peromyscus maniculatus*)	226	214	440	96	70	166
Pinon mouse (*Peromyscus truei*)	6	9	15	4	2	6
Bushy-tailed woodrat (*Neotoma cinera*)	1	6	7	0	0	0
Gapper's Red-backed vole (*Clethrionomys gapperi*)			22[1/]			18[1/]
Montane vole (*Microtus montanus*)	0	0	0			6[1/]
Long-tailed vole (*Microtus longicaudus*)			36[1/]			42[1/]
Sagebrush vole (*Lagurus curtatus*)			8[1/]			16[1/]

[1/] Unable to make positive determination of sex in the field.

Table 7. Number of individuals of each small mammal species captured on each live trapping grid for the Rio Blanco Oil Shale Project, during October and December, 1974

Grid Number - Vegetation Type Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-12, 1974) Male	Female	Total
1 Bottomland meadow						
Deer mouse (Peromyscus maniculatus)	3	13	16	22	12	34
Montane vole (Microtus montanus)	0	0	0			6[1/]
Sagebrush vole (Lagurus curtatus)			2[1/]			3[1/]
2 Pinyon-Juniper (western slope)						
Least chipmunk (Eutamius minimus)	3	1	4	0	0	0
Colorado chipmunk (Eutamius quadrivittatus)	2	2	4	0	0	0
Deer mouse (Peromyscus maniculatus)	8	5	13	6	1	7
Piñon mouse (Peromyscus truei)	2	2	4	0	1	1
3 Sagebrush						
Least chipmunk (Eutamius minimus)	6	4	10	0	0	0
Deer mouse (Peromyscus maniculatus)	2	6	8	4	1	5

Table 7. (Continued)

Grid Number - Vegetation Type Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-12, 1974) Male	Female	Total
4 Pinyon-Juniper (southern slope)						
Least chipmunk (*Eutamius minimus*)	9	9	18	0	0	0
Colorado chipmunk (*Eutamius quadrivittatus*)	5	0	5	0	0	0
Deer mouse (*Peromyscus maniculatus*)	4	6	10	14	4	18
Piñon mouse (*Peromyscus truei*)	1	3	4	1	1	2
Long-tailed vole (*Microtus longicaudus*)	0	0	0			1 1/
5 Greasewood/Sagebrush (flat)						
Least chipmunk (*Eutamius minimus*)	10	3	13	0	0	0
Deer mouse (*Peromyscus maniculatus*)	24	21	45	9	12	21
Long-tailed vole (*Microtus longicaudus*)			1 1/			2 1/
Sagebrush vole (*Lagurus curtatus*)	0	0	0			1 1/
6 Pinyon-Juniper (northern slope)						
Least chipmunk (*Eutamius minimus*)	4	1	5	1	0	1

Table 7. (Continued)

Grid Number - Vegetation Type Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-12, 1974) Male	Female	Total
6 Pinyon-Juniper (northern slope) (continued)						
Colorado chipmunk (*Eutamius quadrivittatus*)	3	2	5	3	0	3
Deer mouse (*Peromyscus maniculatus*)	5	2	7	1	0	1
Piñon mouse (*Peromyscus truei*)	0	1	1	0	0	0
7 Rabbitbrush						
Least chipmunk (*Eutamius minimus*)	6	19	25	0	0	0
Deer mouse (*Peromyscus maniculatus*)	8	5	13	10	12	22
Long-tailed vole (*Microtus longicaudus*)			1 1/			5 1/
8 Sagebrush (northern slope)						
Least chipmunk (*Eutamius minimus*)	14	1	15	0	0	0
Deer mouse (*Peromyscus maniculatus*)	13	14	27	2	3	5
Long-tailed vole (*Microtus longicaudus*)	0	0	0			1 1/
Sagebrush vole (*Lagurus curtatus*)	0	0	0			1 1/

Table 7. (Continued)

Grid Number - Vegetation Type Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-12, 1974) Male	Female	Total
9 Upland Meadow						
Least chipmunk (*Eutamius minimus*)	7	5	12	0	0	0
Deer mouse (*Peromyscus maniculatus*)	17	11	28	6	2	8
Long-tailed vole (*Microtus longicaudus*)	0	0	0			1[1/]
Sagebrush vole (*Lagurus curtatus*)	0	0	0			2[1/]
10 Pinyon-Juniper/Mixed brush (northern slope)						
Least chipmunk (*Eutamius minimus*)	11	5	16	0	0	0
Colorado chipmunk (*Eutamius quadrivittatus*)	2	3	5	0	0	0
Deer mouse (*Peromyscus maniculatus*)	15	4	19	3	1	4
11 Mixed Brush (northern slope)						
Least chipmunk (*Eutamius minimus*)	11	10	21	0	0	0
Deer mouse (*Peromyscus maniculatus*)	8	5	13	0	1	1
Sagebrush vole (*Lagurus curtatus*)	0	0	0			1[1/]

Table 7. (Continued)

Grid Number - Vegetation Type Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-12, 1974) Male	Female	Total
12 Pinyon-Juniper/Sagebrush						
Least chipmunk (*Eutamius minimus*)	7	5	12	0	0	0
Deer mouse (*Peromyscus maniculatus*)	4	4	8	3	7	10
13 Upland meadow						
Least chipmunk (*Eutamius minimus*)	1	0	1	0	0	0
Deer mouse (*Peromyscus maniculatus*)	4	4	8	0	0	0
Greasewood/Sagebrush						
Least chipmunk (*Eutamius minimus*)	34	29	63	0	0	0
Deer mouse (*Peromyscus maniculatus*)	35	32	68	9	6	15
Long-tailed vole (*Microtus longicaudus*)			16[1/]			7[1/]
Pinyon-Juniper (southern slope)						
Least chipmunk (*Eutamius minimus*)	25	31	56	0	0	0
Colorado chipmunk (*Eutamius quadrivittatus*)	4	7	11	0	0	0
Deer mouse (*Peromyscus maniculatus*)	15	17	32	6	7	13

Table 7. (Continued)

Grid Number - Vegetation Type Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-12, 1974) Male	Female	Total
C Pinyon-Juniper (southern slope) (continued)						
Piñon mouse (*Peromyscus truei*)	2	1	3	2	0	2
Bushy-tailed woodrat (*Neotoma cinerea*)	0	5	5	0	0	0
D Pinyon-Juniper (northern slope)						
Least chipmunk (*Eutamius minimus*)	17	14	31	0	0	0
Colorado chipmunk (*Eutamius quadrivittatus*)	5	10	15	0	0	0
Golden-mantled ground squirrel (*Spermophilus lateralis*)	1	0	1	0	0	0
Deer mouse (*Peromyscus maniculatus*)	26	24	50	0	1	1
Piñon mouse (*Peromyscus truei*)	1	2	3	1	0	1
Bushy-tailed woodrat (*Neotoma cinerea*)	1	0	1	0	0	0
Sagebrush vole (*Lagurus curtatus*)			1 1/	0	0	0
E Sagebrush (northern slope)						
Least chipmunk (*Eutamius minimus*)	27	24	51	0	0	0

Table 7. (Continued)

Grid Number - Vegetation Type Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-12, 1974) Male	Female	Total
E Sagebrush (northern slope) (continued)						
Golden-mantled ground squirrel (*Spermophilus lateralis*)	2	0	2	0	0	0
Deer mouse (*Peromyscus maniculatus*)	20	25	45	0	0	0
Bushy-tailed woodrat (*Neotoma cinerea*)	0	1	1	0	0	0
Sagebrush vole (*Lagurus curtatus*)			3[1/]			2[1/]
F Mixed brush (southern slope)						
Least chipmunk (*Eutamius minimus*)	18	18	36	0	0	0
Deer mouse (*Peromyscus maniculatus*)	11	4	15	0	0	0
Gapper's Red-backed vole (*Clethrionomys gapperi*)			2[1/]	0	0	0
Sagebrush vole (*Lagurus curtatus*)			2[1/]	0	0	0
G Douglas fir (northern slope)						
Deer mouse (*Peromyscus maniculatus*)	1	2	3	1	0	1
Gapper's Red-backed vole (*Clethrionomys gapperi*)			18[1/]			12[1/]

Table 7. (Continued)

Grid Number - Vegetation Type Common name (Species)	Trapping Period 1 (October 19-24, 1974) Male	Female	Total	Trapping Period 2 (December 7-12, 1974) Male	Female	Total
H Aspen (northern slope)						
Least chipmunk (*Eutamius minimus*)	6	10	16	0	0	0
Deer mouse (*Peromyscus maniculatus*)	2	0	2	0	0	0
Gapper's Red-backed vole (*Clethrionomys gapperi*)			2[1/]			6[1/]
Long-tailed vole (*Microtus longicaudus*)			18[1/]			25[1/]

[1/] Unable to make positive determination of sex in the field.

Table 8. Ecological distribution and abundance (animals/100 trap nights) of trappable rodents captured on live trapping grids for the Rio Blanco Oil Shale Project, October and December, 1974

Habitat Type (Aspect/Elevation)	Trap Nights Fall / Winter	Peromyscus maniculatus Fall	Peromyscus maniculatus Winter	Microtus montanus Fall	Microtus montanus Winter	Clethrionomys gapperi Fall	Clethrionomys gapperi Winter	Lagurus curtatus Fall	Lagurus curtatus Winter	Microtus longicaudus Fall	Microtus longicaudus Winter	Peromyscus truei Fall	Peromyscus truei Winter
Greasewood-Sagebrush (Flat/6500')	830 / 330	13.6	10.9	0	0	0	0	0	0.3	2.1	2.7	0	0
Sagebrush (Northern slope/7200'-7500')	830 / 330	8.7	1.5	0	0	0	0	0.4	0.9	0	0.3	0	0
Sagebrush (Flat/6000')	165 / 165	4.8	3.0	0	0	0	0	0	0	0	0	0	0
Mixed Brush (Southern slope/8000')	665 / 165	2.3	0	0	0	0.3	0	0.3	0	0	0	0	0
Mixed Brush (Northern slope/7000')	165 / 165	7.9	0.6	0	0	0	0	0	0.6	0	0	0	0
Bottomland Meadow (Flat/6000')	165 / 165	9.7	20.1	0	3.6	0	0	1.2	1.8	0	0	0	0
Upland Meadow (Flat/7500'-8200')	330 / 330	10.9	2.4	0	0	0	0	0	0.6	0	0.3	0	0
Douglas Fir (Northern slope/8200')	165 / 165	1.8	0.6	0	0	10.9	7.3	0	0	0	0	0	0
Aspen (Northern slope/8200')	165 / 165	1.2	0	0	0	1.2	3.6	0	0	10.9	15.2	0	0
Pinyon-Juniper (Southern slope/6500')	830 / 330	5.0	9.4	0	0	0	0	0	0	0	0.3	0.8	1.2
Pinyon-Juniper (Northern slope/6800')	830 / 330	6.9	0.6	0	0	0	0	0.1	0	0	0	0.5	0.3
Pinyon-Juniper (Western slope/6800')	165 / 165	7.9	4.2	0	0	0	0	0	0	0	0	2.4	0.6
Pinyon-Juniper/Mixed Brush (Northern slope/6900')	165 / 165	11.5	2.4	0	0	0	0	0	0	0	0	0	0
Pinyon-Juniper/Sagebrush (Flat/7400')	165 / 165	4.8	6.0	0	0	0	0	0	0	0	0	0	0
Rabbitbrush (Flat/6500')	165 / 165	7.9	13.3	0	0	0	0	0	0	0.6	3.0	0	0

Table 8. (Continued)

Habitat Type (Aspect/Elevation)	Trap Nights Fall / Winter	Eutamias quadrivittatus Fall	Eutamias quadrivittatus Winter	Eutamias minimus Fall	Eutamias minimus Winter	Neotoma cinerea Fall	Neotoma cinerea Winter	Spermophilus lateralis Fall	Spermophilus lateralis Winter	Total Fall	Total Winter
Greasewood-Sagebrush	830										
(Flat/6500')	330	0	0	9.2	0	0	0	0	0	24.9	13.9
Sagebrush	830										
(Northern slope/7200'-7500')	330	0	0	8.0	0	0.1	0	0.2	0	17.4	2.7
Sagebrush	165										
(Flat/6000')	165	0	0	6.0	0	0	0	0	0	10.8	1.5
Mixed Brush	665										
(Southern slope/8000')	165	0	0	5.6	0	0	0	0	0	8.5	0
Mixed Brush	165										
(Northern slope/7000')	165	0	0	12.7	0	0	0	0	0	20.6	1.2
Bottomland Meadow	165										
(Flat/6000')	165	0	0	0	0	0	0	0	0	10.9	24.2
Upland Meadow	330										
(Flat/7500'-8200')	330	0	0	3.9	0	0	0	0	0	14.8	3.3
Douglas Fir	165										
(Northern slope/8200')	165	0	0	0	0	0	0	0	0	12.7	7.9
Aspen	165										
(Northern slope/8200')	165	0	0	9.7	0	0	0	0	0	23.0	18.8
Pinyon-Juniper	830										
(Southern slope/6500')	330	1.9	0	8.9	0	0.6	0	0	0	17.2	10.9
Pinyon-Juniper	830										
(Northern slope/6800')	330	2.4	0.9	4.3	0.3	0.1	0	0.1	0	14.4	2.1
Pinyon-Juniper	165										
(Western slope/6800')	165	2.4	0	2.4	0	0	0	0	0	15.1	1.0
Pinyon-Juniper/Mixed Brush	165										
(Northern slope/6900')	165	3.0	0	9.7	0	0	0	0	0	24.2	0.2
Pinyon-Juniper/Sagebrush	165										
(Flat/7400')	165	0	0	7.3	0	0	0	0	0	18.2	6.0
Rabbitbrush	165										
(Flat/6500')	165	0	0	15.1	0	0	0	0	0	23.6	16.3

The paucity of small mammal data gathered in the field during only two sampling periods prohibits the formulation of definitive conclusions. Therefore, summarized field data gathered during fall and winter sampling have been compared to those data presented in the available literature in attempts to qualify our findings to date. Comparisons of our limited data to those in the literature enable us to predict certain expected trends, such as the ecological distribution and species diversity of small mammals in the area of investigation. Increasing small mammal data base resulting from future trapping efforts in the Piceance Basin should confirm many of the preliminary interpretations presented in this report.

The deer mouse (Peromyscus maniculatus) was present in all habitat types sampled. This species was relatively common (4.8 to 13.6 mice/100 trap nights) in the fall in all vegetation types below 8000 ft elevation and relatively abundant in greasewood-sagebrush (flat areas with an elevation of 6500 ft) and pinyon-juniper/mixed brush (north slope with an elevation of 6900 ft). Brown (1967) found P. maniculatus to be abundant in sagebrush and mountain mahogany communities in southeastern Wyoming. He suggested that these vegetation types produce large quantities of seeds suitable for comsumption by deer mice. Larrison and Johnson (1973) reported deer mice to be the most abundant rodent in disturbed sagebrush and shadscale communities in Idaho. P. maniculatus was relatively scarce or absent from high elevation mixed brush, Douglas fir and aspen types during both fall and winter sampling, but was relatively abundant (20.1 mice/100 trap nights) in the bottomland meadow (flat area with an elevation of 6000 ft) during winter sampling. P. maniculatus commonly occurs at all elevations in Colorado, from low meadows to alpine tundra (Warren, 1942) and is the most abundant of all Colorado mammals (Armstrong, 1972). Williams (1955), in surveying mice and shrew distribution in central Colorado during the summer, found P. maniculatus to be common in all montane communities sampled (above 8700 ft elevation), and most abundant on disturbed areas, some of which were above 9600 ft elevation. Brown (1967) rarely captured deer mice in spruce-fir forests but found them common in aspen stands in the Medicine Bow Mountains of Wyoming. It is likely that summer sampling in the Piceance Basin will yield a higher capture success for P. maniculatus at the high altitude trapping sites.

The montane vole (Microtus montanus) did not appear in any vegetation type during fall sampling, and was captured in low numbers (3.6 voles/100 trap nights) only in the bottomland meadow during winter. This species was not taken in any other vegetation type. The altitudinal range of M. montanus in Colorado is from 6000 ft to above timberline, but this species prefers grassy meadows and other areas of dense ground cover such as those found in aspen stands (Armstrong, 1972). Williams (1955) captured montane voles in stream bottom and grazed meadow communities in central Colorado. Brown (1967) likewise found M. montanus to be common in grassy meadow situations in southeastern Wyoming.

The red-backed vole (Clethrionomys gapperi) was relatively abundant in the Douglas fir vegetation type during the fall and winter sampling periods (10.9 and 7.3 mice/100 trap nights respectively). This species was present, but infrequently taken in aspen and high elevation mixed brush. Clethrionomys gapperi was not captured in vegetation types below 8000 ft elevation. Warren (1942) reported that C. gapperi rarely occurs below 8000 ft elevation and Armstrong (1972) stated that this boreal forest species is usually confined to well developed coniferous zones from 8000 to 11,000 ft in Colorado. Williams (1955) found C. gapperi to be abundant in lodgepole pine forests in central Colorado and Brown (1967) reported this species to be very numerous in spruce-fir forests, common in lodgepole pine and present, but in fewer numbers, in aspen in southeastern Wyoming.

The sagebrush vole (Lagurus curtatus) was captured in seven different vegetation types but was only taken in bottomland meadow with any regularity. This trap shy species was taken in such small numbers in other vegetation types (greasewood-sagebrush, sagebrush, mixed brush, upland meadow, and pinyon-juniper) that preliminary conclusions concerning its habitat distribution and abundance are somewhat tentative. Sagebrush voles are usually associated with arid situations in Colorado (Lechleitner, 1969) and are generally limited to stands of sagebrush (Artemisia) mixed with other shrubs up to 9000 ft elevation in Rio Blanco County (Armstrong, 1972). Larrison and Johnson (1973) found L. curtatus to be present in small numbers in sagebrush and crested wheatgrass communities in Idaho. Continued trapping efforts should more clearly elucidate the habitat preferences of L. curtatus in the Piceance Basin.

The long-tailed vole (Microtus longicaudus) was relatively abundant (10.9 and 15.2 voles/100 trap nights) in aspen during the fall and winter sampling periods respectively. The long-tailed vole was present, but in fewer numbers in both greasewood-sagebrush and rabbitbrush during both fall and winter trapping periods. This species was also taken in small numbers in sagebrush, upland meadow, and pinyon-juniper vegetation types during the winter trapping period. M. longicaudus inhabits a variety of vegetation types in Colorado, from wet to dry meadow, rocky slopes (Warren, 1942), and has a wide altitudinal range, from below 5000 ft to above timberline in western Colorado (Armstrong, 1972). Durrant and Robinson (1962) found this species to be common in brushy meadows with a sparse herbaceous stratum in southwestern Colorado, suggesting that the long-tailed vole is not as dependent on dense ground cover as is Microtus montanus. Brown (1967) found the long-tailed vole to be common in meadow and bog situations and aspen forests but absent from sagebrush and mountain mahogany communities in southeastern Wyoming.

The piñon mouse (Peromyscus truei) was not captured in large numbers during either sampling period, but this species did appear with some regularity in three pinyon-juniper stands (south, west, and north slopes) below 6900 ft elevation. The piñon mouse was not captured in the two pinyon-juniper sample sites above 6900 ft, or in any other vegetation type. In Colorado, this species is common only in pinyon-juniper below 7000 ft elevation (Lechleitner, 1969) but has been reported as an uncommon occurrence in pinyon-juniper up to 8500 ft elevation in western Colorado (Armstrong, 1972). Peramyscus truei is generally restricted to pinyon-juniper woodlands because it is dependent on the juniper for nesting sites and juniper berries as its preferred winter food (Douglas, 1969).

The Colorado chipmunk (Eutamias quadrivittatus) was captured in small numbers at all pinyon-juniper trapping grids below 6900 ft elevation. This species was not taken in the pinyon-juniper sample site at 7400 ft elevation, or in any other vegetation type. The Colorado chipmunk was not captured with any regularity during the winter sampling period probably because it had

entered a period of winter inactivity. E. quadrivittatus inhabits forested and brushy areas in Colorado and is particularly fond of rocky ground (Warren, 1942). Williams (1955) captured this species in a stream bottom community above 8700 ft elevation in central Colorado and Armstrong (1972) reported that the Colorado chipmunk can range from 4200 ft to 10,500 ft elevation and typically inhabits areas of broken rocks and open coniferous woodland.

The least chipmunk (Eutamias minimus) was regularly captured at all elevations in all vegetation types, except bottomland meadow and Douglas fir, during fall sampling. This species was relatively abundant in rabbitbrush and mixed brush communities and was also captured in large numbers in greasewood-sagebrush, sagebrush, aspen and pinyon-juniper types. E. minimus was relatively common, in upland meadow and pinyon-juniper above 6800 ft elevation. The least chipmunk ranges from 6000 ft to 12,000 ft in western Colorado and utilizes a variety of habitats from sagebrush plains to coniferous forests (Lechleitner, 1969). E. minimus is the most abundant Colorado sciurid and has the widest ecological range of any sciurid in the state. This species, however, is rarely seen in dense unbroken forest (Armstrong, 1972) which might explain why it was not taken in the Douglas fir type sampled. In sharp contrast to the fall sample period, only one least chipmunk was captured during winter sampling and this was at a pinyon-juniper trapping grid. The least chipmunk is not a true hibernator, but does enter periods of torpidity during cold weather and is generally inactive through the winter (Lechleitner, 1969).

Trapping success was greatly reduced during the winter sampling period in all vegetation types except the bottomland meadow, where trap success was higher than it was during fall sampling. The almost complete absence of E. minimus, a major constituent of fall samples, is partially responsible for the reduced winter trap success.

The different vegetation types sampled varied considerably in terms of the total number of rodents captured per 100 trap nights. Greasewood-sage, aspen, and rabbitbrush vegetation types were the most productive during both fall and winter sampling periods. Eutamias minimus and Peromyscus maniculatus accounted for about 86.0% of all rodents captured in the greasewood-sage and rabbitbrush during fall and winter, while Microtus sp. and E. minimus comprised 85.6% of the rodents captured in the aspen during fall and winter. Mixed brush and pinyon-juniper/sagebrush communities yielded relatively large numbers of trappable rodents during the fall sampling period but not during winter. Eutamias minimus was common in both these vegetation types during fall but absent from winter samples resulting in an overall decline in winter trap success in these plant communities. The bottomland meadow grid demonstrated the highest trap success during winter sampling when P. maniculatus was captured in large numbers. This sharp increase in trap success over the fall sampling period may be related to the availability of natural food and the altitudinal position of the bottomland meadow grid. An abundant natural food supply during fall sampling would have reduced the response to trap baits and, therefore, reduced trap success; however, as this food supply dwindled with the approach of winter, animals would have been more easily attracted to the bait. In addition, the low elevation of this grid may have permitted some small mammal species to be more active later into the cold season than would be possible at higher elevation grids. A combination of these two factors may have been responsible for the increased winter trap success in the bottomland meadow.

Sagebrush (flat areas at an elevation of 6000 ft) and mixed brush (south slope at an elevation of 8000 ft) demonstrated the lowest trap success during both winter and fall sampling.

The greatest number of different rodent species was recorded for the sagebrush communities - north slope at an elevation of 7200 ft (6 species total), pinyon-juniper - south slope at an elevation of 6500 ft (6 species total), and pinyon-juniper - north slope at an elevation of 6800 ft (7 species total). Only two different rodent species were recorded for sagebrush communities (flat areas at 6000 ft elevation), Douglas fir (north slope at 8200 ft elevation), and pinyon-juniper/sagebrush (flat areas at 7400 ft elevation).

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2.3.3.3.2. Laboratory Studies

Small mammal specimens for the analysis of stomach contents were to be collected in October and December 1974. The delay in initiating the terrestrial baseline data collection program together with the concern for the safety of ECI field personnel during the October mule deer hunting season forced postponement of the October specimen collection until November 9-14. The December removal trapping occurred on schedule during December 7-11, 1974.

During both sampling periods a total of 60 specimens of three different species in seven different vegetation types was to be collected (Table 5). Although sampling intensity was increased in all areas sampled, unfavorable weather conditions and the corresponding decreased small mammal activity resulted in only 20 and 8 specimens of two species being collected for the November and December sampling periods respectively. The results of the stomach analyses are summarized in Tables 9 to 14.

During the winter months, the diet of foraging small mammals is limited by food availability. Since succulent vegetation parts and invertebrates are for the most part unavailable, seeds tend to comprise the largest percentage of the winter diet. This is evidenced by the stomach analysis results for the deer mouse (*Peromyscus maniculatus*) and the least chipmunk (*Eutamias minimus*) captured in the vicinity of Tract C-a for November and December. In all four vegetation types where these species were collected, seeds made up at least 67% of the total diet.

The montane vole (*Microtus montanus*), however, showed a preference for succulent parts in the two vegetation types where it was collected. This could represent either a marked preference for succulent parts or increased availability of this food type in the vegetation associations where the montane vole was collected. The second hypothesis seems to be discounted, however, by the fact that deer mice collected in the greasewood-sagebrush with the voles revealed a larger percentage of seeds in their diet. In any case, the sample size is too small and the resulting data too incomplete at this time to warrant any definite conclusions concerning small mammal food habits in the

Table 9. Stomach contents of the montane vole (*Microtus montanus*) captured in bottomland meadow habitat for the Rio Blanco Oil Shale Project, November, 1974

Species	Stomach Contents (% diet composition)				
	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Microtus montanus #1	6%	86%	0%	0%	8%
Microtus montanus #2	28%	70%	0%	2%	0%
Microtus montanus #3	16%	80%	0%	4%	0%
AVERAGE % Composition	16.7%	78.6%	0%	2.0%	2.6%

Table 10. Stomach contents of the deer mouse (*Peromyscus maniculatus*) and montane vole (*Microtus montanus*) captured in greasewood-sagebrush habitat for the Rio Blanco Oil Shale Project, November, 1974

Species	Stomach Contents (% diet composition)				
	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus #1	74%	12%	0%	0%	14%
Peromyscus maniculatus #2	78%	8%	0%	0%	14%
Peromyscus maniculatus #3	90%	6%	0%	2%	2%
Peromyscus maniculatus #4	82%	8%	6%	2%	2%
Peromyscus maniculatus #5	86%	6%	4%	0%	4%
AVERAGE % Composition	82.0%	8.0%	2.0%	0.8%	7.2%
Microtus montanus #1	4%	94%	2%	0%	0%
Microtus montanus #2	88%	10%	0%	0%	2%
AVERAGE % Composition	46.0%	52.0%	1.0%	0.0%	1.0%

Table 11. Stomach contents of the deer mouse (*Peromyscus maniculatus*) captured in pinyon-juniper (southern slope) habitat for the Rio Blanco Oil Shale Project, November, 1974

Species	Stomach Contents (% diet composition)				
	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus #1	66%	22%	2%	2%	8%
Peromyscus maniculatus #2	82%	14%	0%	0%	4%
Peromyscus maniculatus #3	58%	24%	2%	0%	16%
Peromyscus maniculatus #4	92%	6%	0%	0%	2%
Peromyscus maniculatus #5	70%	6%	0%	18%	6%
AVERAGE % Composition	73.6%	14.4%	0.8%	4.0%	7.2%

Table 12. Stomach contents of the deer mouse (*Peromyscus maniculatus*) captured in sagebrush habitat for the Rio Blanco Oil Shale Project, November, 1974

Species	Stomach Contents (% diet composition)				
	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus #1	66%	26%	2%	2%	4%
Peromyscus maniculatus #2	60%	40%	0%	0%	0%
Peromyscus maniculatus #3	70%	22%	0%	0%	8%
Peromyscus maniculatus #4	72%	20%	0%	0%	8%
Peromyscus maniculatus #5	68%	14%	2%	0%	16%
AVERAGE % Composition	67.2%	24.4%	0.8%	0.4%	7.2%

Table 13. Stomach contents of the deer mouse (*Peromyscus maniculatus*) captured in greasewood-sagebrush habitat for the Rio Blanco Oil Shale Project, December, 1974

Species	Stomach Contents (% diet composition)				
	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus #1	80%	10%	6%	2%	2%
Peromyscus maniculatus #2	88%	0%	10%	0%	2%
Peromyscus maniculatus #3	94%	2%	4%	0%	0%
Peromyscus maniculatus #4	48%	46%	0%	0%	6%
Peromyscus maniculatus #5	74%	6%	4%	8%	8%
AVERAGE % Composition	76.8%	12.8%	4.8%	2.0%	3.6%

Table 14. Stomach contents of the deer mouse (*Peromyscus maniculatus*) and the least chipmunk (*Eutamias minimus*) captured in pinyon-juniper (southern slope) habitat for the Rio Blanco Oil Shale Project, December, 1974

Species	Stomach Contents (% diet composition)				
	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus #1	88%	6%	4%	0%	2%
Peromyscus maniculatus #2	76%	10%	2%	12%	0%
AVERAGE % Composition	82.0%	8.0%	3.0%	6.0%	1.0%
Eutamias minimus	84%	0%	2%	0%	14%

vicinity of Tract C-a. Further investigations and literature search should permit a detailed description of small mammal food preferences and a determination of species differences within similar vegetation types as well as differences between different types for the same species.

2.3.3.3.3. Pitfall Trapping

Pitfall traps were established in six locations each in a different vegetation type, and were operated from October 21 to October 24, 1974 and again from December 9 to December 12, 1974. Any species documented by live trapping in the same vegetation type were not recorded.

In October, three shrews were trapped in two locations. A masked shrew (*Sorex cinereus*) was trapped in the greasewood-sagebrush habitat. A masked shrew and a Merriam's shrew (*S. merriami*) were trapped in the sagebrush habitat. In December, two masked shrews were trapped, both in the greasewood-sagebrush habitat.

The Merriam's shrew has never been reported from this area prior to this capture. According to Lechleitner (1969) and Armstrong (1972) little is known of the habits of this shrew and nowhere does it seem to be abundant. The masked shrew is relatively abundant in Colorado and is to be expected in moister habitats (Armstrong, 1972).

2.3.3.3.4. Night Spotlight Census

The night spotlight census was conducted on the nights of November 11 and 13, 1974 and February 10 and 12, 1975. This method designed to census nocturnally active animals, especially lagomorphs, has proven valuable in short-grass plains situations but is not entirely viable in the Piceance Basin because of the dense vegetation and varied topography which reduce visibility. The results of the two census periods are given in Table 15.

The presence of two species of lagomorphs was documented on or near Tract C-a. The white-tailed jackrabbit (*Lepus townsendii*) was easily identified by field observation but the cottontail (*Sylvilagus* sp.) is much more difficult to distinguish to species. A specimen was collected by ECI personnel and identified by Dr. Robert B. Findley of the National Fish and Wildlife Laboratory

Table 15. Results of the night spotlight censuses conducted November 11 and 13, 1974 and February 10 and 12, 1975 for the Rio Blanco Oil Shale Project

Species	November 11 and 13, 1974 Number Sighted	Hectares Covered	Pop. Est./Hectare
Cottontail (*Sylvilagus* sp.)	3	68.35	0.04
White-tailed jackrabbit (*Lepus townsendii*)	1	68.35	0.01

February 10 and 12, 1974

There were no lagomorphs encountered during this sampling period.

as a Nuttall's cottontail (Sylvilagus nuttallii). However, it is possible that more than one species of cottontail resides in the study area. As evidenced by the results, species of all lagomorphs in the vicinity of Tract C-a are currently at a low population level.

2.3.3.4. SUMMARY AND CONCLUSIONS

2.3.3.4.1. Live Trapping

Small mammals were sampled at eleven different vegetation types in 20 separate locations during October and December, 1974. Data have been summarized, compared to the available literature and tentatively interpreted.

Ten different trappable rodent species were recorded for fall and winter samples at the 20 live-trap grids. The deer mouse (Peromyscus maniculatus) and the least chipmunk (Eutamias minimus) exhibited the widest ecological range and the greatest relative abundance of any of the rodents captured. The deer mouse regularly appeared in samples from all vegetation types and the least chipmunk was captured in all but two vegetation types. The red-backed vole (Clethrionomys gapperi), piñon mouse (Peromyscus truei) and Colorado chipmunk (Eutamias quadrivittatus) seemed to show definite habitat preferences. The red-backed vole appeared only in Douglas fir and aspen with any regularity while the pinyon mouse and the Colorado chipmunk were taken only in pinyon-juniper. Future trapping efforts should confirm these preliminary findings and more clearly elucidate the habitat preferences and ecological distribution of other trappable small mammal species in the area of investigation.

The sharp decline in the numbers of small rodents captured during the winter trapping period resulted in part from the almost complete absence of the least chipmunk (a major constituent of fall samples). Other small mammal species were probably less active and less abundant during the winter sampling period and were therefore more difficult to capture.

The greatest number of different rodent species was recorded for sagebrush and pinyon-juniper vegetation types.

2.3.3.4.2. Laboratory Analysis of Stomach Contents

Unfavorable weather conditions and reduced small mammal activity resulted in only 20 and 8 small mammal specimens (far below the desired sample size) being collected for stomach analysis during November and December, 1974 respectively. The results of the analysis indicated that seeds comprise at least 67% of the total diet of the deer mouse and the least chipmunk during the winter while succulent vegetation parts appear to be the desired food of the montane vole. However, the data are insufficient to permit the formulation of firm conclusions concerning small mammal food preferences in the vicinity of Tract C-a at this time.

2.3.3.4.3. Pitfall Trapping

Pitfall trapping was conducted within six different vegetation types during October 21-24 and December 9-12, 1974. Two shrew species, masked shrew (*Sorex cinereus*) and Merriam's shrew (*S. merriami*) were documented. The latter species had never been reported in the area prior to this investigation (Armstrong, 1972; Lechleitner, 1969).

2.3.3.4.4. Night Spotlight Census

Night spotlight censuses were conducted on November 11 and 13, 1974 and February 10 and 12, 1975. At least two species of lagomorphs, the white-tailed jackrabbit (*Lepus townsendii*) and the cottontail (*Sylvilagus* sp.) were observed during the censuses. Population densities of all lagomorph species are presently low.

Rio Blanco
Oil Shale Project
SECOND QUARTERLY DATA REPORT

OCT, NOV, DEC, JAN & FEB
FALL & WINTER 1974 -75
BOOK 6 OF 11

TERRESTRIAL STUDIES (RAW DATA)

Gulf Oil Corporation
and
Standard Oil Company (Indiana)
10725 East Hampden Avenue, Denver, Colorado 80231

2. 3. 3.

II. SMALL MAMMALS

A. Live Trapping

GRID AND FILE NUMBER

Grid 1 - Bottomland Meadow[1/] (5.1.2.1)
Grid 2 - Cath Road P-J (5.1.2.2)
Grid 3 - Boot Hill Sage (5.1.2.3)
Grid 4 - Cliff P-J (5.1.2.4)
Grid 5 - Boxelder Bottom (5.1.2.5)
Grid 6 - Gas Line P-J (5.1.2.6)
Grid 7 - Rabbitbrush (5.1.2.7)
Grid 8 - Remark Sage (5.1.2.8)
Grid 9 - Upland Meadow (5.1.2.9)
Grid 10 - Tower P-J/Brush (5.1.2.10)
Grid 11 - Tract Mtn Brush (5.1.2.11)
Grid 12 - Horse P-J/Sage (5.1.2.12)
Grid 13 - Ridgetop Meadow (5.1.2.13)
Grid 14 - Greasewood-Sage (5.1.2.14)
Grid 15 - South P-J (5.1.2.15)
Grid 16 - Hunting Club P-J (5.1.2.16)
Grid 17 - Sage (5.1.2.17)
Grid 18 - Mountain Brush (5.1.2.18)
Grid 19 - Douglas Fir (5.1.2.19)
Grid 20 - Aspen (5.1.2.20)

B. Removal Trapping (5.2.2.1)

C. Distribution Records (14.1.1)

Grid 1 - Bottomland Meadow (5.1.2.1)

2.1.2.1-1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

ation: Tomahawk Meadow Grid #: 1 Trap Night: 1 Checked By: JC, JB

e, Time Traps Set: 12:00 10/19 Date, Time Traps Checked: 12:00 11/20

ne	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
5		P. man	F	SA		0103			tail & toe
10		P. man	F	SA		0104			Something on left
4		~~Otorcolcas hirsutus~~	—	—					
2		P. man	F	A		0001			
		Vole L. curtatus	—	—		0002	✓		KEPT FOR I.D.

agnostic characters, parasites, etc.

ECI

5.1.2.1-2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Pottersland Neck Grid #: 1 Trap Night: 2 Checked By: JB, JC

Date, Time Traps Set: 1:30 10/20 Date, Time Traps Checked: 1:20 10/21

0105

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-3		P man	♀	A		0105			
6		Lag curt.	♂	A		0201			ears conc. h.f 1.5 tail 1.5
9		P man	♀	J		0202			
-13		P man	♀	A		0203			
-10		P. man	♀	A		0103	R		
-12		P. man.	♀	A		0001	R		

*Diagnostic characters, parasites, etc.

ECI

5.1.2.1-3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

ocation: [illegible] Meadow Grid #: 1 Trap Night: 3 Checked By: JC, JR

ate, Time Traps Set: 2:00 10/21 Date, Time Traps Checked: 2:00 10/22

0204

ine et	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-12		P man	♀	A		0204			
-13		P man	♀			0205			
-4		P. man	♀	A		0003			
-9		P. man	♀	A		0004			

*diagnostic characters, parasites, etc.

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3.1.2.1-4

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Bottomland Meadow Grid #: 1 Trap Night: 4 Checked By: JC, JB

Date, Time Traps Set: 2:45 10/22 Date, Time Traps Checked: 2:45 10/23

0301

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-10		Pman	♂	A		0301			
-12		Pman	♂	A		0302			
[illegible]		[illegible]	♀	A		0303			
B-4		P. man	♀	A		0005			
B-9		P. man	♀	A		0010			

nostic characters, parasites, etc.

ECI

2.1.2.1-2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Bottomland Hardwood Grid #: 1 Trap Night: 5 Checked By: JC, JE

Date, Time Traps Set: 12:30 10/27 Date, Time Traps Checked: 12:30 10/1[illegible] 0304

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-13		[illegible]	♀	A		[illegible]			
[illegible]-12		P. man	♂	J		0020			

*diagnostic characters, parasites, etc.

ECI

2.1.2.1 6

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Bottomland Meadow Grid # 1 Project 83 Trap night 1

Date, time traps set 12/7/74 10AM Date, time traps checked 12/8/74 10:00 AM.

Last toe clip # used on previous day 0020 Checked by JC DM

Rept. No.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
3		Microtus mantanus?	0030	♀	ad				150-32-17
5		Peromyscus maniculatus	0040	♂♂	S.ad				145-65-
5		P. maniculatus	0050	♂♂	ad				
2		P. maniculatus	0100	♂♂	ad				
3		P. maniculatus	0205	♀	ad				recaptured
0		" "	0010	♀	ad				"
9		" "	0004	♀	ad				"
8		Microtus mont...?	—	♀	ad	lact			155-35
4		P. maniculatus	0200	♀	SA				

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Bottomland Meadow Grid # _____ Project 83 Trap night 2

Date, time traps set 12/3/74 10 AM Date, time traps checked 12/8/74

Last toe clip # used on previous day 0300 Checked by DM, JC

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-2		Sorex cinereus ?	0400	M	ad				127-22-17=
-12		P. maniculatus	0303	M	ad				recaptured
-13		P. maniculatus	1000	M	ad				—
-10		" "	0202	♀	sub				recaptured
-1		P. man	0304	♂	A				
-3		M. mont.	0305	♂	A				tail bobbed
-5		L. cinr	0401	♂	A				h.f. 29 tail 33
-8		M. mont.	0402	♂	A				tail 35 body 11

5.1.2.1-8 (ECI)

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Bottomland meadow Grid # 1 Project 83 Trap night 3

Date, time traps set 12/9 4:00 Date, time traps checked 12/10 9

Last toe clip # used on previous day 0402 Checked by JC, DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-2		Sorex cinereus	0403	♀	ad				
-3		P. maniculatus	0404	♂	sad				
-4		P. maniculatus	0040	♂	sad				recap
-10		" "	0104	♀	ad				recap.
-12		" "	0405	♀	sad				
7-5		P. man	2000	♂	A				
7-13		P. man	3000	♀	A				

5.1.2.1 — 7

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Bottomland meadow Grid # 1 Project 83 Trap night 4

Date, time traps set 12/10 03 Date, time traps checked 12/11 830

Last toe clip # used on previous day 0405 Checked by VC, DM

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
4		P. mon	0004	♀	ad				Two holes on left front paw (small)
-8		M. montanus	—	♂	ad				dead in trap.
-13		P. mon	1000						dead in trap
-10		P. mon.	0202	♀	ad				Alive.

5.1.2.1-10

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Bottomland Meadows Grid # 1 Project 83 Trap night 5

Date, time traps set 12/11 830 Date, time traps checked 12/12 830

Last toe clip # used on previous day 3000 Checked by JC, DM

Rept. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-4		P. man	4000	♂	A				recap
-5		M. montanus	0001	?					Cricetinae
-5		P. man	2000	♂					recap
-8		M. montanus	0011	♀					
-10		P. man	0202	♀	SA				recap
-2		L. curtatus	0400	♂	A				dead
-3		P. man	0404	♂	A				
-13		P. man	0205	♀	A				

Grid 2 - Cath Road P-J (5.1.2.2)

2.1.2.2-1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cat Road P/J Grid #: 2 Trap Night: 1 Checked By: WTT

Date, Time Traps Set: 10/19/74 (0700) Date, Time Traps Checked: 10/20/74 (0730)

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-5		Peromyscus truei	♂	A	—	0001			EAR 23mm tail 75mm tuft at t HF 22mm orange on side
A-6		P. maniculatus	♂	A	—	0002			bicolored tail
B-7		Eutamias quadrivittatus	♀	A	—	0003			HF 33mm - large dorsal stripes dorsal and t base of tail
A-11		P. maniculatus	♂	A	—	0004			
A-12		P. "	♂	A	—	0005			
-12		P. "	♀	A	—	0010			
-8		P. "	♂	A	—	0020			

*diagnostic characters, parasites, etc.

ECI

5.1.2.2-2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cath Road P-J Grid #: 2 Trap Night: 2 Checked By: WTT

Date, Time Traps Set: 10/20/74 (0730) Date, Time Traps Checked: 10/21/74 (0750)

0030

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		P. maniculatus	♂			0030			bicolored tail
A-2		E. quadrivittatus	♂			0040			h.f. 32
A-4		P. truei	♀			0050			e 22
B-4		P. truei	♂			0001 ✓			large ears
B-6		P. maniculatus	♂			0020 ✓	DEAD		bicolored tail
A-8		E. quadrivittatus	♂			0100			h.f. 33
A-10		E. minimus	♂			0200			h.f. 26
C-13		E. "	♂			0300			h.f. 29
C-12		P. maniculatus	♂			0005 ✓			bicolored tail
C-9		P. "	escaped						

*diagnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cuth Road P.5 Grid #: 2 Trap Night: 3 Checked By: WTT

Date, Time Traps Set: 10/21/74 (0750) Date, Time Traps Checked: 10/22/74 (0800)

0400

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		P. maniculatus	♂	A		0400			bicolored tail
A-2		E. quadrupilatus	♂	A		0040	R DEAD		3 d.s. do not extend to tail
A-3		P. truei	♂	A		0001	R		big ears
B-5		P. maniculatus	♂	A		0002	R		bicolored tail
A-9		P. truei	♀	A		1000			big ears
A-13		P. maniculatus	♂	A		0005	R		bicolored tail
C-13		P. "	♀			0010	R DEAD		" "
C-12		E. minimus	♂	A		0200	R DEAD		5 d.s. extend to tail
C-9		P. maniculatus	♀	A		2000			bicolored tail
C-4		P. "	♀	A		3000			" "
C-3		P. "	♂	A		4000	? in same trap		" "
C-2		P. "	♀	A		0011			" "
C-1		P. "	♂	A		0030	R		" "

0400 was back in trap A-2! by the time I completed the grid check

* diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.2-4

Location: Cutthroat P-J Grid #: 2 Trap Night: 4 Checked By: WTT

Date, Time Traps Set: 10/22/74 (0800) Date, Time Traps Checked: 10/23/74 (0740)

0012

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		P. maniculatus	♂	A		0400 R			bicolored tail
A-1		P. "	♀	A		0013	IN SAME TRAP		" "
C-13		E. minimus	♀	A		0300 R	DEAD		5ds extend to tail
C-10		E. quadrisitiatus	♀	A		0003 R			3ds don't extend to t
C-5		E. minimus	♀	A		0012			5ds extend to tail
C-4		P. maniculatus	♀	A		3000 R			bicolored tail
C-1	- -	E. minimus	♂	A		0014			hf.30 5ds end to tail

*diagnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cathford P-5 Grid #: 5 Trap Night: 5 Checked By: WTT

Date, Time Traps Set: 10/23/74 (1740) 0015 Date, Time Traps Checked: 10/24/75 (0815)

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		P. maniculatus	♂	A		R 0400			1/2 colored tail
A-3		C. gadsdenensis	♀	A		0015	DEAD		3/4 dark colored tail
A-5		P. maniculatus	♂	A		0021			1/2 colored tail
A-6		P. "	♂	A		R 0002			" "
A-8		C. gadsdenensis	♂	A		R 0100			3/4 dark colored tail
C-9		P. truei	♂	A		0022			big ears
C-5		P. maniculatus	♂	A		R 0000			bicolored tail
C-4		P. "	♀	A		R 0011			" "
C-1		C. merriami	♂	A		R 0014	DEAD		5/4 colored tail

agnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cat Road P-J Grid # 2 Project 83 Trap night 1

Date, time traps set Dec 7, 1974 Date, time traps checked Dec 8, 1974

Last toe clip # used on previous day 0022 Checked by Sang. Ellenwood

Start with 0023

Rept. No.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-2		P. maniculatus	4000	♂	A				
-11		P. man.	0023	♂	A				
-5		Per. truii	1000	♀	A				

3.1.2.2 1

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cat Road P.J. Grid # 2 Project 83 Trap night 2

Date, time traps set 12/8/74 Date, time traps checked 12/9/74

Last toe clip # used on previous day 0023 Checked by Sanz, Ellwood

t.	Total Weight	Species	Toe-Clip No:	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
0		P. man.	2000	♀	A	—	—	—	
1		P. man.	0024	♂	A	—	—	—	

Tracks

A-2
A-5
A-7
A-8 (Bird
A-9)
A-12 -
C-13
A-13
C-12 - Soul
C-10 - Bird - soul
C-6 - Bird -
C-5 -
C-2

5.1.2.2 - 8 ECI

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cath Road P-J Grid # 32 Project 83 Trap night 3

Date, time traps set 12/9/74 Date, time traps checked 12/10/74

Last toe clip # used on previous day 0024 Checked by Ellwood - Sanz

Begin - 0025

apt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes

NO CAPTURES

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cath Road P.J. Grid # 2 Project 83 Trap night 4

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 0024 Checked by Sam, Ellenwood

begin 0025

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
A-3		P. truei	1000	♀					
C-12		P. maniculatus	0023	♂	A				
C-11		P. maniculatus	0025	♂	A				

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cath Road P-J Grid # 2 Project 83 Trap night 5

Date, time traps set 12/11/74 Date, time traps checked 12/12/74

Last toe clip # used on previous day 0025 Checked by Ellmwood - Sang

Begin 0031

Pt. #	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		P. man.	4000	♂	A	—	—	—	
-6		P. man.	0002	♂	A	—	—	—	
12		P. man.	0031	♂	A	—	—	—	

Grid 3 - Boot Hill Sage (5.1.2.3)

5.1.2.3 -1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Bothill Sage Grid #: 3 Trap Night: #1 Checked By: Sanz, Kestrel

Date, Time Traps Set: 10-19-74 Date, Time Traps Checked: 10-20-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
1-1		E. minimus	♂	A	—	0001			h.f. 27 5 lines to base of tail
1-7		P. maniculatus	♀	A	—	0002			hf 19 t 52
1-9		P. maniculatus	♂	A	—	0003			h.f. 19 t. 60
1-10		P. maniculatus	♀	A	—	0004			hf. 18 t 68
2-1		E. minimus	♂	A	dist. test.	0005			h.f. 26 5 line to bot

*Diagnostic characters, parasites, etc.

ECI

Rio Blanco

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.3-2

Location: Bedhill sage Grid #: 3 Trap Night: 2 Checked By: Sanz

Date, Time Traps Set: 10-20-74 Date, Time Traps Checked: 10-21-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		E. minimus	♀	A	—	0010			
B-6		P. maniculatus	♀	A	—	0002	R		
A-9		P. maniculatus	♂	A	—	0020			
C-11		P. maniculatus	♂	A	—	0003	R		
C-10		E. minimus	♂	A	—	0001	R		
C-6		E. minimus	♀	A	—	0030			
C-1		E minimus	♂	A	—	0040			

*Diagnostic characters, parasites, etc.

ECI

Rio Blanco

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.3-2

Location: Boothill Gage Grid #: 3 Trap Night: 3 Checked By: Sanz

Date, Time Traps Set: 10-21-74 Date, Time Traps Checked: 10-22-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. min.	♂	A	—	0040	R		
A-6		P. man	♀	A	—	0002	R		
A-7		E. min	♀	A	—	0030	R		
A-9		E. min	♂	A	—	0001	R		
A-11		E. min	♂	A	—	0050			
C-11		E. min	♂	A	—	0100			
C-10		P. man	♂	A	—	0003	R		
C-8		P. man	♀	A	—	0200			
C-7		P. man	♀?	A	—	0020	R		
C-3		P. man	♀	A	—	0300			

*Diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.3-4

RIO BLANCO

Location: BOOTHILL SAGE Grid #: 3 Trap Night: 4 Checked By: SANZ

Date, Time Traps Set: 10-22-74 Date, Time Traps Checked: 10-23-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. min	♀	A		0010	R		
A-3		E. min	♂	A		0040	R		
A-6		E. min	♂	A		0001	R		
B-8		E. min	♂	A		0050	R		
C-12		E. min	♂	A		0100	R		
C-11		P. man	♂	A		0003	R		
C-8		E. min	♀	A		0030	R		
C-7		P. man	♀	A		0200	R		
C-6		P. man	♀	A		0400			

*Diagnostic characters, parasites, etc.

ECI

5.1.2.3-5

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Rio blanco Bothill Sage Grid #: 3 Trap Night: 5 Checked By: Sanz

Date, Time Traps Set: 10-23-74 Date, Time Traps Checked: 10-24-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. minimus	♂	A	—	0040	R		
A-3		E. min	♀	A	—	1000			
A-6		P. maniculatus	♀	A		0002	R		
A-10		P. man	♂	A		0003	R		
A-11		E. min	♂	A		2000			
A-13		E. min	♂	A		0050	R		
C-12		E. min	♀	A		3000			
C-8		E. min	♂	A		0001	R		
C-7		P. man	♀	A		4000			
C-3		E. min	♀	A		0010	R		
[illegible]		P. man	♀	A		0300	R		

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Boot Hill Sage Grid # 3 Project 83 Trap night 1

Date, time traps set Dec. 7, 1974 9:00 Date, time traps checked Dec 8, 1974, 9:00

Last toe clip # used on previous day 4000 Checked by Sanz, Ellinwood

Trap. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
4-5		Peromyscus maniculatus	0011	♂	A	—	—	—	
2-13		P. maniculatus	0003	♂	A	—	—	—	
2-11		P. maniculatus	0012	♀	A	—			

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Boothill Sage Grid # 3 Project 83 Trap night 2

Date, time traps set 12/8/74 Date, time traps checked 12/9/74

Last toe clip # used on previous day 0012 Checked by Sanz, Ellinwood

t.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
8		P. maw.	0011	♂	A	—	—	—	

A-2
A-9

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Bothill - Sage Grid # 3 Project 83 Trap night 3

Date, time traps set 12/9/74 Date, time traps checked 12/10/74

Last toe clip # used on previous day 0012 Checked by Ellwood - Sang

Begin 0012

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-7		Peromyscus maniculatus	0011	♂	Adult	—			
-11		Peromyscus maniculatus	0012	♀	"	—			
12		P. man	0013	♂	"	—			sluggish
-13		P. man	0003	♂	"				

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Boothill Sage Grid # 3 Project 83 Trap night 4

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 0013 Checked by Sanz, Ellenwood

begin 0014

Trap Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
A-10		P. man	0011	♂	A	—	—	—	
B-10		P. man	0013	♂	A	—	—	—	
[illegible]-8		P. man.	0012	♀	A	—	—	—	

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Bot Hill Sage Grid # 3 Project 83 Trap night 5

Date, time traps set 12/11/74 Date, time traps checked 12/12/74

Last toe clip # used on previous day 0013 Checked by Elbinwood - Sanz

Begin 0014

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-5		P. man.	0014	♂	A				
-11		P. man.	0013	♂	A				
-11		P. man.	0003	♂	A				
-9		P. man	0011	♂	A				
-8		P. man.	0012	♀	A				

Grid 4 - Cliff P-J (5.1.2.4)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cliff PJ Grid #: 4 Trap Night: 1 Checked By: JC JB

Date, Time Traps Set: 1:00 10/19 Date, Time Traps Checked: 1:00 10/20

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-7		E. quad? kept	♂	A		0103			Necro
B-8		P. man	♀	SA		0104			
A-8		E min	♀	A		0105			
B-9		P man	♀	A		0201			
C-1		E. min	♂	A		0001			h.f. 28
C-2		E. min	♂	A		0002			h.f. 28
C-8		P. man	♂	A		0003			
C-10		P. trnei	♀	A		0004			h.f. 24 / ears 28
C-11		E. quad	♂	A		0005			h.f 31

*diagnostic characters, parasites, etc.

ECI

3.1.2.4 – 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cliff P.J Grid #: 4 Trap Night: 2 Checked By: JC JB

Date, Time Traps Set: 2:00 10/20 Date, Time Traps Checked: 2 30 10/21

0202

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-1		Emin	♂	A		0202			
C-1		Emin	~~♀~~	A		0203			in same trap?
C-2		Emin	♂	↓		0204			
C-3		Emin	♀	↓		0205			
C-7		Emin	♂	↓		0301			
C-8		Pman	♀	J.		0104R			
C-9		Emin	♀	A		0105R			
C-10		Emin	♂			0302			
C-11		Pman	♀			0303			
C-17		Equad	♂			0304			
B-1		P. min	♀	A		0010			
B-4		P. man	♂	A		0020			
B-6		P truci				0004	R		
B-8		P. min	♀	A		0030			
B-8		P. man	♀	A		0040			
B-9		P. quad		A		0005	R		
B-10		P. quad	♂	A		0050			h.f. 34

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cliff PJ Grid #: 4 Trap Night: 3 Checked By: JC, JB

Date, Time Traps Set: 1:00 10/21 Date, Time Traps Checked: 1:00 10/22

0305

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		Emin	♂	A	Test. dist 2	0305			
A-2		Emin	♀			0401			Same trap
A-4		Ptrei	♀			0402			
B-6		Pman	♂	SA		0020R			
A-7		Equad	♂			0005R			
B-8		Equad	♂			0354R			
B-9		Pman	♂			0003R			
B-10		Pman	♀			0403			
C-2		E. min	♀	A		0010	R		
C-6		E. min	♂	A		0100			
C-7		E. min	♂	A		0204	R		
C-8		E. min	♀	A		0105	R		
C-9		P. man	♂	A		0200			
C-11		E. min	♂	A		0302	R		
C-12		E. quad	♂	A		0050	R		
C-13		P. trei	♀	A		0004	R		
4-10		P. man	♂	A		0300			

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cliff P.J Grid #: 4 Trap Night: 4 Checked By: JB, JC

Date, Time Traps Set: 1:30 10/22 Date, Time Traps Checked: 11:30 10/23

0033

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
1-1		E. min				00 33			DEAD
-2		E. min	♀			02 05	R		
1-4		E. min	♀			00 10	R		
-4		E. min	♂			00 34			
-6		E. min	♀			00 35			
-7		E. min	♀			00 41			
-8		P. trnei	♀			00 42			
-9		P. man	♀			00 43			
-1		E. min	♀	A		0330			
-7		E. min	♂	A		0301	R		
1		E. min	♀	A		0030	R		
-9		E. quad	♂	A		0304	R		
-11		P. trnei	?	A		0340			
-12		E. quad	♂	A		0350			Kept

*diagnostic characters, parasites, etc.

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2.1.2.4-2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cliff P.J Grid #: 4 Trap Night: 5 Checked By: JC, JB

Date, Time Traps Set: 2:30 10/23 Date, Time Traps Checked: 2:30 10/24 0404

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		Emin	♀	A		0401R			
-4		Eximi	♂			0205R			also
-9		Eximi	♂			0301R			
-10		Emin	♂			0302R			
-8		B. min	♀	A		0030	R		Dead
-9		P. man	♂	A		0200	R		
-11		P. trei	♀	A		0004	R		

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cliff P.J Grid # 4 Project 83 Trap night 1

Date, time traps set 12/7 Date, time traps checked 12/8

Last toe clip # used on previous day 0403 Checked by JC DM

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		Tracks							
-2		P. maniculatus	0404	♂	A				
-4		Tracks							
3-7		Tracks							
-9		P truei	0004						recap
-10		P. maniculatus	0003	♂					recap
a-13		P truei	0340	♂					recap
2		tracks							
13		"							
-3		P. maniculatus	0400	♂	SA				
-4		P. maniculatus	1000	♂	A				
		P. maniculatus	0200	♂	SA				
-12		M. montanus	2000	♀	A				136-45

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cliff P.J. Grid # 4 Project 83 Trap night 2

Date, time traps set 12/9 1200 Date, time traps checked 12/9 1230

Last toe clip # used on previous day 2000 Checked by JC DM

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-2		P man	0400	♂	A				
-7		P man	0200	♂	↓				
-9		P man	0003	♂	↓				
-12		P trei	0340	♂	↓				
-11		P. trei	0004	♀	A				
-12		P. maniculatus	0200	♂	SA				
			↓ ?						

2.1.2.4-8 ECI

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cliff PJ Grid # 4 Project 83 Trap night 3

Date, time traps set 12/9 1230 Date, time traps checked 12/10

Last toe clip # used on previous day 2000 Checked by JC DM

apt. oc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-2		P. maniculatus	0404						Dead in Trap
-4		" "	0300	♂	ad				recap
-7		P. maniculatus	3000	♂	ad				
-9		" "	0003	♂	Sad				recap.
-11		P. truei	0340	♂	ad				"
-2		P. maniculatus	0405	♂	A				
-4		P. maniculatus	0110	♂	A				
-8		P. man.	0120	♂	A				
-11		P. man.	0200	♂	A				
-12		P. man.	0200	♂	A		necro		same # as above different animal

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cliff DT Grid # 4 Project 83 Trap night 4

Date, time traps set 12/10 Date, time traps checked 12/11

Last toe clip # used on previous day 3000 Checked by VC DM

Plot. No.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		P maniculatus	0405	♂	SA	—			micro
7		P maniculatus	4000	♀	A				
8		P maniculatus	0120	♂	SA				
9		P maniculatus	0403	♀	A				
10		P maniculatus	3000	♂	A				
2		P. maniculatus	0400	♂	SA				
4		P. maniculatus	0130	♀	SA				
11		P. maniculatus	0003	♂	A				
11		P. truei	0340	♂	A				

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cliff P.S. Grid # 4 Project 83 Trap night 5

Date, time traps set 12/11 Date, time traps checked 12/12

Last toe clip # used on previous day 0130 Checked by JC DM

t.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1		P man	1140	♀	A				this mark.
3		P man	0400	♂					Recap
7		P man	4000	♀					recap
11		P man	0003	♂	SA				recap Recap
17		P man	0150	♂					
		P. man	0044	♀	A				
9		P. man	3000	♂	A				
13		P. man	0045	♂	A				

Grid 5 - Box Elder Bottom (5.1.2.5)

5.1.2.5-1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Pine Elder Bottom Grid #: ~~4~~ 5 Trap Night: 1 Checked By: Sanz, [illegible]

Date, Time Traps Set: 10-19-74 Date, Time Traps Checked: 10-20-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-1		P. maniculatus	♀	A	—	0001			bicolored tail
C-3		P. maniculatus	♀	A	—	0002			" "
C-4		P. maniculatus	♀	A	—	0003			" "
B-5		P. maniculatus	♂	A	—	0004			" "
C-5		P. maniculatus	♂	A	—	0005			" "
C-6		P. maniculatus	♀	A	—	0010	Necro		" "
B-6		P. maniculatus	♀	A	—	0020			" "
B-7		P. maniculatus	♂	A	—	0030			" "
B-9		E. minimus	♂	A	—	0040			5 lines to [illegible]
C-9		P. maniculatus	♂	A	—	0050			bicolored tail
[illegible]		P. maniculatus	♂	A	—	0100			" "
C-12		P. maniculatus	♂	A	—	0200			" "
A-12		P. maniculatus	♂	A	—	0300	Necro		[illegible] 55% of body [illegible]
A-9		P. maniculatus	♀	A	—	0400			bicolored tail
A-8		E. minimus	♀	A	—	1000	Necro		[illegible]
A-7		P. maniculatus	♀	A	—	2000			bicolored tail
A-6		P. maniculatus	♂	A	—	3000			" "
A-4		E. minimus	♂	A	—	4000			5 lines to foot
A-3		E. minimus	♂	A	—	0001			" "
B4		E. minimus	♂	A	—	0012			" "

diagnostic characters, parasites, etc.

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[illegible] consultants Inc

Rio Blanco SMALL MMAL LIVE TRAPPING FIELD DATA SET 5.1.2.5 – 2

Location: [illegible] Grid #: 5 Trap Night: 2 Checked By: [illegible]

Date, Time Traps Set: 10-20-74 Date, Time Traps Checked: 10-21-74 [illegible]

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-1		P. maniculatus	♂	A	—	2001			
C-2		E. minimus	♀	A	—	3001			
C-3		P. maniculatus	♀	A	—	[illegible]			
C-4		P. maniculatus	♀	A	—	0111			
B-4		P. maniculatus	♂	A	—	[illegible]	R		
B-5		P. maniculatus	♀	A	—	0020	R	Necro	
C-5		P. maniculatus	♂	A	—	0005	R	Necro	
C-6		E. minimus	♀	A	—	0112			
B-6		P. maniculatus	♂	A	—	2000	R		
B-7		E. minimus	♂	A	—	0011*	R		
[illegible]		P. maniculatus	♂	A	—	0050	R	Necro	
B-8		E. minimus	♂	A	—	0013			
B-9		P. maniculatus	♂	A	—	0014			
C-9		P. maniculatus	♂	A	—	0015		Necro	
C-10		P. maniculatus	♀	A	—	0021		Necro	
C-10		P. maniculatus	♀	A	—	0022		Necro	
C-10		P. maniculatus	♂	A	—	0023			
C-12		P. maniculatus	♂	A	—	0024			
A-2		P. maniculatus	♀		—	0025			
A-3		P. maniculatus	♂	A	—	0100	R		
[illegible]		P. maniculatus	♀	A	—	3000	R		
A-6 A-4		P. maniculatus P. maniculatus	♂ ♂	A	—	0031 0032			
[illegible]		P. maniculatus	♂	A	—	0033			
A-1		P. maniculatus	♂	A	—	0034		Necro	

*diagnostic characters, parasites, etc.

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5.1.2.5 - 2

RIO BLANCO SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: FOX CREEK BOTTOM Grid #: ~~4~~ 5 Trap Night: 3 Checked By: SANZ

Date, Time Traps Set: 10-21-74 Date, Time Traps Checked: 10-22-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		P. man	♂	A	—	0035			
A-3		P. man	♂	A	—	0042			
A-4		E. min	♂	A	—	1000	R		
A-5		P. man	♂	A	—	0004	R		
A-6		P. man	♀	A	—	0040			
A-7		P. man	♀	A	—	0045			
A-9		P. man	♀	A	—	0000	R		
A-10		P. man	♂	A	—	0100	R	Neuro	
B-10		P. man	♂	A	—	0023	R		
B-9		E. min	♂	A	—	0053			
B-7		P. man	♂	A	—	0030	R		
B-6		P. man	♀	A	—	0054			
B-4		E. min	♀	A	—	0112	R		
C-1		P. man	♀	A	—	0041			
C-2		P. man	♀	A	—	0001	R		
C-3		P. man	♀	A	—	0002	R		
C-4		E. min.	♂	A	—	0011	R		
C-5		P. man.	♀	A	—	0043			
C-8		P. man.	♀	A	—	0051			
C-11		P. man.	♂	A	—	0054	R		
C-12		P. man.	♀	A	—	0052			

*diagnostic characters, parasites, etc.

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5.1.2.5-4

Rio Blanco

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: [illegible] Grid #: 5 Trap Night: 4 Checked By: [illegible]

Date, Time Traps Set: [illegible] Date, Time Traps Checked: [illegible]

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-1		P. man	♂	A		2001	R		
B-6		P. man	♂	A		0103			
B-6		P. man	♂	A		0004	R		
B-7		P. man	♀	A		0044	R		
C-8		P. man	♂	A		0104			
C-9		P. man	♂	A		0014	R		
B-10		P. man	♂	A		0105			
C-11		P. man	♂	A		0023	R		
C-12		P. man	♀	A		0201			
A-3		E. man	♂	A		0053	R		
A-10		P. man	♀	A		0102			
A-9		P. man	♂	A		0202			
A-6		E. man	♂	A		0203			
A-4		P. man	♂	A		0204			

diagnostic characters, parasites, etc.

5.0.2.5-5

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: [illegible] Grid #: 5 Trap Night: 5 Checked By: Sam

Date, Time Traps Set: 10-22-74 Date, Time Traps Checked: 10-26-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-1		[illegible]	♂	[illegible]		0205			
C-7		E. min	♂	A		0101			
B-10		P. man	♂	A		0202	R		
C-11		P. man	♂	A		0224	R		
C-12		D. mon	♀	A		0025	R		
A-13		E. min	♂	A		0053	R		
A-8		E. min	♂	A		0055			
A-2		P. man	♂	A		0154			

*diagnostic characters, parasites, etc.

ECI

Box Elder Bottom (5)

5.1.2.5-6 (ECI)

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

1	3	1030	4100	1403	0245	0435	1225	1415
2	4	1040	4200	1405	0251	0441	1231	1421
3	5	1050	4300 ♀ p.m.	0111	0252	0442	1232	1422
4	1	1100	4400 ♀ e.m.	0112	0253	0443	1233	1423
5	2	1200	1011	0113	0254	0444	1234	1424
0	3	1300	1012	0114	0255	0445	1235	1425
0	4	1400 ♂ p.m.	2001	0115	0311	0451	1241	1431
0	0	2002	1013	0121	0312	0452	1242	1432
0	0	2003	1014	0122	0313	0453	1243	1433
0	0	2004	1015	0123	0314	0454	1244	1434
0	0	2005	1021	0124	0315	0455	1245	1435
0	0	2010	1022	0125	0321	1111	1251	1441
0	0	2020	1023	0131	0322	1112	1252	1442
0	0	2030	1024	0132	0323	1113	1253	1443
0	0	2040	1025	0133	0324	1114	1254	1444
p. man. 20	0	2050	1031	0134	0325	1115	1255	1445
p. man. 30	0	2100	1032	0135	0331	1121	1311	1451
ε. min 40	0	2200	1033	0141	0332	1122	1312	1452
ε. min 00	1	2300	1034	0142	0333	1123	1313	1453
ε. min 00	2	2400	1035	0143	0334	1124	1314	1454
0	3	3001 ♀ e.m.	1041	0145	0335	1125	1315	1455
0	4	3002	1042	0151	0341	1131	1321	2111
0	5	3003	1043	0152	0342	1132	1322	2112
0	1	3004	1044	0153	0343	1133	1323	2113
0	2	3005	1045	0154 ♂ p.m.	0344	1134	1324	2114
0	3	3010	1051	0155	0345	1135	1325	2115
0	4	3020	1052	0211	0351	1141	1331	2121
0	5	3030	1053	0212	0352	1142	1332	2122
0	1	3040	1054	0213	0353	1143	1333	2123
0	2	3050	1055	0214	0354	1144	1334	2124
0	3	3100	1101	0215	0355	1145	1335	2125
0	5	3200	1102	0221	0411	1151	1341	2131
0	1	3300	1103	0222	0412	1152	1342	2132
0	2	3400	1104	0223	0413	1153	1343	2133
0	3	4001 ♀ p.m.	1105	0224	0414	1154	1344	2134
0	4	4002	1201	0225	0415	1155	1345	2135
0	5	4003	1202	0231	0421	1211	1351	2141
0	1	4004	1203	0232	0422	1212	1352	2142
0	2	4005	1204	0233	0423	1213	1353	2143
0	3	4010	1205	0234	0424	1214	1354	2144
0	4	4020	1301	0235	0425	1215	1355	2145
0	5	4030	1302	0241	0431	1221	1411	2151
0	1	4040	1304	0242	0432	1222	1412	2152
0	2	4050	1305	0243	0433	1223	1413	2153
			1401	0244	0434	1224	1414	2154
			1402					

2.1.2.3-8
2.1.2.2 1

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Box Elder Bottom Grid # 5 Project 83 Trap night 1

, time traps set 12/7/74 4:00 PM Date, time traps checked 12/8/74 4:00 PM

Last toe clip # used on previous day 0205 Checked by Sanz - Ellenwood

- Start w/ 0301

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-2		P. man.	0001	♂	A	—	—	—	
-4		P. man.	0010	♀	A	—	—	—	
-7		P. man.	0020	♂	A	—	—	—	
-12		M. longicaudus	0301	♂	A	—			
-11		P. man	0021	♀	A				
~~-6~~									
-3		P. man	3000	♂	A				NECRO
7-1		P. man	0041	♀	A				

A-2
A-6 - Empty trap
A-4
A-5
A-7 - Empty trap
A-8
A-9
A-10
B-8

2.1.2.5-8 (3)

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Box Elder Bottom Grid # 5 Project 83 Trap night 2

Date, time traps set 12/8/74 Date, time traps checked 12/9/74

Last toe clip # used on previous day 0301 Checked by Sanz, Ellenwood

Rept. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
T-4		P. man.	0030	♂	A	—	—	—	
T-5		P. man.	0004	♂	A	—	—	—	
T-11		P. man.	0025	♀	A	—	—	—	
T-12		Lagurus curtatus	0302	♀	A	—	—	—	T-1.2 cm
T-12		Microtus longicaudus	0303	♂	A	—	—	—	
T-10		P. man.	0105	♂	A	—	—	—	
T-2		P. man.	0304	♀	A	—	—	—	
T-1		P. man.	2000	♂	A	—	—	—	

2.1.2.2-7 (EW)

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Box Elder bottom Grid # 5 Project 83 Trap night 3

Date, time traps set 12/9/74 Date, time traps checked 12/10/74

Last toe clip # used on previous day 0304 Checked by Ellenwood - Sang

Begin 0305

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-4		Peromyscus maniculatus	3000	♂	A	—			
-5		P. man	0305	♀	A	—			
-7		P. man	0004	♂	A	—			
-6		P. man	X000	♀	A	—			missing right front to elbow
-8		P. man.	0105	♂	A	—			
-8		P. man	0030	♂	A	—			
-11		P. man	0025	♀	A	—			
-3		P. man	0001	♀	A	—			
4-2		P. man	4000	♀	A	—			
4-4		Spring - empty							
4-11		Spring - empty							

5.1.2.5 = 10

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Box Elder Bottom Grid # 5 Project 83 Trap night 4

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 0305 Checked by Sang, Ellerwood

begin 0401

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
C-6		P. maniculatus	0401	♀	A				
C-8		P. man.	0030	♂	A				
B-8		P. man	0025	♀	A				
C-11		P. man	0024	♂	A				
A-11		M. longicaudus	0301	♂	A				
A-2		P. maniculatus	0001	♀	A				

5.1.2.5 — 11

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Box Elder Bottom Grid # 5 Project 83 Trap night 5

Date, time traps set 12/11/74 Date, time traps checked 12/12/74

Last toe clip # used on previous day 0401 Checked by Ellmwood - Sanz

Begin 0402

Capt. Loc.	Total Weight	Species.	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
C-1		P. maniculatus	0402	♂	A				
C-2		P. man	0403	♂	A				
C-4		P. man	3000	♂	A				
A-2		P. man	4001	♀	A				
C-6		P. man	0043	♀	A				
C-10		P. man	0023	♂	A				
C-11		P. man	0024	♂	A				
A-13		P. man	0105	♂	A				Necro
A-12		M. longicaudus	0303	♀	A				
B-10		P. man.	0025	♀	A				

Grid 6 - Gasline P-J (5.1.2.6)

S.1.2.6-1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Gaylie P.J. Grid #: 6 Trap Night: 1 Checked By: JB, JC

Date, Time Traps Set: 3:00 10/19 Date, Time Traps Checked: 3:00 10/20

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-10		P. maniculatus	F	A		00 01			
A-4		E. quadrata	♀	A		0103			h.f 34

*diagnostic characters, parasites, etc.

S.1.2.6 - 3
S.1.2.6 - 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Gasline P.J Grid #: 6 Trap Night: 2 Checked By: JB, JC

Date, Time Traps Set: 3:00 10/20 Date, Time Traps Checked: 3:00 10/21

0002

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-7		P. man	♂	A		00 02			
B-5		E. min	♀	A		00 03			
B-4		P. man	♂	A		00 04			
C-13		E. quad	♀	A		0104			h.f 34
C-6		E. quad	♂	A		0105			h.f 34
C-3		P. trnei	♀	A		0201			

*diagnostic characters, parasites, etc.

ECI

5.1.2.6 - 3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Gasline P.J Grid #: 6 Trap Night: 3 Checked By: JC

Date, Time Traps Set: 10/21 4:00 Date, Time Traps Checked: 4:00 10/22

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-12		Equad	♀	A		0104R			
A-11		Equad	♂	A		0202			
A-5		Pman	♂	A		0002R			
A-4		Pman	♂	A		0203			
A-2		Emin	♂	A		0204			
C-13		Pman	♂	A		0005			

*diagnostic characters, parasites, etc.

ECI

5.1.2.6 - 4

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: [illegible] Grid #: 6 Trap Night: 5 Checked By: JC, JB

Date, Time Traps Set: 3:30 10/23 Date, Time Traps Checked: 3:30 10/24
0303

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
2-9		Emin	♀	A		00[illegible]			
3-7		Eamd	♂	A		0103 R			Possibly [illegible]
A-5		E. quad	♂	A		0030			

*diagnostic characters, parasites, etc.

ECI

2.1.2.6-2 (ECI)

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Gasline P-J Grid # 6 Project 83 Trap night 1

, time traps set 12/7 Date, time traps checked 12/8

Last toe clip # used on previous day 0302 Checked by JC DM

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-3		tracks							
-12		E. quad!	0303	♂	A				tail [illegible]
-5		P. man	0002	♂	A				
-6		E. min	0105	♂	A				

21,126 B

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Gaeline P.J. Grid # 6 Project 83 Trap night 2

Date, time traps set 12/8 Date, time traps checked 12/9

Last toe clip # used on previous day 0030 Checked by JC DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
78		E. quadrimaculatus	0105	♀	ad				recaptured
C-12		E quad	0303	♂	"				recaptured

5.1.2.6 - 1

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Cailive PJ Grid # 6 Project 83 Trap night 3

Date, time traps set 12/9 Date, time traps checked 12/10

Last toe clip # used on previous day 0303 Checked by JC, DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes Bobtail tail
-12		Equad	0303	♂	A	-			1303 remarked
		U							

3.1.2.6 - 8

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Coaline PJ Grid # 6 Project 83 Trap night 4

Date, time traps set 12/10 Date, time traps checked 12/11

Last toe clip # used on previous day 0303 Checked by JC DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1-12		E. quad	1303	♂	Ad			—	Bob tail [illegible]
2-13		Eqnad	0105	♂	N				[illegible]
		U							

3.1.2.6 - 4

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Gorline P5 Grid # 6 Project P3 Trap night 5

Date, time traps set 12/11 300 Date, time traps checked 12/12 300

Last toe clip # used on previous day 0303 Checked by JC / DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
A-10		E. quad	0304	♂	ad				
C-13		E. quad	1307	♂	ad				Bob tail
B-4		P. man.	0002	♂	A				
B-9		E. quad.	0105	♂	A				

Grid 7 - Rabbitbrush (5.1.2.7)

5.1.2.7 - 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Rabbitbrush Grid #: 7 Trap Night: 1 Checked By: JC JB

Date, Time Traps Set: 11:30 10/19 Date, Time Traps Checked: 800 10/20

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-1		E min	F	A		0103			
C-3		P man	F	A		0104			
C-5		E min	M	A		0105			
C-6		P man	M	A		0201			
C-9		P man	F	A		0202			
C-11		P man	F	A		0203			
A-1		E. min	♂	A		0001			h.f. 28
A-3		P. man	♂	A		0002			
A-3		P. man	♂	A		0003			
A-5		E. min	♀	A		0004			h.f. 25
7		P. man	♂	J		0005			
A-7		E. min	♀	A		0010			h.f. 30
B-8		P. man	♂	A		0020			
A-11		E. min	♀	A		0030			h.f. 30

*diagnostic characters, parasites, etc.

ECI

5.1.2.7 - 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Rabbitbrush Grid #: 7 Trap Night: 2 Checked By: JC - JB

Date, Time Traps Set: 8 10/20 Date, Time Traps Checked: 8 10/21 0004

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-13		E min	♀	A		0204			st 13 Sb 15
A-12		E min	♀	A		0205			st 33
A-11		E min	♀	A		0030 R			
A-9		E min	♀	A		0301			s 33
A-8		E min	♀	A		2000 R			ht < 30 from sp.
A-7		E min	♂	A		0302			necro
A5		E min	♀	A		0010 R			necro
A-4		E min	♀	A		0303			
A-3		P man	♂	J		0002 R			necro
B-4		E min	♀	A		0304			
2		E. min	♀	A		0040			
C-5		P. man	♂	J		0050			
C-5		P. man	♀	?		0100			Dead eaten by 0050
C-6		E. min	♂	A		0200			
C-8		E. min	♂	A		0105 R			Dead
C-9		E. min	?	A		0300			
C-10		E. min	♀	A		0400			
-11		Microt. long. (?)				1000			Dead
B-10		E. min	♀	A		2000			
B-8		E. min	♀	A		0004 R			
1									

*diagnostic characters, parasites, etc.

ECI

5.1.2.1-5

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Rabbitbrush Grid #: 7 Trap Night: 3 Checked By: JB, JC

Date, Time Traps Set: 10/30 10/21 Date, Time Traps Checked: 10/30 10/22

3000

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-13		E. min	♀	A		30 00			
C-10		E. min	♂	A		03 00	R		
B-9		E. min	♂	A		40 00			
-9		E. min	♀	J		04 00	R		
-6		E. min	♀	A		00 11			
-4		E. min	♂	A		03 04	R		
A-7		E. min	♀	A		0004	R		Dead: remarked as 03
A-4		E. min	♀	A		0403	R		from South P.J.
A-3		E. min	♀	A		0403	R		
A-1		E. min	♂	A		0305			
7		E. min	♂	A		0401			
B-8		E. min	♀	A		0402			

*ostic characters, parasites, etc.

ECI

5.1.2.7-4

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Rabbitbrush Grid #: 7 Trap Night: 4 Checked By: JC JB

Date, Time Traps Set: 830 10/22 Date, Time Traps Checked: 830 10/23 0404

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-4		Emin	♀	A		0303R			h.f 27
A-1		Emin	♀	A		0021R			
B-4		Emin	♂	A		0401E			micro
C-4		P. man	♀	A		0012			
C-13		E. min	♀	A		3000	R		Dead

*agnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Rabbitbrush Grid #: 7 Trap Night: 5 Checked By: J C JB

Date, Time Traps Set: 9:00 10/23 Date, Time Traps Checked: 9:00 10/24 1415

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		Emin	♀	A		0010E			Necro
C-4		Emin	♀	A		0303R			Necro
A-7		P. man	♂	A		1225			
A-4		P. man	♂	A		1231			

*diagnostic characters, parasites, etc.

ECI

5.1.2.7 – 6

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Rabbit brush Grid # 7 Project 83 Trap night 1

Date, time traps set 12/7 1200 Date, time traps checked 12/8 1200

Last toe clip # used on previous day 0402 Checked by Don, JC

Start w/ 1415

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
C-2		Tracks							
C-3		P man	0012	♀	ad				
C-5		P man	1225	♀	↓				
C-7		Tracks							
C-12		P man	1231	♂	↓				
A-2									
B-4		TRACKS							
B-5									
A-5									
A-6		M. longicaudus	1225	♂	A				body 109 / tail 6
B-8		Tracks							
[illegible]		M. longicaudus	1415	♀					body 109 / tail 5

5,1,2,4 = 1

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Rabbit brush Grid # 7 Project 83 Trap night 2

Date, time traps set 12/8 Date, time traps checked 12/9

Last toe clip # used on previous day 1231 Checked by JC DM

apt. oc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		P. maniculatus	1232	♂	Sad				
-2		P. maniculatus	1233	♂	S,ad				
-12		P. maniculatus	1234	♂	ad				

5 1 n d – 5
2 1 1 2 1 – 0

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Rabbitbrush Grid # 7 Project 83 Trap night 3

Date, time traps set 12/9 Date, time traps checked 12/10

Last toe clip # used on previous day 1234 Checked by JC DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
9-5		P. maniculatus	0005	♂	sad				recapture.
9-3		P. maniculatus	1241	♀	sad				
7-1		" "	1242	♂	ad				"
7-2		M. longicaudis ?	1243	♀	ad				158-48
7-12		P. maniculatus	1231	♂	ad				recapture
7-13		P. maniculatus	1244	♀	sad				"
7-12		M. longicaudis	1415						dead in trap
9-6		M. longicaudis	1235	♂	ad				150-50

5.1.2.1 – 4

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Rabbitbrush Grid # 7 Project 83 Trap night 4

Date, time traps set 12/10 Date, time traps checked 12/11

Last toe clip # used on previous day 1415 Checked by JC DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
7-12		P. man	1421	♂	ad				
1-11		P. man	1422	♀	ad				
5-9		P. man	1423	♂	ad				
3-7		M. longicaudus	1235		ad				recap.
7-10		P. man	0005	♂	ad				recap
8-6		P. man	1225		ad				Dead in Trap
7-4		P. man	0012	♀	ad				recap
7-3		P. man.	1424	♀	ad				–
7-4		P. man	1425	♂	ad				–
1-3		P. man.	1431	♀	ad				Lost trap
1-4		M. longicaudus	1432	♂	ad				168-53 –
[illegible]		P. man	unwritten	♀	ad	1			Dead in Trap
1-1		P. maniculatus	1233	♂	JA				Recap –

5.1.2.7 – 10 (ECI)
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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Rabbitbrush Grid # 7 Project 83 Trap night 5

Date, time traps set 12/11 1130 Date, time traps checked 12/12 1130

Last toe clip # used on previous day 1432 Checked by JC / DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
A-4		P. man	0012	♀	A				recap
B6		P. man	0005	♂					recap
B-7		M long	1235	♂					recap
B-8		P. man	1434	♀					
-11		P. man	1231	♂					recap
C-12		P. man	1234	♂					recap.
43		P. man	1233	♀					should be 143 misnote
7-10		P. man	1245	♀	SA				new capture
7-3		P. man	0003	♂	A				
7-2		P. man	no mark	♀	SA				dead
7-1		P. man	1425	♂	A				

Grid 8 - Remark Sage (5.1.2.8)

5.1.2.8-T

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: REMARK SAGE Grid #: 8 Trap Night: 1 Checked By: Sanz, Kestrel

Date, Time Traps Set: 10-19-74 Date, Time Traps Checked: 10-20-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-1		P. maniculatus	♂	A		0001			t60 hf 19
-3		P. maniculatus	♂	A		0002			t69 hf 19 ear 15
-7		P. maniculatus	♀	A		0003			t65 hf 18
-9		P. maniculatus	♂	A		0004			t61 hf 16
-10		P. maniculatus	♂	A		0005			hf 19 ~~t~~ T-59
-10		P. maniculatus	♂	A		0010			hf 17 t61 e.
-13		P. maniculatus	♀	A		0020			hf 17 t 66 e 18
-13		P. maniculatus	♂	A		0013			hf 17 e 17 t 65 greyish brown
-10		P. maniculatus	♀	A		0030			hf 16 e 15 t 57
-9		E. minimus	♂	A	swollen testis	0040			SBOT hf 28
		P. maniculatus	♀	A		0050			hf 19 t 54
-6		E. minimus	♂	A		0100			SBOT hf 29
5		P. maniculatus	♂	A		0200			hd 19 t 59 e 16
13		P. maniculatus	♂	A		0300			hd 19 t 65 e 17
42		E. minimus	♂	A		0400			SBOT hf 26

*Diagnostic characters, parasites, etc.

ECI

5.1.2.8-2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Remarked Sage Grid #: 8 Trap Night: 2 Checked By: Kestrel

Date, Time Traps Set: 10-20-74 Date, Time Traps Checked: 10-21-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-12		P. maniculatus	♂	A		1000			
A-12		E. minimus	♂	A		2000			
A-11		P. maniculatus	♀	A		3000			
C-10		P. maniculatus	♀	A		0004	r necro		
E-10		E. minimus	♀	A		4000			
C-9		E. minimus	♂	A		0040	r		
B-9		E. minimus	♂	A		0011			
D-9		P. maniculatus	♂	A		0005	r necro		
B-7		E. minimus	♂	A		0012			
C-6		P. maniculatus	♀	A		0003	✓		
		P. maniculatus	♂	A		0200	r		
B-5		E. minimus	♂	A	swollen testes	0400	r		
C-4		P. maniculatus	♂	A		0002	r		
B-4		P. maniculatus	♀	A		0013			
A-3		P. maniculatus	♂	A		0300	r		
C-3		E. minimus	♂	A		0014			
E-1		P. maniculatus	♀	A		0015			
A-2		P. maniculatus	♂	A		0021			
		Pitfall	P.	maniculatus					

diagnostic characters, parasites, etc.

APPE_ II
5.1.2.8-3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Pemark Sage Grid #: 8 Trap Night: 3 Checked By: Kestrel

Date, Time Traps Set: 10/21/74 Date, Time Traps Checked: 10/22/74

0023

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-13		P. maniculatus	♀	A		0023			
-10		P. maniculatus	♂	A		0010	r		necro
-10		P. maniculatus	♀	A		0003	r		necro
-9		E. minimus	♂	A		0004	r		natural toe clip?
-9		E. minimus	♂	A		0024			
-8		P. maniculatus		A		escaped			
-6		P. maniculatus	♂	A		0200	r		
-5		E. minimus	♂	A		0025			necro
-5		E. minimus	♂	A		0012	r		necro
-4		P. maniculatus	♂	A		0015	r		poor condition
-4		P. maniculatus	♀	A		0031			necro
-3		P. maniculatus	♀	A		0032			
A-3		E. minimus	♂	A		0033			
A-2		E. minimus	♂	A		0014	r		
-2		P. maniculatus	♀	A		0034			necro

tic characters, parasites, etc.

ECI

5.1.2.8 — 4

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Remarked Sage Grid #: 8 Trap Night: 4 Checked By: Kestel

Date, Time Traps Set: 10/22/74 Date, Time Traps Checked: 10/23/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
4-13		P. maniculatus	♂	A		0023	✓		
4-12		P. maniculatus	♂	A		1000	✓		
4-10		P. maniculatus	♀	A		3050	✓		check for clip
3-8		P. maniculatus	♀	A		0035			
2-6		P. maniculatus	♀	A		0041			
1-5		P. maniculatus	♀	J		0013	✓		
2-5		P. maniculatus	♂	J		0200	✓		
2-5		P. maniculatus	♀	A		0042			
2-1		P. maniculatus	♂	A		0310	✓		

*diagnostic characters, parasites, etc.

ECI

SMAL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.8 - 5

Location: Remarked Sage Grid #: 8 Trap Night: 3 Checked By: Kestel

Date, Time Traps Set: 10/23/74 Date, Time Traps Checked: 10/24/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-13		P. maniculatus	♂	A		0023	R		
A-12		E. minimus	♂	A		0043			
B-10		E. minimus	♂	A		0044			
B9		P. maniculatus	♂	A		0045			
A9		E. minimus	♂	A		0011	R		
A-7		E. minimus	♂	A		0001	R		
B-7		P. maniculatus	♀	A		0042	P		
A-6		P. maniculatus	♂	A		0051			
B-6		P. maniculatus	♀	A		3050	R		
A-5		E. minimus	♂	A		0100	R		
4		P. maniculatus	♀	A		0052			
B-3		P. maniculatus	♂	A		0002	R		
B-2		P. maniculatus	♂	A		0021	R		
A-2		P. maniculatus	♂	A		0300	P		
A-1		E. minimus	♂	A		0053			necro

*diagnostic characters, parasites, etc.

9-b - Snapped Trap Door

ECI

5.1.2.8 — 8
5.1.2.8 — 6

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Remark Sage Grid # 8 Project 83 Trap night 1

Date, time traps set 12/7/74 Date, time traps checked 12/8/74

Last toe clip # used on previous day 0053 Checked by Ellinwood - Sanz

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
C-11	—	M. longicaudus	0054	M	A	—			t=46 , 126
B-6	—	Snapped trap + soil							

S.1.2.8 — 8
S.1.2.8 — 1

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Remark Snye Grid # 8 Project 83 Trap night 2

Date, time traps set 12/8/74 Date, time traps checked 12/9/74

Last toe clip # used on previous day 0054 Checked by Sanz, Ellinwood

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
C-12		Liguiis cuitatus	0055	♂	A				

A-6 - Empty Trap
A-5 " " "

5,1,2,8 — 8 ECI

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Remark Sage Grid # 8 Project 83 Trap night 3

Date, time traps set 12/9/74 Date, time traps checked 12/10/74

Last toe clip # used on previous day 0055 Checked by Ellinwood — Sanz

Begin 0101

NO Captures

apt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-10		Sprung - Empty							
3-6		Sprung - invrtn							

3,1,2,8 – 9

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name REMARK SALE Grid # 8 Project 83 Trap night 4

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 0055 Checked by Sang. Eleinwood

Begin 0101

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
C-4		Lagurus curtatus	0101	♂	A				
C-11		M. longicaudus	0054	♂	A				
C-12		Lagurus curtatus	0055	♀	A				
A-13		Lagurus curtatus	0102?	♂	A				

2.1.2.8-10

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Remark sage Grid # 8 Project 83 Trap night 5

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 0102 Checked by Ellmwood - Sarry

Begin 0103

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
C-2		lagurus curtatus	0103	♂	A	—	—	—	Necro
C-11		P. man	0104	♀	A	—	—	—	
C-12		P. man	0105	♂	A	—	—	—	
F-15		lagurus curtatus	0201	♂	A	—	—	—	
A-10		P. man	0202	♀	A	—	—	—	
B-8		P. Man	0005	♂	A	—	—	—	
B-5		P. man	0035	♀	A	—	—	—	
A-2		lagurus curtatus	0202	♂	A	—	—	—	

Grid 9 - Upland Meadow (5.1.2.9)

5.1.2.9 - 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: UPLAND MEADOW Grid #: ~~10~~ 9 Trap Night: 1 Checked By: Sanz

Date, Time Traps Set: 10-19-74 Date, Time Traps Checked: 10-20-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-13		Peromyscus maniculatus	♂	S.A.	–	0001			t.51 h.f. = 15
A-12		P. maniculatus	♀	A	–	0002			t.57 h.f = 16
A-11		P. maniculatus	♂	A	–	0003			t.58 h.f -18
A-10		P. maniculatus	♂	A	–	0004			t.57 h.f = 18
B-10		E. minimus	♀	A	–	0005			h.f. 27 5 stripe to base of
B-9		P. maniculatus	♀	A	–	0010			h.f. 17 t = 69
A-9		P. maniculatus	♂	A	–	0020			h.f 18 t = 58
B-5		P. maniculatus	♀	A	–	0030			h.f. -16 t = 60
C-4		P. maniculatus	♂	A	–	0040			h.f 19 t = 59
C-7		P. maniculatus	♀	A	–	0050			h.f 17 t = 58
[illegible]		P. maniculatus	♀	A		0100			h.f 18 t = 55
[illegible]		P. maniculatus	♀	A		0200			h.f 19 t = 58
12		P. maniculatus	♂	A		0300			h.f. 18 t = 63

*diagnostic characters, parasites, etc.

ECI

5.1.2.9-2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Upland meadow Grid #: 9 Trap Night: 2 Checked By: Sanz

Time Traps Set: 10:20-74 Date, Time Traps Checked: 10-21-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-11	-	Peromyscus maniculatus	♂	A	—	0101			
C-10		P. maniculatus	♂	A	—	0300	R		
B-9	—	P. maniculatus	♀	A	—	0010	R	—	
C-8	—	P. maniculatus	♂	A	—	0204	R		
B-8		E. minimus	♂	A	[illegible]	0201	—		
B-7	—	E. minimus	♀	A	—	0301	—		
C-7	—	P. maniculatus	♂	A	—	0010	R		
B-5	—	P. maniculatus	♀	A	—	0050	R		
B-4		P. maniculatus	♂	A	—	0400	—		
[illegible]		P. maniculatus	♀	A	—	1000			
A-7		E. minimus	♀	A	—	2000			
A-9		P. maniculatus	♂	A	—	0020	R		
A-10		E. minimus	♂	A	—	3000			
A-11		E. minimus	♂	A	—	4000			
A-12		P. maniculatus	♂	A	—	0011			
A-13		P. maniculatus	♀	A	—	0002	R		

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.9-2

Location: UPLAND MEADOW Grid #: 9 Trap Night: 3 Checked By: Sanz

Date, Time Traps Set: 10-21-74 Date, Time Traps Checked: 10-22-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-11		P. maniculatus	♀	A	—	0200	R		Necro
C-10		P. man.	♂	A	—	0200	R		
B-9		C. maniculatus	♀	A	—	0005	R		
C-9		E. min.	♂	A	—	0013			
B-5		P. man	♀	A	—	0030	R		
B-4		P. man	♀	A	—	0013			
C-1		P. man	♂	A	—	0014			
A-3		P. man	♂	A	—	0015			
A-7		P. man	♀	A	—	0050	R		
A-14		E. min.	♂	A	—	0201	R		
A-11		P. man.	♀	A	—	0010	R		
A-12		E. min	♂	A	—	0021			
A-13		E. min	♂	A	—	0022			

*diagnostic characters, parasites, etc.

ECI

5.1.2.9-4

RIO BLANCO

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: UPLAND MEADOW Grid #: 9 Trap Night: 4 Checked By: Sam

Date, Time Traps Set: 10-22-74 Date, Time Traps Checked: 10-23-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-11		P. maniculatus	♂	A		0101	R		
C-10		P. maniculatus	♂	A		0223			
C-8		P. man	♂	A		0224			
C-7		P. man	♀	A		0100	R		
B-5		P. man	♂	A		0225			
A-5		P. man	♀	A		0231			
C-4		E. minimus	♀	A		0032			
C-3		P. man	♀	A		0030	R		
C-1		P. man	♂	A		0033			
A-8		P. man	♀	A		0034			
A-3		P. man	♀	A		0035			
A-5		P. man	♂	A		0001	R		
A-7		E. min	♂	A		0201	R		
A-8		E. min	♀	A		0301	R		
A-9		P. man	♂	A		0003	R		
A-10		P. man	♂			0001	R		
A-12		P. man	♂	A		0241			

*diagnostic characters, parasites, etc.

SMALL MMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.9-5

Location: [illegible] Grid #: 9 Trap Night: 5 Checked By: [illegible]

Date, Time Traps Set: 10-23-74 Date, Time Traps Checked: 10-28-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-11		P. maniculatus	♂	A	—	0015	R		
C-7		P. man	♂	A	—	0042		Mon	
C-5		P. man	♀	A	—	0031	R		
C-3		P. man	♂	A	—	[illegible]	R		
C-2		E. min	♂	A	—	0043			
B-5		P. man	♂	A	—	0024	R		
A-6		P. man	♂	A	—	[illegible]	R		
A-7		E. min.	♀	A	—	0044			
A-9		P. man.	♂	A	—	0000	R		
A-12		P. man	♀	A	—	0002	R		
[illegible]-13		E. min	♂	A	—	4000	R		

*diagnostic characters, parasites, etc.

UPLAND MEADOW

SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

ECI
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0[illegible]1	0103	1030	4100	1403	0245	0435	1225	1415
0[illegible]2	0104	1040	4200	1405	0251	0441	1231	1421
0[illegible]3	0105	1050	4300	0111	0252	0442	1232	1422
0[illegible]4	[illegible]	1100	4400	0112	0253	0443	1233	1423
0[illegible]5	0202	1200	1011	0113	0254	0444	1234	1424
0[illegible]0	0203	1300	1012	0114	0255	0445	1235	1425
0[illegible]0	0204	1400	1013	0115	0311	0451	1241	1431
0[illegible]0	0205	2001	1014	0121	0312	0452	1242	1432
0[illegible]0	[illegible]	2002	1015	0122	0313	0453	1243	1433
0[illegible]0	0302	2003	1021	0123	0314	0454	1244	1434
[illegible] P.M. 0[illegible]0	0303	2004	1022	0124	0315	0455	1245	1435
[illegible]rked 0[illegible]0	0304	2005	1023	0125	0321	1111	1251	1441
[illegible]100 [illegible]0	0305	2010	1024	0131	0322	1112	1252	1442
[illegible]101 0[illegible]0	0401	2020	1025	0132	0323	1113	1253	1443
1[illegible]0	0402	2030	1031	0133	0324	1114	1254	1444
2[illegible]0	0403	2040	1032	0134	0325	1115	1255	1445
3[illegible]0	0404	2050	1033	0135	0331	1121	1311	1451
4[illegible]0	0405	2100	1034	0141	0332	1122	1312	1452
[illegible]	0110	2200	1035	0142	0333	1123	1313	1453
0[illegible]2	0120	2300	1041	0143	0334	1124	1314	1454
0[illegible]3	0130	2400	1042	0145	0335	1125	1315	1455
0[illegible]4	0140	3001	1043	0151	0341	1131	1321	2111
0[illegible]5	0150	3002	1044	0152	0342	1132	1322	2112
0[illegible]1	0210	3003	1045	0153	0343	1133	1323	2113
0[illegible]2	0220	3004	1051	0154	0344	1134	1324	2114
0[illegible]3	0230	3005	1052	0155	0345	1135	1325	2115
0[illegible]4	0240	3010	1053	0211	0351	1141	1331	2121
0[illegible]5	0250	3020	1054	0212	0352	1142	1332	2122
0[illegible]1	0310	3030	1055	0213	0353	1143	1333	2123
0[illegible]2	0320	3040	1101	0214	0354	1144	1334	2124
0[illegible]3	0330	3050	1102	0215	0355	1145	1335	2125
0[illegible]4	0340	3100	1103	0221	0411	1151	1341	2131
0[illegible]5	0350	3200	1104	0222	0412	1152	1342	2132
[illegible]	0410	3300	1105	0223	0413	1153	1343	2133
0[illegible]2	0420	3400	1201	0224	0414	1154	1344	2134
0[illegible]3	0430	4001	1202	0225	0415	1155	1345	2135
[illegible]	0440	4002	1203	0231	0421	1211	1351	2141
0045	0450	4003	1204	0232	0422	1212	1352	2142
0051	1001	4004	1205	0233	0423	1213	1353	2143
0052	1002	4005	1301	0234	0424	1214	1354	2144
0053	1003	4010	1302	0235	0425	1215	1355	2145
0054	1004	4020	1304	0241	0431	1221	1411	2151
0055	1005	4030	1305	0242	0432	1222	1412	2152
0101	1010	4040	1401	0243	0433	1223	1413	2153
0102	1020	4050	1402	0244	0434	1224	1414	2154

5/1/74-8 (1)

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Upland Meadow Grid # 9 Project 83 Trap night 1

Date, time traps set 12/7/74 Date, time traps checked 12/8/74

Last toe clip # used on previous day 0044 Checked by Ellwood - Sanny

Start w/ 0045

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		No Captures							
	A-10	" "							
	A-6	" "							
	C-10	Mouse tracks -							
	C-7	" "							

5.1.2.9-8 ECI

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Upland Meadow Grid # 9 Project 83 Trap night 2

e, time traps set 12/8/74 Date, time traps checked 12/9/74

Last toe clip # used on previous day 0044 Checked by Sarg, Ellinwood

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		No Captures!							
	C-7 -	Tracks							

5.1.2.9-9 ECI
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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Upland Meadow Grid # 9 Project 83 Trap night 3

te, time traps set 12/9/74 Date, time traps checked 12/10/74

Last toe clip # used on previous day 0044 Checked by Ellmreich - Sang

Begin 0045

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
3-7		Lagurus curtatus	0045	♂	—	—			
B-5		EMPTY-Sprung							

5.1.2.4-10

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Upland meadows Grid # 9 Project 83 Trap night 4

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 0045 Checked by Sanz, Ellenwood

begin 0051

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
C-7	–	Lagurus curtatus	0045	♂	A				
C-12		" ? "	0051	♂	A				

5.1.2.9-11

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Upland Meadow Grid # 9 Project 63 Trap night 5

Date, time traps set 12/10/74 Date, time traps checked 12/12/74

Last toe clip # used on previous day 0051 Checked by Ellenwood - Sang

Begin 0052

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-12		P. man	0002	♀	A				
-11		P. man	0300	♂	A				
-3		Mic. longicaudus	0052	♀	A				Tail- 58mm 16
-2		P. man	0035	♀	A				
-1		P. Man	0033	♂	A				
-5		P. man	0040	♂	A				
-7		Lagurus curtatus	0045	♂	A			Necro	
-10		P. man.	0023	♂	A				
-11		P. man.	0053	♂	A				
-13		P. man	0011	♂	A				

Grid 10 - Tower P-J/Brush (5.1.2.10)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Tower P.J-Brush Grid #: 10 Trap Night: 1 Checked By: JB-JC

Date, Time Traps Set: 11:00 AM 10/19 Date, Time Traps Checked: 7:30 10/20

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-2		P. Man	M	ADULT		0001			tail < body
-4		E. Min	F	ADULT		0002			Hind foot 26
-7		E. Min	F	A		0003			HF 28 skull-30
-9		P. Man	M	A		0004			tail < body
-12		P Man	M	A		0005			tail < body
-13		P. Man	F	A		0010			tail < body
6		E. Min	M	A		0020			hind foot 28
-4		P. Man	F	A		0030			
-13		P. man	♂	A		0103			
10		P. man	♀	SA		0104			
		P. man	♂	A		0105			

*Diagnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Tower P.J Brush Grid #: 10 Trap Night: 2 Checked By: JC JB

Date, Time Traps Set: 7:30 10/20 Date, Time Traps Checked: 7:30 10/21

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-13		P man	♂	A		0201			
C-12		E. quad.	♀	A		0202			Necro
C-11		P man	♂	A		0203			
C-9		P man	♀			0205			
C-8		P man	♂	A		0204			
C-7		E quad	♀	A		0205			h.f 33 Sb. 18
C-4		E quad	♂	A		0301			h.f 34 sb 1
C-3		E min	♂	A		0302			h.f 30 sb 30
C-2		E min	♀	A		0303			h.f <30
1-1		P. man	♂	J		0040			
		P. man	♂	A		0050			
		E. min	♂	A		0100			
7-7		E. min	♂	A		0200			
7-11		E. min	♂	A		0300			

*diagnostic characters, parasites, etc.

ECI

S.1.2.10-3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Tower P.J. Brush Grid #: 10 Trap Night: 3 Checked By: JC JB

Date, Time Traps Set: 8:00 10/21 Date, Time Traps Checked: 10:00 10/22

0304

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
1-11		Emin	♀	A		0003R			
1-9		Pman	♀	A		0304			
1-6		Emin	♂	A		0305			
1-4		Emin	♂	A		0200R			
1-2		Emin	♀	A		0401			
1-1		Emin	♂	A		0402			
-13		E. min	♂	A		0400			
-12		P. man	♂	A		0005	R		
-11		P. man	♂	A		0203	R		Dead
-10		P. man	♂	A		0103	R		
		E. min	?	A		0002	R		
		E. min	♂	A		1000			

*diagnostic characters, parasites, etc.

ECI

5.1.2.10-4

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Tower P.J Grid #: 10 Trap Night: 4 Checked By: JB JC

Date, Time Traps Set: 8:00 10/22 Date, Time Traps Checked: 8:00 10/23 2000

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. min	♀	A		04 01	R		
-2		E. min	♂	A		04 02	R		
		E. min	♀	A		20 00			
6		P. man	♂	A		01 05	R		
-7		E. min	♂	A		01 00	R		
-8		E. quad?	♀	A		02 05	R		
A-11		P. man	♂	A		30 00			
A-12		E. quad	♀	A		40 00			
B-10		E. min	♂	A		03 05	R		
-11		E. min	♂	A		0300	R		
		P. man	♂	A		0403			
		P. man	♂	A		0404			
-8		P. man	♂	A		0405			
C-3		P. man	♂	A		0050	R		
C-2		E. min	♂	A		1000	R		
B-5		E. min	♀	A		0002	R		

*diagnostic characters, parasites, etc.

ECI

5.1.2.10 – 5

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Tower R. J. Grid #: 10 Trap Night: 5 Checked By: J C JB

Date, Time Traps Set: 5:00 10/23 Date, Time Traps Checked: 8:00 10/24

0110

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-12		Eauard	♂	A		0110			
-11		P. man	♂	A		0120			
A-7		Eauard	♀	A		0205R			
A-6		E. min	♂	A		0302R			
A-3		E. min	♂	A		0150			
A-2		E. min	♀	A		0401R			
A-1		E. min	♂	A		0140			
-2		E. min	♂	A		0402	R		Dead
-3		E. min	♂	A		0200	R		Dead
-10		E. min	♂	A		0020	R		
		E. min	♂	A		0300	R		Dead
		E. min	♀	A		0003	R		Dead
2		E. min	♂	A		0400	R		Dead
-10		P. man	♀	A		0104	R		

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tower PJ/Brush Grid # 10 Project 83 Trap night 1

Date, time traps set 12 12/7 Date, time traps checked 2 12/8

Last toe clip # used on previous day 4000 Checked by SC, DM

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
NC		Tracks							around traps
		— NO CAPTURES —							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tower PJ / Ponderosa Grid # 10 Project 83 Trap night 2

Date, time traps set 12/8 Date, time traps checked 12/9

Last toe clip # used on previous day 4000 Checked by JC DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		no captures							

3.7.2.10-8

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tower Pt/Brush Grid # 10 Project 83 Trap night 3

Date, time traps set 12/9 Date, time traps checked 12/10

Last toe clip # used on previous day 0140 Checked by JC DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		no captures							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tower PJ/Brush Grid # 10 Project 83 Trap night 4

Date, time traps set 12/10 Date, time traps checked 12/11

Last toe clip # used on previous day 4000 Checked by JC/DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1-13		Pimaa	0005	M	ad				[illegible]
7-12		Pimaa	0103	♂	ad				[illegible]

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tower PT/Brush Grid # 10 Project 83 Trap night 5

Date, time traps set 12/11 7:30 Date, time traps checked 12/12 11:30

Last toe clip # used on previous day 0140 Checked by JC/DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-12		P. maniculatus	0130	♀	SA				recap
-12		P. man	0103	♂	A				
-11		P. man	3000	♂	A				

Grid 11 - Tract Mtn Brush (5.1.2.11)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.11-1

Location: TRACT MT. RANGE Grid #: 11 Trap Night: 1 Checked By: Sanz

Date, Time Traps Set: 10-19-74 Date, Time Traps Checked: 10-20-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		P. maniculatus	♀	A	–	0001			h.f. 17 t=71 distinct bicolored tail
A-4		P. maniculatus	♀	A	–	0002			h.f. 17 t=65 "
B-4		E. minimus	♀	A	–	0003			h.f. 26 5 lines to [illegible]
B-5		E. minimus	♀	A	–	0004			h.f. 28 " " "
B-6		P. maniculatus	♂	A	–	0005			h.f. 19 t=59
B-8		E. minimus	♂	A	–	0010			h.f. 26 5 lines to [illegible]
A-12		E. minimus	♀	A	–	0020			h.f. 27 " " "
C-13		P. maniculatus	♂	A	–	0030			h.f. 17 t=60
C-12		E. minimus	♂	A	–	0040			h.f. 27 5 lines to both
C-6		E. minimus	♀	A	–	0050			h.f. 26 " " "

diagnostic characters, parasites, etc.

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Rio blanco

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Tract M. Brush Grid #: 11 Trap Night: 2 Checked By: Sara

Date, Time Traps Set: 10-20-94 Date, Time Traps Checked: 10-21-94

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. minimus	♂	A	–	0100			
A-2		P. maniculatus	♀	A	–	0001	R		
B-4		P. maniculatus	♂	A	–	0200			
B-5		E. minimus	♀	A	–	0050	R		
A-6		E. minimus	♀	A	–	0004	R		
B-7		P. maniculatus	♂	A	–	0005	R		
A-8		E. minimus	♂	A	–	0300			
B-8		E. minimus	♂	A	–	0400			
A-9		E. minimus	♂	A	–	0040	R		
A-10		E. minimus	♂	A	–	1000			
[illegible]		E. minimus	♂	A	–	0010			
A-13		E. minimus	♀	A	–	0020	R		
-13		P. maniculatus	♂	A	–	2000			
11		E. minimus	♀	A	–	3000			
-6		E. minimus	♀	A	–	4000			
C-3		E. minimus	♀	A	–	0003	R		
C-2		P. maniculatus	♀	A	–	0011			
C-1		E. minimus	♀	A	–	0012			

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 2.1.2.11-3

Location: TRACT MT. BRUSH Grid #: 11 Trap Night: 3 Checked By: Sanz

Date, Time Traps Set: [illegible] Date, Time Traps Checked: [illegible]

Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-4		P. maniculatus	♀	A	—	0002	P		
B-4		[illegible]	♀	A	—	[illegible]	P		
A-7		P. maniculatus	♂	A	—	0200	P		
B-8		E. min	♀	A	—	0004	R		
A-9		E. min	♀	A	—	0013			
B-10		E. min	♀	A	—	0020	R		
A-10		E. min	♂	A	—	0300	P		
C-13		P. maniculatus	♂	A	—	[illegible]	P		
C-12		E. min	♀	A	—	3000	R		
C-11		E. min	♀	A	—	0014			
[illegible]		E. min	♀	A	—	4000	R		
C-8		E. min	♂	A	—	[illegible]	P		
C-2		E. min	♂	A	—	[illegible]	P		
C-4		E. min	♀	A	—	[illegible]			
C-1		E. min	♂	A	—	0021			

*diagnostic characters, parasites, etc.

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RIO BLANCO SMAL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.1F-4

Location: [illegible] Grid #: 11 Trap Night: 4 Checked By: [illegible]

Date, Time Traps Set: [illegible] Date, Time Traps Checked: [illegible]

Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. min.	♂	A		0100	R	Dead	
A-2		E. min	♂	A		[illegible]			
A-4		E. min	♀	A		0050	R		
B-4		P. man	♀	A		0023			
B-6		E. min	♀	A		0004	R		
B-8		P. man	♂	A		0024			
B-9		E. min	♀	A		4000	R		
A-9		E. min	♂	A		0300	R		
C-13		E. min	♂	A		0040	R		
C-12		E. min	♂	A		0010	R		
[illegible]		P. man	♂	A		0001	R		
C-6		P. man	♂	A		0031			
C-7		E. min	♂	A		0025			
C-3		P. man	♀	A		0011	R		
C-1		E. min	♀	A		0012	R		

*diagnostic characters, parasites, etc.

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Rio blanco SMALL ANIMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.11-2

Location: [illegible] brush Grid #: 11 Trap Night: 5 Checked By: [illegible]

Date, Time Traps Set: [illegible] Date, Time Traps Checked: [illegible]

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		[illegible]	♂	A	—	0032			
A-4		P. maniculatus	♂	A	—	0033			
A-4		P. man.	♀	A	—	0034			
B-1		E. leucopus	♂	A	—	0035			
B-7		P. man.	♂	A	—	[illegible]			
A-7		E. [illegible]	♀	A	—	0004	R		
C-13		E. leucopus	♂	A	—	[illegible]	R		
C-6		E. leucopus	♀	A	—	[illegible]	R		
C-3		P. maniculatus	♀	A	—	0011	R		

*diagnostic characters, parasites, etc.

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TRACT MT. BRUSH

5.1.2.11-6 (ECI)

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

0001	0103	1030	4100	1403	0245	0435	1225	1415
0002	0104	1040	4200	1405	0251	0441	1231	1421
0003	0105	1050	4300	0111	0252	0442	1232	1422
0004	0201	1100	4400	0112	0253	0443	1233	1423
0005	0202	1200	1011	0113	0254	0444	1234	1424
0010	0203	1300	1012	0114	0255	0445	1235	1425
0020	0204	1400	1013	0115	0311	0451	1241	1431
0030	0205	2001	1014	0121	0312	0452	1242	1432
0040	0301	2002	1015	0122	0313	0453	1243	1433
0050	0302	2003	1021	0123	0314	0454	1244	1434
0100	0303	2004	1022	0124	0315	0455	1245	1435
0200	0304	2005	1023	0125	0321	1111	1251	1441
0300	0305	2010	1024	0131	0322	1112	1252	1442
0400	0401	2020	1025	0132	0323	1113	1253	1443
1000	0402	2030	1031	0133	0324	1114	1254	1444
2000	0403	2040	1032	0134	0325	1115	1255	1445
3000	0404	2050	1033	0135	0331	1121	1311	1451
4000	0405	2100	1034	0141	0332	1122	1312	1452
0011	0110	2200	1035	0142	0333	1123	1313	1453
0012	0120	2300	1041	0143	0334	1124	1314	1454
0013	0130	2400	1042	0145	0335	1125	1315	1455
0014	0140	3001	1043	0151	0341	1131	1321	2111
0015	0150	3002	1044	0152	0342	1132	1322	2112
0021	0210	3003	1045	0153	0343	1133	1323	2113
0022	0220	3004	1051	0154	0344	1134	1324	2114
0023	0230	3005	1052	0155	0345	1135	1325	2115
0024	0240	3010	1053	0211	0351	1141	1331	2121
0025	0250	3020	1054	0212	0352	1142	1332	2122
0031	0310	3030	1055	0213	0353	1143	1333	2123
0032	0320	3040	1101	0214	0354	1144	1334	2124
0033	0330	3050	1102	0215	0355	1145	1335	2125
0034	0340	3100	1103	0221	0411	1151	1341	2131
0035	0350	3200	1104	0222	0412	1152	1342	2132
0041	0410	3300	1105	0223	0413	1153	1343	2133
0042	0420	3400	1201	0224	0414	1154	1344	2134
0043	0430	4001	1202	0225	0415	1155	1345	2135
0044	0440	4002	1203	0231	0421	1211	1351	2141
0045	0450	4003	1204	0232	0422	1212	1352	2142
0051	1001	4004	1205	0233	0423	1213	1353	2143
0052	1002	4005	1301	0234	0424	1214	1354	2144
0053	1003	4010	1302	0235	0425	1215	1355	2145
0054	1004	4020	1304	0241	0431	1221	1411	2151
0055	1005	4030	1305	0242	0432	1222	1412	2152
0101	1010	4040	1401	0243	0433	1223	1413	2153
0102	1020	4050	1402	0244	0434	1224	1414	2154

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tract Mtn Brush Grid # 11 Project 83 Trap night 1

Date, time traps set 12/7/74 11:30 AM Date, time traps checked 12/8/74 12:10 AM

Last toe clip # used on previous day 0041 Checked by Sam, Ellinwood

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes

No Captures

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tract Mt. Brush Grid # 11 Project 83 Trap night 2

Date, time traps set 12/8/74 Date, time traps checked 12/9/74

Last toe clip # used on previous day 0041 Checked by Sam, Ellenwood

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		No Captures							

A-2- Empty -,
C-4- Tracks

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tract Mnt. Brush Grid # 11 Project 83 Trap night 3

Date, time traps set 12/9/74 Date, time traps checked 12/10/74

Last toe clip # used on previous day 0041 Checked by Ellmwood - Sany

Begin 0042

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
A-3		Lagurus curtatus	0042	♂	—	—			when dropped in snow, can through it,

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tract Mt. Brush Grid # 11 Project 83 Trap night 4

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 0042 0043 Checked by Sanz, Ellenwood

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		NO	CAPTURES						

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Tract Mt. Brush Grid # 11 Project 83 Trap night 5

Date, time traps set 12/11/74 Date, time traps checked 12/12/74

Last toe clip # used on previous day 0042 Checked by

Begin 0043

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-2	—	P. man.	0002	♀	A	—	—	—	

Grid 12 - Horse P-J/Sage (5.1.2.12)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 2.1.2.12-1

Location: Horse P-J/Sage Grid #: 1312 Trap Night: I Checked By: WTT

Date, Time Traps Set: (0900) 10/19/74 Date, Time Traps Checked: 10/20/74 (0915)

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
7-2		Peromyscus maniculatus	♀	A	–	0001			bicolored tail
3-4		P. "	♀	A	–	0002			
4-7		P. "	♀	A		0003			
A-8		P. "	♂	A		0004			
-10		P. "	♀	A		0005			
11		P. "	♂	A		0010			
2		P. "	♀	A		0020			
		Eutamias minimus	♀	A		0030			h.f. 23mm dorsal stripe extend to base of tail
-7		P. maniculatus	♀	A		0040			

*diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.12-2

Location: HORSE P-5/SAGE Grid #: B/12 Trap Night: 2 Checked By: WTT

Date, Time Traps Set: 10/20/74 (0915) Date, Time Traps Checked: (0910) 10/21/74

0050

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		P. maniculatus	♂	A		0050			bicolored tail
B-5		E. minimus	♀	A		0030 ✓			dorsal stripe 5 extend to tail
A-5		P. maniculatus	♀	A		0100			bicolored tail
B-7		P. "	♀	A		0040 ✓			" "
A-7		P. "	♀	A		0003 ✓			" " tail bl.
A-8		P. "	♀	A		0200			" " " "
B-10		E. minimus	♀	A		0300			dorsal stripe 5 extend to tail
A-12		E. "	♂	A		0400			" "
A-13		P. maniculatus	♀	A		1000			bicolored tail tail bl
C-10		E. minimus	♀	A		2000			5 stripe - extend to tail
[illegible]		E. "	♀	A		3000			" "
[illegible]		E. "	♂	A		4000			" " hind [illegible]
		P. maniculatus	♀	A		0001 ✓			Bicolored tail

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: HORSE P-J / SAGE Grid #: ~~13~~ 12 Trap Night: 3 Checked By: WTT

Date, Time Traps Set: 10/27/74 (0910) Date, Time Traps Checked: 10/28/74 (0915)

0011

Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		P. maniculatus	♂	A		0011			bicolored tail
A-2		P. "	♂	A		0050	10 same trap		" "
A-3		P. "	♀	A		0012			" "
A-4		E. minimus	♂	A		0013			Sd. s. extend to tail
A-7		E. "	♂	A		4000			" " "
A-9		E. "	♂	A		0014			" " "
B-10		E. "	♀	A		2000			" " "
A-10		P. maniculatus	♂	A		0010			bicolored tail
A-13		E. minimus	♂	A		3400			s.l.s. extend to tail
C-11		E. "	♂	A		0015			" " "
C-1		P. maniculatus	♀	A		0021			bicolored tail
C-8		E. minimus	♀	A		0030	DEAD		s.l.s. extend to tail

*ostic characters, parasites, etc.

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[illegible] LIVE TRAPPING FIELD DATA SHEET 3.1.2.12-4

Location: Horse P-J/Sage Grid #: ~~13~~ 12 Trap Night: 4 Checked By: WTT

Date, Time Traps Set: 10/22/74 (0915) 0022 Date, Time Traps Checked: 10/23/74 (0957)

Trap Number	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		P. maniculatus	♀	A		0012	✓ DEAD		bicolored tail
A-4		E. merriami	♂	A		0013	✓ DEAD		5 ds ovlet to tail
A-5		P. maniculatus	♀	A		0022	—		bicolored tail
A-9		P. "	♀	A		0020	✓ —		" "
B-10		P. "	♀	A		0023			" "
A-10		E. merriami	♀	A		2000	✓ removed		5 ds ovlet to tail
A-12		P. maniculatus	♀	A		1000	✓		bicolored tail
A-13		P. "	♀	A		0024			" "
[illegible]-10		E. merriami	♀	A		0300	✓		5 ds [illegible] tail
[illegible]-9		E. "	♂	A		4000	✓		5 " " "
[illegible]3		E. "	(3) ♀	A		3000	✓ removed		5 " " "
[illegible]		E. "	♂	A		0025	removed		5 " " "

gnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 2.1.2.1.2 3

Location: Hase P-I/Sec. Grid #: ~~13~~ 12 Trap Night: 5 Checked By: WTT

Date, Time Traps Set: 10/24/74 (0957) Date, Time Traps Checked: 10/29/74 (0910)
0031

Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
		P. maniculatus	♀			2000	>		
		P. "	♀			2000	Escaped from recovery		
		P. "	♂			0025	/	U	delay
1-2		P. "	♂			0031			Escaped to tail
1-4		P. "	♀			0032			" " "
7		P. maniculatus	♀			0003	✓		bicolored tail
10		P. maniculatus	♀			0015	DEAD		Escaped w/ tail
9		P. "	♀			0300	DEAD		" " "

gnostic characters, parasites, etc.

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5.1.2.12-6 (ECI)

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

~~0001~~	0103	1030	4100	1403	0245	0435	1225	1415
~~0002~~	0104	1040	4200	1405	0251	0441	1231	1421
~~0003~~	0105	1050	4300	0111	0252	0442	1232	1422
~~0004~~	0201	1100	4400	0112	0253	0443	1233	1423
~~0005~~	0202	1200	1011	0113	0254	0444	1234	1424
1/20/74								
~~0010~~	0203	1300	1012	0114	0255	0445	1235	1425
~~0020~~	0204	1400	1013	0115	0311	0451	1241	1431
~~0030~~	0205	2001	1014	0121	0312	0452	1242	1432
~~0040~~	0301	2002	1015	0122	0313	0453	1243	1433
~~0050~~	0302	2003	1021	0123	0314	0454	1244	1434
~~0100~~	0303	2004	1022	0124	0315	0455	1245	1435
1/21/74 ~~0200~~	0304	2005	1023	0125	0321	1111	1251	1441
~~0300~~	0305	2010	1024	0131	0322	1112	1252	1442
~~0400~~	0401	2020	1025	0132	0323	1113	1253	1443
~~1000~~	0402	2030	1031	0133	0324	1114	1254	1444
~~2000~~	0403	2040	1032	0134	0325	1115	1255	1445
~~3000~~	0404	2050	1033	0135	0331	1121	1311	1451
~~4000~~	0405	2100	1034	0141	0332	1122	1312	1452
~~0011~~	0110	2200	1035	0142	0333	1123	1313	1453
~~0012~~	0120	2300	1041	0143	0334	1124	1314	1454
1/22/74 ~~0013~~	0130	2400	1042	0145	0335	1125	1315	1455
~~0014~~	0140	3001	1043	0151	0341	1131	1321	2111
~~0015~~	0150	3002	1044	0152	0342	1132	1322	2112
~~0021~~	0210	3003	1045	0153	0343	1133	1323	2113
~~0022~~	0220	3004	1051	0154	0344	1134	1324	2114
1/23/74 ~~0023~~	0230	3005	1052	0155	0345	1135	1325	2115
~~0024~~	0240	3010	1053	0211	0351	1141	1331	2121
~~0025~~	0250	3020	1054	0212	0352	1142	1332	2122
~~0031~~	0310	3030	1055	0213	0353	1143	1333	2123
1/24/74 ~~0032~~	0320	3040	1101	0214	0354	1144	1334	2124
0033	0330	3050	1102	0215	0355	1145	1335	2125
0034	0340	3100	1103	0221	0411	1151	1341	2131
0035	0350	3200	1104	0222	0412	1152	1342	2132
0041	0410	3300	1105	0223	0413	1153	1343	2133
0042	0420	3400	1201	0224	0414	1154	1344	2134
0043	0430	4001	1202	0225	0415	1155	1345	2135
0044	0440	4002	1203	0231	0421	1211	1351	2141
0045	0450	4003	1204	0232	0422	1212	1352	2142
0051	1001	4004	1205	0233	0423	1213	1353	2143
0052	1002	4005	1301	0234	0424	1214	1354	2144
0053	1003	4010	1302	0235	0425	1215	1355	2145
0054	1004	4020	1304	0241	0431	1221	1411	2151
0055	1005	4030	1305	0242	0432	1222	1412	2152
0101	1010	4040	1401	0243	0433	1223	1413	2153
0102	1020	4050	1402	0244	0434	1224	1414	2154

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Horse P-1/Sage Grid # 12 Project 83 Trap night 1

Date, time traps set 12/7 Date, time traps checked 12/8

Last toe clip # used on previous day 0032 Checked by JC / DM

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		— No CAPTURES		—					

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Horse PS / Sage Grid # 12 Project 83 Trap night 2

Date, time traps set 12/8 Date, time traps checked 12/9

Last toe clip # used on previous day 0032 Checked by JC / DM

Capt. No.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		no captures							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Horse P.J./sage Grid # 12 Project 83 Trap night 3

Date, time traps set 12/9 Date, time traps checked 12/10

Last toe clip # used on previous day — Checked by JC / DM

start w 0103

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1-10		Peman	0103	♂	A				
1-12		P. maniculatus	0033	♂	A				

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

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Grid name Horse PJ/Sage Grid # 12 Project 83 Trap night 4

Date, time traps set 12/10 4:00 Date, time traps checked 12/11 400

Last toe clip # used on previous day 0033 Checked by JC / DM

Capt. loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
R		P. man	0033	♂	ad				recap

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name horse PJ / Sage Grid # 12 Project 83 Trap night 5

Date, time traps set 12/11 430 Date, time traps checked 12/12 430

Last toe clip # used on previous day 0033 Checked by JC / DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1-1		P man	0034	♀	A				
2-5		P man	0100	♀					Recap
2-6		P man	0004	♂					"
2-6		P man	0107	♀					"
3-7		P man	0075	♀					
3-10		P man	0033	♂					Recap
4-6		P. man	0003	♀	A				
4-10		P. man	0103	♂	A				
4-13		P. man	0200	♀	A				Dead
5-10		P. man	0104	♀	A				

Grid 13 - Ridgetop Meadow (5.1.2.13)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.75-1

Location: Ridgetop Meadow Grid #: 15 Trap Night: 1 Checked By: WTT

Date, Time Traps Set: (0300) 10/19/74 Date, Time Traps Checked: (1535) 10/20/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-8		E. minimus	♂	A		0001			

*diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.7.2.13-2

ion: Ridgetop Meadow Grid #: 15 Trap Night: 2 Checked By: WTT

, Time Traps Set: 10/20/74 (1530 Date, Time Traps Checked: 10/21/74 (1010)

5002

...e et	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-2		P. maniculatus	♂	A		0002			bicolored tail
B-5		P. "	♀	A		0003			" "
B-3		P. "	♀	A		0004			" "
C-1		P. "	♀	A		0005			" "
A-12		P. "	♂	A		0010			" "
-11		P. "	♂	A		0020			" "
1-6		P. "	♂	A		0030			" "

* diagnostic characters, parasites, etc.

GCI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 2.1.2.12-3

Location: Ridgetop Meadow Grid #: 15 Trap Night: 3 Checked By: WTT

Date, Time Traps Set: 10/21/74 (1610) Date, Time Traps Checked: 10/22/74 (1545)
0040

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
		No Captures							

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.13-4

Location: Pendleton Harbor Grid #: 15 Trap Night: 4 Checked By: WTT

Date, Time Traps Set: 12/22/74 (1545) Date, Time Traps Checked: 12/23/74 (1055)

0040

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-10		P. maniculatus	♀	A		0035	R		bicolored tail
A-11		P. "	♀	A		0040			" "

*diagnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.13-5

Location: Predator Meadows Grid #: 15 Trap Night: 5 Checked By: WTT

Date, Time Traps Set: 12/23/74 (1055) 2250 Date, Time Traps Checked: (1530) 12/24/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
		No CAPTURES							

tic characters, parasites, etc.

5.1.2.13-6

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

~~0001~~	0103	1030	4100	1403	0245	0435	1225	1415
~~002~~	0104	1040	4200	1405	0251	0441	1231	1421
~~0003~~	0105	1050	4300	0111	0252	0442	1232	1422
~~0004~~	0201	1100	4400	0112	0253	0443	1233	1423
~~0005~~	0202	1200	1011	0113	0254	0444	1234	1424
~~0010~~	0203	1300	1012	0114	0255	0445	1235	1425
0020	0204	1400	1013	0115	0311	0451	1241	1431
~~0030~~	0205	2001	1014	0121	0312	0452	1242	1432
~~0040~~	0301	2002	1015	0122	0313	0453	1243	1433
0050	0302	2003	1021	0123	0314	0454	1244	1434
0100	0303	2004	1022	0124	0315	0455	1245	1435
0200	0304	2005	1023	0125	0321	1111	1251	1441
0300	0305	2010	1024	0131	0322	1112	1252	1442
0400	0401	2020	1025	0132	0323	1113	1253	1443
1000	0402	2030	1031	0133	0324	1114	1254	1444
2000	0403	2040	1032	0134	0325	1115	1255	1445
3000	0404	2050	1033	0135	0331	1121	1311	1451
4000	0405	2100	1034	0141	0332	1122	1312	1452
0011	0110	2200	1035	0142	0333	1123	1313	1453
0012	0120	2300	1041	0143	0334	1124	1314	1454
0013	0130	2400	1042	0145	0335	1125	1315	1455
0014	0140	3001	1043	0151	0341	1131	1321	2111
0015	0150	3002	1044	0152	0342	1132	1322	2112
0021	0210	3003	1045	0153	0343	1133	1323	2113
0022	0220	3004	1051	0154	0344	1134	1324	2114
0023	0230	3005	1052	0155	0345	1135	1325	2115
0024	0240	3010	1053	0211	0351	1141	1331	2121
0025	0250	3020	1054	0212	0352	1142	1332	2122
0031	0310	3030	1055	0213	0353	1143	1333	2123
0032	0320	3040	1101	0214	0354	1144	1334	2124
0033	0330	3050	1102	0215	0355	1145	1335	2125
0034	0340	3100	1103	0221	0411	1151	1341	2131
0035	0350	3200	1104	0222	0412	1152	1342	2132
0041	0410	3300	1105	0223	0413	1153	1343	2133
0042	0420	3400	1201	0224	0414	1154	1344	2134
0043	0430	4001	1202	0225	0415	1155	1345	2135
0044	0440	4002	1203	0231	0421	1211	1351	2141
0045	0450	4003	1204	0232	0422	1212	1352	2142
0051	1001	4004	1205	0233	0423	1213	1353	2143
0052	1002	4005	1301	0234	0424	1214	1354	2144
053	1003	4010	1302	0235	0425	1215	1355	2145
54	1004	4020	1304	0241	0431	1221	1411	2151
55	1005	4030	1305	0242	0432	1222	1412	2152
1	1010	4040	1401	0243	0433	1223	1413	2153
2	1020	4050	1402	0244	0434	1224	1414	2154

3.1.2.13 1

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Ridgetop Meadow Grid # 13 Project 83 Trap night 1

Date, time traps set 12/7/74 1400 Date, time traps checked 12/8/74 1500

Last toe clip # used on previous day — Checked by JB / TT

Start w/ 0103

apt. cc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
11		visit - weasel							
5		" "							
1		visit mouse							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Ridgetop Meadow Grid # 13 Project 83 Trap night 2

Date, time traps set 12/8/77 1500 Date, time traps checked 12/9/77 1330

Last toe clip # used on previous day 0040 Checked by JB / TT

Apt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		NO CAPTURES							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Ridgetop Meadow Grid # 13 Project 83 Trap night 3

Date, time traps set 12/9/74 1330 Date, time traps checked 1210 1400

Last toe clip # used on previous day 0040 Checked by SS / JT

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		No captures							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Ridge Top Meadow Grid # 13 Project 83 Trap night 4

Date, time traps set 12/10/74 1400 Date, time traps checked 12/11/74 1145

Last toe clip # used on previous day 0040 Checked by JB/RDm

rcyt-0050

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		NO CAPTURES							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Ridgetop Meadow Grid # 13 Project 83 Trap night 5

Date, time traps set 12/11/74 1145 Date, time traps checked 1200 12/12/74

Last toe clip # used on previous day 0040 Checked by Turner

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		- NO CAPTURES -							

Grid 14 - Greasewood Sage (5.1.2.14)

1 of 3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.14-1

Location: [illegible] Sand Grid #: A Trap Night: #1 Checked By: Sanz, Kestre

Date, Time Traps Set: 10-19-74 Date, Time Traps Checked: 10-20-74 A.M.

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		Peromyscus maniculatus	♂	A	—	0001			bicolored tail
[illegible]-1		[illegible] minimus	♀	A	—	0002			5 dark stripes not to co[illegible] 25- h.f.
[illegible]-1		[illegible] minimus	♀	A	—	0003			27 - h.f. 5[illegible]
[illegible]-1		[illegible] minimus	♂	A	—	0004			27 h.f. "
[illegible]-1		[illegible] minimus	♂	A	—	0005			26 h.f. "
[illegible]-2		P. [illegible]	♂	A	—	0010			h.f. 19 tail [illegible]
[illegible]-2		P. maniculatus	♀	A	—	0020			h.f. 19 + 1.7
[illegible]-2		P. [illegible]	♀	A	—	0030			h.f. 18 + 1.4
[illegible]-2		E. minimus	♂	A	—	0040			[illegible] + h.f. [illegible]
[illegible]-2		P. maniculatus	♂	A	—	[illegible]			h.f. 19 + [illegible]
[illegible]		E. minimus	♂	A	—	0100			st. b.[illegible] h.f. 19
F-3		P. maniculatus	♂	A	—	0200			h.f. 17 + 6[illegible]
H-3		P. maniculatus	♀	A	—	0300			h.f. 17 + 6.2
J-3		M. longicaudatus ✓	♂	A	—	0400	NECRO		tail > [illegible]
L-3		E. minimus	♀	A	—	1000			h.f. 25 [illegible]
M-3		P. maniculatus	♂	A	—	2000			h.f. 18
M-4		P. maniculatus	♀	A	—	3000			h.f. 17 + [illegible] 6.0
L-4		E. minimus	♀	A	—	4000			h.f. 26
K-4		E. minimus	♂	A	—	0011			h.f. 26 + b.[illegible]
D-4		P. maniculatus	♂	A	—	0012			h.f. 18 + [illegible]
A-4		E. minimus	♂	A	—	0013			h.f. 27 + b.[illegible]
H-6		P. maniculatus	♀	[illegible]?		0014			[illegible]
[illegible]		P. maniculatus	♂	A		[illegible]			[illegible] 19 + [illegible]
[illegible]-6		P. maniculatus	♂	A		[illegible]			[illegible] 18 + 1.0
D-6		P. maniculatus	♂	A		[illegible]			[illegible] 17 + [illegible]

*diagnostic characters, parasites, etc.

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2 of 3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.14-2

Location: Guadalupe Sage Grid #: _____ Trap Night: #1 Checked By: Sanz

Date, Time Traps Set: 10/19/74 Date, Time Traps Checked: 10/20/74

Line #:	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-6		P. maniculatus	♀	A	—	0023			hf 17 t 52
-6		E. minimus	♂	A	—	0024			shot hf 26
-5		P. maniculatus	♂	A	—	0025			t 50 hf 16
-8		P. maniculatus	♀	A	—	0031			t. 56 hf 19
-8		M. longicaudatus	♂	A	—	0032			t > 30% R.T.
-8		E. minimus	♀	A	—	0033			shot hf 26
-7		P. maniculatus	♀	A	—	0034			hf 17 t 54
-7		E. minimus	♂	A	—	0035			hf. 28 t. bot
-10		S. minimus	♂	A	—	0041			hf 26 shot
-9		P. maniculatus	♂	A	—	0042			hf 19 t-60
		S. minimus	♂	A	—	0043			shot hf 27
-10		S. minimus	♀	A		0044			shot hf 26
-9		M. longicaudatus	♂	A		0045			t-70
-10		P. maniculatus	♂	A		0051			t-60 hf 24
-10		S. minimus	♀	A		0052			shot hf 24
-10		P. maniculatus	♀	A		0053			t-70 hf 19
-11		E. minimus	♀	A		0054			hf 26
-11		E. minimus	♀	A		0055			SHOT hf 27
-11		E. minimus	♂	A		0101			SHOT hf 25
-11		P. maniculatus	♀	A		0102			t=56 hf 19
-11		E. minimus	♂	A		0103			hf 27 SHOT
-12		P. maniculatus	♂	A		0104			t=55 hf-16
		E. minimus	♀	A		0105			shot hf 26
-12		E. minimus	♂	A		0201			shot hf 27
-12		E. minimus	♀	A		0202			shot hf 26

*diagnostic characters, parasites, etc.

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/ 303 5.1.2.14-3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: [illegible] Grid #: _____ Trap Night: 1 Checked By: [illegible]

Date, Time Traps Set: 10/19/74 Date, Time Traps Checked: 10/20/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
F-12		P. maniculatus	♂	A		0203			hf-11, t-57
J-12		E. minimus	♂	A	swollen testes	0204			SPOT hf-28
E-13		P. maniculatus	♂	A		0205			hf-18 t-60
H-13		P. maniculatus	♀	A		0301			hf-17 t-57
D-13		P. maniculatus	♀?	A		0302	=1302		hf-17 t-55
C-13		E. minimus	♂	A		0303(7)			SPOT hf-26
[illegible]-13		E. minimus	♀	A		0303			SPOT hf-27

*diagnostic characters, parasites, etc.

SMALL MMAL LIVE TRAPPING FIELD DATA SET 5.1.2.14-4

Location: [illegible] Grid #: _____ Trap Night: #2 Checked By: Sainz

Date, Time Traps Set: [illegible] Date, Time Traps Checked: [illegible]

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. minimus	♂	A	—	0304			5 [illegible]
D-1		P. maniculatus	♀	A	—	0030	R		bicolor tail
F-1		E. minimus	♀	A	—	0305			5 [illegible]
H-1		P. maniculatus	♀	A	—	0401			bicolor tail
K-1		E. minimus	♀	A	—	0402			
M-1		P. maniculatus	♀	A	—	0403			
M-2		E. minimus	♀	A	—	[illegible]	R		
[illegible]-2		P. maniculatus	♂	A	—	0404			
[illegible]-2		E. minimus	♀	A	—	0202	R		
[illegible]-2		E. minimus	♂	A	—	0405			
[illegible]		E. maniculatus	♀	Juv	—	0110			
[illegible]-2		E. minimus	♀	A	—	0120			
[illegible]-2		E. minimus	♀	A	—	0130			
[illegible]-3		P. maniculatus	♂	A	—	0140			
[illegible]-3		E. minimus	♂	A	—	0013	R		
[illegible]-2		E. minimus	♂	A	—	0100	R	Necro	
[illegible]-2		P. maniculatus	♀	A	—	0150		Necro	
[illegible]-3		E. minimus	♀	A	—	0202	R		
[illegible]-3		P. maniculatus	♀	A	—	0210			
[illegible]-3		E. minimus	♂	A	—	0220			
[illegible]-4		[illegible]	♂	A	—	0230			
[illegible]-4		E. minimus	♂	A	—	0240			
[illegible]		E. minimus	♂	A		0024	R		
[illegible]-4		P. maniculatus	♂	A		0022	R		
[illegible]-4		E. minimus	♀	A		0250			

* diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.14 - 5

Location: Grassland - Sage Grid #: _____ Trap Night: 3 Checked By: Sanz

Date, Time Traps Set: 10-20-94 Date, Time Traps Checked: 10-21-94

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
D-4		P. maniculatus	♂	A	—	0012	R	Micro	
B-4		P. maniculatus	♂	A	—	0015	R		
A-4		P. maniculatus	♀	A	—	0310			
D-5		E. minimus	♂	A	disi-ted.	0041	R		
E-5		E. minimus	♀	A	—	0320			
F-5		E. minimus	♂	A	—	0040	R		
H-5		E. minimus	♂	A	—	0004	R		
I-5		E. minimus	♀	A	—	4000	R		
J-5		E. minimus	♀	A	—	0330			
G-6		P. maniculatus	♂	A	—	[illegible]	R		
[illegible]		P. maniculatus	♀	A	—	0023	R		
C-6		P. maniculatus	♂	A	—	0021	R		
B-6		E. minimus	♂	A	—	0340			
A-6		P. maniculatus	♀		—	0014	R		

*diagnostic characters, parasites, etc.

SMALL M[illegible]AL LIVE TRAPPING FIELD DATA S[illegible]T

5.1.2.14-6

Location: [illegible] Grid #: A Trap Night: 2 Checked By: [illegible]

Date, Time Traps Set: 10/20/24 Date, Time Traps Checked: 10/21/94

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-13		P. [illegible]	♂	A		1020			
-13		[illegible]	[illegible]	[illegible]		1040			SPOT
-13		E. [illegible]	♀	A		1050			hf 27
-13		P. [illegible]	♂	A	[illegible]	1302	P		
-13		P. [illegible]	♀	A		1100			
-13		E. [illegible]	♀	A		[illegible]	R		[illegible]
-13		P. [illegible]	♂	A		0205	R		
-12		E. [illegible]	♂	A		[illegible]	R		hf 27
-12		E. [illegible]	♂	A		[illegible]			hf 27
[illegible]		E. [illegible]	♀	A		[illegible]	R		hf 26
-10		P. [illegible]	♀	A		[illegible]	R		
-11		P. [illegible]	♀			[illegible]	R		
-11		P. [illegible]	♂	A		1370			
-11		E. [illegible]	♀	A		[illegible]	R		hf 26
-11		P. [illegible]	♀	A		0301	P		
-11		E. [illegible]	♂	A		1400			hf 27
-11		P. [illegible]	♂	A		[illegible]			
-11		E. [illegible]	♀	A		[illegible]			hf 26
M-10		P. [illegible]	♀	A		0053	R		
K-10		P. [illegible]	♂	A		[illegible]	R		
[illegible]-10		E. [illegible]	♀	A		0155	R		
H-10		P. [illegible]	♀	A		2003			
[illegible]-10		[illegible]	[illegible]	A		0044	R		
F-10		P. [illegible]	[illegible]	A		[illegible]	R		
D-10		[illegible]	♂	A		2004			1-50 body 104

*diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.14-7

Location: [illegible] Grid #: [illegible] Trap Night: [illegible] Checked By: [illegible]

Date, Time Traps Set: [illegible] Date, Time Traps Checked: [illegible]

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
C-10		[illegible]	♂	A		[illegible]	R		
B-10		[illegible]	♀	A		0202	R		
A-10		[illegible]	♀	A		0105	R		
[illegible]-9		[illegible]	♂	A		0204	R		
[illegible]-9		[illegible]	♂	A		0013	R		
[illegible]1		[illegible]	♂	A		2005			
[illegible]1		[illegible]	♀	A		0033	R		
[illegible]8		[illegible]	♂	A		2010			
[illegible]1 E		[illegible]	♂	A		2020			
[illegible]-8		[illegible]	♀	A		0035	R		
[illegible]		[illegible]	♀	A		2030			
[illegible]-7		[illegible]	♀	A		2040			
[illegible]-7		[illegible]	♀	A		[illegible]	R		
[illegible]-7		[illegible]	♂	A		2050			[illegible]
[illegible]-7		[illegible]	♂	A		2100			[illegible]
[illegible]-7		[illegible]	♂	A		1202	R		

*diagnostic characters, parasites, etc.

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SMALL MMAL LIVE TRAPPING FIELD DATA EET 5.1.2.14-8

Location: [illegible] Grid #: A Trap Night: 3 Checked By: [illegible]

Date, Time Traps Set: 10-21-74 Date, Time Traps Checked: 10-22-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-[illegible]		[illegible]	♂	A	–	[illegible]	R		
A-4		P. [illegible]	♀	A	–	0210	R		
[illegible]-4		[illegible]	♀	A	–	[illegible]	R		
A-12		E. minimus	♀	A	–	1050	R		
C-13		E. minimus	♀	A	–	0303	R		
B-13		E. minimus	♂	A	–	030(7)	R	1[illegible]	
[illegible]-13		P. maniculatus	♀	A	–	2200			
[illegible]-13		P. maniculatus	♂	A	–	0002	R		
[illegible]-13		E. minimus	♀	A	–	0054	R	1[illegible]	
L-13		P. maniculatus	♂	A	–	2300			
[illegible]		P. maniculatus	♂	A	–	0205	R	Necro	
D-12		P. maniculatus	♂	A	–	1302	R		*
B-12		E. minimus	♂	A	–	[illegible]	R		
H-11		P. maniculatus	♂	A	–	1302	R		*
J-11		P. maniculatus	♂	A	–	2400			
L-11		P. maniculatus	♂	A	–	1300	R		
M-11		E. minimus	♂	A	–	3001			
M-10		E. minimus	♀	A	–	3002	R		
K-10		M. longicaudus	♂	A	–	3002			T.L= 165 mm - t= 60
J-10		P. maniculatus	♂	A	–	[illegible]	R		
J-9		M. longicaudus	♂	A	–	003			TL. 155 mm - t: 55
H-10		E. minimus	♂	A	–	0002	R		
[illegible]		E. minimus	♂	A	–	1200	R		
F-10		E. minimus	♀	A	–	0002	R		
E-9		E. minimus	♂	A	–	0101	R		

*diagnostic characters, parasites, etc.

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SMALL MMAL LIVE TRAPPING FIELD DATA ET 5.1.2.14-9

Location: Greasewood - Sage Grid #: A Trap Night: 3 Checked By: [illegible]

Date, Time Traps Set: 10-20-74 Date, Time Traps Checked: 10-21-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
E-10		E. minimus	♀	A	—	3004			
D-10		P. maniculatus	♀	A	—	3005			
D-9		E. minimus	♀	A	—	0202	R		
B-10		E. minimus	♀	A	—	0105	R		
A-8		E. minimus	?	A	—	2030	R		
C-8		E. minimus	♂	A	—	0041	R		
F-8		P. maniculatus	♀	A	—	0102	R		
H-8		M. longicaudus	♂	A	—	3010			
L-8		P. maniculatus	♀	[illegible]	—	3020	[illegible]		
M-8		P. maniculatus	♂	A	—	3030			
[illegible]		M. longicaudus	♂	A	—	2050	R		
H-7		M. longicaudus	♂	[illegible]		2100	R	[illegible]	
F-7		P. maniculatus	♀	[illegible]	—	2034	R		
E-7		P. maniculatus	♂	A	—	2040			

*diagnostic characters, parasites, etc.

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5.1.2.14-10

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: [illegible] Sac. Grid #: A Trap Night: 3 Checked By: [illegible]

Date, Time Traps Set: 10/19/74 0350 Date, Time Traps Checked: 10/22/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-1		E. [illegible]	♂	A		03 50			
D-1		E. [illegible]	♀?	J		04 10			
F-1		E. [illegible]	♀	A		00 03	R		
H-1		E. [illegible]	♀	A		05 [illegible]	R		
K-1		E. [illegible]	♂	A		05 05	R		[illegible]
L-1		D. [illegible]	♂	J		01 [illegible]			
M-1		E. [illegible]	♂	A		[illegible]	—		[illegible]
M-2		E. [illegible]	♂	A		00 [illegible]	R		
L-2		M. [illegible]	♀	A		[illegible]			[illegible]
J-2		D. [illegible]	♀	A		01 50			[illegible]
F-2		E. minimus	♂	A		00 11	R		
D-2		E. minimus	♂	J		10 01			
C-2		E. [illegible]	♀	J		00 02	R		
A-2		E. minimus	♂	A		03 04	R		[illegible]
A-3		E. [illegible]	♂	J		10 [illegible]			
B-3		E. [illegible]	♀	J		01 [illegible]	R		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible] toe clip, [illegible] trap
D-3		[illegible]	♂	J		10 03			
F-3		D. [illegible]	♀	A		10 [illegible]			
H-3		E. [illegible]	♂	A		02 20	R		
J-3		P. maniculatus	♀	A		02 [illegible]	R		
L-3		E. [illegible]	♂	J		[illegible]	R		
[illegible]-3		E. [illegible]	♂	J		02 20	R		[illegible]
K-4		E. [illegible]	♂	J		02 40	R		
T-[illegible]		E. [illegible]	♂	A		00 [illegible]	R		

*diagnostic characters, parasites, etc.

5.1.2.14 - 11

SMALL [illegible]MAL LIVE TRAPPING FIELD DATA [illegible]ET

Location: [illegible] Grid #: A Trap Night: 3 Checked By: [illegible]

Date, Time Traps Set: [illegible] Date, Time Traps Checked: 10/22/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-4		P. maniculatus	♀	A		00 30	R		
-4		P. maniculatus	♂	A		00 15	R		
-5		[illegible]	[illegible]	[illegible]		00 10	R		
-5		M. longicaudus	♂	A		10 05			
-5		E. minimus	♀	A		03 30	R		
6		E. minimus	♂	A		20 20	R		
6		E. minimus	♂	A		12 12	R		
6		E. minimus	♂	A		10 10			
E-6		E. minimus	♀	A		00 35	R		
[illegible]		P. maniculatus	♀	A		00 23	R		
C-6		E. minimus	♀	A		20 25	R		
B-6		E. minimus	♂	A		03 25	R		
A-6		P. maniculatus	♀	A		00 21	R		
D-7		M. longicaudus	♀	A		00 35	R		none

Rio Blanco SMALL ANIMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.14 – 12

Location: Greenwood - Sage Grid #: A Trap Night: 4 Checked By: Sama

Date, Time Traps Set: 10-22-74 Date, Time Traps Checked: 10-23-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. min.	♂	A	—	3050			
B-1		E. min	♂	A	—	0405	R		
F-1		E. min	♀	A	—	0305	R		
H-1		E. min	♂	A	—	1021	R		
2		P. man	♂	A	—	0010	R		
2		E. min	♂	A	—	3100			
2		E. min	♀	A	—	0250	R		
2		E. min	♂	A	—	0350	R		
C-2		P. man	♂	A	—	3200			
A-3		E. min	♂	A	—	1022	R		
3		E. min	♀	A	—	0212	R		
D-3		E. min	♂	A	—	3300			
J-3		M. leucopus	♂	A	—	2400			
L-3		P. man	♂	A	—	2404	R		
M-3		P. man	♂	A	—	4101			
-4		P. man	♀	A	—	0210	R		
H-5		E. min	♂	A	—	1010	R		
-4		P. man	♂	A	—	0022	R		
-4		P. man	♂	A	—	1003	R.		
E-4		E. min	♂	A	—	0011	R		
F-5		E. min	♀	A	—	[illegible]	R		
D-5		P. man	♂	A	—	[illegible]			
[illegible]		E. min	♂	A	—	[illegible]	R		
B-4		E. min	♂	A	—	0013	R		
A-4		E. min	♀	A	—	0130	R		

*diagnostic characters, parasites, etc.

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RIO BLANCO SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.14-13

Location: [illegible] Grid #: A Trap Night: 4 Checked By: [illegible]

Date, Time Traps Set: 10-22-74 Date, Time Traps Checked: [illegible]

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-6		P. maniculatus	♂	B	—	4301	●		
B-6		E. maurus	♂	A	—	[illegible]	R		—
D-5		E. maurus	♂	A	—	[illegible]	R		
D-6		E. maurus	♀	A	—	4000	R	Necro	
L-6		E. maurus	♂	A	—	2020	R		
M-4		E. maurus	♂	A	—	1200	R		
I-7		E. maurus	♀	A	—	[illegible]	R		
G-7		E. maurus	♂	A	—	[illegible]	R		
F-7		M. [illegible]	♂	A	—	1020	\		
								—	

diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 5.1.2.14-14

Location: [illegible] Grid #: A Trap Night: 4 Checked By: [illegible]

Date, Time Traps Set: 10/20/74 Date, Time Traps Checked: 10/23/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
13		[illegible]	♂	A		4100			
-13		[illegible]	♂	A		[illegible]	r		
-13		[illegible]	♀	A		0203	r		
-13		[illegible]	♀	A		1201	~~[illegible]~~	~~[illegible]~~	New capture - out of order
3		[illegible]	♀?	A		[illegible]	r		
[illegible]		[illegible]	♀?	[illegible]		[illegible]			
2		[illegible]	♀	A		[illegible]	r		
12		[illegible]	♀	A		[illegible]	r		
-11		[illegible]	♀	A		[illegible]			
-11		[illegible]	♂	A		[illegible]	r		
-11		[illegible]	♀	A		0301	r		
-11		[illegible]	♀	A		[illegible]	r		
-11		[illegible]	♀	A		4400			
[illegible]						[illegible]	R		
-10		[illegible]	[illegible]	A		1011			
-10		[illegible]	♀	A		0404	r		
-10		[illegible]	♂	A		0101	r		
-10		[illegible]	♀	A		2004	r		
-10		[illegible]	♂	A		0104	r		
-9		[illegible]	♀	A		1012			
-9		[illegible]	♂	A		1202	r		
-9		[illegible]	♀	A		1302	r		
[illegible]		[illegible]	♀	A		1013			
-9		[illegible]	♀	A		2003	r		
-9		[illegible]	♂	A		[illegible]	r		

*diagnostic characters, parasites, etc.

ECI

S.1.2.14-75

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: [illegible] Grid #: A Trap Night: 1 Checked By: [illegible]

Date, Time Traps Set: 10/23/74 ... 1014 Date, Time Traps Checked: 11/23/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~♀~~	~~A~~	~~[illegible]~~	~~[illegible]~~	r		
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	r		
B-9		E. minimus	♀	A		0105	r		
A-8		E. minimus	♀	A		2030	r		
E-7		E. minimus	♀	A		014			

*diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.14-1

Location: Cypressward - c/c Grid #: A Trap Night: 5 Checked By: [illegible]

Date, Time Traps Set: 10-23-74 Date, Time Traps Checked: 10-30-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
1H		E. minimus	♀			0350	R		
F-1		E. min	♀			0305	R		
H-1		E. min	♀			0003	R		
L-1		E. min	♀			4001			
M-2		E. min	♂			0004	R		
-2		E. min	♂			0011	R		
-2		P. maniculatus	♀			0030	R		
-2		E. minimus	♂			0013	R		
A-3		P. maniculatus	♀			4002			
A-6		E. minimus	♀			2030	R		
-6		E. min	♂			0340	R	—	
B-4		E. min	♂			0041	R		
K-4		E. min	♂			1202	R		
I-4		P. maniculatus	♂			0022	R		
-5		E. minimus	♂			0040	R		
-5		P. maniculatus	♂			1230	R		
-4		P. man	♀			4003			
-4		P. man	♂			1003	R		
-5		E. minimus	♂			0100	R		
D-5		P. man	♂			0025	R		
D-4		P. man	♀			0020	R		
D-6		E. min	♀			0320	R		
-6		E. min	♂			3001	R		
-6		E. min	♀			0330	R		
-6 -6		E. min E. min	♂ ♂			0034 0240	R R		

*Diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET S.1.2.14-17

Location: [illegible] Grid #: A Trap Night: [illegible] Checked By: [illegible]

Date, Time Traps Set: [illegible] Date, Time Traps Checked: [illegible]

Grid Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
-13		E min	♂	A		1203			
-13		P man	♀	A		2200	R		
-13		E min	♀	A		2040	R		
-13		P man	♀	A		0801	R		
-12		P [illegible]	♂	A		1015			
2		P [illegible]	♀	A		1021			
11		P [illegible]	♂	A		01041	R		
-11		E [illegible]	♂	A		1101	R		
-11		P [illegible]	♂	A		3030	R		
-11		P [illegible]	♀	A		1022			
-10		E [illegible]	♂	A		2000	R		
K-10		P [illegible]	♀	A		1033			
J-10		P [illegible]	♂	A		2010	R		
B-10		E [illegible]	♀	A		2105	R		
9		E [illegible]	♂	A		[illegible]	R		[illegible]
H-9		E [illegible]	♀	A		0044	R		
M-8		P [illegible]	♂	A		1024			
H-8		M [illegible]	♂	A		3010	R		
D-8		[illegible]	♂	A		1030			

*diagnostic characters, parasites, etc.

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5.1.2.14-18

SMALL MAL LIVE TRAPPING FIELD DATA ET

Location: Ornamental Shru Grid #: ________ Trap Night: 5 Checked By: ________

Date, Time Traps Set: 12-23-74 Date, Time Traps Checked: ________

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-1		E. min	♂	A	—	0350	R		
A-1		E. min	♂		—	3050	R		

agnostic characters, parasites, etc.

GREASEWOOD - SAGE

5.1.2.14-19 (ECI)

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

0001	0[illegible]3	1[illegible]0	41[illegible]	1403	0245	0435	1225	1415
00[illegible]2	0[illegible]4	1[illegible]0	42[illegible]	1405	0251	0441	1231	1421
00[illegible]3	0[illegible]5	1[illegible]0	4[illegible]	0111	0252	0442	1232	1422
00[illegible]	0[illegible]1	1[illegible]0	4[illegible]	0112	0253	0443	1233	1423
00[illegible]	0[illegible]2	1[illegible]0	1[illegible]1	0113	0254	0444	1234	1424
00[illegible]	0[illegible]3	1[illegible]0	1[illegible]2	0114	0255	0445	1235	1425
00[illegible]	0[illegible]4	1[illegible]0	1[illegible]3	0115	0311	0451	1241	1431
00[illegible]	0[illegible]5	20[illegible]1	[illegible]	0121	0312	0452	1242	1432
00[illegible]	0[illegible]1	20[illegible]2	1[illegible]5	0122	0313	0453	1243	1433
00[illegible]	0[illegible]2 1302	20[illegible]3	1[illegible]1	0123	0314	0454	1244	1434
01[illegible]	[illegible]	20[illegible]4	1[illegible]2	0124	0315	0455	1245	1435
02[illegible]	0[illegible]4	20[illegible]5	1[illegible]3	0125	0321	1111	1251	1441
03[illegible]	0[illegible]5	20[illegible]0	[illegible]	0131	0322	1112	1252	1442
04[illegible]	0[illegible]1	2[illegible]0	1025	0132	0323	1113	1253	1443
10[illegible]	0[illegible]2	2[illegible]0	1031	0133	0324	1114	1254	1444
20[illegible]	0[illegible]3	2[illegible]0	1032	0134	0325	1115	1255	1445
30[illegible]	0[illegible]4	2[illegible]0	1033	0135	0331	1121	1311	1451
40[illegible]	0[illegible]5	[illegible]	1034	0141	0332	1122	1312	1452
00[illegible]1	0[illegible]0	2[illegible]0	1035	0142	0333	1123	1313	1453
0[illegible]2	0[illegible]0	2[illegible]0	1041	0143	0334	1124	1314	1454
0[illegible]3	0[illegible]0	2[illegible]0	1042	0145	0335	1125	1315	1455
0[illegible]4	0[illegible]0	3[illegible]1	1043	0151	0341	1131	1321	2111
0[illegible]5	0[illegible]0	3[illegible]2	1044	0152	0342	1132	1322	2112
0[illegible]1	02[illegible]0	3[illegible]3	1045	0153	0343	1133	1323	2113
0[illegible]2	02[illegible]0	3[illegible]4	1051	0154	0344	1134	1324	2114
0[illegible]3	0[illegible]0	3[illegible]5	1052	0155	0345	1135	1325	2115
0[illegible]4	0[illegible]0	3[illegible]0	1053	0211	0351	1141	1331	2121
0[illegible]5	0[illegible]0	3[illegible]0	1054	0212	0352	1142	1332	2122
0[illegible]1	0[illegible]0	3[illegible]0	1055	0213	0353	1143	1333	2123
0[illegible]2	0[illegible]0	[illegible]	1101	0214	0354	1144	1334	2124
0[illegible]3	0[illegible]0	3[illegible]0	1102	0215	0355	1145	1335	2125
0[illegible]4	[illegible]	3[illegible]0	1103	0221	0411	1151	1341	2131
0[illegible]5	03[illegible]0	32[illegible]0	1104	0222	0412	1152	1342	2132
0[illegible]1	04[illegible]0	33[illegible]0	1105	0223	0413	1153	1343	2133
0[illegible]2	04[illegible]0	[illegible]	[illegible]	0224	0414	1154	1344	2134
0[illegible]3	0[illegible]0	4[illegible]01	1202	0225	0415	1155	1345	2135
0[illegible]4	0[illegible]0	4[illegible]02	1203	0231	0421	1211	1351	2141
0[illegible]5	04[illegible]0	[illegible]	1204	0232	0422	1212	1352	2142
0[illegible]1	10[illegible]1	4004	1205	0233	0423	1213	1353	2143
0[illegible]2	10[illegible]2	4005	1301	0234	0424	1214	1354	2144
00[illegible]	10[illegible]3	4010	[illegible] 1302 sc	0235	0425	1215	1355	2145
00[illegible]	10[illegible]4	4020	1304	0241	0431	1221	1411	2151
00[illegible]	10[illegible]5	4030	1305	0242	0432	1222	1412	2152
01[illegible]	[illegible]	4040	1401	0243	0433	1223	1413	2153
01[illegible]	[illegible]	4050	1402	0244	0434	1224	1414	2154

4101 ♂ PM
Δ 4201 ♂ P.m
4301 ♂ P m

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Greasewood-Sage Grid # A Project 83 Trap night 1

Date, time traps set Dec 7, 1974 11:00 Date, time traps checked Dec 8, 1974 11:00

Last toe clip # used on previous day 4003 Checked by Sang / Ellwood

Trap. loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1-5		Peromyscus man.	4004	♂	A	—	—	—	
1-9		P. man.	0302	♂	A	—			
1-9		Microtus longicaudus	3010	♀?	A	—	—	—	Tail - 61mm T=166
1-4		P. man	2000	♂	A	—	—	—	
1-3		Micro. longicaudus	4005	♂♀	A		Necro		Tail 55 - T=111
1-1		P. man.	4010	♀	A	—			

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Greasewood - sage Grid # A Project B3 Trap night 2

Date, time traps set 12/8/74 Date, time traps checked 12/9/74

Last toe clip # used on previous day 4010 Checked by Sanz Ellinwood

apt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		P. man.	4010	♀	A				
-4		P. man.	2000	♂	A				
13		P. man	1003	♂	A	Check	& October data		
-10		Mic. Montanus	4020	♀	A		DO NOT	USE FOR	RECAPTURE DATA

3.11.2.14-22

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Greasewood-Sage Grid # A Project 83 Trap night 3

Date, time traps set 12/9/74 Date, time traps checked 12/10/74

Last toe clip # used on previous day 4020 Checked by Ellmwood - Sanz

Begin - 4030

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		Onychomys leucogaster	1004	♀	A	—			
-2		P. man. ?	4010	♀	A	—			[illegible]
-4		Microtus montanus ?	1005	♂	—				Tail 43 TBL (est) 13 [illegible]
-6		P. man.	0023	♀	—				
-11		P. man	0102	♀					
-9		M. long. ?	2050	♂					Tail - 53 TBL - [illegible]
-13		P. man.	0301	♀					
-13		P. man.	1003	♂	- Check Oct Data				Toes hard - or[illegible]

3 B/C

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Greasewood - sage Grid # A Project 83 Trap night 4

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 4020 Checked by Sanz, Ellenwood

begin 4030

Rept. No.	Total Weight	Species.	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-2		P. maniculatus	1004	♀	A	—	—	—	
-4		P. maniculatus	0015	♂	A				
-10		mic. longicaudus	3010	♂?	A				Tail 5.9cm T-16.4
-11		P. maniculatus	0102	♀	A	—	—	—	Te
-3		m. longicaudus	3400	♂	A	—	—	—	Tail-6.5cm T-17.
-1		P. maniculatus	4030	♂	A	—	—	—	

-5.1.2.14-24
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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Greasewood - Sage Grid # A Project 83 Trap night 5

Date, time traps set 12/11/74 Date, time traps checked 12/12/74

Last toe clip # used on previous day 4030 Checked by Ellwood - Sang

Begin 4040

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
E-1		P. man.	4040	♂	A	—	—	—	
E-6		P. man.	0003	♀	A	—	—	—	
E-10		P. man	0302	♂	A				
E-9		Mic. long.	3010	♀	A	—	—	—	Narcoo
E-8		P. man.	2200	♂	A	—			
E-7		Mic. long.	4050	♂	A	—	—	—	
E-6		P. man.	2010	♂	A	—	—	—	
E-2		P. man.	1004	♀	A	—	—	—	

Grid 15 - South P-J (5.1.2.15)

2.11.2.13 - 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South P.J Grid #: B Trap Night: 1 Checked By: JC

Date, Time Traps Set: 8 10/19 Date, Time Traps Checked: 10 10/20

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-2		E min	F	A		0103			h.f < 30
M-13		E min	M	A		0104			h.f < 30
I-9		E ~~min~~ quel	M	A		0105			h.f < 30
H-7		E min	F	A		0201			h.f < 30
H-8		E min	F	A		0202			h.f < 30
H.10		P man.	M	A		0203			tail < body
F-13		P man	F	A		0204			"
E.5		P man.	F	A		0205			"
E-6		P man	F	SA		0301			tail < body
E-8		E min	F.	A		0302			skull 33 h.f < 30
		E min	F.			0303			h.f. < 30
D-11		E min	M			0304			h.f < 30
B-13		P man	M			0305			
B-12		E min	F			0401			h.f < 30
B-10		E min	F			0402			h.f < 30
B-8		E min	F			0403			h.f < 30
A-6		P man	M			0311*			
A-3		E min	M			0404			h.f < 30.

gnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South. P.J Grid #: B Trap Night: 1 Checked By: JB

Date, Time Traps Set: 8:00 10/19 Date, Time Traps Checked: 9:30 10.120

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-1		P. Mam	F	A		00 01			
-1		E. Min	M	A		00 02			hf 28
-1		E. Min	F	A		00 03			hf 26
-1		P Mam	F	A		00 04			
-3		P trnei	M	A		00 05			tail 8 bod 9
-6		P. Mam	F	A		00 10			
8		E. quad	F	A		00 20		Left horse at B-3	hf=33 Sk. Rtch. 17 Sk. Tam. 40
9		E Min	M	A		00 30			Left horse at I-4, hf 2
-10		P. Mam	F	A		00 40			
H-11		E Min	F	A		00 50			hf 2
7		E min	F	A		01 00			hf 3
-3		E Min	F	A		02 00			hf 3
-3		E Min	F	A		03 00			hf 2
-4		P Mam	M	J		04 00			
-7		P. Mam	F	J		10 00			
-6		E Min	F	A		20 00			DEAD
B-4		E Min	F	A		30 00			hf 3
-11		E min	M	A		40 00			hf 2
-12		E min.	M	A		00 11			hf 3
A-3		E Min	M	A		00 12			hf 2
A-12		E Min	F	A		00 13			hf 2
A-11		E Min	F	A		00 14			DEAD

*diagnostic characters, parasites, etc.

ECI

5.1.2.15-3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South P.J. Grid #: B Trap Night: 2 Checked By: JB

Date, Time Traps Set: 10:00 10/20 Date, Time Traps Checked: 10:00 10/21

0015

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		E. min	♀	A		00 15			
B-2		E. min	♂	A		00 21			
J-2		P. man	♂	J		00 22			
L-2		Neo. ciner	♀	A		00 23			
L-8		P. man		J		00 24			
L-8		P. man	♂	J		00 25			
L-13		E. min	♀	A		00 31			hind tail ear
L-13		E. min	♀	A		00 32			95 90 25
J-12		P. man	♂	SA		00 33			✓
6		P. trnei	♂	A		00 05	R		Correct 10/20
5		E. quad	♂	A		00 34			
-3		E. min	♀	A		02 00	R		
-9		E. min	♂	A		00 35			
-7		E. min	♀	A		02 02	R		
E-7		P. man	♀	A		10 00	R		
C-3		E. min	♀	A		03 00	R		
C-6		E. min	♂	A		00 41			
C-8		E. min	♀	A		01 00	R		
C-10		E. min	♀	A		03 03	R		
C-12		E. min	♂	A		40 00	R		
A-13		E. min	♀	A		00 42			
A-12		E. min	♂	A		00 43			
A-11		P. man	♂	A		00 44			
-10		E. min	♀	A		04 02	R		

agnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South P.J Grid #: B Trap Night: 2 Checked By: K

Date, Time Traps Set: 10 10/20" Date, Time Traps Checked: 10/21 0405

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E min	♂	A		0405			
D-1		E min	♂	A		0002R			
K-1		P man	♀	J		0120			
M-3		P man	♀	A		0110			
M-6		P man	♀	A		0130			
M-12		P man	♂	J		0140			
M-13		E min	♂	A		0030R			
K-12		E min	♂	A		0150			
K-6		P. truei	♂	A		0210			≤ > hf.
K-4		P man	?	A		0010R			
[illegible]		E min	♂	A		0220			
[illegible]-1		N. cinerea	♀	A		0250			
D-3		E min	♂	A		0230			
D-4		P man	♂	SA		0400R			
D-7		P man	♀	A		0205R			
D-13		E min	♀	A		0240			
B-12		E min	♀	A		0050R 0250R			clipped again change [illegible] note
B-11		P man	♀	A		0310			
B-8		E min	♀	A		0302R			
B-4		P man	♀	A		0301R			
B-8		P man	♂	A		0320			

ic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South P.J Grid #: B Trap Night: 3 Checked By: JB

Date, Time Traps Set: 9:00 10/21 Date, Time Traps Checked: 9:00 10/22 0045

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-2		E. min	♂	A		04 04	R		
-2		E. min	♂	A		00 21	R		
-2		P. man	♀	A		00 04	R		
1-2		E. quad	♀	A		00 45			
1-1		E. min	♂	A		00 51			
-3		E. quad	♀	A		00 52			
-6		P. trei	♀	A		00 53			
2-8		E. quad	♀	A		00 54			
-11		P. man	♂	A		00 24	R		
-12		P. man	♂	A		03 05	R		04 is also clipped 00
		E. quad	♀	A		00 55			
-12		E. min. (?)	♂	A		01 04	R		
-6		P. trei	♂	A		00 05	R		
-4		P. man	♀	A		00 10	R		
-4		E. min	♀	A		02 01	R		
-5		P. man	♀	A		01 10	R		
-10		P. trei	♂	A		02 10	R		
-6		P. man	♂	A		01 01			
-7		E. min	♂	A		00 30	R		
-12		E. min	♀	A		02 02	R		
11		E. min	♂	A		40 00	R		
~~-6~~		~~Neotoma~~		A					escaped
		P. man.	♂	A		01 02			
		E. min	♂	A		01 03			
		P. man	♀	A		03 10	R		

nostic characters, parasites, etc.

ECI

5.1.2.75-16

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South P.J Grid #: B Trap Night: 3 Checked By: JB

Date, Time Traps Set: 12/21 Date, Time Traps Checked: 12/22

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
7-11		E. min	♀	A		00 42	R		
7-12		E. min	♀	A		03 01	R		From R.B #8
7-13		E. min	♀	A		01 04			

racters, parasites, etc.

J.1.2.12-1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South P.J Grid #: B Trap Night: 3 Checked By: JC

Date, Time Traps Set: 9/30 10/21 Date, Time Traps Checked: 9/30 10/22 0330

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		Emin	♀	A		0330			
D-1		Pman	♂	A		0340			necro
H-1		Equad	♂	A		0350			hf 33 skull 23
K-1		Emin	♀	A		0000B			
[illegible]-1		Emin	♀	A		0010			
3	-	Equad	♂	A		0034R			
13	-	Equad	♀	A		0020R			
-13		Pman	♀	A		0241R			
1-12	-	Equad	♂	A		0105R			necro
1-4	-	Emin	♂	A		0035R			
[illegible]-4		Pman	♀	A		0420			
H-7		Emin	♀	A		0430			
[illegible]-8		Emin	♀	A		0400R			
[illegible]-5		Equad	♂	A		0450			hf 34
F-4		Emin	♀	A		0300R			
F-3		Emin	♂	A		0002R			
D-7		Emin	♀	A		0341R			
3-13		Pman	♀	A		0450			
3-12		Emin	♂	A		0432R			
3-10		Emin	♀	A		0402R			

agnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South PJ Grid #: B Trap Night: 4 Checked By: JB

Date, Time Traps Set: 9:00 10/22 Date, Time Traps Checked: 9:00 10/23 1030

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E. min	♀	A		02 0(3,4)	R		From R.B #8
B-1		E. min	♂	A		10 30			may have been marked 0130
C-1		E. min	♀	A		10 40			
D-1		E. quad	♀	A		00 45	R		
2		E. quad	♀	A		00 54	R		
3		N. cin.	♀	A		00 23	R		
4		E. min	♂	A		00 51	R		
D-8		E. min	♀	A		02 50	R		
D-11		E. min	♂	A		01 04	R		~~Wind~~ white spot on head
D-12		E. quad	♀	A		00 55	R		" "
13		E. quad	♀	A		00 54	R		
12		E. min	♂	A		01 50	R		Dead.
-6		E. min	♀	A		02 02	R		
K-4		P. man	♀	A		01 10	R		
I-4		N. cin	♀	A		10 50			
I-5		E. quad	♂	A		00 34	R		
-7		E. min	♀	A		02 01	R		
-10		E. min	♀	A		03 03	R		
-6		E. min	♂	A		00 02	R		
-13		E. min	♂	A		00 12	R		
-8		E. min	♀	A		03 02	R		
-4		E. min	♂	A		04 04	R		
3		E. min	♀	A		03 01	R		
-6		E. min	♂	A		00 41	R		
-8		P. man	♀	A		11 00			

*diagnostic characters, parasites, etc.

ECI

5.1.2.15-9

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South PJ Grid #: B Trap Night: 4 Checked By: JB

Date, Time Traps Set: 10/22 Date, Time Traps Checked: 10/23

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-10		E. min	♂	A		40 00	R		
A-11		E. min	♀	A		00 42	R		
A-12		E. min	♂	A		00 43	R		
A-13		E. min	♀	A		02 40	R		

c characters, parasites, etc.

ECI

5.1.2.15-10

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South PJ Grid #: B Trap Night: 4 Checked By: JC

Date, Time Traps Set: 8:30 10/22 Date, Time Traps Checked: 8:30 10/23

1001

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
1-2		Pman	♂	A		1001			
D-2		Emin	♂	A		0021R			
D-2		Emin	♂	A		1002			
-2		Emin	♀	A		0200R			
K-2		Equad	♀	A		1003			
L-4		Pmeri	♂	A		0005R			
L-8		Equad	♀	A		1004			
J-B		Emin	♂	A		0011R			
1-6		Emin	♂	A		0030R			
-5		Nalbria	♀	A		0210R			(0250R)
		Emin	♀	A		0200R			
-3		Pman	♂	A		0022R			
H-4		Emin	♀	A		0100R			
H-7		Pman	♂	A		0203R			
-7		Pman	♀	A		0301R			
-3		Emin	♂	A		0230R			
D-4		Emin	♀	A		0300R			
D-5		Pman	♂	A		0400R			
D-6		Emin	♂	A		0355R			necro
D-11		Lmin	♀	A		0316R			
D-12		Emin	♂	A		0220R			
D-13		Emin	♂	A		1005			
		Emin	♀	A		0355R			
-8		Emin	♀	A		1010			
3-4		Emin	♂	A		1020			necro

*nostic characters, parasites, etc.

ECI

3.1.2.75-11

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

ocation: Smith PS Grid #: B Trap Night: 4 Checked By: JC

ate, Time Traps Set: 10/22 Date, Time Traps Checked: 10/23

in et	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
3-3		Emin	♀	A		0103A			

agnostic characters, parasites, etc.

2.1.2.16.14 (CD)
3.1.2.12-10

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: South R1 Grid #: B Trap Night: 5 Checked By: JR

Date, Time Traps Set: 10:00 10/23 Date, Time Traps Checked: 10:00 10/24
1200

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-2		E. min	♀	A		02 04	R		
-2		E. min	♀	A		00 15	R		
-2		P. man	♂	A		00 22	R		
-2		E. min	♂	A		00 51	R		
-10		E. quad	♀	A		00 55	R		
-13		E. quad	♀	A		00 54	R		
-11		P. man	♂	A		03 05	R		
-6		E. quad	♀	A		00 52	R		
-4		P. man	♀	A		01 10	R		
-4		P. man	♀	A		12 00			
5		P. truei	♂	A		00 05	R		
-10		P. man	♀	A		00 40	R		
-7		E. min	♂	A		04 04	R		
-6		E. min	♀	A		01 00	R		
-7		E. min	♂	A		13 00			
-12		E. min	♀	A		00 13	R		
-8		N. cin	♀	A		14 00			
A-10		E. min	♀	A		10 10	R		
-6		E. min	♂	A		20 01			
A-3		E. min	♂	A		04 05	R		

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name South PJ Grid # B Project 83 Trap night 1

Date, time traps set 1200 12/7 Date, time traps checked 11:30 12/8

Last toe clip # used on previous day 1012 Checked by IC, DM

t.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1		P man	0004	♀	A				Dicuz i u
9		P truei	0005	♂	J				" " u
1		P. man	0400	♀	SA				u
3		trichi							

ecology consultants, In

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name South P.J Grid # B Project 83 Trap night 2

Date, time traps set 12/8 1130 Date, time traps checked 12/9 10:20

Last toe clip # used on previous day 2001 Checked by DM · JC

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
H1		P. maniculatus	0420	♀	ad				recaptured
H2		" "	0004	♀	ad				"
H5		" "	0020	♂	ad				"
H-8		P. truei	0005	♂	ad				recaptured

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name South P.J Grid # B Project 83 Trap night 3

Date, time traps set 12/9 1030 Date, time traps checked 12/10

Last toe clip # used on previous day 1012 Checked by JC, DM

Capt. Loc.	Total Weight	Species.	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
11-2		P maniculatus	0004	♀	A				recap
1-12		Pmanic	0140	♂					"

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name South R5 Grid # B Project 83 Trap night 4

Date, time traps set 12/10 Date, time traps checked 12/11

Last toe clip # used on previous day 2001 Checked by VC, DM

Plot. No.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
2		Pmem	0004	♀	A				recap
5		P man	2052	♂	A				
7		Pmem	1000	♀					
12		Pmem	0140	♂					recap
13		Pmem	2003	♀					recap
1		Pmem	0120	♀					recap

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name South PJ Grid # B Project 83 Trap night 5

Date, time traps set 12/11 1130 Date, time traps checked 12/12 1130

Last toe clip # used on previous day 1012 Checked by JC DM

Pt. #	Total Weight	Species.	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
13		P. man	1013	♂	Sad				
10		P. man.	0310	♀	ad				
10		P. man	1014	♀	ad				
10		P. man	1015	♂	ad				
8		P. Truei	0210	♂	ad				
4		P man	0110	♀	SA				recap
3		P. Truei	0005	♂	ad				Recap.
2		P. man	0004	♀	A				recap

Grid 16 - Hunting Club P-J (5.1.2.16)

1 of 2

5.7.2.76-1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Hunt Club P/J Grid #: C Trap Night: 1 Checked By: Sanz, Kestrel

Date, Time Traps Set: 10-19-74 Date, Time Traps Checked: 10-20-74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-2		E. minimus	♀	A		0001			hf 24 SBOT
-4		~~E. minimus~~ quad	♀	A		0002			hf 28 SNBOT
-8		E. minimus	♂	A		0003			hf 26 SBOT
-10		P. maniculatus	♀	A		0004			hf 19 t 62
-11		~~E. minimus~~ quad.	♀	A		0005			hf 28 SBOT
		~~E. minimus~~ quad	♂	A		0010			hf 29 SBOT
		P. maniculatus	♀	A		0020			hf 17 t 59
		Neotoma cinerea	♂	A		0030			bushy tail
-3		~~E. minimus~~ quad	♀	A		0040			hf 26 SBOT
-2		P. maniculatus	♀	A		0050			hf 18 t-60
		P. maniculatus	♂	A		0100			hf 18 t-61
		P. maniculatus	♀	A		0200			hf 16 t-58
		P. maniculatus	♂?	A		0031			hf 17 t 67
		E. minimus	♂	A	swollen testis	0300			hf 26 SBOT
-10		P. maniculatus	♂	A		0400			hf 16 t-65
-13		P. maniculatus	♂	A		1000			hf 17 t-59
-12		P. maniculatus	♂	A		2000			hf 17 t-62
-11		P. maniculatus	♀	A		3000			hf 18 t-64
-8		~~E. minimus~~ quad	♀	A		4000			hf 29 SBOT
-3		~~E. minimus~~ quad	♀	A		0011			hf 29 SBOT
5		Spermophilus lateralis	♂?	A		0012			2 broad dorsal strips
		Peromyscus maniculatus	♀	A		0013			ears > hf t-81
		E. minimus	♀	A		0014			hf 26 SBOT
		P. maniculatus	♀	A		0015			hf 19 t-60
		E. minimus	♂	A		0021			hf 18 SBOT

ostic characters, parasites, etc. CONT

ECI

2 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.7.2.16-2

Location: Hunt Club PJ Grid #: — Trap Night: 1 Checked By: Kestrel

Date, Time Traps Set: 10/19/74 Date, Time Traps Checked: 10/20/74

Line, Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
9		E. minimus	♀	A		0022			SBOT HF 28
11		E. ~~minimus~~ quad	♀	A		0023			SBOT HF 27
11		P. maniculatus	♂	A		0024			t 60 hf 16
10		P. maniculatus	♂	A		0025			t 62 hf 17
1		P. maniculatus?	♂	A		0032			t 69 hf 18
		P. maniculatus	♂	A		0033			t 62 hf 17
		P. maniculatus	♂	A		0034			t 69 body hf 18 ear 1
4		P. leucopus	♂	A		0035			ear 22 hf 20 grey pelage
6		E. ~~minimus~~ quad	♂	A		0041			Both ears chewed SBOT hf 29
111		P. maniculatus	♀	A		0042			hf 17 t-67
5		P. maniculatus	♂	A		0043			hf 19 t-68 e-17
6		E. minimus	♀	A		0044			SBOT hf 27
1		P. maniculatus	♂	A		0045			t 66 hf 18 ear 1
11		P. maniculatus	♂	A		0051			t 67 body 74 hf 17 e 15 brittly

*Diagnostic characters, parasites, etc.

ECI

2.1.2.16-5

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Hunting Club P/J Grid #: F2 Trap Night: 2 Checked By: Kestrel

Date, Time Traps Set: 10/20/74 Date, Time Traps Checked: 10/21/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-2		E. minimus	♂	A	swollen testis	0052			hf 31
4		E. quadrivittatus	♂	A		0053			
-10		E. minimus	♀	A		0054			
1-11		E. quadrivittatus	♀	A		0005	r		hf 31
1-13		P. maniculatus	♂	A		0055			
1-13		P. maniculatus	♂	A		1000	r		
-11		E. quadrivittatus	♂	A		0010	r		hf 32
-10		P. maniculatus	♂	A		0101			
-4		E. minimus	♂	A		0300	r		
4		P. maniculatus	♀	A		0050	r		
3		P. maniculatus	♂	A		0000	r		
-2		P. maniculatus	♀	A		3000	r		
-1		P. maniculatus	♂	A		0022	r		
-3		E. quadrivittatus	♀	A		0102			hf 31
-4		P. maniculatus	♂	A		0021	r		
5		[illegible]		A					escaped through bag [illegible] and [illegible] yest.
-9		E. quadrivittatus	♀	A		0011	r		hf 31
-9		P. truei	♀	A		0013	r		24+80 h 75 hf 21
15		E. minimus	♀	A		0022	r		
13		E. minimus	♀	A		0014	r		
10		E. minimus	♂	A		0103			
52		E. minimus	♂	A		0104			
		P. maniculatus	♀	A		0105			
7		P. maniculatus	♂	A		0205			
1		E. minimus	♂	A		0201			X

*diagnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Hunt Club P/J Grid #: AC Trap Night: 2 Checked By: Kestel

Date, Time Traps Set: 10/20/74 Date, Time Traps Checked: 10/21/74 0202

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
K-3		E. minimus	♂	A		0200			
K-6		P. truei	♂	A		0035	r		
K10		P. maniculatus	♂	A		0041	r		
L13		P. maniculatus	♀	A		0203			
M11		P. maniculatus	♂	A		0043	r		
2		E. quadrivittatus	♂	A		0041	r		hf 31
4		E. minimus	♂			0120	?		
4		P. maniculatus	♂	A		0015	r		
M3		P. maniculatus	♀			0204			
M2		P. maniculatus	♀	A		0301			
1		P. maniculatus	♀	A		0033	r		

*diagnostic characters, parasites, etc.

1 of 2

5.7.2.16-5

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Hunt Club P/J Grid #: C Trap Night: 3 Checked By: Reeter

Date, Time Traps Set: 10/21/74 Date, Time Traps Checked: 10/22/74

Check animal E. minimus # (0120) around L4

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
1-2		E minimus	♀	A		03 03			
1-4		E quadrivittatus	♂	A		00 53	r		
1-10		P. maniculatus	♀	A		00 20	r		
1-11		E. quadrivittatus	♀	A		00 05	r		
1-13		E minimus	♂	A		03 04			
13		P. maniculatus	♀	A		30 00	r		
1		E quadrivittatus	♀	A		00 23	r		
0		E. minimus	♀	A		00 54	r		
-8		P. maniculatus	♂	A		01 01	r		
5-6		E quadrivittatus	♂	A		03 05			
2		E quadrivittatus	♀	A		00 40	r		
5-2		P. maniculatus	♀	A		04 01			
-2		P. maniculatus	♂	A		04 02			
-2		E minimus	♀	A		04 03			
C-6		E quadrivittatus	♀	A		00 11	r		
-10		P maniculatus	♂	A		10 00	r		
D-10		E minimus	♀	A		04 04			
D-6		P. maniculatus	♀	A		00 50	r		
D-1		E minimus	♀	A		00 22	r		
E-1		P. maniculatus	♀	A		04 05			
E-4		E. minimus	♀	A		03 00	r		
E-5		E quadrivittatus	♀	A		00 02	r		
		P. maniculatus	♂	A		00 31	r		
E-8		P. maniculatus	♀	A		01 10			
E-11		E. minimus	♀	A		01 20	r		

diagnostic characters, parasites, etc.

202 SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 3.1.2.16-6

Location: Hunt Club P/J Grid #: C Trap Night: 3 Checked By: Kestrel

Date, Time Traps Set: 10/21/74 Date, Time Traps Checked: 10/22/74

Eminimus #10120 around L4

Li Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	0150 Animal Weight	Additional Notes*
-7		P. maniculatus	♂	A		01 30			
-10		P. truei	♀	A		00 13	r		
1-11		E. quadrivittatus	♀	A		40 00	r		
1-3		E. minimus	♀	A		01 40			
-2		E. minimus	♀	A		00 44	r		
1		P. maniculatus	♀	A		00 15	r		
1		E. minimus	♂	A		00 50	r		
4		E. minimus	♂	A		02 01	r		
-7		P. maniculatus	♀	A		02 02	—		—
-5		P. maniculatus	♀	A		00 04	r		
1		E. minimus	♂	A		02 03	—		—
		E. minimus	♂	A		02 04	—		—
4		E. minimus	♂	A		01 20	r		
-6		P. truei	♂	A		00 35	r		
K-10		P. maniculatus	♀	A		02 03	r		
M-12		P. maniculatus	♀	A		01 50			
M-11		P. maniculatus	♂	A		00 43	r		
L-10		P. maniculatus	♂	A		00 24	r		
M-9		E. quadrivittatus	♂	A		00 41	r		
M-4		E. minimus	♂	A		02 10			
L-4		P. maniculatus	♀	A		02 20			
L-1		E. minimus	♂	A		02 30			

*diagnostic characters, parasites, etc.

10/3 SMALL MAL LIVE TRAPPING FIELD DATA ET 5.1.2.16-1

Location: Hunt Club Grid #: Trap Night: 4 Checked By: Kestner

Date, Time Traps Set: 10/21/74 0240 Date, Time Traps Checked: 10/23/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-2		E. minimus	♂?	A		0003	r		
-10		E. minimus	♀	A		0054	r		
-11		P. maniculatus	♂	A		0240			
-13		P. maniculatus	♂	A		0055	r		
-13		P. maniculatus	♂	A		0250			
-10		E. minimus	♂	A		0300	r		
3-8		E. minimus	♀	A		0310			
3-4		E. quadrivittatus	♀	A		0011	r		
-3		E. quadrivittatus	♂	A		0040	r		
2-		E. minimus	♂			0300	r		
11		E. quadrivittatus	♀	A		0023	r		
2		P. maniculatus	♀	A		3000	r		
-11		P. maniculatus	♂	A		0400	r		
-9		E. quadrivittatus	♂	A		0320			
-1		E. minimus	♂	A		0330			
-11		P. maniculatus	♀	A		0050	r		
-5		P. maniculatus	♂	A		0031	r		
8		P. maniculatus	♀	A		0110	r		
-9		E. quadrivittatus	♂	A		0041	r		
11		E. quadrivittatus	♀	A		4000	r		
12		P. maniculatus	♂	A		0340			
F-9		P. maniculatus	♀	A		0004	r		
-7		E. minimus	♀	A		0014	r		
-6		P. maniculatus	♂			0000	r		
7-H		E. quadrivittatus	♀	A		0002	r		

*Diagnostic characters, parasites, etc.

ECI

2 of 3 SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET L-B 5.1.2.16-8

Location: [illegible] Grid #: _____ Trap Night: 4 Checked By: [illegible]

Date, Time Traps Set: _____ Date, Time Traps Checked: _____

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-6		S. lateralis	♂	A		0010	r		
7-3		E. minimus	♀	A		0411			check for clip
1-2		E. minimus	♂	A		0350			
1-1		P. maniculatus	♂	A		0032	r		
5-2		E. minimus	♂	A		0101	r		trap bix
E-4		E. minimus	♂	A		0001	r		
-5		P. maniculatus	♂	A		0411			
-7		P. truei	♀	A		0013	r		
-9		P. maniculatus	♂	A		0420			
-10		P. maniculatus	♀	A		0430			
7		P. maniculatus	♂	A		0010	r		
5-5		E. minimus	♀	A		0020	r		
-1		E. minimus	♂	A		0100	r		
K-3		P. maniculatus	♀	A		0220	r		
K-10		P. maniculatus	♂	A		0041	r		
-3		P. maniculatus	♂	A		0051	r		
1-12		P. maniculatus	♀	A		0203	r		
M11		P. maniculatus	♂	A		0043	r		
10		P. maniculatus	♂	A		0005	r		
8		P. maniculatus	♀	A		0440			
18		P. truei	♀	A		0450			
16		E. minimus	♀	A		0044	r		
[illegible]		P. maniculatus	♀	A		[illegible]	r		
M-3		P. maniculatus	♀	A		0034	r		
M-3		P. maniculatus	♀	A		0301	r		Killed & eaten by 0034

* diagnostic characters, parasites, etc.

ECI

3of3 2.1.2.16-4

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Hunt Club Grid #: ______ Trap Night: 4 Checked By: ______

Date, Time Traps Set: ______ Date, Time Traps Checked: ______

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-3		P. maniculatus	♂	A		1001			
1-2		E. minimus	♂	A		0203	r		trapbox at 1-2
-1		E. minimus	♂	A		0230	r		

characters, parasites, etc.

ECI

1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Hunt Club Grid #: C Trap Night: 5 Checked By: Keatus

Date, Time Traps Set: 10/23/74 Date, Time Traps Checked: 10/24/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
M8		P. maniculatus	A	♂		1002			
M12		E. quadrivittatus	A	♀		1003			
M13		P. maniculatus	A	♂		0420	R		
L10		P. maniculatus	A	♀		0150	R		
L4		P. maniculatus	A	♀		0220	R		
L-3		P. maniculatus	A	♂		0145	R		
K-3		E. minimus	A	♂		0201	R		
K-2		E. minimus	A	♂		0120	R		
K-1		P. maniculatus	A	♀		0033	R		
L-1		E. minimus	A	♂		0230	R		
[illegible]		P. maniculatus	A	♂		1005			
K-10		P. maniculatus	A	♀		0410	R		
K-8		P. maniculatus	A	♂		0025	R		
K-13		P. leucopus	A	♀		0113	R		
I-9		E. quadrivittatus	A	♀		1003			ht 16 tail 120
J9		M. montanus	A	♂		1004			
J-8		E. minimus	A	♀		0122	R		?
J10		P. maniculatus	A	♀		1010			
J-4		E. minimus	A	♀		0044	R		
J-3		P. maniculatus	A	♀		1002			
J-2		P. maniculatus	A	♂		0032	R		
H-3		P. maniculatus	A	♂		0410	R		
[illegible]		P. maniculatus	A	♂		0415	R		
H-8		E. minimus	A	♂		0250	R		
H-10		E. quadrivittatus	A	♂		0041	R		

*diagnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Bird Club Grid #: C Trap Night: 3 Checked By: Kestrel

Date, Time Traps Set: 10/23/74 Date, Time Traps Checked: 10/24/74 1030

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-13		P. maniculatus	♂	A		0340	R		
-11		E. quadrivittatus	♀	A		4000	R		
-4		E. quadrivittatus	♀	A		0002	R		
-2		E. minimus	♀	A		1030			
D-1		E. minimus	♂	A		1330	R		
D-2		E. minimus	♂	A		0300	R		DECD
E4		E. minimus	♀	A		0141	R		
E 6		P. maniculatus	♀	A		1040			
E 8		P. maniculatus	♂	A		0030	R		
E 9		P. maniculatus	♀	A		0020	R		
[illegible]		P. maniculatus	♀	A		1050			
D11		E. minimus	♀	A		0120	R		
C-8		E. minimus	♀	A		0310	R		
C-4		E. quadrivittatus	♀	A		0011	R		
C-2		P. maniculatus	♀	A		0015	R		
C-1		P. maniculatus	♀	A		0102	R		
B-1		E. minimus	♂	A		2010			
B-3		E. quadrivittatus	♀	A		0102	R		
B-12		E. quadrivittatus	♀	A		2020			
B-13		P. maniculatus	♂	A		1010	R		
A-13		E. minimus	♀	A		0030			
A-10		E. minimus	♀	A		0054	R		
[illegible]		E. minimus	♂	A		0003		escaped	

*diagnostic characters, parasites, etc.

5.1.2.76-12

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Hunting Ank P-1 Grid # C Project 83 Trap night 1

Date, time traps set Dec 7. 1974 Date, time traps checked Dec 8. 1974

Last toe clip # used on previous day 1050 Checked by Sanz, Ellinwood

apt. oc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
4-8		Peromyscus truei	1035	♂	A	—	—	—	
	F1	" "	"						
	F-2	Tracks – No	Capture						

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Hunt Club P.J. Grid # C Project 83 Trap night 2

Date, time traps set 12/8/74 Date, time traps checked 12/9/74

Last toe clip # used on previous day 1050 Checked by Sanz, Ellinwood

Apt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		NO CAPTURES							

2.6.2.16 74 (CCI)
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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Hunt Club - P-J Grid # C Project 83 Trap night 3

Date, time traps set 12/9/74 Date, time traps checked 12/10/74

Last toe clip # used on previous day 1030 Checked by Ellwood - Samy
Start C 1100

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes

NO CAPTURES

9.1.2.16-15

ecology consultants, In

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Hunt Club P.J. Grid # C Project 83 Trap night 4

Date, time traps set 12/10/74 Date, time traps checked 12/11/74

Last toe clip # used on previous day 1030 Checked by Sanz, Ellinwood

begin 1100

apt. oc.	Total Weight	Species.	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		No Captures							

2.1.2.16-16

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Hunt Club P-J Grid # C Project 83 Trap night 5

Date, time traps set 12/10/74 Date, time traps checked 12/12/74

Last toe clip # used on previous day 1080 Checked by Ellenwood - Sang

Begin 1100

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
H-10		P. truei	1035	♂	A				
J-4		Pinion-Jay	—	—	—				
E-1		P. mon.	0033	♀	A				

Grid 17 - Sage (5.1.2.17)

3.1.2.1.1-1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: D Trap Night: 1 Checked By: JB

Date, Time Traps Set: 4:00 10/14 Date, Time Traps Checked: 4:00 10/20

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-2		P. Man	♂	J		00 01			
-4		P. Man	♀	A		00 02			
-11		E. Min	♀	A		00 03			30
-13		P. Man	♂	A		00 04			
-12		E. Min	♂	A		00 05			29
-2		E Min	♀	A		00 10			30
11		P. Man	♂	J		00 20			
7		E. Min	♂	A		00 30			
12		P. Man	♀	A		00 40			
-11		P. Man	♂	A		00 50			
[illegible]		E Min	♀	A		01 00			30
-6		P. Man	♂	A		02 00			
-3		Shrew				03 00			DEAD
-7		P. Man	♀	A		04 00			

*diagnostic characters, parasites, etc.

ECI

5.1.2.17-2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: J Trap Night: 1 Checked By: JC

Date, Time Traps Set: 3:30 10/19 Date, Time Traps Checked: 4:00 10/20

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
1-1	1	P man	♂	A		0103			tail c-bord.
3		P man	♂			0104			tail c-bord
11		P man	♂			0105			"
2		E min	♀			0201			hf < 30
13		P man	♀			0202			t' < b.
2		P man	♀	↓		0305			missing left hind foot
6		P man	♂	SA		0703			
8		P man	♀			0204			
9		E min	♀			0205			hf < 30
13		H. cinerea	♀			0301			
1		P man	♀			0302			
		P man	♀			0303	NECRO		in same trap with alive Necro and fed to head eaten
		P man	♀			0304			
		E min	♂			0305			hf < 30

*Diagnostic characters, parasites, etc.

ECI

5.1.2.17-3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: D Trap Night: 2 Checked By: JB

Date, Time Traps Set: 4:30 4/20 Date, Time Traps Checked: 4:30 4/21

1000

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	~~Trap Weight~~	Animal Weight	Additional Notes*
M-4		E. min	♂			10 00	—		
M-11		E. min	♂			20 00			
M-13		P. man	♀			02	R		
-12		Vole L. curtatus	♂			30 00			DEAD
-11		E. min	♂			40 00			
-8		E. min	♀			00 11			
-2		P. man	♀			00 12			
6		E. min	♂			00 13			
-4		E. min	♀			00 14			
-8		E. min	♀			00 15			
		P. man	♂			00 21			
-3		P. man	♀			00 22			
-4		P. man	♂			00 23			
-6		E. min	♂			00 24			
-8		E. min	♂			00 30	R		
-10		E. min	♂			00 31			

diagnostic characters, parasites, etc.

ECI

S.1.2.17-4

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: D Trap Night: 2 Checked By: JC

Date, Time Traps Set: 4. 10/20 Date, Time Traps Checked: 4 30 10/21 0401

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
L-1		P man	♀	A		0401			
L-2		P man	♂	A		001R			no hair on tail
4		P man	♀			002R			
3		P man	♂			0402			
J-13		Emin	♂			0403			
1-10		Emin	♂			0404			
		Emin	♂			0405			
		Emin	♀			0100R			
10		Emin	♂			0005R			
H-11		P man	♂			0020R			
H-7		Emin	♂			0110			
H-13		Emin	♂			0120			
F-12		P man	♀			0400R			
F-10		Emin	♂			0130			
D-4		P man	♀			0140			
D-6		P man	♀			0202R			
D-9		Emin	♀			0203R			
D-12		P man	♀			0404R			
B-13		N cinerea	♀			0301R			
B-12		P man	♂			0050R			
B-11		P man	♀			0302R			
B-10		Emin	♂			0150			
B		P man	♀			0304R			
B-7		Emin	♀			0210			

*diagnostic characters, parasites, etc.

ECI

5.1.2.17-5

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: D Trap Night: 3 Checked By: JB

Date, Time Traps Set: 4 10/21 Date, Time Traps Checked: 4 10/22 0832

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
L-1		P. man	♀	A		04 01	R		
L-2		E. min	♀	A		00 10	R		
3		E. min	♂	A		00 32			
4		E. min	♂	A		00 33			
5		E. min	♀	A		00 11	R		
L-10		P. man	♀	A		00 34			
3		E. min	♂	A		00 22			
3		E. min	♂	A		00 05	R		
12		E. min	♀	A		00 41			
J-8		P. man	♀	A		00 42			
[illegible]		P. man	♂	A		00 43			
H-4		E. min	♀	A		00 14	R		
H-9		E. min	♂	A		01 30	R		
H-10		P. man	♂	A		00 44			
H-11		E. min	♀	A		00 45			
H-12		E. min	♂			01 10	R		
15		P. man	♀			00 51			
13		E. min	♀	A		00 52			
12		E. min	♂			01 20	R		
10		E. min	♀			01 00	R		
D-2		P. man	♂			00 21	R		
D-4		E. min	♂			00 53			
D-11		E. min	♀			02 05	R		
D-12		P. man	♀			00 40	R		
B-12		E. min	♀			00 54			

*diagnostic characters, parasites, etc.

5.1.2.77-6

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: D Trap Night: 3 Checked By: JB

Date, Time Traps Set: 4 10/21 Date, Time Traps Checked: 4 10/22

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-10		P. man	♀	A		02 04	R		
B-6		P. man	♀	A		03 04	R		

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*diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

5.1.2.17-7 3

Location: Sage 1 Grid #: D Trap Night: 3 Checked By: JC

Date, Time Traps Set: 4 10/21 Date, Time Traps Checked: 4 10/22 0220

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
M-3		Pman	♂	A		0220			
M-4		Emin	♀			0230			
M-8		Pman	♂			0402R			
M-13		Emin	♀			0240			
K-11		Emin	♀			0250			
K-8		Emin	♂			1000R			
K-2		Emin	♂			0310			
I-6		Pman	♀			0320			
I-10		Emin	♂			4000R			
I-8		Pman	♂			0020R			
[illegible]		Emin	♂			0330			
		Emin	♂			0030R			
12		Pman	♀	J		0140R			
-11		Pman	♂			0050R			
C-3		Pman	♂			0340			
A-2		Emin	♂			0350			
A-3		Pman	♂			0050R			
A-4		Emin	♀			0410			
A-6		Emin	♀			0305R			
A-10		Pman	♀			0420			Necro
A-13		Emin	♀			0430			
B-8		Emin	♂			0031R			
B-[illegible]		Emin	♂			0440			

diagnostic characters, parasites, etc.

ECI

5.1.2.17-8

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: D Trap Night: 4 Checked By: JC

Date, Time Traps Set: 4 10/22 Date, Time Traps Checked: 4. 10/23 0450 stop 1020

Live Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
L-1		Pman	♀	A		0401R			
M-3		Pman	♀			0002R			
M-4		Pman	♀	~~A~~		0230R			not included in indiv. record
M-8		Pman	♂			0105R			
M-10		Emin	♀			0003R			
M-13		Pman	♂			0450			
13		Emin	♂			4000R			
11		Emin	♂			1001			
X-6		Emin	♂			2605R			
T-6		Pman	♀			1002			
[illegible]		Pman	♀	J		0012R			
I-10		Emin	♀			0015R			
E-4		Emin	♀			0014R			
E-5		Pman	♂			1003			
E-6		Emin	♂			0053R			
E-7		Emin	♀			0015R			
E-8		Emin	♀			0205R			
C-13		Emin	♂			0031R			
C-12		P. man	♀			5302R			
C-11		Emin	♂			1005R			missed mark marked 1 ← 1005 = 0005
C-6		Emin	♂			0200			~~[illegible]~~ Rpt. mark 1st capture
C-4		Emin	♂			~~1050R~~			0150 R (on indiv record)
[illegible]		Pman	♂			0340R			
A-[illegible]		Pman	♂			1004			
A-[illegible]		Pman	♀			0304R			

*diagnostic characters, parasites, etc.

ECI

5.1.2.17-9

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: D Trap Night: 4 Checked By: JB

Date, Time Traps Set: 10/22 Date, Time Traps Checked: 4 10/23 0055

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-2		P. man	♀			04 00	R		
D-2		P. man	♂			00 21	R		
I-2		P. man	♀			00 05	R		0X 00 foot is missing
L-2		P. man	♂			00 01	R		
-3		P. man	♂			01 04	R		
5		E. min	♂			10 00	R		
		P. man	♀			00 34	R		
3		P. man	♂			04 02	R		?
6		P. man	♂			04 02	R		
-7		E. min	♀			00 11	R		
K-7		P. man	♀			03 20	R		
H-11		E. min	♀			01 00	R		
H-12		P. man	♂			00 20	R		
H-13		P. man	♀			00 51	R		
F-13		E. min	♀			00 41	R		
F-12		E. min	♂			01 20	R		
D-6		P. man	♀			01 40	R		
D-10		E. min	♂			00 55			
D-12		P. man	♀			00 40	R		
B-13		P. man	♀			01 01			DEAD
B-12		P. man	♂			00 50	R		
B-8		E. min	♂			00 20	R		
B-[illegible]		E. min	♀			03 05	R		
A-6		P. man	♂			00 23	R		DEAD

*diagnostic characters, parasites, etc.

ECI

S.1.2.11-

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Cave Grid #: D Trap Night: 5 Checked By: JB

Date, Time Traps Set: 5:00 10/23 Date, Time Traps Checked: 5:00 10/24 0102

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-1		E. min	♀			01 02			
C-1		P. man	♂			00 21	R		
L-1		E. min	♀			10 30			
M-4		E. min	♂			03 10	R		
M-8		E. min	♀			02 30	R		
-10		P. man	♂			01 05	R		
13		P. man	♀			10 40			may be 1004
-6		E. min	♂			10 00	R		
I-8		E. min	♂			01 30	R		
I-10		E. min	♂			01 10	R		DEAD
C-[illegible]		E. min	♀			02 05	R		DEAD
E-4		E. min	♀			10 50			
E-7		E. min	♂			02 00	R		nat. mark
E-9		E. min	♂			11 00			
C-6		P. man	♀			12 00			
-3		E. min	♀			12 00			mistak
6		E. min	♀			04 10	R		
8		E. min	♂			00 53	R		
-13		P. man	♂			10 04	R		

*diagnostic characters, parasites, etc.

ECI

5.1.2.17-11

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: D Trap Night: 5 Checked By: JC

Date, Time Traps Set: 5.00 10/23 Date, Time Traps Checked: 5:00 10/24 1010 stop 1020

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-2		Pman	♂	A		1010			
L-2		Pman	♀			1020			
L-3		Pman	♂			0061R			
L-4		S laterale	♂			4100			
-11		Pman	♀			0034R			
2		Emin	♂			0035R			
		Emin	♂			~~1005R~~ 1001R			
11		Emin	♂			4000R			
-10		Pman	♂			0020R			
-9		Emin	♂			2000R			
		Pman	♀			00-43R			
-7		Emin	♀			0011R			
H-3		Pman	♀			0320R			
H-5		S laterale	♂			4200			
H-7		Pman	♀			0140R			
-8		Emin	♀			0001R			
1		Emin	♀			0045R			
2		Pman	♀			4300			
3		Vole L. curtatus	♀			4400			kept
-13		Emin	♀			0041R			
F-11		Vole Phen. L. curtatus	♀			1011			kept
D-3		Pman	♀			0304R			
D-2		Pman	♂			0030R			
D-13		Emin	♂			0120R			
B-13		Emin	♂			1005R			

*diagnostic characters, parasites, etc.

ECI

5.1.2.17-12

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Sage Grid #: 0 Trap Night: 5 Checked By: JC

Date, Time Traps Set: 5:00 10/23 Date, Time Traps Checked: 5:08 10/24

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-17		Emin	♀	A		0015R			
B-11		Eman	♀			032R			
B-10		Emin	♂			0031R			
B-8		Emin	♀			043R			
B-6		Emin	♀			1012			

c characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Sage Grid # D Project 83 Trap night 1

Date, time traps set 12/7 Date, time traps checked 12/8

Last toe clip # used on previous day 1012 Checked by JC / DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
G-8		Tracks							around trap
F12		Sagurus curtatus	1013	OO	ad				
H-8		Tracks							
H-10		"							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Sage Grid # D Project 83 Trap night 2

Date, time traps set 12/8 Date, time traps checked 12/9

Last toe clip # used on previous day 1013 Checked by JC / DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		no captures							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Sage Grid # D Project 83 Trap night 3

Date, time traps set 12/9 Date, time traps checked 12/10

Last toe clip # used on previous day 1013 Checked by JC / DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		no captures							

3.1.2.11.76

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Sage Grid # D Project 83 Trap night 4

Date, time traps set 12/10 3:30 Date, time traps checked 12/11 4:00

Last toe clip # used on previous day 1013 Checked by JC / DM

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		no captures							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Sage Grid # D Project 83 Trap night 5

Date, time traps set 12/11 400 Date, time traps checked 12/12 400

Last toe clip # used on previous day 1200 Checked by JC /DM

apt. oc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-10		Dog. curtatus	1305	♂					

Grid 18 - Mountain Brush (5.1.2.18)

3.1.2.18-1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Mtn. Brush Grid #: E Trap Night: I Checked By: WTT

Date, Time Traps Set: (1000) 10/19/74 Date, Time Traps Checked: 10/20/74 (1015)

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		Eutamias minimus	♂	A	—	0001			n.f. 28mm 5 ds. extend to tail
A-4		E. minimus	♀	A		0002			5 ds. extend to tail
B-4		E. "	♀	A		0003			n.f. 26 mm 5 ds. extend to tail
2		E. "	♂	A		0004			" " "
3		E. "	♂	A		0005			" " "
		E. "	♀	A		0010			" " "
-7		E. "	♀	A		0020			" " "
D-6		E. "	♀	A		0030			" " "
F-2		E. "	♀	A		0040			" " "
5		E. "	♂	A		0050			" " "
		E. "	♂	A		0100			" " "
2		E. "	♂	A		0200			" " "
-12		P. maniculatus	♂	A		0300			bicolored tail
H-5		E. minimus	♀	A		0400			5 ds. extend to tail
H-2		P. maniculatus	♂	A		1000			bicolored tail
H-1		P. "	♂	A		2000			" "
J1		P. "	♀	A		3000			" "
J-6		P. "	♂	A		4000			" "
J-12		E. minimus	♂	A		0011			5 ds. extend to tail
K-3		P. maniculatus	♂	A		0012			bicolored tail
K-1		E. minimus	♀	A		0013			5 ds. extend to tail
M-4		P. maniculatus	♂	A		0014			bicolored tail
1		E. minimus	♀	A		0015			5 ds. extend to tail
I-4		P. maniculatus	♂	A		0021			bicolored tail
I-7		E. minimus	♂	A		0022			5 ds. extend to tail

*diagnostic characters, parasites, etc.

(CONT.)

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET CONT 9.1.2.18-2

Location: Mtn Brush Grid #: E Trap Night: ____ Checked By: ____

Date, Time Traps Set: ____ Date, Time Traps Checked: ____

Bait Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
(CONT)									
G-10		E. minimus	♂	A			0023		5 b. [illegible] + tail
E-10		E. "	♂	A			2024		" " "

*diagnostic characters, parasites, etc.

ECI

5.1.2.18-3

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Wh. Branch Grid #: E Trap Night: 2 Checked By: WTT

Date, Time Traps Set: 10/20/74 (1015) Date, Time Traps Checked: 10/21/74 (1045)

0025

Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
1-12	-	E. minimus ✓	♀	A		0030 ✓			Sds. extend to tail
B-6		E. " ✓	♂	A		0004 ✓			" " "
B-3		E. " ✓	♂	A		0050 ✓			" "
B-2		P. maniculatus ✓	♀	A		0025			bicolored tail
C-1		P. " ✓	♂	A		2000 ✓			" "
C-8		E. minimus ✓	♂	A		0005 ✓			Sds. extend to tail
C-12		E. " ✓	♂	A		0031			" " "
-13		E. " ✓	♀	A		0032			" " "
D-13		E. " ✓	♂	A		0033			" " "
-7		E. " ✓	♀	A		00204 ✓			" " "
		E. " ✓	♀	A		0034			" " "
		P. maniculatus ✓	♂	A		0035			bicolored tail
-9		P. " ✓	♂	A		0041			" "
-11		E. minimus ✓	♂	A		0100 ✓			Sds. extend to tail
-13		E. " ✓	♀	A		0042			" " " "
-12		P. maniculatus ✓	♂	A		0300 ✓			Bicolored tail
1-2		E. minimus ✓	♂	A		0043			Sds. extend to base of tail
5-4		P. maniculatus ✓	♂	A		4000 ✓			bicolored tail
-6		E. minimus ✓	♀	A		0044			Sds. extend to [illegible]
13		E. " ✓	♂	A		0200 ✓			" " " " "
-6		P. maniculatus ✓	♂	A		0045			bicolored tail
-1		E. minimus ✓	♀	A		0051			Sds. extend to base of tail
		E. " ✓	♀	A		0052			" " "
		E. " ✓	♂	A		0022 ✓			" " "
		E. " ✓	♂	A		0053			" "

c characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: MHN Brush Grid #: E Trap Night: 2 Checked By:

Date, Time Traps Set: 0054 Date, Time Traps Checked:

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
	(CONT)								
H-11		E. minimus ✓	♀	A		0054			5ds extend to tail
1-8		E. " ✓	♂	A		0055			" " "
1-1		E. " ✓	♀	A		0010 ✓			" " "
4		P. maniculatus ✓	♀	A		0101			bicolored tail
6		E. minimus ✓	♀	A		0400 ✓			5ds extend to tail
		E. " ✓	♂	A		0102			" " "

* diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Mtn Brush Grid #: E Trap Night: 3 Checked By: WTT

Date, Time Traps Set: 10/21/74 (1045) Date, Time Traps Checked: (1200) 10/22/74

0103

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
E-4		P. maniculatus ✓	♂	A		0021	✓		bicolored tail
M-2		E. minimus ✓	♀	A		0010	✓		sacrificed to tail
M-8		E. " ✓	♂	A		0055	✓		" "
M-11		E. "	♀	A		0040	✓		" " "
L-12		P. maniculatus ✓	♂	A		0103			bicolored tail
L-8		P. " ✓	♂	A		0011	✓		" "
L-2		P. " ✓	♂	A		0012	✓		" "
K-2		E. minimus ✓	♀	A		0013	✓		sacrificed to tail
K-6		P. maniculatus ✓	♀	A		0101	✓		bicolored tail
K-12		E. minimus ✓	♂	A		0004	✓		sacrificed to tail
[illegible]		E. " ✓	♀	A		0400	✓		" " " "
[illegible]4		E. " ✓	♂	A		0022	✓		" " " "
J-5		E. " ✓	♀	A		0040	✓		" " " "
J-4		P. maniculatus ✓	♂	A		0000	✓		" " " "
J-3		P. "	♀	A		0104			bicolored tail
[illegible]2		P. " ✓	♂	A		1000	✓		" "
[illegible]12		P. " ✓	♂	A		0300	✓		" "
[illegible]13		E. minimus ✓	♀	A		0032	✓		sacrificed to tail
[illegible]9		P. maniculatus ✓	♂	A		0041	✓		bicolored tail
D-7		E. minimus ✓	♀	A		0020	✓	DEAD	sacrificed to tail
D-12		E. " ✓	♂	A		0023	✓		" " " "
D-13		E. " ✓	♀	A		0042	✓		" " " "
[illegible]		E. " ✓	♀	A		0010	✓		" " " "
C-12		E. " ✓	♀	A		0030	✓		" " " "
C-6		E. " ✓	♂	A		0050	✓		" " " "

*diagnostic characters, parasites, etc.

ECI

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 2.1.2.18 - 6

Location: MHN Brush Grid #: E Trap Night: 3 Checked By: --

Date, Time Traps Set: 0105 Date, Time Traps Checked:

Trap Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
		Cont							
-3		P. maniculatus	♂	A		2000			bicolored tail
B-2		E. minimus	♂	A		0105			5 dg extend tail
B-3		E. "	♂	A		0004			" " "
B-6		E. "	♀	A		0002			" " "
-8		E. "	♂	A		0001			" " "
		E. "	♂	A		0005			" " "
-13		E. "	♀	A		2201			" " "
-12		E. "	♂	A		0033			" " "
-3		P. maniculatus	♂	A		0035			bicolored tail
A-2		E. minimus	See ind. chart	A		0003			3 dg extend tail

*Diagnostic characters, parasites, etc.

ECI

Location: Mtn. Brush Grid #: E Trap Night: 4 Checked By: WTT.

Date, Time Traps Set: 10/22/74 (1020) Date, Time Traps Checked: 10/23/74 (1015)
0202

Line Sq.	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		E. minimus	♀	A	–	0003	removed		sides dotted to tail
A-8		E. "	♂	A		0001			sides dotted to tail
A-12		C. gapperi	♀?	A		0202			red back
B-12		E. minimus	♂	A		0031			sides dotted to tail
B-6		E. "	♂	A		0004			" " " "
B-4		E. "	♀	A		0002			" " " "
B-2		E. "	♂	A		0105	removed		" " " "
[illegible]3		P. maniculatus	♂	A		2000			bobbed tail
[illegible]8		E. minimus	♂	A		0005			sides dotted to tail
[illegible]12		E. "	♀	A		0030	removed		" " " "
C-13		E. "	♀	A		0010	removed		" "
[illegible]		E. "	♂	A		0032			" " " "
D-8		E. "	♂	A		0102			" " " "
F-3		P. maniculatus	♂	A		0021			bobbed tail
F-7		E. minimus	♂	A		0100			sides dotted to tail
F-8		P. maniculatus	♂	A		0035			bobbed tail
[illegible]9		P. "	♂	A		0041			" "
[illegible]13		E. minimus	♀	A		0032			sides dotted to tail
[illegible]12		P. maniculatus	♂	A		[illegible]	[illegible]		bobbed tail
H-7		C. gapperi	♀	A		0400			sides dotted to tail
H-2		C. "	♀	A		0051			" "
H-1		C. "	♀	A		0044			" "
[illegible]-1		C. "	♀	A		0014	–		" "
[illegible]		C. "	♂	A		0043			" "
J-3		C. "	♀	A		0040	✓		" " "

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Site: Hay Brush Grid #: E Trap Night: 4 Checked By:

Time Traps Set: Date, Time Traps Checked:

0223

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
	OUT								
J-4		C. maniculatus	♂	A		0022	✓		Sides ochraceous to buff
J-13		C. "	♂	A		0023	✓		S. " " "
K-12		C. "	♂	A		0204			S. " "
L-2		C. "	♂	A		0203			S. " "
8		P. maniculatus	♂	A		0045	✓		Buffy underbelly
2		C. maniculatus	♂	A		0055	✓		Sides ochraceous to buff
12		C. "	?	A		0053	✓		S. " "
M-8		P. maniculatus	♂	A		0014	✓		Buffy underbelly
M-4		C. maniculatus	♂	A		0204			Sides ochraceous to buff
N-1		C. "	♀	A		0034	✓		S. " "
J-8		C. "	♂	A		0022	✓		S. " "
I-10		P. maniculatus	♂	A		0103	✓		Underbelly buff
G-7		P. "	♀	A		0104	✓		" "
E-4		P. "	♀	A		3000	✓		" "
6		C. maniculatus	♂	A		0050	✓		Sides ochraceous to buff
9		C. "	♀	A		0400	✓		Sides ochraceous to buff
10		C. "	♀	A		0042	✓		S. " "

*Diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: [illegible] Grid #: E Trap Night: 5 Checked By: WTT

Date, Time Traps Set: 10/23/74 (1215) 0205 Date, Time Traps Checked: 10/24/74 ([illegible])

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
		C. maniculatus ♀				0003	✓	[illegible]	[illegible]
		C. maniculatus ♂				0105	added		
		C. maniculatus ♀				0030	[illegible]	[illegible]	[illegible]
		C. maniculatus ♀				0010	✓	✓	[illegible]
-5		C. maniculatus	♂	A		0056	✓		[illegible]
		C. "	♀	A		0010	✓		5. " " "
		C. "	♂	A		0200	[illegible]		5. " " "
3		P. maniculatus	♂	A		0045	✓		bicolored tail
-2		C. maniculatus	♀	A		0044	✓		[illegible]
H7		C. "	♂	A		0100	[illegible]		5. " " "
8		P. maniculatus	♂	A		0103	✓		5. " " "
11-12		C. maniculatus	♂	A		0011	✓		5. " "
11-13		C. "	♂	A		0023	✓		
-4		vole ? lagurus cuitatus	♀	A		0205		✓	[illegible]
-3		C. maniculatus	♂	A		0022	✓		[illegible]
-10		P. man	♂	A		0041	✓		[illegible]
7		C. maniculatus	♀	A		0400	✓		[illegible]
4		vole - same as [illegible] lagurus cuitatus	♂	A		0301	[illegible]		[illegible]
-5		P. maniculatus	♂	A		0021	✓		[illegible]
8		C. maniculatus	♂	A		0005	✓		[illegible]
-10		C. "	♀	A		0042	✓		" " "
-13		C. "	♀	A		0032	✓		" " "
-2		C. "	♂	A		0033	[illegible]		" " "
		C. "	♂	A		0050	✓		" " "
		P. maniculatus	♂	A		2000	✓		bicolored tail

*Diagnostic characters, parasites, etc.

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3.1.2.18 - 10

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Mtn Brush Grid #: E Trap Night: 5 Checked By: WTT

Date, Time Traps Set: 0300 Date, Time Traps Checked:

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
		Cat							
B-1		E. maniculatus	♀	A	–	0302			5 ds extend to tail
B-12		" "	♂	A		0301	✓		5 " " "
F-12		E. maniculatus	♀	A		0303			red back

*diagnostic characters, parasites, etc.

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5.1.2.18-11 (ECI)

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

~~0001~~	0103	1030	4100	1403	0245	0435	1225	1415
~~0002~~	~~0104~~	1040	4200	1405	0251	0441	1231	1421
~~0003~~	~~0105~~	1050	4300	0111	0252	0442	1232	1422
~~0004~~	~~0201~~	1100	4400	0112	0253	0443	1233	1423
~~0005~~	~~0202~~	1200	1011	0113	0254	0444	1234	1424
~~0010~~	0203	1300	1012	0114	0255	0445	1235	1425
~~0020~~	0204	1400	1013	0115	0311	0451	1241	1431
~~0030~~	0205	2001	1014	0121	0312	0452	1242	1432
~~0040~~	0301	2002	1015	0122	0313	0453	1243	1433
~~0050~~	0302	2003	1021	0123	0314	0454	1244	1434
~~0100~~	0303	2004	1022	0124	0315	0455	1245	1435
~~0200~~	0304	2005	1023	0125	0321	1111	1251	1441
~~0300~~	0305	2010	1024	0131	0322	1112	1252	1442
~~0400~~	0401	2020	1025	0132	0323	1113	1253	1443
~~1000~~	0402	2030	1031	0133	0324	1114	1254	1444
~~2000~~	0403	2040	1032	0134	0325	1115	1255	1445
~~3000~~	0404	2050	1033	0135	0331	1121	1311	1451
~~4000~~	0405	2100	1034	0141	0332	1122	1312	1452
~~0011~~	0110	2200	1035	0142	0333	1123	1313	1453
0012	0120	2300	1041	0143	0334	1124	1314	1454
~~0013~~	0130	2400	1042	0145	0335	1125	1315	1455
~~0014~~	0140	3001	1043	0151	0341	1131	1321	2111
~~0015~~	0150	3002	1044	0152	0342	1132	1322	2112
~~0021~~	0210	3003	1045	0153	0343	1133	1323	2113
0022	0220	3004	1051	0154	0344	1134	1324	2114
~~0023~~	0230	3005	1052	0155	0345	1135	1325	2115
~~0024~~	0240	3010	1053	0211	0351	1141	1331	2121
~~0025~~	0250	3020	1054	0212	0352	1142	1332	2122
~~0031~~	0310	3030	1055	0213	0353	1143	1333	2123
~~0032~~	0320	3040	1101	0214	0354	1144	1334	2124
~~0033~~	0330	3050	1102	0215	0355	1145	1335	2125
~~0034~~	0340	3100	1103	0221	0411	1151	1341	2131
~~0035~~	0350	3200	1104	0222	0412	1152	1342	2132
~~0041~~	0410	3300	1105	0223	0413	1153	1343	2133
~~0042~~	0420	3400	1201	0224	0414	1154	1344	2134
~~0043~~	0430	4001	1202	0225	0415	1155	1345	2135
~~0044~~	0440	4002	1203	0231	0421	1211	1351	2141
~~0045~~	0450	4003	1204	0232	0422	1212	1352	2142
0051	1001	4004	1205	0233	0423	1213	1353	2143
0052	1002	4005	1301	0234	0424	1214	1354	2144
~~0053~~	1003	4010	1302	0235	0425	1215	1355	2145
~~0054~~	1004	4020	1304	0241	0431	1221	1411	2151
~~0055~~	1005	4030	1305	0242	0432	1222	1412	2152
0101	1010	4040	1401	0243	0433	1223	1413	2153
~~0102~~	1020	4050	1402	0244	0434	1224	1414	2154

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Mountain Brush Grid # E Project 83 Trap night 1

Date, time traps set 12/7/74 1100 Date, time traps checked 12/8/74 (1130)

Last toe clip # used on previous day 0204 Checked by TT

Capt. loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-10	visit	but no capture - mouse							
	"			"					

5.1.2.18-13

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Mtn Brush Grid # E Project 83 Trap night 5

Date, time traps set 12/11/74 0920 Date, time traps checked 0930 12/12/74

Last toe clip # used on previous day 0204 Checked by JB | TT

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		NO CAPTURES DURRING DECEMBER TRAPPING PERIOD							
		sign of vole activity throughout grid but few visitations to traps							
		also abundant rabbit, coyote, deer tracks							

Grid 19 - Douglas Fir (5.1.2.19)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Doug Fir Grid #: F Trap Night: 1 Checked By: WTT

Date, Time Traps Set: (~~0100~~ 1300) 10/19/74 Date, Time Traps Checked: 10/20/74 (1205)

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
H-4		Clethrionomys gapperi	♂	A		0001			
F-9		P. maniculatus	♂	A		0002			
E-4		C. gapperi	♀	A		0003			
E-9		P. maniculatus	♀	A		0004			
F-10		C. gapperi	♀	A		0005			
E-5		C. "	♀	A		0010			
D-5		C. "	♀	A		0020			

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

3.1.2.19-2

Location: Doug Fir Grid #: E Trap Night: 2 Checked By: [illegible]

Date, Time Traps Set: 10/20/74 (1240) Date, Time Traps Checked: 10/21/74 (1330)

0030

Trap Location	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
I-4		C. gapperi	♂	A	—	0030			red back
H-4		C. "	♂	A		0040			" "
G-7		C. "	♂	A		0001			" "
G-4		C. "	♀	A		0003			" "
F-9		P. maniculatus	♀	A		0004	DEAD		bicolored-tail
E-3		P. "	♂	A		0002			" "
E-7		C. gapperi	♂	A		0050			red back
D-5		C. "	♂	A		0100			" "
D-3		C. "	♀	A		0200			" "

*Diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET 3.1.2.14-3

Location: Doug Fir Grid #: F Trap Night: 3 Checked By: WTT

Date, Time Traps Set: 10/21/74 (1330) Date, Time Traps Checked: 10/22/74 (1305)

0300

Trap Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
D-8		C. gapperi	♂?	A		0300			red back
E-7		C. "	♂?	A		0050 ✓			" "
F-4		C. "	♀?	A		0400			" "
G-7		C. "	♂?	A		1000			" "
G-9		P. maniculatus	♂	A		0002 ✓			bicolored in 1
H-4		C. gapperi	♂?	A		0003 ✓			red back
I-5		C. "	♀?	A		0030 ✓			" "
I-6		C. "	♂	A		0001 ✓			" "

*Diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Doug Fir Grid #: F Trap Night: 4 Checked By: WTT

Date, Time Traps Set: 10/22/74 (1305) 2000 Date, Time Traps Checked: 10/23/74 (1205)

Trap Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
F-7		C. gabrieli	♀?	A		2000	← recaptured!		foot broke
F-6		C. " "	♂?	A		3000			" "
F-10		C. "	♂	A		4000			" "
F-7		C. "	♂	A		0010	✓		" "
G-6		C. "	♀?	A		1000	✓		" "
F-4		C. "	♀	A		0003	✓		" "
F-9		P. maniculatus	♂	A		0002	✓		[illegible]
E-10		C. gabrieli	♀	A		0011			[illegible]
F-5		C. " "	?	A		0010	✓ DEAD		" "
D-10		C. "	♀?	A		0012	DEAD		" "

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

ocation: Dome Fir Grid #: F Trap Night: 5 Checked By: WTT

ate, Time Traps Set: 12/23/74 (1245) Date, Time Traps Checked: 10:01 12/24/74

0013

ine Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
[illegible]		C[illegible]	♂	A		0001 ③001	NAT mark		red back
[illegible]		P. maniculata	♀	A		0013			[illegible]

nostic characters, parasites, etc.

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5.1.2.19-6

ECI

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

~~0001~~	0103	1030	4100	1403	0245	0435	1225	1415
~~0002~~	0104	1040	4200	1405	0251	0441	1231	1421
~~03~~	0105	1050	4300	0111	0252	0442	1232	1422
~~0004~~	0201	1100	4400	0112	0253	0443	1233	1423
~~0005~~	0202	1200	1011	0113	0254	0444	1234	1424
~~0010~~	0203	1300	1012	0114	0255	0445	1235	1425
~~0020~~	0204	1400	1013	0115	0311	0451	1241	1431
~~0030~~	0205	2001	1014	0121	0312	0452	1242	1432
~~0040~~	0301	2002	1015	0122	0313	0453	1243	1433
~~0050~~	0302	2003	1021	0123	0314	0454	1244	1434
~~0100~~	0303	2004	1022	0124	0315	0455	1245	1435
0200	0304	2005	1023	0125	0321	1111	1251	1441
~~0300~~	0305	2010	1024	0131	0322	1112	1252	1442
~~0400~~	0401	2020	1025	0132	0323	1113	1253	1443
~~1000~~	0402	2030	1031	0133	0324	1114	1254	1444
~~2000~~ ?	0403	2040	1032	0134	0325	1115	1255	1445
3000	0404	2050	1033	0135	0331	1121	1311	1451
~~4000~~	0405	2100	1034	0141	0332	1122	1312	1452
~~0011~~	0110	2200	1035	0142	0333	1123	1313	1453
0012	0120	2300	1041	0143	0334	1124	1314	1454
~~0013~~	0130	2400	1042	0145	0335	1125	1315	1455
~~0014~~	0140	~~3001~~	1043	0151	0341	1131	1321	2111
0015	0150	3002	1044	0152	0342	1132	1322	2112
0021	0210	3003	1045	0153	0343	1133	1323	2113
0022	0220	3004	1051	0154	0344	1134	1324	2114
0023	0230	3005	1052	0155	0345	1135	1325	2115
0024	0240	3010	1053	0211	0351	1141	1331	2121
0025	0250	3020	1054	0212	0352	1142	1332	2122
0031	0310	3030	1055	0213	0353	1143	1333	2123
0032	0320	3040	1101	0214	0354	1144	1334	2124
0033	0330	3050	1102	0215	0355	1145	1335	2125
0034	0340	3100	1103	0221	0411	1151	1341	2131
0035	0350	3200	1104	0222	0412	1152	1342	2132
0041	0410	3300	1105	0223	0413	1153	1343	2133
0042	0420	3400	1201	0224	0414	1154	1344	2134
0043	0430	4001	1202	0225	0415	1155	1345	2135
0044	0440	4002	1203	0231	0421	1211	1351	2141
0045	0450	4003	1204	0232	0422	1212	1352	2142
0051	1001	4004	1205	0233	0423	1213	1353	2143
0052	1002	4005	1301	0234	0424	1214	1354	2144
0053	1003	4010	1302	0235	0425	1215	1355	2145
0054	1004	4020	1304	0241	0431	1221	1411	2151
0055	1005	4030	1305	0242	0432	1222	1412	2152
0101	1010	4040	1401	0243	0433	1223	1413	2153
0102	1020	4050	1402	0244	0434	1224	1414	2154

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Douglas Fir Grid # F Project 83 Trap night 1

Date, time traps set 12/8/74 1130 Date, time traps checked 1200 12/8/74

L[illegible] toe clip # used on previous day — Checked by TT

start w/ 0103

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-3		visit							
H-2		C. gapperi	0103	?	A	—			
-1		C. "	0104	?	A	—			
-3		C. "	0030 R	?	A				
F-5		visit							
F-6		visit							
-10		visit							
-9		"							
F-10		"							
-13		"							
I-11		C. gapperi	0105	?	A	—			
I-10		C. "	4000 R	?	A				
H-7		C. "	0201	?	A				

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Douglas Fir Grid # F Project 83 Trap night 2

Date, time traps set 12/8/74 1200 Date, time traps checked 12/9/74 1130

Last toe clip # used on previous day 0013 Checked by TT

t.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
		NO CAPTURES							

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Doug Fir Grid # F Project 83 Trap night 3

Date, time traps set 12/9/74 1130 Date, time traps checked 12/10/74 1200

La toe clip # used on previous day 0013 Checked by Tom Tinney, PSB

pt. c.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1-3		Clethrionomys gapperi	0400	?	adult	—			good shape
1-2		— " —	0014	?	"	—			"
2-6		— " —	0015	?	"	—			Ears chewed
4-7		— " —	0021	?	"				dead - took specimen

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Doug. Fir Grid # F Project 83 Trap night 4

Date, time traps set 12/10/74 1200 Date, time traps checked 12/11/74 1000

La[illegible] toe clip # used on previous day 0021 Checked by JB/RDM

next-0022

apt. oc.	Total Weight	Species.	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		C. gapperi	0022		DEAD				

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Doug Fir Grid # F Project 83 Trap night 5

Date, time traps set 12/11/74 1000 Date, time traps checked 12/12/74 1000

Last toe clip # used on previous day 0022 Checked by JB / TT

Plot. No.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
2		C gapperi	0103	?	A				
1		C. gapperi	0104	?	A				
10		P. maniculatus	0002	♂	A				
10		C. gapperi	0023	?	A				

Grid 20 - Aspen (5.1.2.20)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Asper Grid #: ~~A~~ C Trap Night: I Checked By: WTT

Date, Time Traps Set: (0200) 10/19/74 Date, Time Traps Checked: 10/20/74 (1355)

Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
B-4		vole Microtus longicaudus	♂	A		0001	DEAD		DEAD TL 150mm tail [illegible]
B-6		vole same as above M. l.	♀?	A		0002			TL 131 mm Tail 40 mm
A-9		E. minimus	♀	A		0003			Af. 26 mm
A-12		vole (same as above)	♀	A		0004			bl. 112 mm TL 166 tail 56 mm
A-13		vole	♂	A		0005			bl. 94 mm TL 133 tail 44
C-13		vole M. longicaudus	♂	A		0010	DEAD		TL 133 Tail 44
C-12		vole M. longicaudus	♂	A		0020	DEAD		TL 133 Tail 42
C-10		E. minimus	♀	A		0030			
C-7		E. "	♂	A		0040			
C-6		vole	Escaped!						
C-5		C. gapperi	♀	A		0050			bl. 25 TL 121 Tail 32
C-4		E. minimus	♀	A		0100	In same trap!		
C-4		E. "	♂	A		0200			
C-3		E. "	Escaped						
C-2		vole	♂?	A		0300			bl. 116 TL 164 tail 48

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Aspen Grid #: ~~D~~ G Trap Night: 2 Checked By: WTT

Date, Time Traps Set: 10/20/74 (1355 0400 Date, Time Traps Checked: (1455) 10/21/74

Trap Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-2		P. maniculatus	♂	A		0400			bicolored tail
A-4		C. gapperi ?	?	A		0050	✓		bl. 95 T.L 135 tail 40
B-4		M. longicaudus	♂	A		1000			bl 97 T.L 147 tail 50
A-5		M. longicaudus	♂?	A		2000			bl 108 T.L 165 tail 57
B-6		E. minimus	♂	A		3000			5 d.s ended to tail
B-7		E. "	♀	A		0100 ✓			" " "
A-8		E. "	♀	A		0003 ✓			" "
A-9		P. maniculatus	♂	A		4000			bicolored tail
A-11		M. longicaudus	♂	A		0011			bl 112 T.L 171 tail 59
A-13		E. minimus	♂	A		0012			5 d.s ended to tail
C-13		E. "	♀	A		0013			" " "
C-12		M. longicaudus	♂	A		0014			bl. 97 T.L 146 tail 49
C-11		M. " ?	♂	A		0015			bl. 102 T.L 148 tail 46
C-13		E. minimus	♂	A		0021			5 d.s ended to tail
C-7		E. "	♀	A		0022			" " "
C-4		E. "	♀	A		0023			" " "
C-3		C. gapperi	♂	A		0024			red back
C-2		M. longicaudus	♂	A		0124			bl 87 T.L 134 tail 47

*diagnostic characters, parasites, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Aspen Grid #: ~~A~~ G Trap Night: 3 Checked By: WTT

Date, Time Traps Set: 10/21/74 (1455) Date, Time Traps Checked: (1450) 10/22/74
0025

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
A-1		E minimus	♀			0025			5 d.s extend to tail
A-4		M. longicaudus	♂			0031			bl. 105 tl. 155 tail 50
A-5		M. "	♂			20001	DEAD		see new notes
B-8		E minimus	♂			0040			5 d.s extend total
B-9		E. "	♀			0100			5 " " "
A-9		E. "	♀			0003			5 " " "
A-12		E "	♀			0032			5 " " "
C-12		E "	♀			0033			5 " " "
C-10		E "	♀			0034	DEAD		5 " " "
C-9		M longicaudus	♂			0034			bl 145 tl 170 tail 55
[illegible]		E minimus	escaped						
[illegible]-4		E "	♀			0035			5 d.s extend to tail
C-3		E "	♂			0041			" " "
C-2		M. longicaudus	♂			0042			bl 102 TL 154 tail 52
C-1		M. "	♂			0043			

*diagnostic characters, parasites, etc.

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Acow Grid #: ~~D~~ G Trap Night: 4 Checked By: WTT

Date, Time Traps Set: 10/22/74 (1430) Date, Time Traps Checked: 10/23/74 (1-1-05)

0044

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
-5		[illegible]	[illegible]	[illegible]		0044	Removed		[illegible]
-9		[illegible]	[illegible]	[illegible]		0040	R		" " "
-4		M longicaudus	[illegible]	[illegible]		0015	[illegible]		[illegible]
-9		M. "	[illegible]	[illegible]		[illegible]			[illegible] 107 [illegible] 54 TI: 161
-2		[illegible]	[illegible]	[illegible]		0025	DRIP ~~Removed~~		
						[illegible]			

characters, parasites, etc.

5.1.2.20-5

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Aspen Grid #: ~~D~~ G Trap Night: 5 Checked By: WTT

Date, Time Traps Set: 10/23/74 (1435) 0045 Date, Time Traps Checked: (1400) 10/24/74

Line Set	Total Weight	Species	Sex	Age Class	Repro. Status	Toe Clip No.	Trap Weight	Animal Weight	Additional Notes*
		C. nivium	♀			0023	> ADDED		
		~~C. nivium~~	♂			~~[illegible]~~	DEAD	from previous day	
	NO CAPTURES!								

stic characters, parasites, etc.

5.1.2.20-6

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SMALL MAMMAL LIVE TRAPPING
TOE CLIP CHECKLIST

~~0001~~	0103	1030	4100	1403	0245	0435	1225	1415
~~0002~~	0104	1040	4200	1405	0251	0441	1231	1421
~~0003~~	0105	1050	4300	0111	0252	0442	1232	1422
~~0004~~	0201	1100	4400	0112	0253	0443	1233	1423
~~005~~	0202	1200	1011	0113	0254	0444	1234	1424
~~0010~~	0203	1300	1012	0114	0255	0445	1235	1425
1/20/74 ~~0020~~	0204	1400	1013	0115	0311	0451	1241	1431
~~0030~~	0205	2001	1014	0121	0312	0452	1242	1432
~~0040~~	0301	2002	1015	0122	0313	0453	1243	1433
~~0050~~	0302	2003	1021	0123	0314	0454	1244	1434
~~0100~~	0303	2004	1022	10/22/74 ~~0124~~	0315	0455	1245	1435
~~0200~~	0304	2005	1023	0125	0321	1111	1251	1441
~~0300~~	0305	2010	1024	0131	0322	1112	1252	1442
~~0400~~	0401	2020	1025	0132	0323	1113	1253	1443
~~1000~~	0402	2030	1031	0133	0324	1114	1254	1444
~~2000~~	0403	2040	1032	0134	0325	1115	1255	1445
~~3000~~	0404	2050	1033	0135	0331	1121	1311	1451
~~4000~~	0405	2100	1034	0141	0332	1122	1312	1452
1/21/74 ~~0011~~	0110	2200	1035	0142	0333	1123	1313	1453
~~0012~~	0120	2300	1041	0143	0334	1124	1314	1454
~~0013~~	0130	2400	1042	0145	0335	1125	1315	1455
~~0014~~	0140	3001	1043	0151	0341	1131	1321	2111
~~0015~~	0150	3002	1044	0152	0342	1132	1322	2112
~~0021~~	0210	3003	1045	0153	0343	1133	1323	2113
~~0022~~	0220	3004	1051	0154	0344	1134	1324	2114
~~0023~~	0230	3005	1052	0155	0345	1135	1325	2115
~~0024~~	0240	3010	1053	0211	0351	1141	1331	2121
~~0025~~	0250	3020	1054	0212	0352	1142	1332	2122
~~0031~~	0310	3030	1055	0213	0353	1143	1333	2123
~~0032~~	0320	3040	1101	0214	0354	1144	1334	2124
0033	0330	3050	1102	0215	0355	1145	1335	2125
0034	0340	3100	1103	0221	0411	1151	1341	2131
~~0035~~	0350	3200	1104	0222	0412	1152	1342	2132
0041	0410	3300	1105	0223	0413	1153	1343	2133
2/22/74 0042	0420	3400	1201	0224	0414	1154	1344	2134
~~0043~~	0430	4001	1202	0225	0415	1155	1345	2135
2/23/74 ~~0044~~	0440	4002	1203	0231	0421	1211	1351	2141
0045	0450	4003	1204	0232	0422	1212	1352	2142
0051	1001	4004	1205	0233	0423	1213	1353	2143
0052	1002	4005	1301	0234	0424	1214	1354	2144
0053	1003	4010	1302	0235	0425	1215	1355	2145
0054	1004	4020	1304	0241	0431	1221	1411	2151
0055	1005	4030	1305	0242	0432	1222	1412	2152
0101	1010	4040	1401	0243	0433	1223	1413	2153
0102	1020	4050	1402	0244	0434	1224	1414	2154

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Aspen Grid # G Project 83 Trap night 1

Date, time traps set 12/7/74 1300 Date, time traps checked 12/8/74 0330

Last toe clip # used on previous day 0044 Checked by Turner

Trap pt. loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1		visit							
-4		"							
-5		"							~~[illegible]~~ 5
-8		vole? M. montanus	0044	?	A				ta. 1 50 b. 1 105
-9		vole M. montanus	0045	?	A				ta. 1 45 b. 1 100
-9		M. montanus	0051	?	A				ta. 1 45 b. 1 93 trapped
-10		visit							~~[illegible]~~ 93 ~~[illegible]~~
-10		M. montanus	0052	?	A				~~[illegible]~~ ta. 1 45 b. 1 93
-11		M. "	0053	?	A				ta. 1 51
-12		visit							
-13		"							
-11		"							
-7		M. montanus	0054	?	A				
-7		C. c. cooperi	0055	?	A				
-6		M. montanus	0101	?	A	Same			ta. 1 45
-6		C. c. cooperi	0102	?	A	DEAD	trap		M. montanus killed C. c. cooperi
-3		visit - trap closed							
-2		visit							
-1		visit							

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Aspen Grid # G Project 83 Trap night 2

Date, time traps set 12/8/74 1330 Date, time traps checked 12/9/74 1230

Last toe clip # used on previous day 0102 Checked by TT

Lot. No.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		M. montana	0103	?	A				hf. 20/t. 50/h. 110
-11		M. montana	0011	?	A				hf 20/t 50/h 100
-12		M. montana	0104	?					
9		M. montana	0054	?	A				
5		C. gapperi	0055	used as			bait		DEAD tail 50
-1		C. gapperi	0105	?			for		
							release		

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Aspen Grid # G Project 83 Trap night 3

Date, time traps set 12/9/74 (1230) Date, time traps checked 12/10/74 1230

Last toe clip # used on previous day 0105 Checked by JBS/TT

Capt. Loc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
A-1		M. montan.	0103 R	?	A				
A-6		M. montan.	0201	?	A				+ 50
A-8		M. montan	0202	?	A				+ 50
B-10		M. mon	0203	?	A				+ 55
C-11		M. mon	0204	?	A				+ 50
C-3		C. gapper	0140	?	A				DEAD

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Aspen Grid # G Project 83 Trap night 4

Date, time traps set 12/10/74 1230 Date, time traps checked 12/11/74 1030

Last toe clip # used on previous day 0204 Checked by JB IRDm

next 0205

Pt. cc.	Total Weight	Species	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
-1		C. gapperi	0402 none	?	A				DEAD
-1		C. dapni	0105	?	A				~~T~~
-8		M. mont.	0205	?	A				T. 50
-12		M. mont	0301	?	A				T. 45
-13		M. mont. (?)	0302	?	A				T. 55
-9		M. mont	0303	?	A				T. 50
-8		M. mont	0044	?	A				T 50
-6		M. mont.	0304	?	A				T 50
-5		M. mont	0305	?	A				T 45
-4		M. mont.	0401	?	A				T. 50 Nest

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Aspen Grid # G Project 83 Trap night 5

Date, time traps set 12/11/74 1030 Date, time traps checked 1130 12/12/74

Last toe clip # used on previous day 0402 Checked by
0403

Capt. Loc.	Total Weight	Species.	Toe Clip No.	Sex	Age Class	Reprod. Status	Trap Weight	Animal Weight	Additional Notes
1-7		M. montanus	0403	?	A				b=95 t=50
1-7		M. montanus	0404	?	A				h=110 t=50
1-12		M. montanus	0405	?	A				b=90 t=45
1-10		M. montanus	0110	?	A				b=90 t=45
1-1		C. gapperi	0120	?	A				

II. SMALL MAMMALS

B. Removal Trapping

ANALYSIS AND FILE NUMBER

Stomach Analysis - November 1974 (5.2.2.1.1)
Stomach Analysis - December 1974 (5.2.2.1.2)

Stomach Analysis - November 1974 (5.2.2.1.1)

J.A.2.1.1 - 1

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STOMACH ANALYSIS DATA SHEET

Project 83 Date Nov 1974 Investigator RM/GAR

Location Bottomland Meadow Habitat Bottomland Meadow

Capture Technique Snap-trap

Comments

Species Microtus montanus

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	Su	I	Su			11	Su	Su	Su			21	Su	Su	Su			31	Su	Su	S			41	S	Su	Su		
2	Su	Su	Su			12	Su	S	Su			22	Su	S	Su			32	Su	Su	Su			42	–	S	Su		
3	Su	Su	Su			13	Su	Su	Su			23	Su	Su	Su			33	S	Su	–			43	Su	Su	Su		
4	Su	Su	S			14	Su	Su	S			24	Su	Su	Su			34	Su	S	Su			44	Su	S	Su		
5	Su	Su	Su			15	Su	Su	Su			25	Su	Su	Su			35	Su	Su	Su			45	Su	Su	Su		
6	Su	S	S			16	Su	S	Su			26	Su	Su	S			36	–	Su	Su			46	Su	Su	Su		
7	Su	S	S			17	Su	Su	Su			27	Su	S	Su			37	Su	Su	Su			47	Su	Su	Su		
8	Su	S	Su			18	Su	Su	Su			28	Su	Su	Su			38	Su	Su	Su			48	–	S	Su		
9	Su	Su	Su			19	Su	Su	Su			29	S	Su	Su			39	Su	S	–			49	Su	S	S		
10	Su	Su	S			20	Su	Su	Su			30	Su	Su	Su			40	Su	Su	Su			50	–	S	Su		

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	–	V	I	Su	S
A	♂	115	27	19	12	20.2	8%	-	-	86%	6%
B	♂	147	34	19	14	35.9	-	-	2%	70%	28
C	♂	136	31	18	14	32.4		-4%	-	80	16%
D											
E											

Food Categories	Symbol	Total % F
Empty fields	–	2.6%
Vertebrate	V	–
Invertebrate	I	2.0%
Succulent	Su	78.6 %
Seed	S	16.7%

C 5 2 2 1 1

5.2.2.11.-2

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STOMACH ANALYSIS DATA SHEET

Project 83 Date Nov 1974 Investigator WTT / G.AR

Location GRID A Habitat GREASEWOOD - SAGE

Capture Technique Snap - Trap

Comments

Species Peromyscus maniculatus

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	Su	S	S	S	S	11	S	S	S	S	S	21	S	S	S	S	S	31	S	S	S	S	S	41	S	Su	S	S	S
2	S	S	S	S	S	12	S	Su	S	S	S	22	S	–	S	–	S	32	S	S	S	S	S	42	S	S	S	S	S
3	S	S	S	S	S	13	–	S	S	S	S	23	–	–	S	S	S	33	S	–	S	S	S	43	S	S	S	I	S
4	S	S	S	S	S	14	S	S	S	S	S	24	Su	–	Su	S	S	34	S	S	S	V	–	44	S	S	S	S	–
5	Su	–	S	S	S	15	S	Su	S	Su	S	25	S	S	S	S	S	35	S	S	S	S	S	45	S	S	S	S	S
6	–	S	S	V	S	16	S	S	Su	Su	S	26	S	S	S	S	S	36	S	S	S	S	S	46	S	S	S	S	S
7	S	S	Su	S	S	17	S	S	–	S	S	27	Su	S	S	S	S	37	S	S	S	Su	V	47	S	S	S	S	Su
8	S	S	S	Su	S	18	S	S	S	S	S	28	–	S	S	S	Su	38	S	Su	S	S	Su	48	S	–	S	S	S
9	–	–	S	S	S	19	Su	S	S	S	S	29	S	S	S	S	S	39	Su	S	S	S	S	49	S	S	S	S	S
10	S	S	S	S	S	20	–	S	S	S	S	30	S	S	S	S	V	40	–	S	I	S	S	50	S	S	S	V	S

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	–	V	I	Su	S
A	♀	148	66	21	16	15.8	14%	–	–	12%	74%
B	♀	145	61	19	14	16.5	14%	–	–	8%	78%
C	♀	144	61	21	14	14.3	2%	–	2%	6%	90%
D	♂	148	67	21	14	15.3	2%	6%	2%	8%	82%
E	♀	152	61	19	14	19.0	4%	4%	–	6%	86%

Food Categories	Symbol	Total % F
Empty fields	–	7.2%
Vertebrate	V	2%
Invertebrate	I	.8%
Succulent	Su	8%
Seed	S	82%

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STOMACH ANALYSIS DATA SHEET

Project 83 Date Nov 1974 Investigator RBS/GAR

Location GRID A Habitat Greasewood - Sage

Capture Technique Snap-trap

Comments

Species *Microtus montanus*

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	Su	S				11	Su	S				21	Su	–				31	S	S				41	Su	S			
2	Su	S				12	Su	S				22	Su	S				32	Su	S				42	Su	–			
3	Su	S				13	Su	S				23	Su	S				33	Su	S				43	Su	S			
4	Su	S				14	Su	S				24	Su	S				34	Su	Su				44	Su	S			
5	Su	S				15	Su	S				25	S	S				35	Su	S				45	Su	S			
6	Su	S				16	Su	Su				26	Su	S				36	Su	S				46	Su	S			
7	Su	S				17	Su	S				27	Su	S				37	V	S				47	Su	S			
8	Su	Su				18	Su	S				28	Su	Su				38	Su	Su				48	Su	S			
9	Su	S				19	Su	S				29	Su	S				39	Su	S				49	Su	S			
10	Su	S				20	Su	S				30	Su	S				40	Su	S				50	Su	S			

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	–	V	I	Su	S
A	♀	149	33	18	13	36.6	–	2%	–	94%	4%
B	♀	124	30	19	13	22.6	2%	–	–	10%	88%
C											
D											
E											

Food Categories	Symbol	Total % F
Empty fields	–	1%
Vertebrate	V	1%
Invertebrate	I	–
Succulent	Su	52%
Seed	S	46%

5.2.2.1.4

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STOMACH ANALYSIS DATA SHEET

Project 83 Date Nov 1974 Investigator WTI/GAR

Location near GRID I Habitat Sage hillside

Capture Technique Snap-trap

Comments

Species Peromyscus maniculatus

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	S	Su	S	S	S	11	S	S	Su	S	S	21	S	S	S	S	–	31	S	S	Su	Su	–	41	S	Su	Su	S	S
2	S	Su	S	S	S	12	S	Su	S	S	S	22	Su	S	S	S	Su	32	S	S	S	Su	–	42	Su	S	S	Su	S
3	S	Su	–	S	S	13	S	Su	S	S	S	23	S	S	S	S	S	33	Su	S	Su	S	S	43	Su	S	Su	S	–
4	Su	S	S	S	Su	14	S	Su	S	Su	S	24	S	Su	–	S	S	34	V	S	S	Su	S	44	S	S	S	S	Su
5	Su	S	S	Su	S	15	S	Su	S	S	S	25	Su	S	–	Su	S	35	S	S	Su	–	Su	45	Su	S	S	S	Su
6	Su	Su	S	S	S	16	S	Su	S	S	S	26	S	Su	S	Su	S	36	I	Su	S	S	S	46	Su	S	–	S	S
7	S	Su	S	S	V	17	S	S	S	–	S	27	S	Su	S	S	–	37	S	S	–	S	Su	47	–	S	Su	–	S
8	S	S	Su	S	S	18	S	Su	Su	S	–	28	S	S	Su	Su	S	38	S	S	S	S	–	48	S	S	S	–	S
9	Su	S	S	S	S	19	S	Su	S	Su	S	29	S	S	S	S	S	39	Su	S	S	Su	S	49	–	S	S	S	S
10	S	Su	S	S	S	20	S	Su	S	S	S	30	S	Su	S	S	Su	40	Su	S	Su	S	–	50	S	S	S	S	S

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	–	V	I	Su	S
A	♂	143	52	21	14	16.8	4%	2%	2%	26%	66%
B	♂	142	51	20	17	17.6	-	-	-	40%	60%
C	♂	143	51	21	15	17.3	8%	-	-	20%	70%
D	♀	140	55	19	15	15.2	8%			20%	72%
E	♀	146	55	21	17	17.3	16%	-	2%	14%	[illegible]

Food Categories	Symbol	Total % F
Empty fields	–	7.2%
Vertebrate	V	.8%
Invertebrate	I	.4%
Succulent	Su	24.4%
Seed	S	67.2%

5.2.2.1.. 5 ECI

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STOMACH ANALYSIS DATA SHEET

Project 83 Date Nov 1974 Investigator WTT/GAR

Location South P.J Habitat Pinyon-Juniper

Capture Technique Snap-trap

Comments

Species *Peromyscus maniculatus*

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	S	S	S	S	S	11	Su	S	S	Su	S	21	I	–	S	S	S	31	Su	S	S	S	S	41	V	S	S	S	I
2	S	S	S	S	S	12	S	Su	S	Su	S	22	S	S	S	S	S	32	S	S	Su	S	–	42	Su	S	S	S	–
3	S	S	S	S	S	13	S	Su	–	S	S	23	S	S	S	S	S	33	S	S	S	S	S	43	Su	S	Su	S	I
4	S	–	Su	S	S	14	S	S	S	S	S	24	S	S	–	Su	S	34	S	S	S	S	S	44	S	Su	Su	S	I
5	S	S	Su	S	S	15	Su	S	Su	S	I	25	S	S	–	S	Su	35	Su	S	S	S	S	45	–	S	Su	S	I
6	S	S	S	S	I	16	S	S	S	S	S	26	Su	S	Su	S	Su	36	–	S	–	S	S	46	Su	S	V	S	S
7	S	S	S	S	S	17	S	S	S	S	S	27	S	S	S	S	S	37	–	S	Su	S	S	47	S	Su	S	S	I
8	S	S	–	S	S	18	S	S	S	S	S	28	S	Su	S	S	S	38	–	S	Su	S	S	48	S	S	S	S	I
9	S	S	S	S	S	19	S	Su	–	S	S	29	Su	S	S	S	S	39	S	S	–	S	–	49	Su	Su	Su	–	S
10	S	S	S	S	S	20	S	S	Su	S	S	30	Su	S	S	S	S	40	S	S	S	S	S	50	S	S	–	S	I

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	–	V	I	Su	S
A	♂	154	62	21	15	19.4	8%	2%	2%	22%	66%
B	♂	147	56	21	17	16.0	4%	–	–	14%	82%
C	♀	162	69	20	14	20.4	16%	2%		24%	58%
D	♀	153	64	20	16	18.6	2%	–	–	6%	92%
E	♂	140	55	19	14	17.1	6%	–	18%	6%	70%

Food Categories	Symbol	Total % F
Empty fields	–	7.2%
Vertebrate	V	.8%
Invertebrate	I	4.0%
Succulent	Su	14.4%
Seed	S	73.6%

Stomach Analysis - December 1974 (5.2.2.1.2)

2.2.2.1.2-1

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STOMACH ANALYSIS DATA SHEET

Project 83 Date Dec 1974 Investigator JCC/GAR

Location Sage Habitat Sage

Capture Technique Snap Trap

Comments

Species Peromyscus maniculatus

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	S	S	S	Su	S	11	S	S	S	S	V	21	Su	S	S	S	S	31	S	S	S	S	–	41	S	S	S	Su	S
2	S	S	S	Su	S	12	S	S	S	Su	S	22	V	S	S	Su	S	32	S	S	S	Su	S	42	S	S	S	Su	S
3	S	S	S	Su	S	13	S	S	S	S	S	23	S	S	S	S	Su	33	Su	S	S	S	S	43	S	S	S	Su	Su
4	S	S	S	S	S	14	S	S	S	S	I	24	S	S	S	Su	S	34	V	S	S	S	S	44	Su	S	S	Su	S
5	I	S	S	S	S	15	S	S	S	S	I	25	S	V	S	Su	I	35	S	V	S	S	I	45	S	V	S	S	S
6	S	S	S	Su	S	16	S	V	S	S	S	26	S	–	V	–	S	36	S	S	S	S	S	46	S	S	S	–	S
7	S	S	S	Su	S	17	S	S	S	Su	Su	27	V	S	S	S	S	37	S	S	S	–	S	47	S	S	S	Su	S
8	S	S	Su	S	S	18	S	S	S	Su	S	28	S	S	S	S	V	38	Su	S	S	Su	S	48	S	S	S	S	S
9	S	S	S	Su	S	19	S	S	S	Su	S	29	S	S	S	S	S	39	S	S	S	Su	–	49	S	S	S	S	S
10	Su	S	V	Su	I	20	S	V	S	Su	S	30	S	S	S	S	–	40	S	S	S	Su	S	50	S	S	S	Su	S

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	–	V	I	Su	S
A	♂	154	67	20	17	16.0	–	6%	2%	10%	82%
B	♀	149	61	20	18	15.4	2%	10%	–	–	88%
C	♀	147	63	21	14	16.3	–	4%	–	2%	94%
D	♂	151	64	21	16	18.0	6%	–	–	50%	44%
E	♂	141	59	19	15	16.0	6%	4%	10%	6%	74%

Food Categories	Symbol	Total % F
Empty fields	–	2.8%
Vertebrate	V	4.8%
Invertebrate	I	2.4%
Succulent	Su	13.6%
Seed	S	76.4%

5.2.2. 3-2 (ECI)

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STOMACH ANALYSIS DATA SHEET

Project 83 Date Dec 1974 Investigator WTI/GAR

Location South P.J. Habitat Pinyon - Juniper

Capture Technique Snap - trap

Comments

Species *Peromyscus maniculatus*

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	S	S				11	S	S				21	S	Su				31	S	S				41	S	S			
2	S	S				12	S	S				22	S	S				32	S	S				42	S	S			
3	–	S				13	S	S				23	Su	S				33	S	S				43	S	I			
4	S	S				14	S	I				24	S	S				34	S	S				44	S	Su			
5	S	S				15	S	S				25	V	S				35	S	I				45	S	S			
6	S	S				16	S	S				26	S	S				36	S	Su				46	S	S			
7	S	I				17	Su	S				27	S	S				37	V	S				47	Su	S			
8	S	I				18	S	I				28	S	S				38	S	S				48	S	V			
9	S	S				19	S	S				29	S	S				39	S	S				49	S	S			
10	S	S				20	S	S				30	S	Su				40	S	Su				50	S	S			

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	–	V	I	Su	S
A	♂	154	68	20	19	16.4	2%	4%	–	6%	88%
B	♂	155	68	21	16	17.7	–	2%	12%	10%	76%
C											
D											
E											

Food Categories	Symbol	Total % F
Empty fields	–	1%
Vertebrate	V	3%
Invertebrate	I	6%
Succulent	Su	8%
Seed	S	82%

S.2.2.1.2-

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STOMACH ANALYSIS DATA SHEET

Project 83 Date Dec 1974 Investigator WM / GAR

Location South P-J Habitat Pinyon - Juniper

Capture Technique Snap-trap

Comments

Species Eutamias minimus

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	S					11	S					21	V-h					31	S					41	—				
2	S					12	S					22	S					32	S					42	—				
3	S					13	S					23	S					33	—					43	S				
4	S					14	S					24	S					34	—					44	S				
5	S					15	S					25	S					35	—					45	S				
6	—					16	S					26	S					36	—					46	S				
7	S					17	S					27	S					37	S					47	S				
8	S					18	S					28	S					38	S					48	S				
9	S					19	S					29	S					39	S					49	S				
10	S					20	S					30	S					40	S					50	S				

	Measurements						Food Categories				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A	♀	182	73	28	12	30.6	14%	2%	-	-	84%
B											
C											
D											
E											

Food Categories	Symbol	Total % F
Empty fields	-	14%
Vertebrate	V	2%
Invertebrate	I	—
Succulent	Su	—
Seed	S	84%

II. SMALL MAMMALS

Pitfall Trapping (5.3.2)

2.3.2 1

SMALL MAMMAL PITFALL FIELD DATA SHEET

Pitfall Number D Location Sage

Sampling Period 1 Project Number 83 Checked By J. B

Date	Species	Sex	Age	Comments*
20 Oct	Sorex merriami	?	?	lab I.D.
21 Oct	Sorex cinereus	?	?	lab I.D

*Reproductive condition, diagnostic characters, future use of specimens, etc.

ECI ecology consultants, Inc.

SMALL MAMMAL PITFALL FIELD DATA SHEET

J.J.2 - 2

Pitfall Number A Location Greasewood - Sage

Sampling Period 1 Project Number 83 Checked By B.S.

Date	Species	Sex	Age	Comments*
24 Oct	Sorex cinereus	?	?	Lab I.D.

*Reproductive condition, diagnostic characters, future use of specimens, etc.

ECI

ecology consultants, Inc.

5.3.2-3

SMALL MAMMAL PITFALL FIELD DATA SHEET

Pitfall Number A Location Greensward - Lage

Sampling Period 2 Project Number 83 Checked By J.C

Date	Species	Sex	Age	Comments*
12 Dec	Sorex cinereus	?	?	for lab I.D.
12 Dec	Sorex cinereus	?	?	for lab I.D.

*Reproductive condition, diagnostic characters, future use of specimens, etc.

ecology consultants, Inc.

II. SMALL MAMMALS

D. Night Spotlight Census (5.4.2)

5.4.2-1

MAMMAL NIGHT ROAD CENSUS DATA AND SUMMARY SHEET

Project 83 Transect # 1 Date 10 FEB 75 Sunset Time _____

Time Begun 11:00 Temp. 30° Time Completed 1:20 Temp. 30° Cloud Cover 0 %

Starting Point old H.Q. Finish Point 84 mesa Length of Transect 9 mi

Observable Distance Estimates up to 25 meters.

Mile 1 12 m; 2 5; 3 8; 4 8; 5 5; 6 5; 7 12; 8 15; 9 15; 10 ____;

11 ____; 12 ____; 13 ____; 14 ____; 15 ____; 16 ____; 17 ____; 18 ____; 19 ____; 20 ____;

21 ____; 22 ____; 23 ____; 24 ____; 25 ____; 26 ____; 27 ____; 28 ____; 29 ____; 30 ____.

Odometer Reading	Species Observed	Habitat	Odometer Reading	Species Observed	Habitat
29.4					
↓	NOTHING OBSERVED				
38.4					

1. $\bar{x}$ est. dist. _____ m. x transect length _____ m. = _____ sq. m. of coverage.

2. $\frac{\text{sq. m. coverage}}{\text{sq. m./hectare}} = \frac{\quad}{10{,}000} =$ _____ hectares; $N = \frac{\text{number sited}}{\text{total hectares}} =$ _____ /hectare.

Species	No. Sighted	Hectares Covered	Pop. Est./Hectare

2.7.2.-2

MAMMAL NIGHT ROAD CENSUS DATA AND SUMMARY SHEET

Project 83 Transect # 1 Date 11/11/74 Sunset Time 4:50

Time Begun 8:50 Temp. ~35 Time Completed ~ 12:00 Temp. ~30 Cloud Cover 0 %

Starting Point 89 mesa road Finish Point cath. bluffs Length of Transect 15 mi

Observable Distance Estimates up to 25 meters.

Mile 1 22.5 ; 2 25.0 ; 3 22.3 ; 4 15 ; 5 10 ; 6 20 ; 7 20 ; 8 15 ; 9 8 ; 10 20 ;

11 18 ; 12 23.0 ; 13 15 ; 14 5 ; 15 5 ; 16 ____ ; 17 ____ ; 18 ____ ; 19 ____ ; 20 ____ ;

21 ____ ; 22 ____ ; 23 ____ ; 24 ____ ; 25 ____ ; 26 ____ ; 27 ____ ; 28 ____ ; 29 ____ ; 30 ____ .

Odometer Reading	Species Observed	Habitat	Odometer Reading		Species Observed	Habitat
27.7	2 deer	hillside, S. slope				
36.3	6 horses	upland sage				
36.8	5 deer	sage int. brush				
38.7	1 deer	" " "				
		NO LAGOMORPHS				

1. $\bar{x}$ est. dist. _____ m. x transect length _____ m. = _____ sq. m. of coverage.

2. $\frac{\text{sq. m. coverage}}{\text{sq. m./hectare}} = \frac{\quad}{10{,}000} =$ _____ hectares; $N = \frac{\text{number sited}}{\text{total hectares}} =$ _____/hectare.

Species	No. Sighted	Hectares Covered	Pop. Est./Hectare

These species not sampled by this method.

MAMMAL NIGHT ROAD CENSUS DATA AND SUMMARY SHEET 5.4.2-3

Project 83 Transect # 2 Date 11/13/74 Sunset Time 4:55

Time Begun 8:00 Temp. ~30° Time Completed ~2:00 Temp. ~25° Cloud Cover 0

Starting Point 85.2 84 mesa Finish Point cat. road Length of Transect 30 mi.

Observable Distance Estimates up to 25 meters.

Mile 1 22.5 ; 2 25.0 ; 3 22.3 ; 4 15 ; 5 10 ; 6 20 ; 7 20 ; 8 15 ; 9 8 ; 10 20 ;

11 18 ; 12 13 ; 13 15 ; 14 5 ; 15 5 ; 16 15 (cat road) ; 17 12 ; 18 15 ; 19 15 ; 20 10 ;

21 15 ; 22 10 ; 23 12 ; 24 10 ; 25 12 ; 26 15 ; 27 10 ; 28 10 ; 29 10 ; 30 10 .

Odometer Reading	Species Observed	Habitat	Odometer Reading	Species Observed	Habitat
90.9	2 deer	sage			
96.6	cottontail	sage - P.J			
97.8	cottontail	sage / mt. brush			
Cat Road, begin transect 16.3					
19.9	cottontail	P.J			
29.6	w.t. jack rabbit	sage			

1. $\bar{x}$ est. dist. 14.16 m. x transect length 48,270 m. = 683,503.2 sq. m. of coverage.

2. $\frac{\text{sq. m. coverage}}{\text{sq. m./hectare}} = \frac{683,503.2}{10,000} =$ 68.35 hectares; $N = \frac{\text{number sited}}{\text{total hectares}} =$ _____ /hectare.

Species	No. Sighted	Hectares Covered	Pop. Est./Hectare
cottontail	3	68.35	0.04
whitetailed jack	1	68.35	0.01

MAMMAL NIGHT ROAD CENSUS DATA AND SUMMARY SHEET

5.4.2-4

Project 83 Transect # 2 Date 12-FEB-75 Sunset Time

Time Begun 7:20 Temp. 30° Time Completed 9:05 Temp. 30° Cloud Cover 100

Starting Point Old O.S. H.Q. Finish Point 84 mea Length of Transect 9 mi

Observable Distance Estimates up to 25 meters.

Mile 1 12; 2 5; 3 8; 4 6; 5 8; 6 10; 7 12; 8 12; 9 12; 10 ;

11 ; 12 ; 13 ; 14 ; 15 ; 16 ; 17 ; 18 ; 19 ; 20 ;

21 ; 22 ; 23 ; 24 ; 25 ; 26 ; 27 ; 28 ; 29 ; 30 .

Odometer Reading	Species Observed	Habitat	Odometer Reading		Species Observed	Habitat
	NOTHING	OBSERVED				

1. $\bar{x}$ est. dist. _____ m. x transect length _____ m. = _____ sq. m. of coverage.

2. $\frac{\text{sq. m. coverage}}{\text{sq. m./hectare}} = \frac{\quad}{10{,}000} =$ _____ hectares; $N = \frac{\text{number sited}}{\text{total hectares}} =$ _____/hectare.

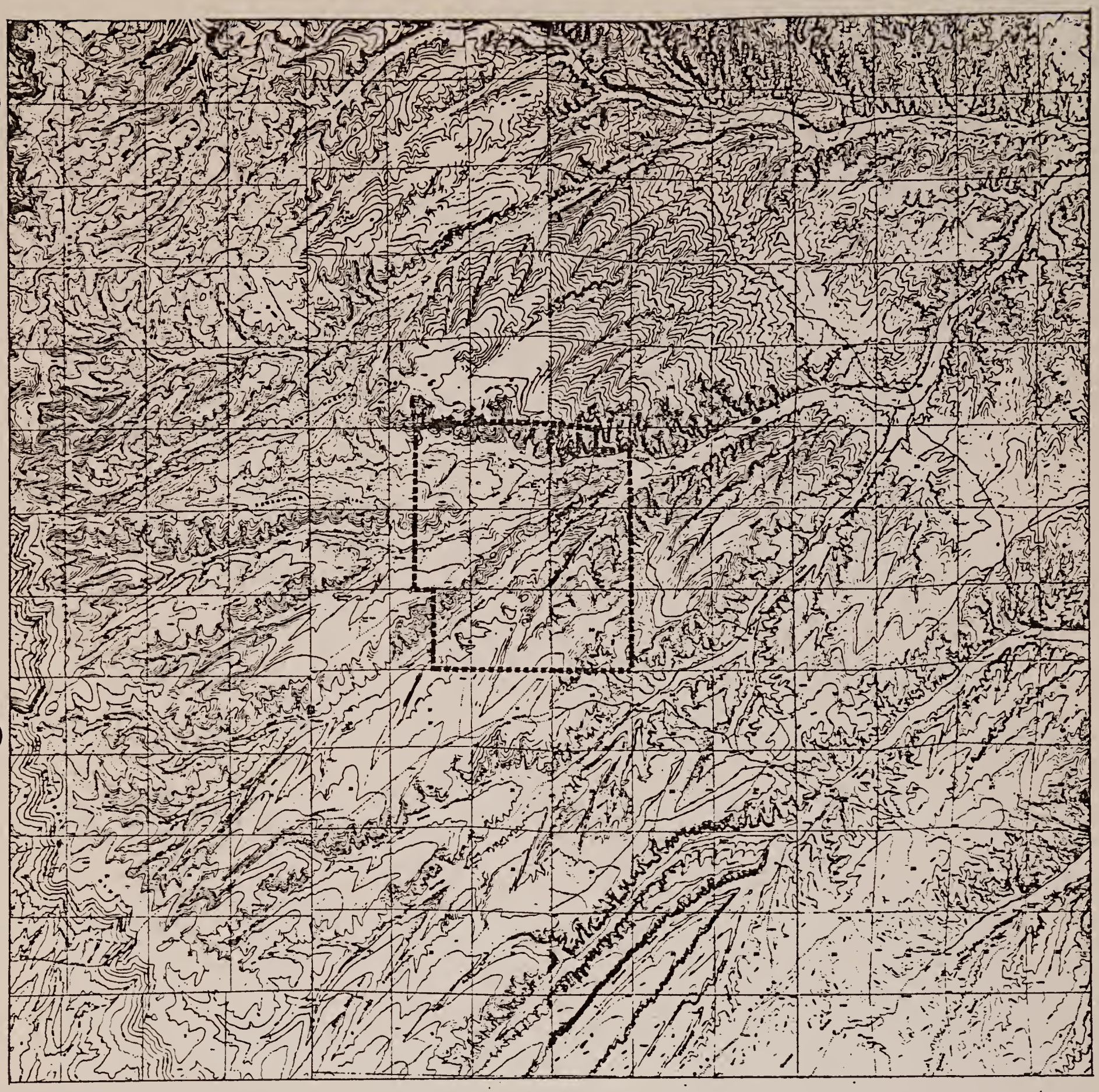
Species	No. Sighted	Hectares Covered	Pop. Est./Hectare

C. Small Mammals (14.1.1)

Distribution Records

1a

FIELD OBSERVATIONS



Species Sylvilagus sp Date 10/12/74 Time —

Means of Identification Obs

Number Observed 1 ♂ ♀

Adult Juv.

Habitat Sage

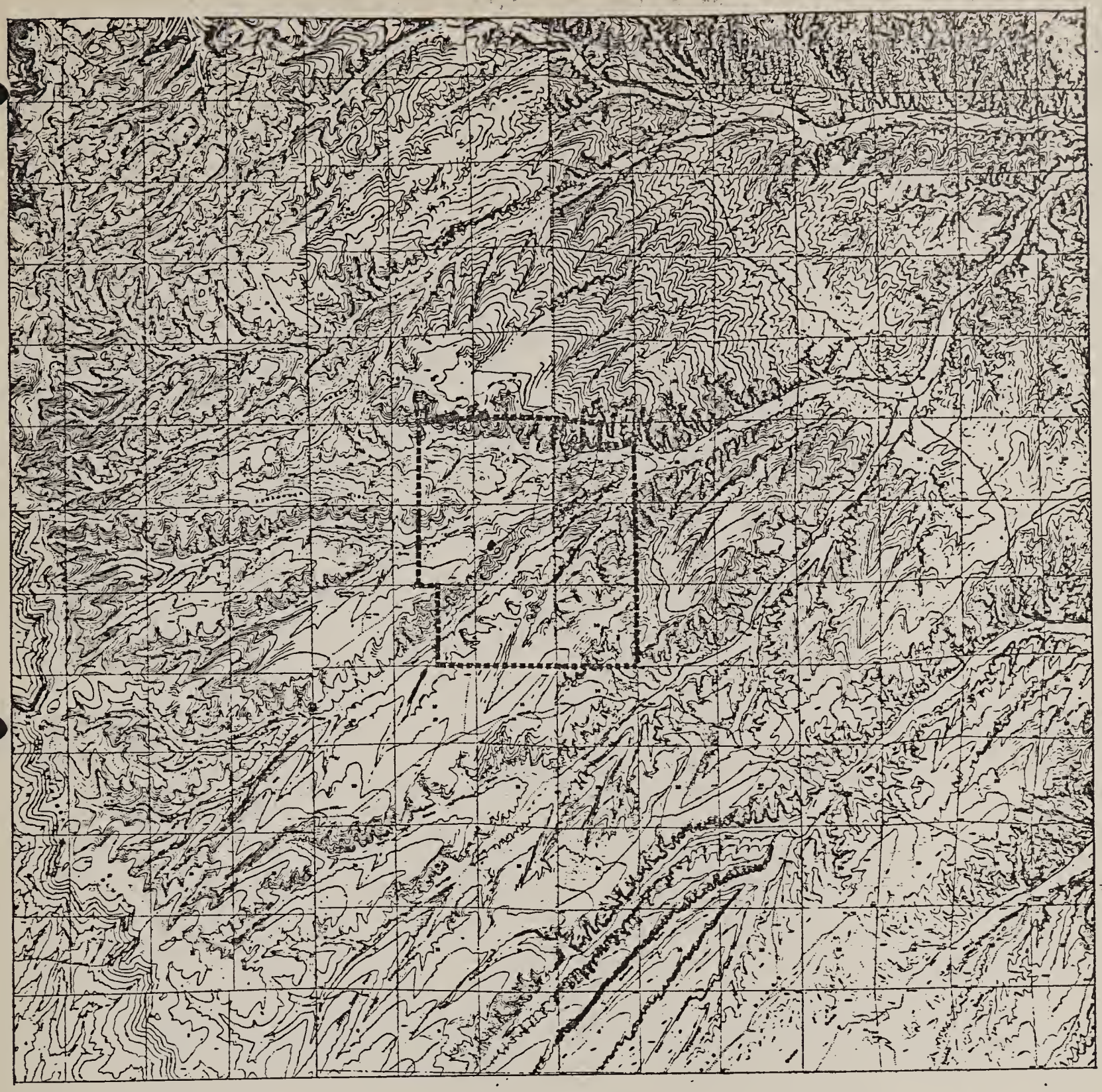
Other Information*

Observer Van Horn

* Include any distinguishing field marks for horses.

A.1.1-2
1b

FIELD OBSERVATIONS



Species Sylvilagus sp. Date 10/12/74 Time —

Means of Identification obs

Number Observed 1 ♂ _____ ♀ _____

Adult _____ Juv. _____

Habitat _____

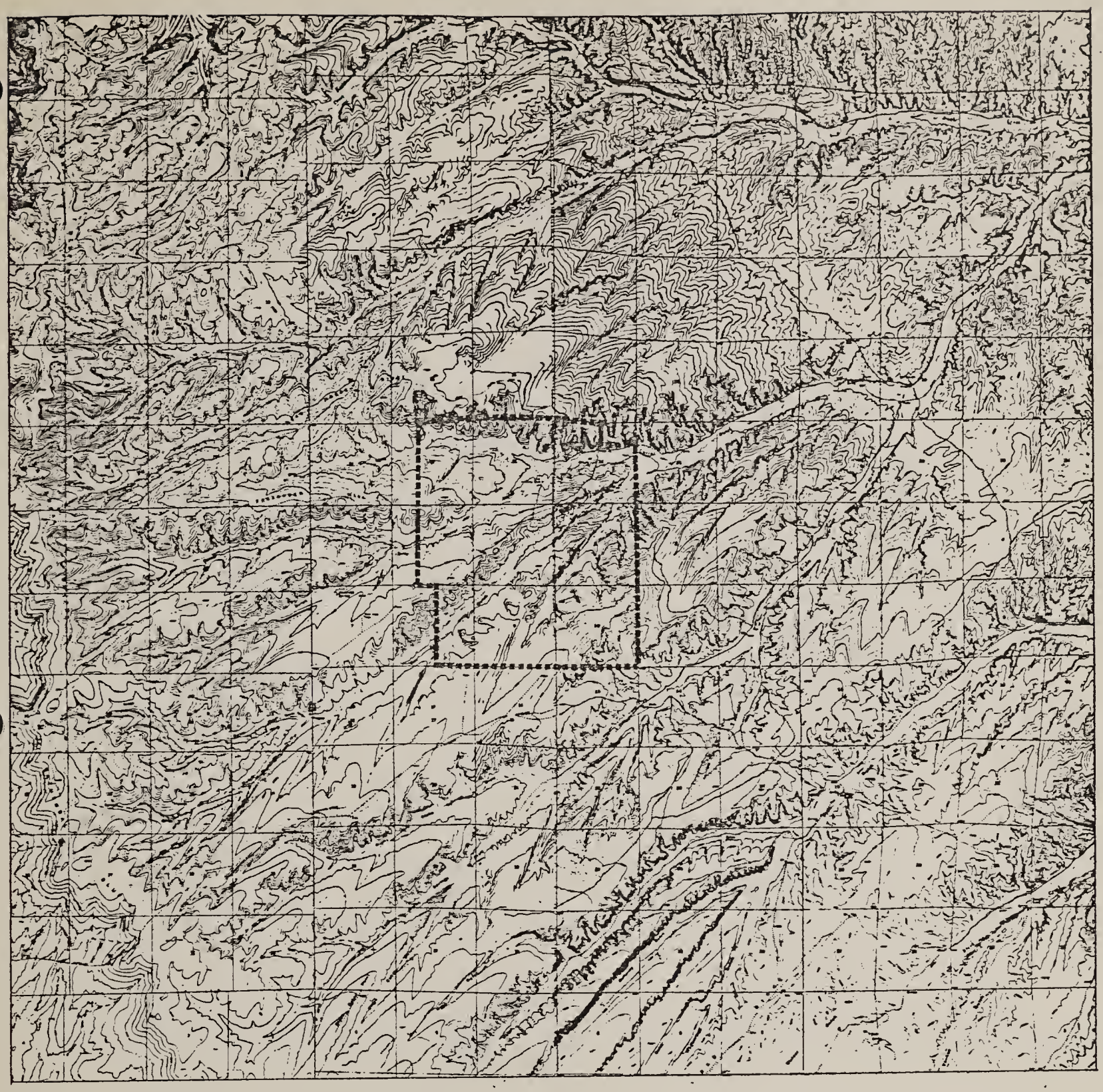
Other Information* _____

Observer Van Horne

* Include any distinguishing field marks for horses.

14.1.1-3
1 C

FIELD OBSERVATIONS



Species Sylvilagus sp. Date 10/14/74 Time —

Means of Identification obs

Number Observed 1 ♂ _____ ♀ _____

Adult X Juv. _____

Habitat Pinon - Juniper

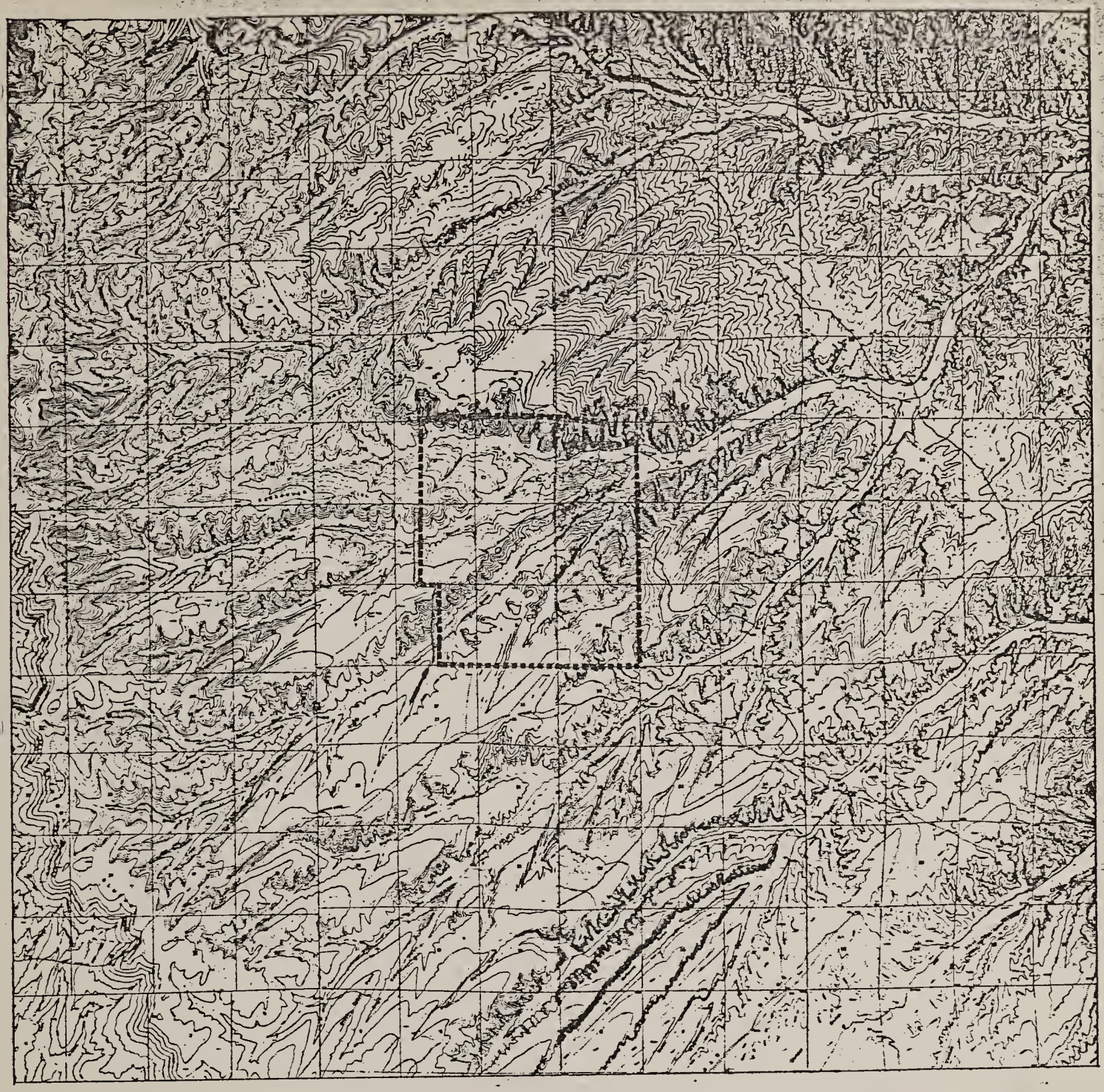
Other Information* _____

Observer JB

* Include any distinguishing field marks for horses.

3a

FIELD OBSERVATIONS



Species *Sylvilagus sp.* Date *12/7/74* Time *11:00 AM.*

Means of Identification *observation*

Number Observed *1* ♂ _____ ♀ _____

Adult *✓* Juv. _____

Habitat *Piñon juniper*

Other Information* _____

Observer *J.C. & R.M.*

* Include any distinguishing field marks for horses.

3 b, c, d

FIELD OBSERVATIONS

Species Cottontail Rabbit Date Dec. 7, 1974 Time 4:00 pm

Means of Identification tracks

Number Observed several for each dot, ♂ _____ ♀ _____

Adult ✓ Juv. _____

Habitat P.J.

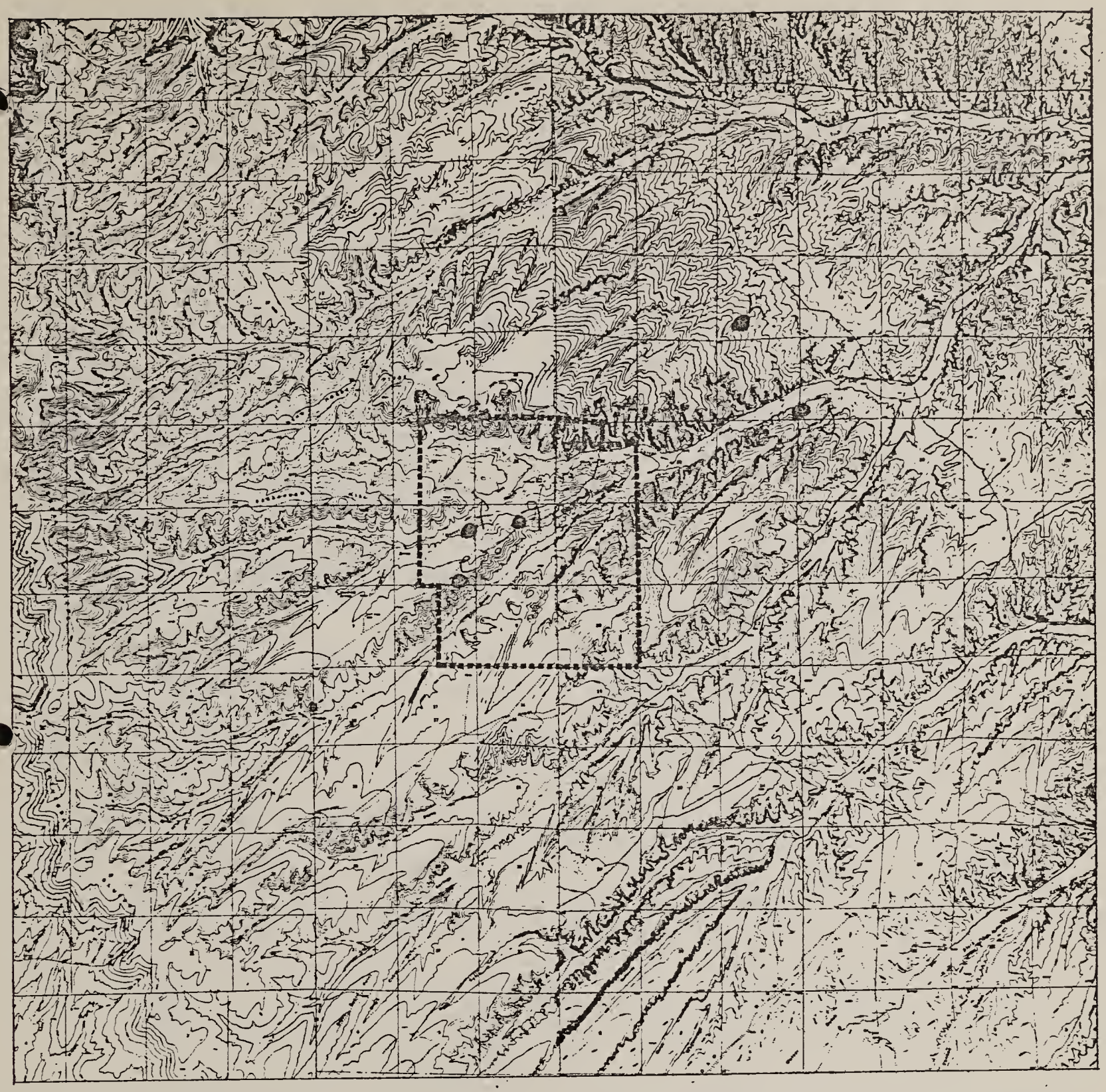
Other Information* _____

Observer Sim

* Include any distinguishing field marks for horses.

FIELD OBSERVATIONS

3 e, f, g, h, i, j



Species Cottontail Rabbit Date Dec 8, 1974 Time 9:30

Means of Identification tracks

Number Observed several sets of tracks ♂ _____ ♀ _____

Adult ✓ Juv. ✓

Habitat upland sage

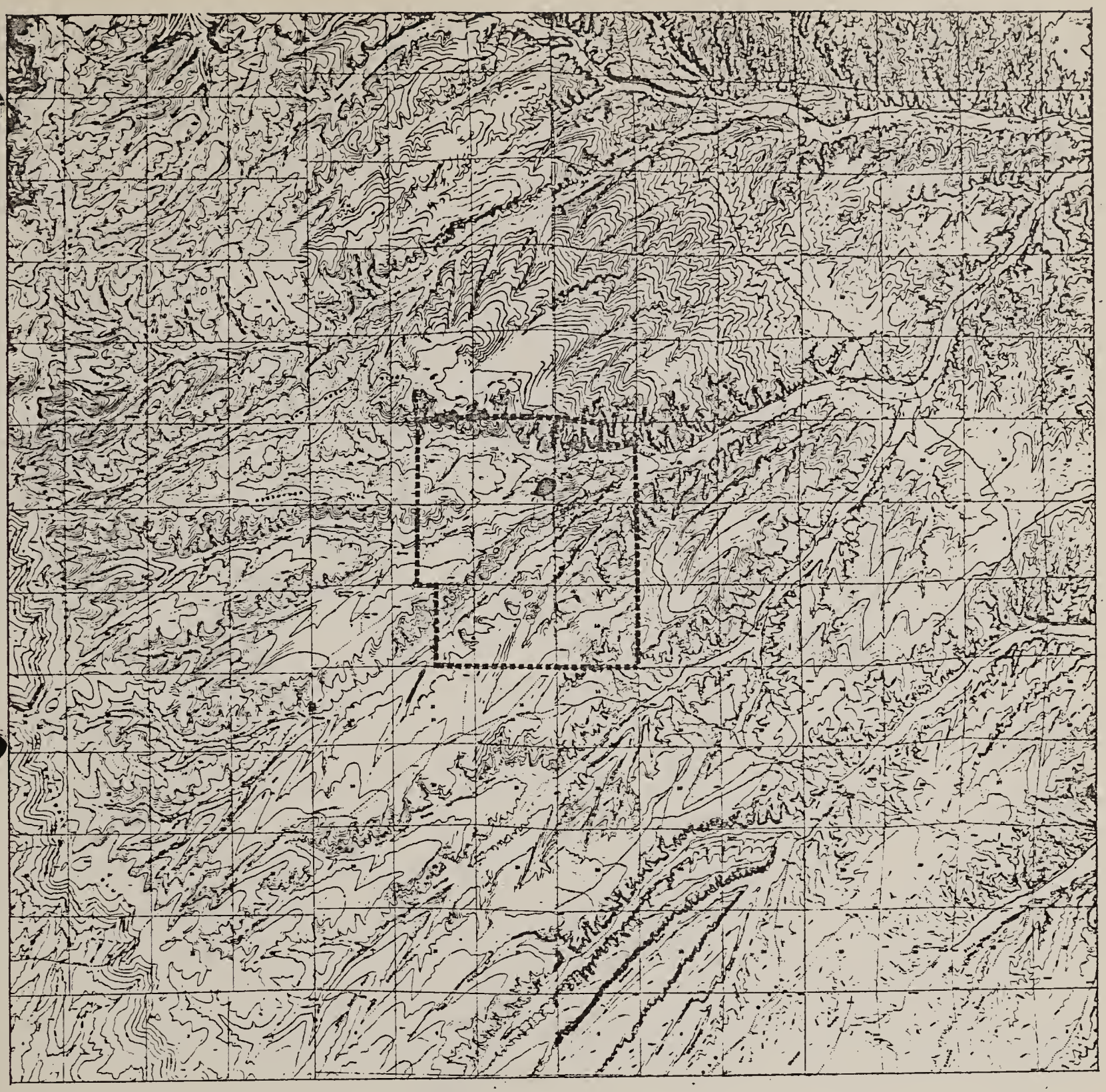
Other Information* _____

Observer Sam

* Include any distinguishing field marks for horses.

FIELD OBSERVATIONS

3K



Species Sylvilagus sp. Date 12/9/74 Time 1200

Means of Identification Tracks

Number Observed 1 set ♂ _____ ♀ _____

Adult _____ Juv. _____

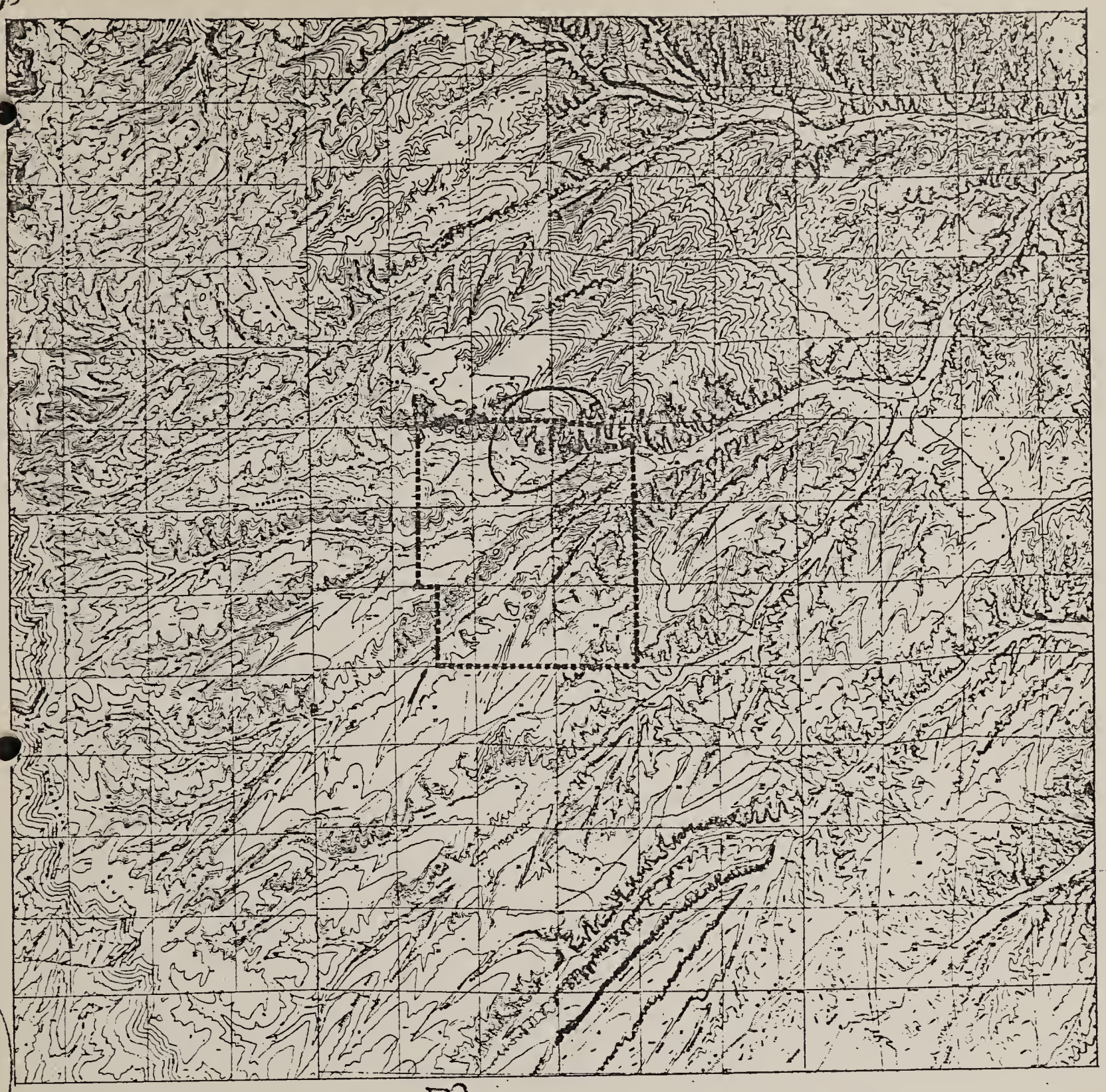
Habitat Rabbitbrush

Other Information* _____

Observer JC DA

* Include any distinguishing field marks for horses.

FIELD OBSERVATIONS



Species Sylvilagus sp. Date 12/9/74 Time 10:45 AM

Means of Identification observation

Number Observed 1 ♂ _____ ♀ _____

Adult ✓ Juv. _____

Habitat Pinion juniper

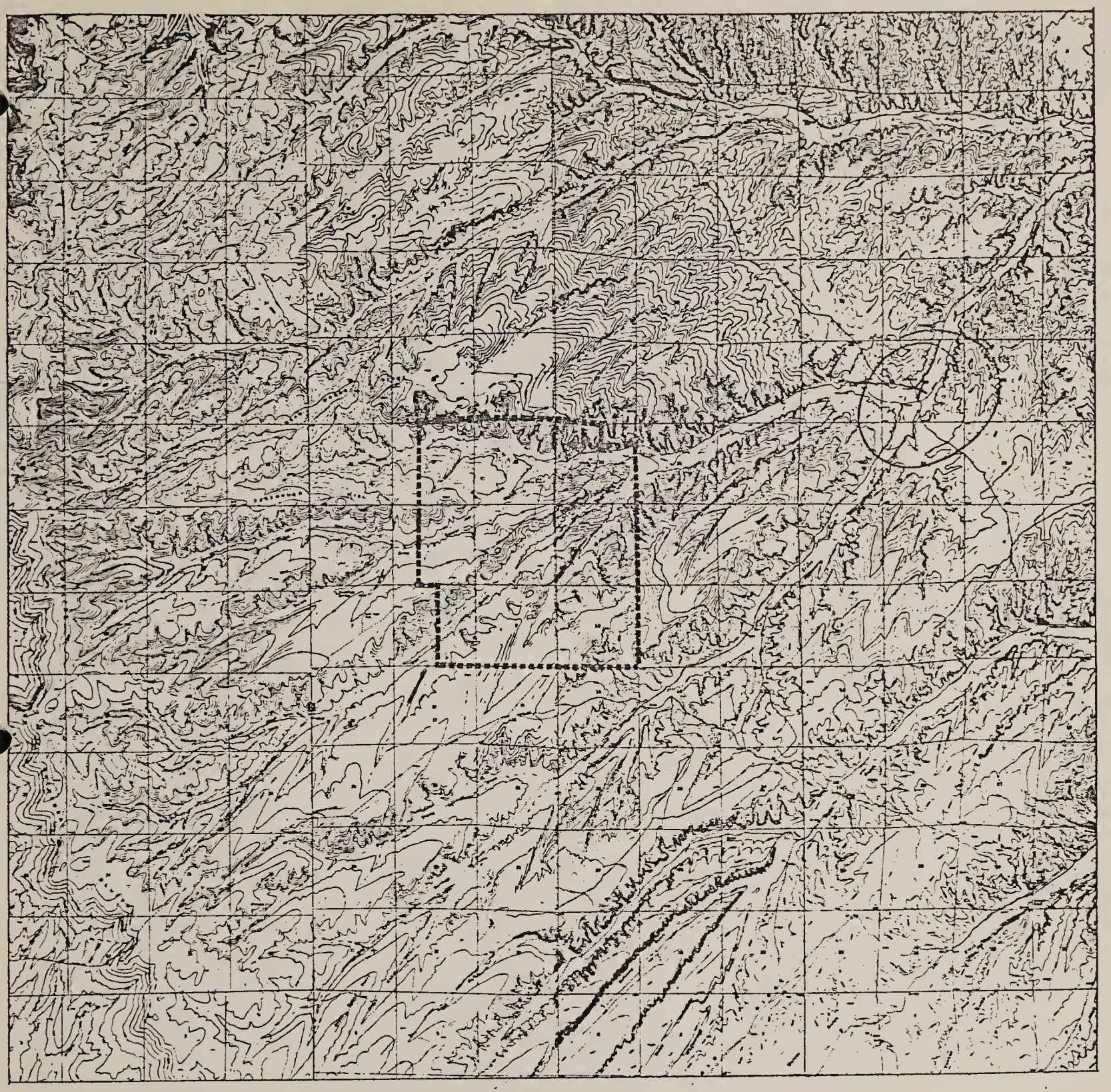
Other Information* South PJ, live trap pilot

Observer _____

* Include any distinguishing field marks for horses.

FIELD OBSERVATIONS

3m



Species Sylvilagus sp. Date 12/9/74 Time 1645

Means of Identification visual - roadside

Number Observed 1 (one) ♂ unknown ♀ unknown

Adult ✓ Juv. _____

Habitat _____

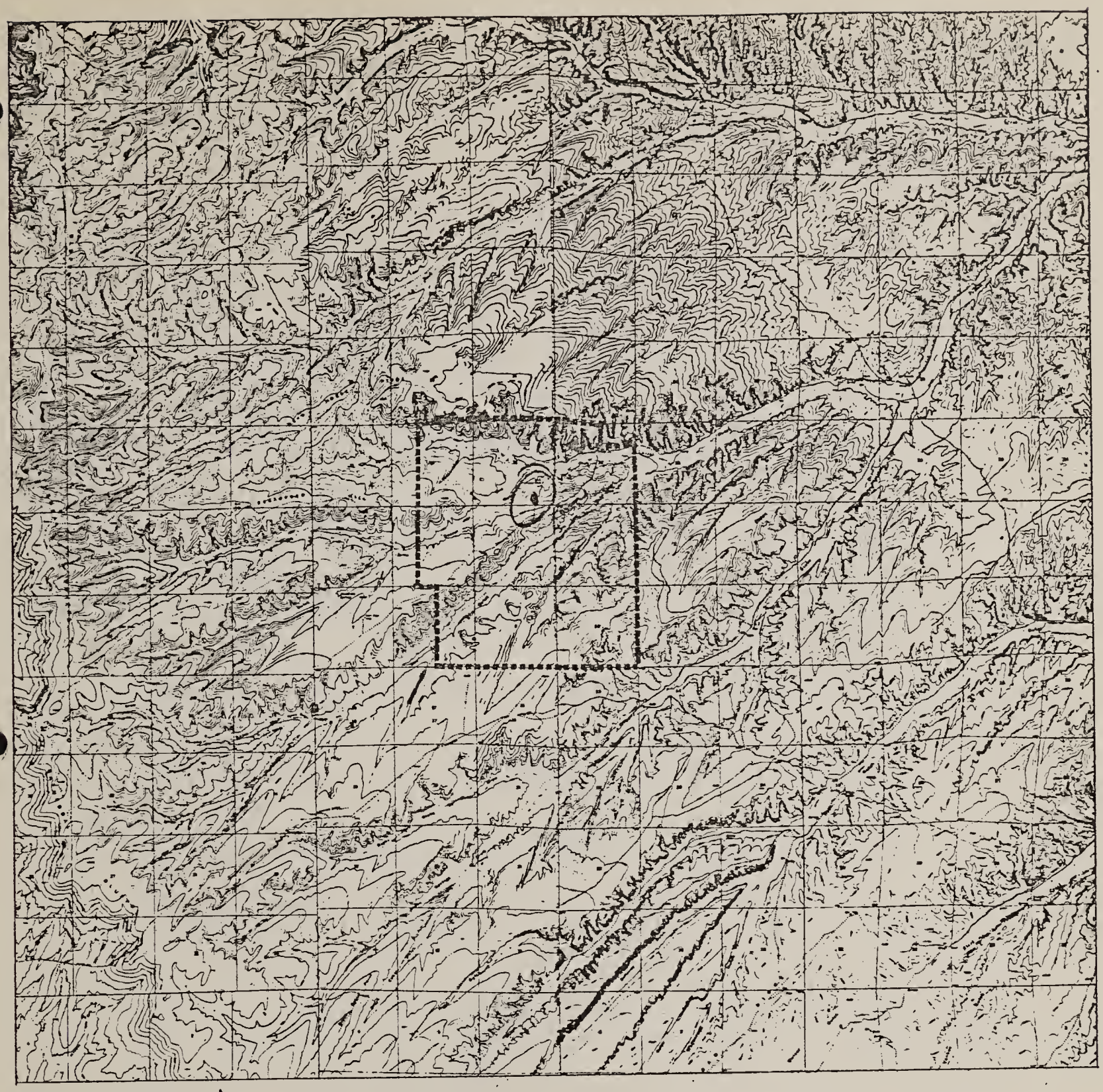
Other Information* Near corral at 84 ranch

Observer JB S & R DM

* Include any distinguishing field marks for horses.

FIELD OBSERVATIONS

5b



Species Sylvilagus sp. Date 2/10/75 Time 1100

Means of Identification sight

Number Observed 1 ♂ ____ ♀ ____

Adult ____ Juv. ____

Habitat Pinon - Juniper

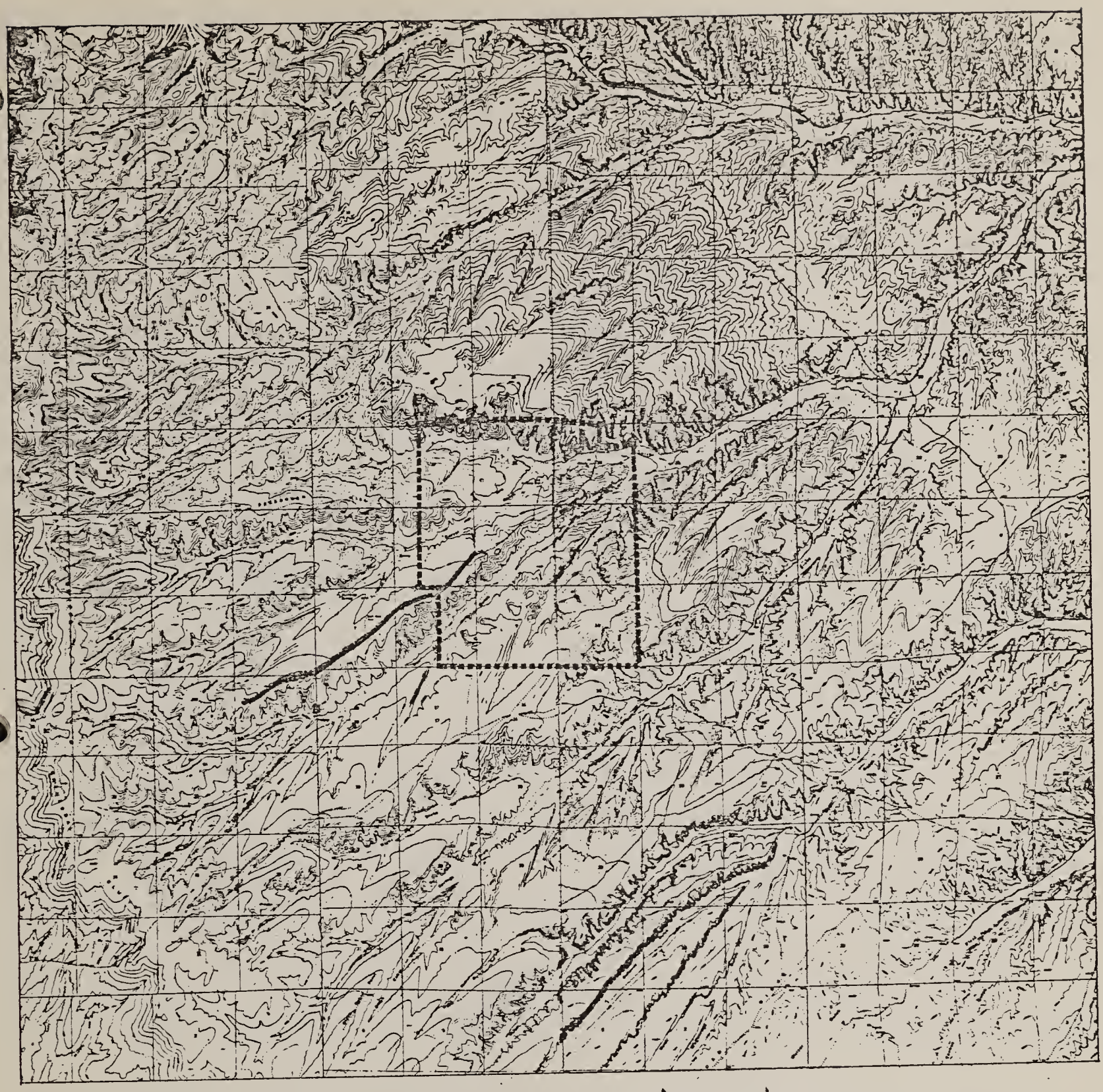
Other Information* during lagomorph survey

Observer Sowz, Baker

* Include any distinguishing field marks for horses.

5a

FIELD OBSERVATIONS



Species Sylvilagus sp. Date 2/8-14/75 Time

Means of Identification tracks

Number Observed ♂ ♀

Adult Juv.

Habitat Pinon-Juniper (at these elevations) seemed

Other Information* to avoid open range areas)

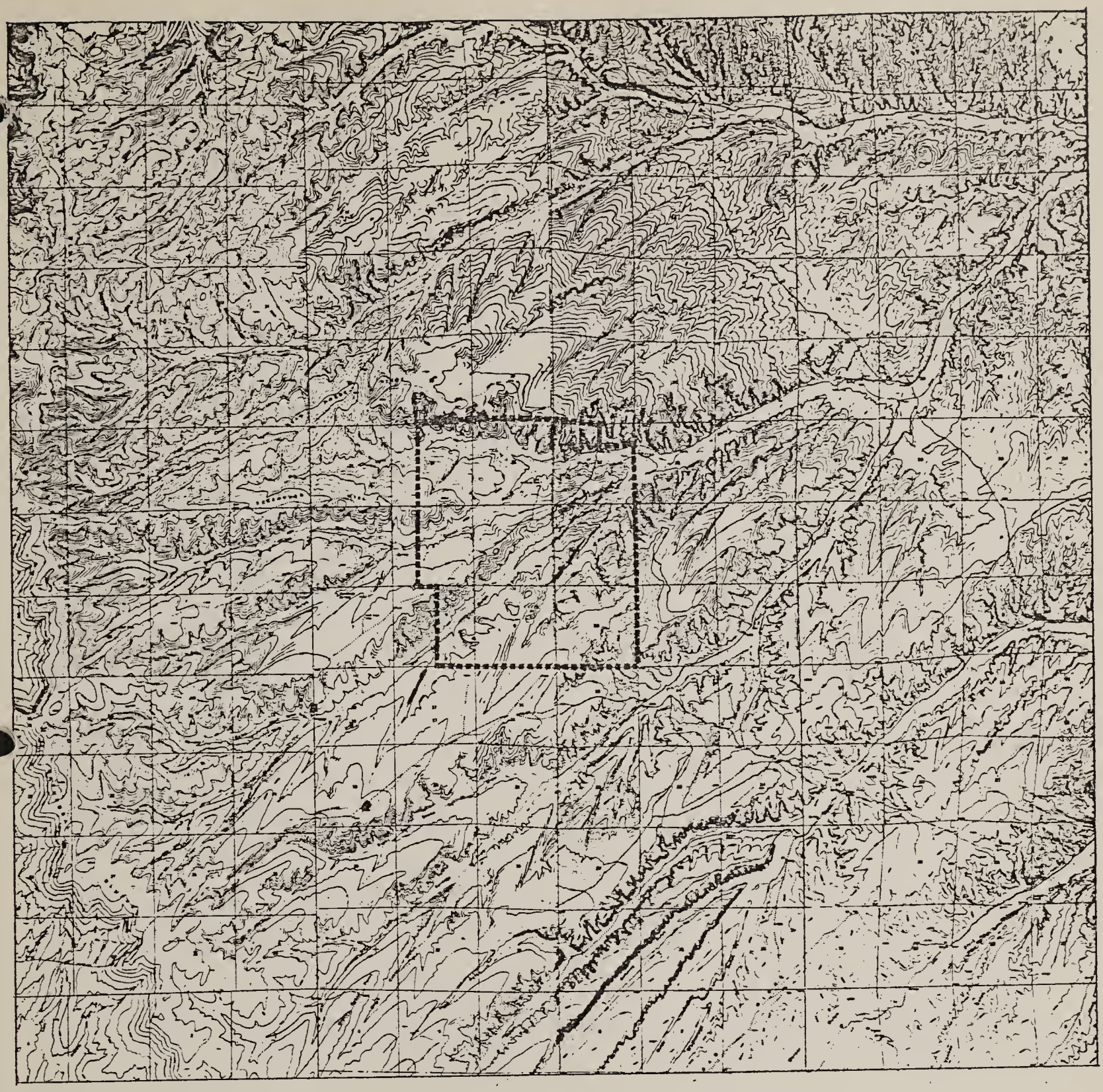
this is probably S. nuttalii. Both S. nuttalii and S. audubonii most likely occur at lower elevations

Observer Baker

* Include any distinguishing field marks for horses.

FIELD OBSERVATIONS

1a



Species White-tail jack rabbit Date 10/11/74 Time —

Means of Identification obs

Number Observed 1 ♂ _____ ♀ _____

Adult _____ Juv. _____

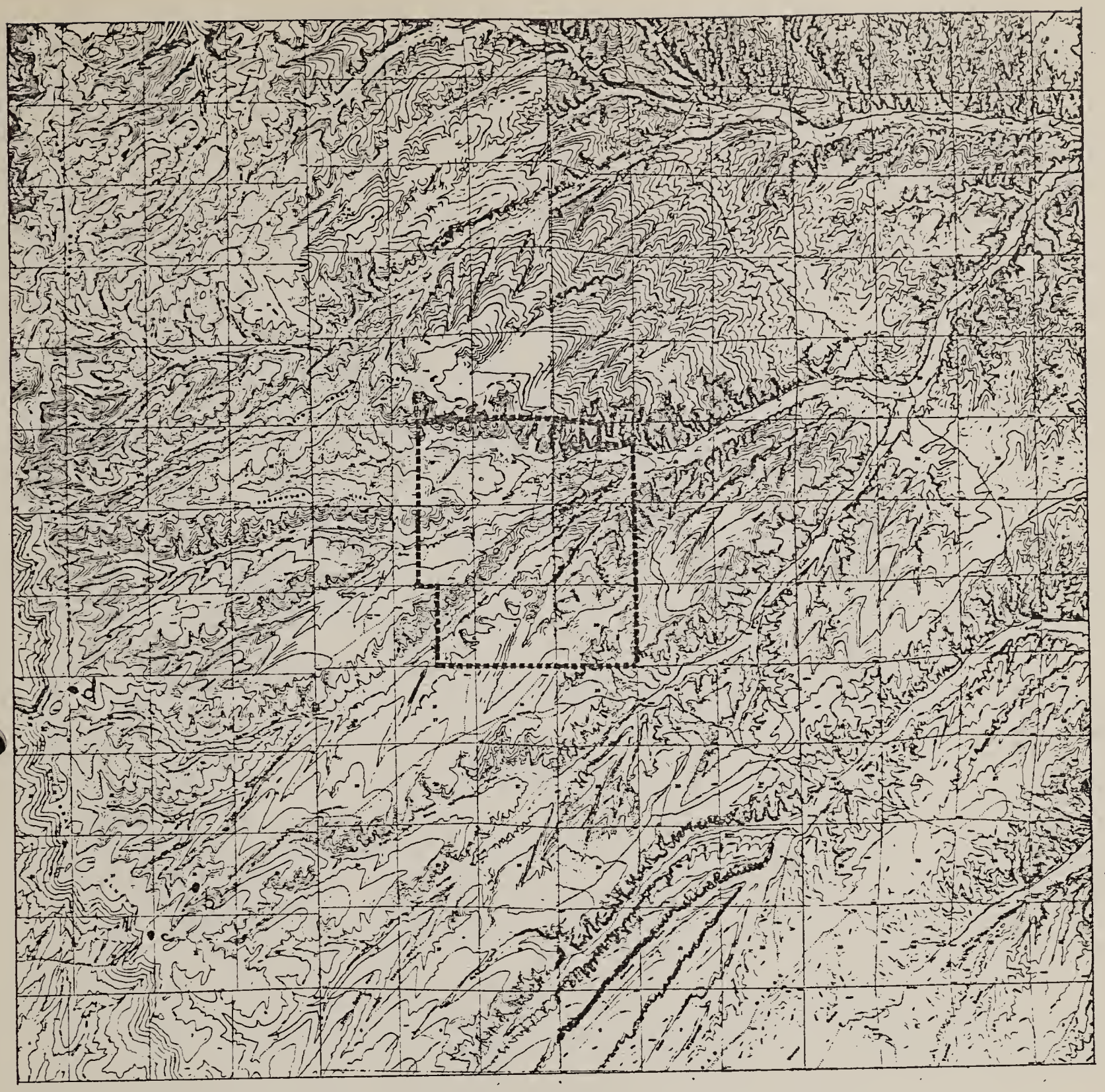
Habitat _____

Other Information* _____

Observer SLE, SK

* Include any distinguishing field marks for horses.

FIELD OBSERVATIONS 1- b, c, d



Species *Lepus townsendii* Date *Oct 12* Time *—*

Means of Identification *direct obser*

Number Observed *3* ♂ *—* ♀ *—*

Adult *—* Juv. *—*

Habitat

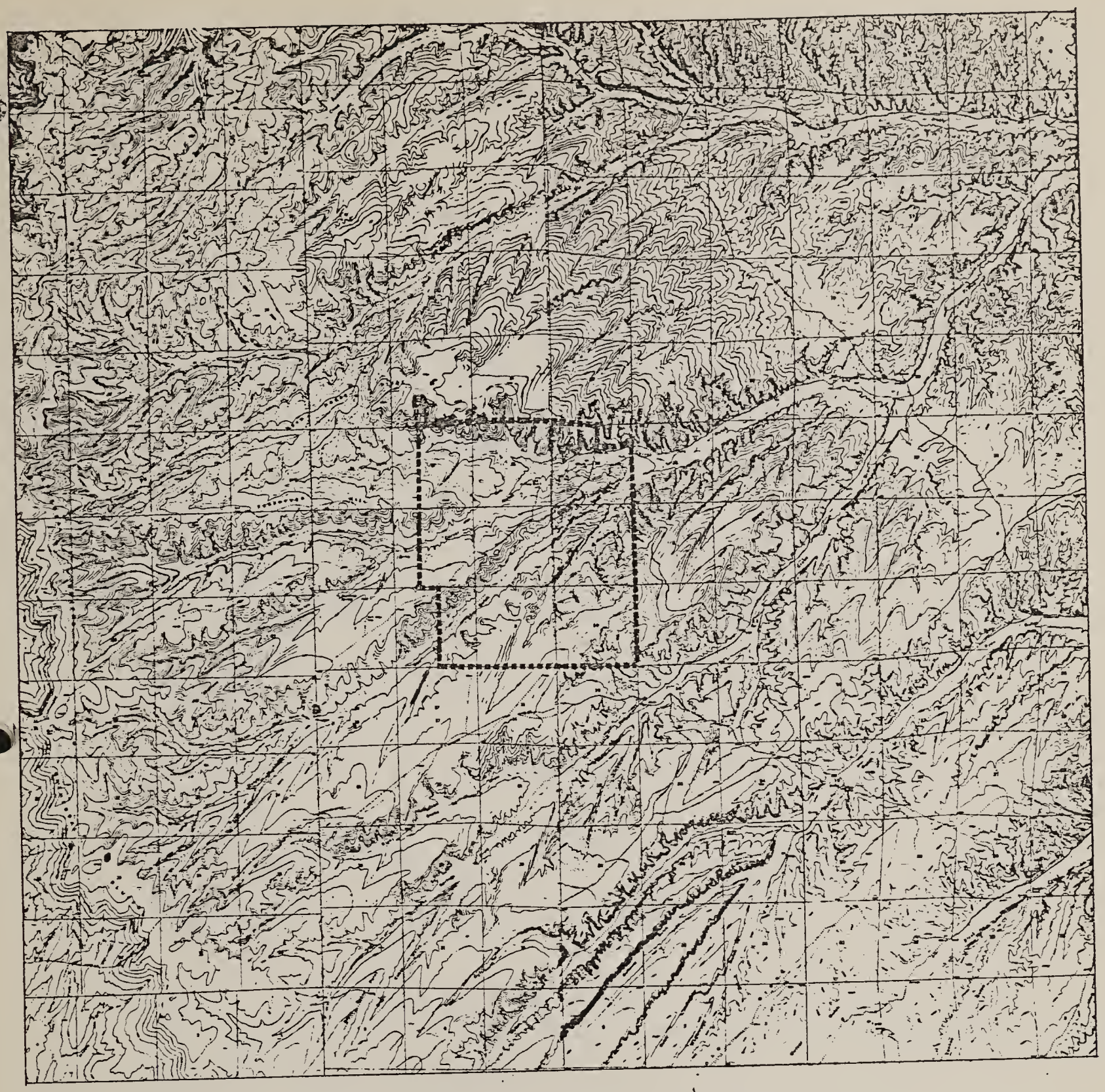
Other Information*

Observer *E. Kelly*

* Include any distinguishing field marks for horses.

1e

FIELD OBSERVATIONS



Species White Tailed Jack Rabbit Date 10/11/74 Time –

Means of Identification obs

Number Observed 1 ♂ _____ ♀ _____

Adult _____ Juv. _____

Habitat _____

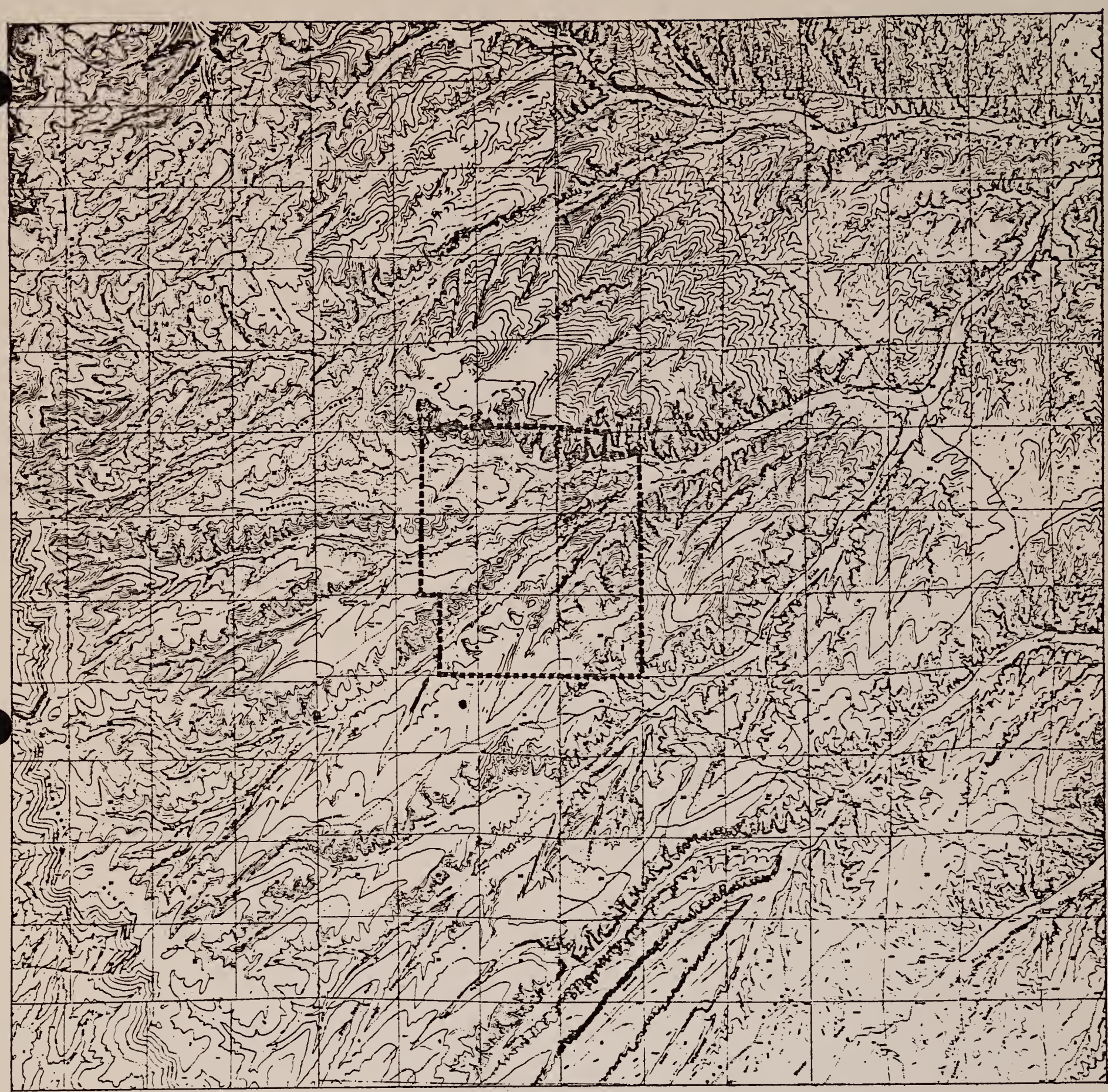
Other Information* _____

Observer JC EK

* Include any distinguishing field marks for horses.

1 f

FIELD OBSERVATIONS



Species *Lepus townsendii* Date *Oct 21* Time *—*

Means of Identification *direct. obser.*

Number Observed *1* ♂ *—* ♀ *—*

Adult *—* Juv. *—*

Habitat

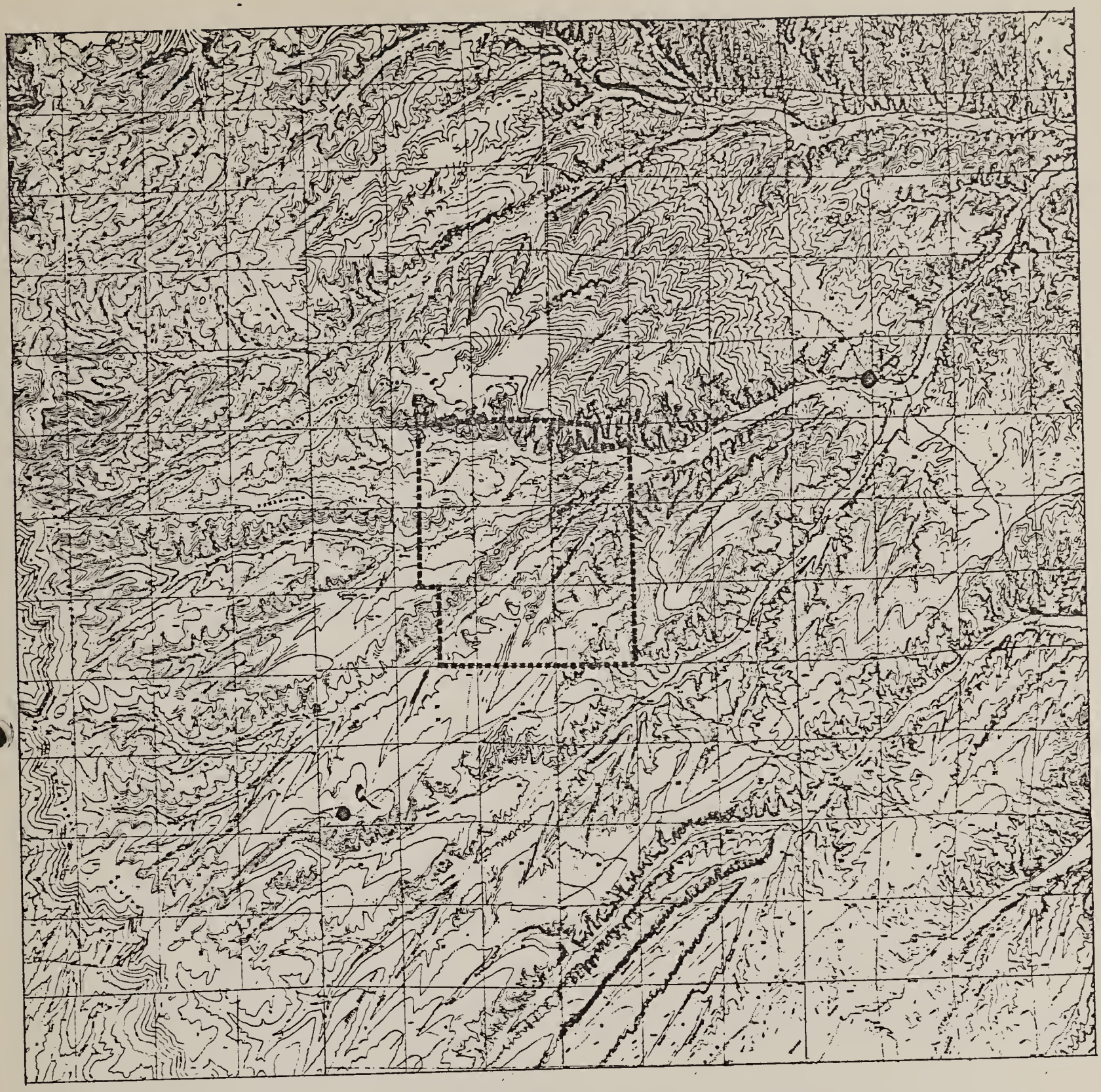
Other Information*

Observer *S. E. Hemphill*

* Include any distinguishing field marks for horses.

29, b

FIELD OBSERVATIONS



Species white-tailed jack Date Nov - 74 Time ——

Means of Identification observation - both in winter pellage

Number Observed 2 ♂ _____ ♀ _____

Adult ✓ Juv. _____

Habitat low sage ; tall sage

Other Information* _____

Observer Sanz

* Include any distinguishing field marks for horses.

3a

FIELD OBSERVATIONS

Species Jackrabbit (prob. white tail) Date Dec 7, 1974 Time 4:00

Means of Identification tracks (distance between tracks 14 feet

Number Observed 1 ♂ _____ ♀ _____

Adult ✓ Juv. _____

Habitat P.J. (in path road P.J. grid.)

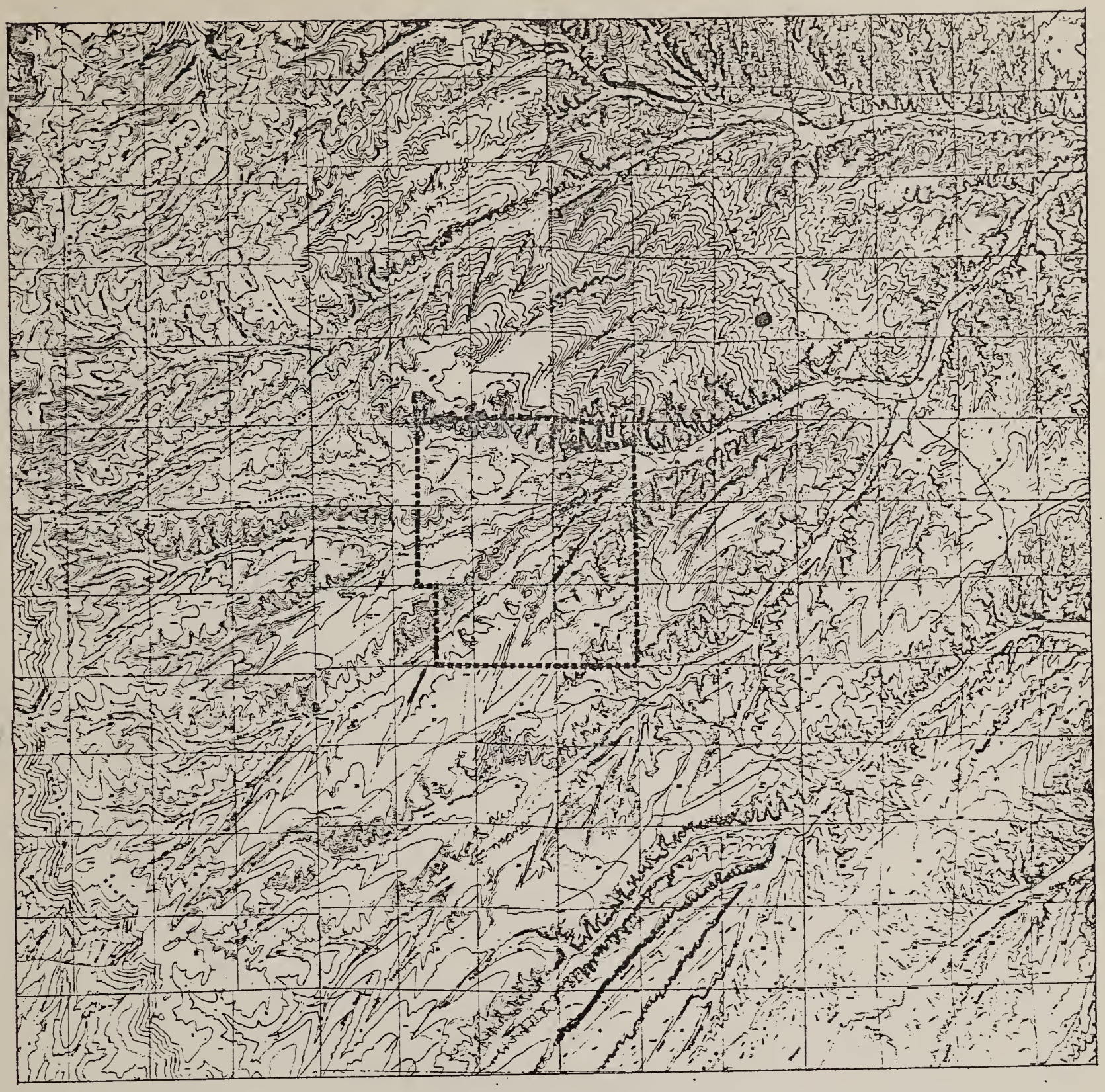
Other Information* – Two dens on this grid.

Observer Sam

* Include any distinguishing field marks for horses.

Field-78
30

FIELD OBSERVATIONS



Species white tailed jack rabbit Date Dec 8, 1974 Time 9:30

Means of Identification tracks

Number Observed several sets of tracks ♂ _____ ♀ _____

Adult _____ Juv. _____

Habitat upland sage

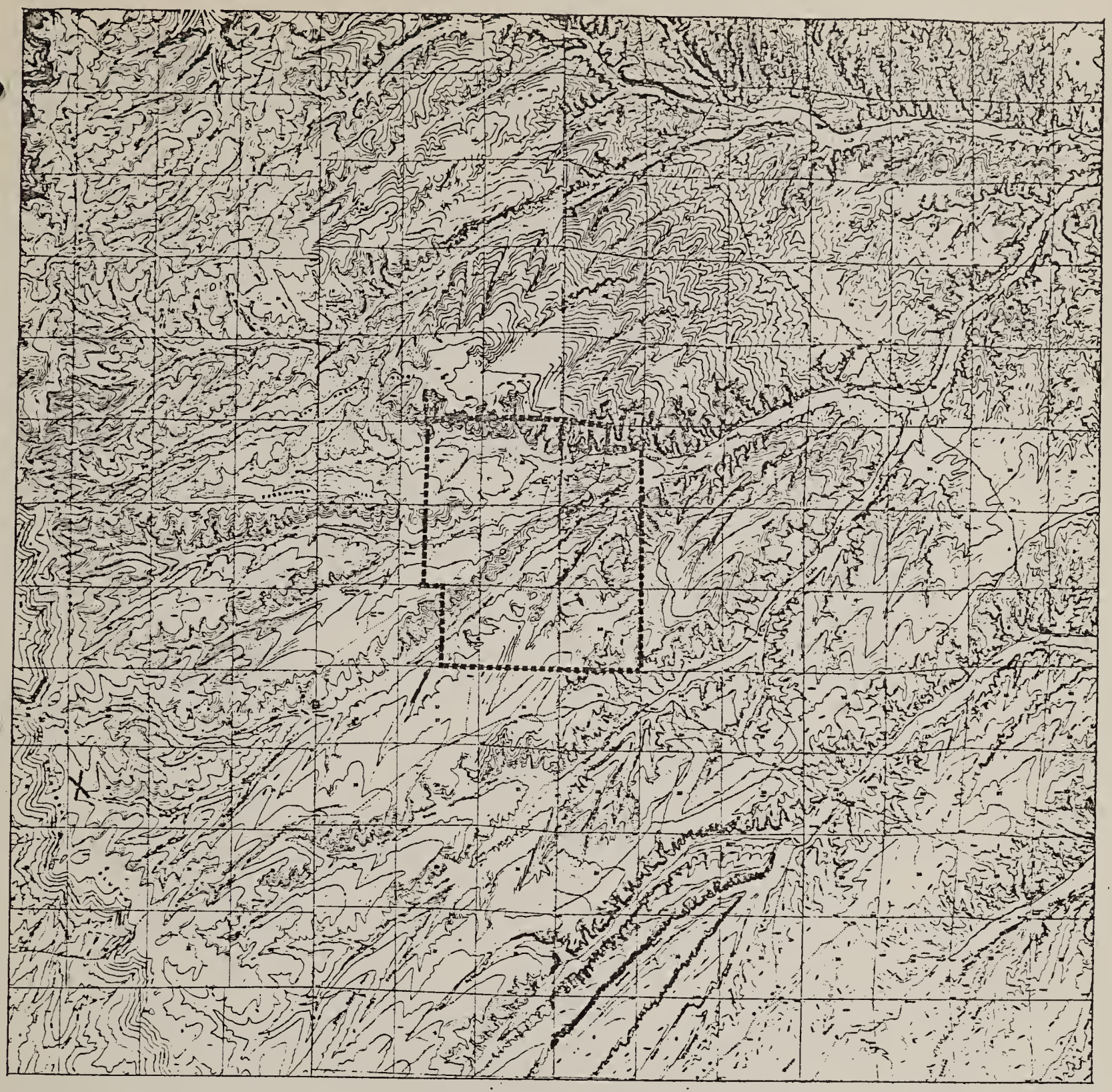
Other Information* _____

Observer Sonz

* Include any distinguishing field marks for horses.

14.1.1-14
3c

FIELD OBSERVATIONS



Species white tailed jackrabbit Date 12/8/74 Time 1130

Means of Identification tracks

Number Observed 1 ♂ _____ ♀ _____

Adult _____ Juv. _____

Habitat Mixed Brush

Other Information* on Mixed Brush Grid

Observer Tyson

* Include any distinguishing field marks for horses.

14.6.1-20

5a

FIELD OBSERVATIONS

Species Jack Rabbit Date 2/8-14/75 Time

Means of Identification tracks in snow

Number Observed ♂ ♀

Adult Juv.

Habitat open range habitat at higher elevations

Other Information* white cottontails

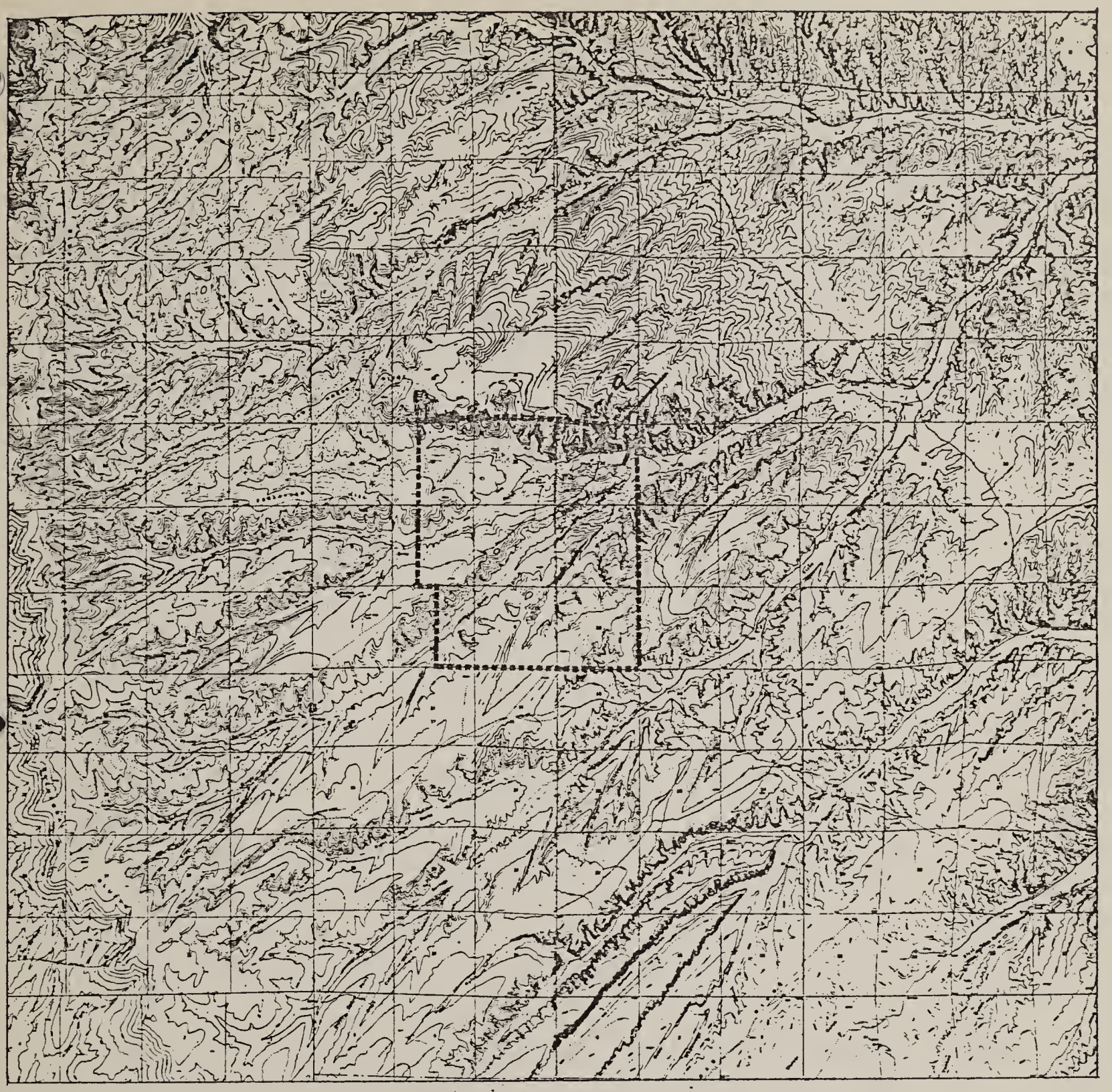
Observer Baker

* Include any distinguishing field marks for horses.

14.1.T-23-21

1- a, b

FIELD OBSERVATIONS



Species Erethizon dorsatum Date 10/24 Time —

Means of Identification direct (a) obser. + sign (b) (gnawed tree)

Number Observed 1 ♂ ____ ♀ ____

Adult X Juv. ____

Habitat Pin-Jun south slope (M-13 of grid B)

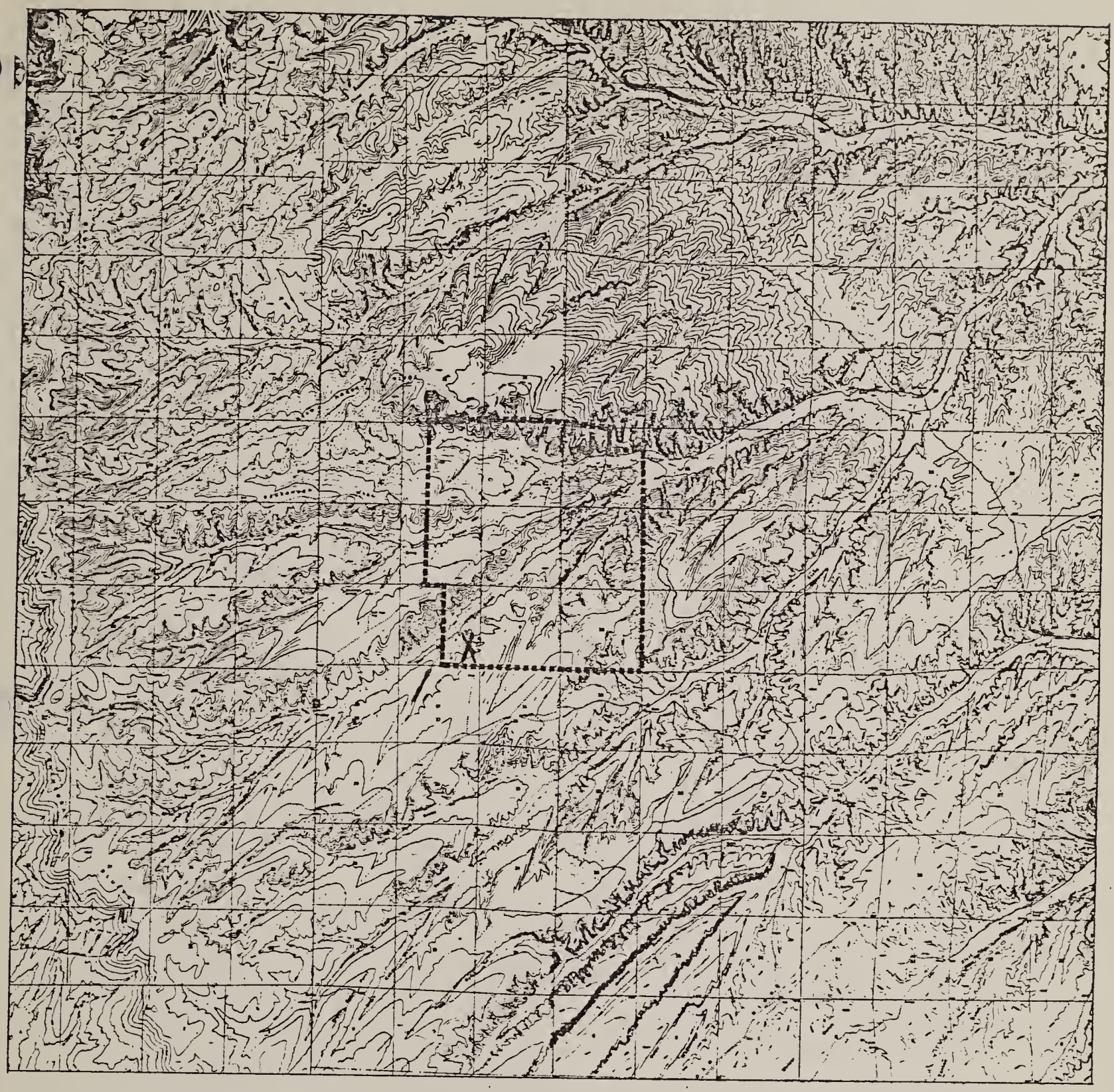
Other Information* numerous droppings under tree where located

Observer JC, JB.

* Include any distinguishing field marks for horses.
norses.

14.1.1-23
14.1.1-22

FIELD OBSERVATIONS



Species Northern Pocket Gopher Date 10/10/74 Time —

Means of Identification sign (fresh mounds, 10-12)

Number Observed _____ ♂ _____ ♀ _____

Adult _____ Juv. _____

Habitat Sage (Sage grid (D))

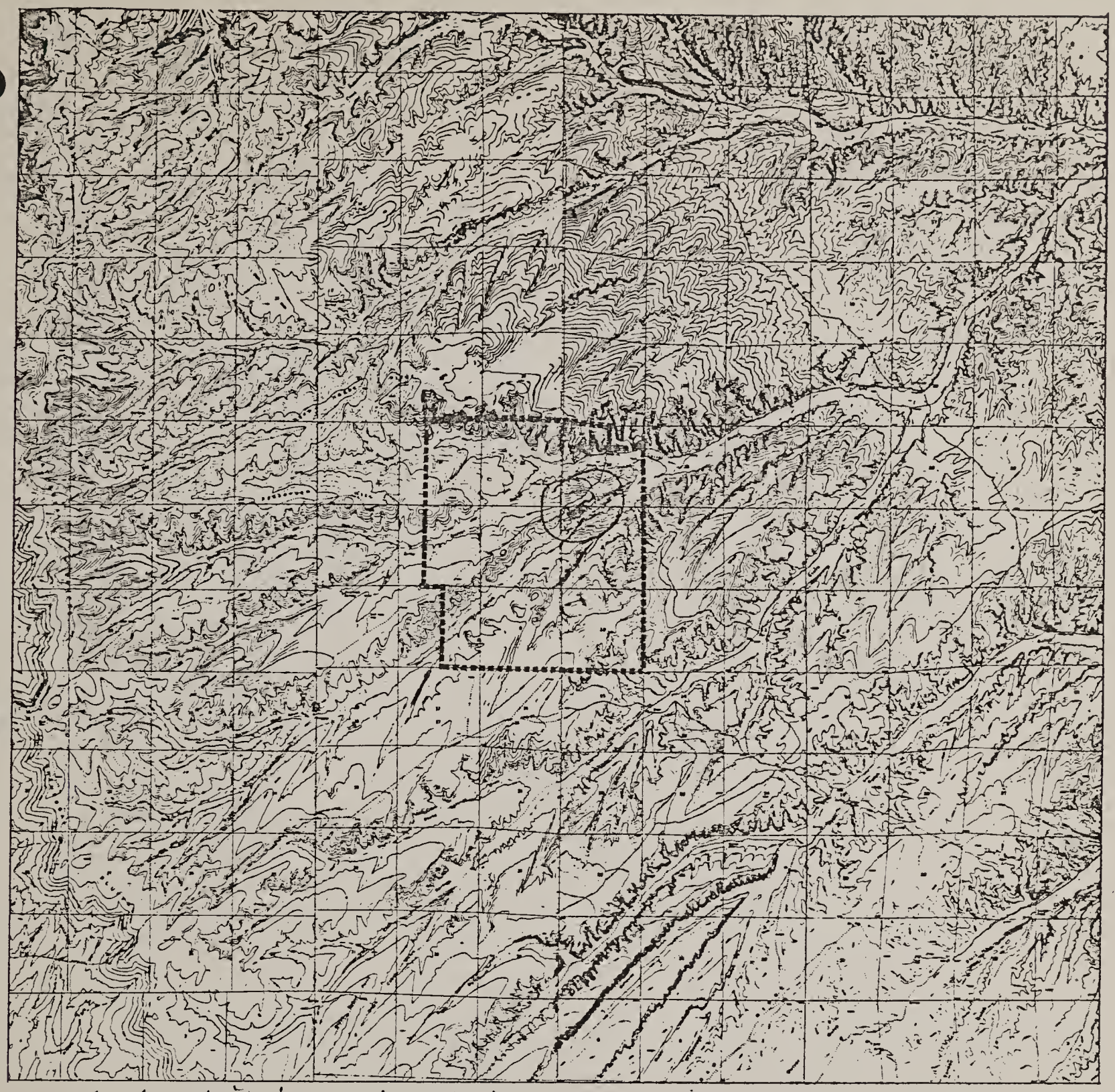
Other Information* _____

Observer S G Martin

* Include any distinguishing field marks for horses.

14.1.1-23

FIELD OBSERVATIONS



Species Cushy-tailed woodrat & possible raptor nest location Date 12/10/74 Time 1500

Means of Identification visual

Number Observed _____ NA ♂ _____ ♀ _____

Adult _____ Juv. _____

Habitat cliff.

Other Information* owlwash deposits — possible rats & /or bat nest, possibly raptor. up Boxelder gulch ~ ½ mile beyond drill pad

Observer SE RDM RS

* Include any distinguishing field marks for horses.