

259
56
315

1990

1990
The follow up monitoring of The Badger House Revegetation was done in Oct. From May 5 through July 4 (a two month period) there was only .3 inches of rain. There was very low ground moisture this spring. ~~Lack~~ due to no fall precipitation and less than 10 inches of snowcover. The complete lack of significant fall precipitation in 1989 from Oct thru Dec resulted in a low occurrence of annuals and biennials.

The only new recorded species was Erigeron divergens. All of the species picked up by the transects were native except Sasola kali, Sisymbrium altissimum and Bromus tectorum.

The species represented were as follows

	number	cover	Frequency
Shrubs	1	.13	3
Reveg Project but has data on plant transects			
Sclerophytes	8		
Grasses	5	11.9	115
Perennial forbes	6	6.5	73
Annual forbes	4	9.2	26
	<u>17</u>	<u>27.7</u>	<u>217</u>

This is the third dry spring-early summer since the 1986 revegetation. The most noticeable change this year was the reduction in number of species. 1990 had about half of the species in the communities as 1988 & 1987. There was a slight reduction in ^{total plant} cover. The grass density and frequency continues to increase. The most common forbe Penstemon lanemodes, also continues to increase slowly. Over

Tree #18, a pinyon ^{about 4 ft tall}, died within the last year from
deer antler racking.

1990

(Density Frequency)

SPECIES	Trail I	Trail II	Road III	Trail IV	Trail V	Road VI	Density	Frequency
<u>BRUSH & SCLEROPHYTES</u>								
<i>Chrysothamnus nauseosus</i>	.8 20						.13	3
<i>Opuntia polycantha</i>								
<u>GRASSES</u>								
<i>Agropyron smithii</i>								
<i>Bromus inermis</i>	.2 20		.2 20		.6 20		.16	6
<i>Bromus tectorum</i>					20 80		3.0	13
<i>Perennial grass</i>								
<i>Poa fendleriana</i>	5 40	4 60	.6 20	2 40	.4 20	1 20	2.2	33
<i>Sitanion hystrix</i>	8 60	4 40	11 80	5 60		6 60	5.6	50
<i>Chrysopsis hymenoides</i>		.6 40		.8 40		4 20	.9	13
<u>PERENNIAL FORBES</u>								
<i>Astragalus scopulorum</i>								
<i>Chaenactis douglasii</i>								
<i>Chrysopsis villosa</i>								
<i>Dracocephalum parviflorum</i>								
<i>Eriogonum racemosum</i>	.4 20		1 20				.23	6.7
<i>Lupinus caudatus</i>								
<i>Melilotus officinalis</i>								
<i>Orthocarpus purpureo-albus</i>								
<i>Penstemon linarioides</i>	.2 20	14 100	.2 20	8 60	.8 20	.6 20	4.0	40
<i>Phacelia heterophylla</i>								
<i>Phlox hoodii</i>								
<i>Salsola kali</i>	.5 20						.08	3
<i>Sphaeralcea coccinea</i>		.8 20			.5 40		.2	6
<i>Solidago petradoria</i>								
<i>Viguiera multiflora</i>					.4 20		.06	3
<i>Penstemon strictus</i>		1 20			.6 20		.12	6.7
<i>Eriogonum divergens</i>				.8 20	11 60		2	13
<u>ANNUAL FORBES</u>								
<i>Aster bigelovii</i>							6.51	79
<i>Chenopodium fremontii</i>								
<i>Cordylanthus wrightii</i>								
<i>Descurainia sophia</i>								
<i>Draba cunefolia</i>								
<i>Gayophytum ramosissimum</i>								
<i>Lactuca scariola</i>								
<i>Lappula redowskii</i>								
<i>Microsteris humilis</i>								
<i>Polygonum aviculare</i>								
<i>Polygonum sawatchense</i>			.2 20	.2 20			.23	6.7
<i>Ranunculus testiculatus</i>								
<i>Sisymbrium altissimum</i>					3.2 40		5	6.7
<i>Tragopogon dubius</i>								
<i>Salsola kali</i>								
<i>Eriogonum cicutarium</i>			1.8 60		.8 20		4	13
<i>Bare ground</i>	64 80	24 80	73 100	47 80	74 100	30 80	5.2	87
<i>Litter</i>	8 100	65 100	14 100	26 80	19 100	38 80	28	93
<i>Rock</i>	6 80	9 100	1.6 100	.4 40	0 80	1.2 40	.17	73
<i>Cryptogama</i>	0 0	.8 40	0 0	0	.2 20	0 0	.02	10

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research.

2. The second part of the report is a detailed description of the methodology used in the study. It includes information about the sample size, the data collection methods, and the statistical analysis techniques.

3. The third part of the report is a discussion of the results of the study. It presents the findings of the research and compares them with the previous studies in the field.

4. The fourth part of the report is a conclusion and a list of references. The conclusion summarizes the main findings of the study and provides recommendations for future research. The references list the sources of information used in the study.

5. The fifth part of the report is an appendix containing additional information related to the study. This may include raw data, detailed calculations, or other supporting materials.

6. The sixth part of the report is a bibliography listing the sources of information used in the study. This is a standard feature of academic reports and provides a way for readers to find the original sources of the information.

7. The seventh part of the report is a list of figures and tables. These are used to present the results of the study in a clear and concise manner. They may include graphs, charts, and tables of data.

8. The eighth part of the report is a list of abbreviations and symbols. This is used to define the terms and symbols used in the report, making it easier for readers to understand the content.

1989

The follow-up monitoring of The Badger House Revegetation was done in Oct. From Mar 23-July 27 there was only .16 inch of rain, then 4.95 inches fell in 10 days and revived some species as well as greatly favored a few, i.e. Portulaca oleracea (Owl Raven Tree) + Sporobolus cryptandrus (Badger Tree) where the latter was 118 cm tall.

Again, a few new species showed up in Orthocarpus purpureo-alba, Lepidium montanum, Achillea millefolium were new and were part of the seedling mixture. P. oleracea was new but ~~as~~ not planted. No new exotics came in.

The species represented were as follows:

	Number	Cover	Frequency
Shrubs	1	.9	7
Sclerophytes	0	0	0
Grasses	6	8.8	140
Perennial forbes	16	10.99	~~108~~ 112
Annual forbes	11	11.38	56
Total	34	31.07	315

Due to the drought in spring & early summer there was a marked decrease of ^{total} annual forbes frequency 125% to 56%; grasses were about the same as 1988; ~~perennial~~ ^{total} forbes had an increased frequency, 61% to 112%.

Therefore, all in all, there was not much ~~change~~ significant ~~change~~ increase in 1988. This was because of the extreme drought. But it is of importance that there was no significant loss of species composition or cover which may have been expected under such unfavorably ~~can~~ dry conditions.

The trees which were alive in 1988 all remained alive ~~low~~ and apparently in healthy condition. The ^{new} growth averaged ~~only~~ only 2 cm.

BADGER HOUSE
REVEG

1989 Follow up monitoring
All transects

SUMMARY
1989

SPECIES	DENSITY	FREQUENCY	1	2	3	4	5	6	7	Density	Frequency
			Trail	Road	Trail	Road	Trail	Trail	Trail		
<u>BRUSH & SCLEROPHYTES</u>											
Chrysothamnus nauseosus					2 10	3 1 30			2 5 10	.9	7
Opuntia polycantha											
<u>GRASSES</u>											
Stipa comata									2 7 20	.3	3
Agropyron smithii			1 5 10	1 8 20	1 9 20	3 3 40			2 0 70	.4	23
Bromus inermis											
Bromus tectorum			.3 20		2 20	1 5 40	1 9 20	3 8 20		1.1	25
Perennial grass											
Poa fendleriana			5 30	1 6 30	1 2 20	3 4 40	2 2 90		2 0 50	* 2.8	40
Satanion hystrix			2 5 30	1 5 10	1 10 10	6 6 50	1 8 20	4 60		* 2.5	40
Oryzopsis hymenoides					1 0 10	1 2 10	3 3 20	5 20		.7	9
<u>PERENNIAL FORBES</u>											
~~Trigonostemon altissimus~~									2 5 20	~~.4~~	~~3~~
Astragalus scopulorum					1 10					.01	1
Chaenactis douglasii					.5 10					.07	1
Chrysopsis villosa						.8 20	1 10	1 7 20		.37	7
Dracocephalum parviflorum											
Eriogonum racemosum					1 10				3 0 40	.4	7
Lupinus caudatus			.1 10	.6 30		.8 20			.7 20	.03	11
Melilotus officinalis				.8 10		1 7 50				.35	9
Orthocarpus purpureo-albus						.5 10				.07	1
Penstemon linarioides			1 20	3 6 50	2 9 50	4 7 70	1 1 30	8 1 50	2 7 40	* 3.4	44
Phacelia heterophylla											
Phlox hoodii											
Salsola kali					1 10					.01	1
Sphaeralcea coccinea				.8 10	1 10	1 10	1 10	9 30		.28	10
Solidago petradoria											
Viguiera multiflora				1 2 40		4 2 30				2.3	10
Legidium montanum			.8 10			1 6 30				.1	1
Achillea millefolium										.2	4
<u>ANNUAL FORBES</u>											
Aster bigelovii				.7 10		1 1 10	2 0 10	3 20		.85	7
Chenopodium fremontii			.1 10			1 10	1 0 10			.15	4
Cordylanthus wrightii											
Descurainia sophia											
Draba cunefolia											
Gayophytum ramosissimum											
Lactuca scariola								1 10		.01	1
Lappula redowskii											
Microsteris humilis											
Polygonum aviculare					1 10			.8 10		.12	3
Polygonum sawatchense					2 10	1 10		1 4 50		.24	10
Ranunculus testiculatus								3 0 30		.4	4
Sisymbrium altissimum				5 6 30				2 5 20		1.2	10
Tragopogon dubius				.4 10						~~1.2~~ .06	1
Cardium megaccephal.				1 5 10	1 10			3 10		.04	1
Erodium cicutarium				1 1 10						.01	1
Psstulaca oleracea								3 5 20		.5	3
Salsola								.8 10		.11	1
Dracocephala								2 10	1 7 40	.27	7
Penstemon strictus								1 3 30		.19	4
Taraxacum officinalis								1 3 30		.04	4

~~Summer~~
1988

Relationship of

Number of species in all transects in 1988 are:

	number	Cover	Total frequency
Shrubs	1	1.2	7
Sclerophytes	0	0	0
Grasses	6	9.2	142
Perennial forbes	~~15~~ 11	16.4	61
Annual forbes	13	15.0	125
Totals	31	41.8%	

No one exotic contribute significantly to cover or frequency. Exotics Combined cover of all exotic species was 14.1% which represents 33% of all cover.

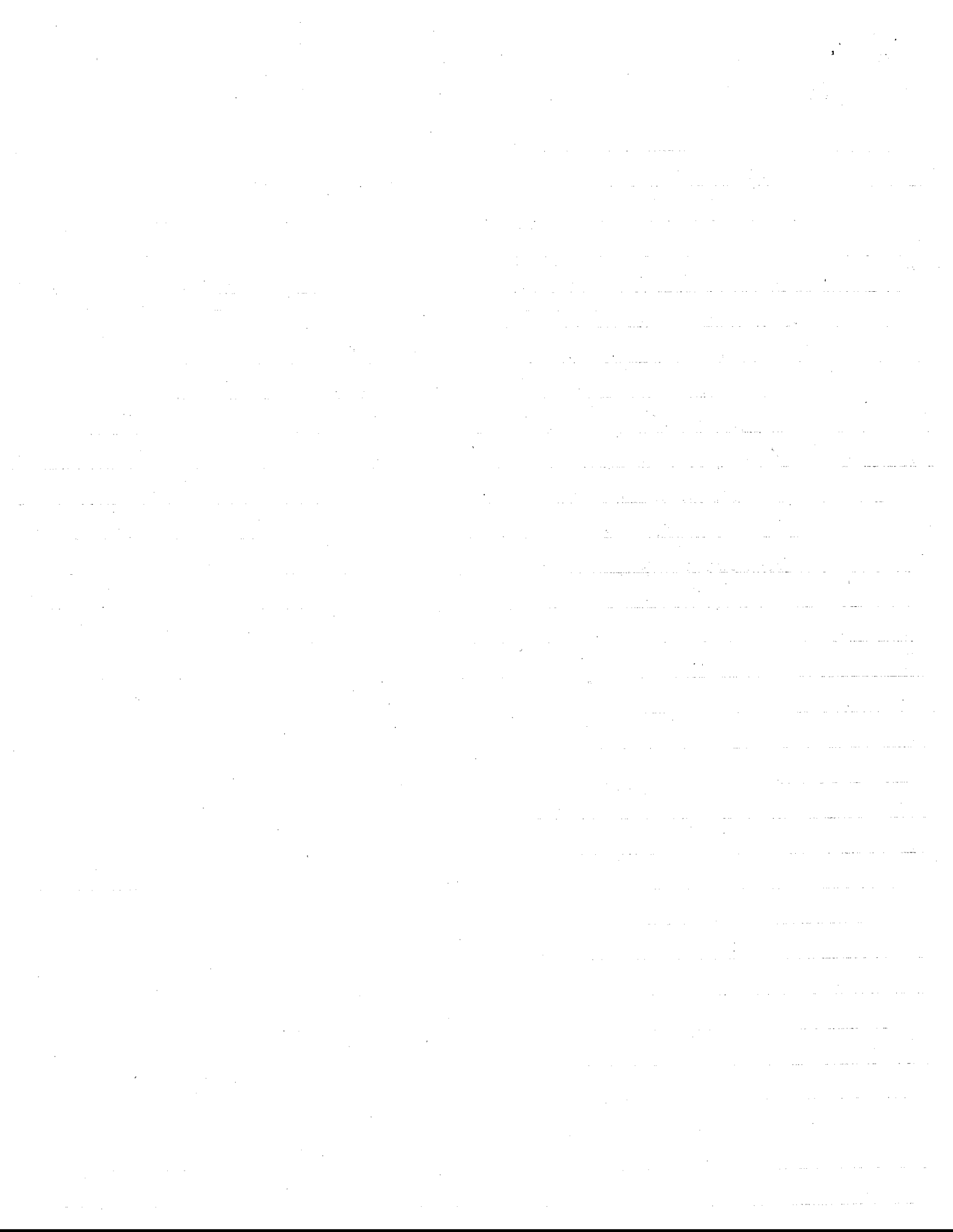
Six new species showed up in 1988, two years after the seeding. In the cases of the grasses they probably just first became identifiable. Of the ~~four~~ perennial forbes one, Utah fleabane, was planted; the others were adventive, probably from imported red loess soil or ~~here~~ ^{had roots} in situ soil.

In 1987 the average plot cover was 24.5 and in 1988 it was almost double, being 41.8%. This was probably due to extension from the seedling stage by grasses + perennial forbes. In general annual cover ^{in 1988 was} about half of ~~as~~ that for 1987, due to extremely dry June + July. ~~dry in 1988.~~ ~~dry in 1988.~~

(2)

Note: Dry Sept and Oct in 1988 may have prevented seedling growth of some annual/perennials which may affect 1989 plant communities.

By Aug 1988 all but ^{two} ~~2~~ of the ^{sixteen} balled trees were alive and had put on an average of 3.5 cm new terminal and/or lateral growth. (One had the leaders eaten off, two leaders were dead, and another had broken side limbs.) But, by Dec 7, four of the trees had been badly damaged, i.e. tops broken out or ^{severely} delimbed. By buck mule deer ~~rubbing~~ using the trees as rub posts to remove velvet from their antlers. ~~The trees put~~



SPECIES		Density	Frequency
<u>BRUSH & SCLEROPHYTES</u>			
Chrysothamnus nauseosus		1.2	7
Opuntia polycantha			
<u>GRASSES</u>			
Agropyron smithii		2.1	18
~~Bromus inermis~~		~~2~~	~~2~~
~~Bromus tectorum~~		~~3.3~~	~~45~~
Perennial grass			.
Poa fendleriana		.9	35
New ~~Sitanion hystrix~~		2.5	42
New ~~Stipa comata~~		.3	
<u>PERENNIAL FORBES</u>			
~~Achillea millefolium~~		.05	3
Astragalus scopulorum		2	3
Chaenactis douglasii			
Chrysopsis villosa			
Dracocephalum parviflorum	Native adventive	1	3
Eriogonum racemosum		1.2	13
Lupinus caudatus		2.8	23
~~Melilotus officinalis~~		.8	8
Orthocarpus purpureo-albus			
Penstemon linarioides			
Phacelia heterophylla		.1	2
Phlox hoodii			
Salsola kali			
Sphaeralcea coccinea		.03	3
Solidago petradoria			
Viguiera multiflora		.6	7
New ~~Engelmannia~~		.5	3
New ~~Yucca Xanthipolia~~	Native adventive	.03	2
<u>ANNUAL FORBES</u>			
~~Epilobium paniculatum~~	Native adventive	.08	7
Aster bigelovii		2	5
Chenopodium fremontii		1.3	18
Cordylanthus wrightii		.06	3
~~Descurainia sophia~~		.3	2
Draba cunefolia			
Gayophytum ramosissimum	Native adventive	.2	2
~~Lactuca scariola~~		1	8
Lappula redowskii			
Microsteris humilis	Native adventive	.06	5
~~Polygonum aviculare~~		4	12
~~Polygonum sawatchense~~	Native adventive	.8	60
Ranunculus testiculatus			
~~Sisymbrium altissimum~~		.5	3
Tragopogon dubius			
New ~~Penstemon strictus~~		.08	3
New ~~Therapsidum officinale~~		4	7

SECOND FOLLOW-UP OF BADGER HOUSE REVEGETATION, SEPTEMBER 17, 1987

Very few bromus textorum seedlings seen - only in shade of woody litter.

Eight new species were picked up on the late summer transects:

- sphaeralcea coccinea in dicelydon stage
- tragopogon dubius in seedling rosette
- achellia milliformis in seedling rosette
- erodium cicutarium in seedling rosette
- lithospermum incisum - only one occurrence, accidental
- taracum officinalus - several, accidental
- sitamon hystrix becoming identifiable and previously classed as perennial grass
- erigeron utahensis - minor occurrence, planted

Other new species may germinate in 1988 and be picked up by the transects. Since the transects are a sample and are not staked, they do not represent duplicate areas during the monitoring. This sampling is to represent major changes within the area as well as differences between trail sides, trash dumps and old roadways.

It is interesting that even though commercial seed of western wheat grass, agropyron smithii, was planted in all parts of the revegetation area, this species shows up only on the Two Raven House dump and the trail side north of Two Raven House where western wheat grass grows naturally (here it grows up along the head drainage of Bobcat Canyon where there is thought to be an igneous influence to the soil).

Bromus inermis was seen only on the western edge of the planting area near where it has been established on the sewer line.

At the time of this sampling the dominant perennials which were planted are mutton grass, spurred lupine and low penstemon. Golden eye may become a more important cover on wet years. Fall purple aster and Utah fleabane could also increase readily in near future years.

Adventives having dominant cover are pinyon knotweed, birdbeak and Fremont's goosefoot. Of these only the birdbeak was included in the seed mixture. The others apparently came in with the transported soil.

One adventive in the park, yellow sweet clover, has only minor cover at this time. It was picked up only on the roadway north of Village I.

Because of early summer dry conditions some seedlings of planted perennial grasses died by midsummer. The cover of these dropped from 3.0 percent in June to 1.1 percent in September. The frequency dropped from 80 percent to 48 percent.

Two important forbes increased in cover: Low penstemon increased from .05 to 1.7 percent cover and from 32 to 57 percent frequency. Fremont's goosefoot increased from .25 to 4.3 percent cover and 23 to 33 percent frequency. On the other hand spurred lupine decreased from 2.4 to 1.3 percent cover for seedlings; several dead seedlings were noted in the transects.

Table I

BADGER HOUSE REVEGETATION FOLLOW-UP 9/17/87

SPECIES	Exotic Species	Planted Species	Old Established Species	
			PLOT DENSITY	PLOT FREQUENCY
BRUSH & SCLEROPHYTES				
	Chrysothamnus nauseosus		.1	12
	Opuntia polycantha			
GRASSES				
	Agropyron smithii		.3	7
	Bromus inermis			
	Bromus tectorum			
	Perennial grass		.1 (.02)	15 (2)
	Poa fendleriana		.4 (8.4)	23 (25)
	Sitanion hystrix		.3	10
				55
PERENNIAL FORBES				
	Achillea milliformis		.1	3
	Astragalus scopulorum		.2	3
	Chaenactis douglasii			
	Chrysopsis villosa			
	Dracocephalum parviflorum			
	Eriogonum racemosum		.4	17
	Lupinus caudatus		1.3 (3.9)	22 (28)
	Melilotus officinalis		.2	5
	Orthocarpus purpureo-albus		.2	2
	Penstemon linarioides		1.7	57
	Phacelia heterophylla		.3	3
	Phlox hoodii			
	Salsola kali			
	Sphaeralcea coccinea		.3	3
	Solidago petradpria			
	Viguiera multiflora		1.0	18
	Lithospermum incisum		.2	2
	Engeron utahensis		.05	2

Table I continued

ANNUAL FORBES

<i>Erodium cicutarium</i>	3	3
<i>Aster bigelovii</i>	.05	2
<i>Chenopodium fremontii</i>	4.3	33
<i>Cordylanthus wrightii</i>	2.0	20
<i>Descurainia sophia</i>	9.2	3
<i>Draba cunefolia</i>		
<i>Gayophytum ramosissimum</i>		
<i>Lactuca scariola</i>	1.0	8
<i>Lappula redowskii</i>		
<i>Microsteris humilis</i>		
<i>Polygonum aviculare</i>	3.3	17
<i>Polygonum sawatchense</i>	9.2	77
<i>Ranunculus testiculatus</i>		
<i>Sisymbrium altissimum</i>	.05	3
<i>Tragopogon dubius</i>	.08	7
Dicot seedling-1	.2	5

PERCENT COVER OF SPECIES TYPE COMPARING TRANSECTS SEPTEMBER 17, 1987

	T1	T2	T3	T4	T5	T6	Average
EXOTIC SPECIES	11.2	.5	2.6	2.3	.3	24.0	= 7%
PLANTED SPECIES	22.9	3.8	5.0	16.3	9.9	12.8	= 12%
OLD ESTABLISHED SPECIES	9.3	5.4	47.8	9.7	2.5	2.5	= 13%
NON PLANTED ADVENTIVES	4.6	3.9	3.5	13.8	7.1	55.0	= 15%
TOTAL	48.0	13.6	58.9	42.1	19.8	94.3	

46% average cover

FOLLOWUP MONITORING OF BADGER HOUSE REVEGETATION, JUNE 25, 1987

A total of forty species were identified in the Badger House revegetation area in a June 1987 sampling. Six transects each with ten microplots, were run along the trails, in old roadways, and in the trash dumps.

Species in the revegetated area are partly accidental, partly invading adventives, and partly from perennial roots which were already in the area.

The trail edge showed the highest species diversity. The cover ranged from 7.7% to 74.6% throughout the area. Spurred lupine (*Lupinus caudatus*) had the highest cover (8.9%) of any species. Pinyon knotweed (*Polygonum sawatchense*) had the highest frequency (68%), followed by perennial grass (Mutton grass or squirrel tail) (55%), low penstemon (*Penstemon laneriodes*) (35%), and cheatgrass (*Bromus tectorum*) (33%). Most of the spurred lupine and low penstemon are seedlings and are probably the result of the planting. The knotweed and cheat grass are adventives from the introduced soil or the adjacent woodland.

Twenty-six species were planted in Sept. 1986. Only fifteen species of this group were evident in June 1987.

Extremely dry conditions prevailed in June and early July 1987. Only .14 inches of precipitation was recorded at the Chapin Mesa park weather station from June 1st thru July 12th. These drowth conditions during the critical seedling stage will affect the species represented, the overall crown cover, and seed production for natural revegetation.

Followup monitoring of this area will be repeated either fall 1987 or mid-summer 1988.

Table I

BADGER HOUSE REVEGETATION FOLLOWUP 6/25/87

Exotic Species Planted Species Old Established Species

SPECIES	PLOT DENSITY	PLOT FREQUENCY
BRUSH & SCLEROPHYTES		
Chrysothamnus nauseosus	.08	16.7
Opuntia polycantha	T	1.7
GRASSES		
Agropyron smithii	.8	20
~~Bromus inermis~~	~~T~~	~~.3~~
~~Bromus tectorum~~	~~3.2~~	~~33.3~~
Perennial grass	2.1	55.0
Poa fendleriana	.1 6.1	15.0
PERENNIAL FORBES		
Astragalus scopulorum	T	.3
Chaenactis douglasii	.02	1.7
Chrysopsis villosa	.17	6.7
Dracocephalum parviflorum	.1	10
Eriogonum racemosum	.02 .43	1.6 6.7
Lupinus caudatus	2.4 6.5	13.3 7.2
~~Melilotus officinalis~~	~~.6~~	~~11.7~~
Orthocarpus purpureo-albus	.03	1.7
Penstemon linarioides	.05 .8 32	3
Phacelia heterophylla	.1	10
Phlox hoodii	T	3.3
~~Salsola kali~~	~~.02~~	~~1.7~~
Sphaeralcea coccinea	.03	1.7
Solidago petradoria	.2	3.3
Viguiera multiflora	.2	8.3

Table 1 continued

ANNUAL FORBES

Aster bigelovii	.1	6.7
Chenopodium fremontii	.25	23
Cordylanthus wrightii	.78	18
Descurainia sophia	.6	1.7
Draba cunefolia	.02	1.7
Gayophytum ramosissium	.02	1.7
Lactuca scariola	.07	5
Ranunculus medowskii	.3	5
Microsteris humilis	1.4	27
Polygonum waiourae	1.5	8.3
Polygonum sawatchense	4.8	68
Ranunculus testiculatus	.43	8.3
Sisymbrium irio	.02	1.7
Thlaspi dubius	T	3.3

The following shows the variation between transects:

Table II

	TRANSECT NUMBER					
	1	Trail edge 4	5	Roadside 2	3	Trash dump 6
No. of Species	22	14	21	15	13	16
Percent Cover	17.1	25.9	7.7	34.8	8.3	74.6

Transect 1; Trail edge. N. end of walking trail to Village I
(Site 1644)

Transect 2; Old roadway, S. of Village I to mini-train
(Site 1676)

Transect 3: Old roadway, N. of Village I to mini-train loop

Transect 4: Trash dump, S.E. of Site 1676

Transect 5: Trail edge, trail junction E. of Badger House to
to Two Raven House

Transect 6: Trash dump, E. of Two Raven House

PERCENT COVER OF SPECIES TYPE COMPARING TRANSECTS JUNE 25, 1987

	T1	T2	T3	T4	T5	T6
EXOTIC SPECIES	3.8	6.1	4.9	9.0	1.8	6.5
PLANTED SPECIES	4.9	17.0	2.5	6.1	5.8	3.2
OLD ESTABLISHED SPECIES	5.7	1.0	.5	.8	1.8	10.3
NON PLANTED ADVENTIVES	2.0	8.7	2.8	10.6	3.9	27.5
TOTAL	16.4	32.8	10.7	26.5	13.3	47.5 = ave. 24.5%

BADGER HOUSE REVEG
 BALLED TREES
 Transplanted Sept 1986

DATE 6/25/87

NO	SPECIES	LOCATION	cm Diam	cm Height	Condition
1				108	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12	<i>Pinus edulis</i>				
13					
14					
15					
16					
17					
18					

Do species
 location
 dia
 height
May 1988

BALLED TREES TRANSPLANTED AT BADGER HOUSE SEPT, 1986
FOLLOW-UP MONITORING

DATE: 9/17/87

DATE: 8/24/88

Diam cm	Height cm	Terminal Growth cm	Condition	Diam cm	Height cm	Terminal Growth cm	Condition	No
1			Missed		101	2	Leader eaten off, healthy	1
2			Leader + 2nd & 3rd yr dead (50-50 chance)		88	2	12 dead twig ends thin limbed	2
3		5 term	New growth		77	9.5	Good	3
1			Term dead, laterals good		20	1	Dead leader	4
5		0	Alive, (no new growth)		73	3	Good	5
6			DEAD				Dead, missed	6
7		2 T/L	Good		89	2	Good, leaning	7
3			Missed				Missed	8
1			Missed				Missed	9
10			Missed				Missed	10
1		4 T/L	Bushy		40	4	Some dead twig ends	11
2			DEAD				DEAD	12
3		2 term	Also lateral growth, spaced limbs		193	3	Slightly bent top, good	13
4		2 term	Also lateral growth, bushy		56	5	Good, few dead needles	14
5			Leader dead, laterals good		85	5	Leader dead	15
16			Leader dead, laterals good		46	4	Good, bushy	16
7	108	5, lat	Possible scale insect, of wax fleas		107	1	Good	17
18		4 term/lat			122	4.5 Term	4-5 side limbs broken / chewed	18
YUCCA 5								
Tree 4/14			live center leaves				Center leaves alive	
1/14			live center leaves				Center leaves alive	
4/14			2 clones, center leaves alive				Center leaves alive	
6/14			not big in center					
1/14			dead				dead	
1/15			Center leaves alive				Center leaves alive	

BADGER HOUSE REVEG MONITORING TREES

DATE: 12/7/88

No.	Diam cm	Height cm	Terminal Growth cm	Condition	Diam cm	Height cm	Terminal Growth cm	Condition	No.
1									1
2									2
3									3
4									4
5									5
6									6
7				PIED Top broken out by deer					7
8									8
9									9
10			3 Term	PIED					10
11									11
12				DEAD, since 1987					12
13									13
14									14
15									15
16									16
17				JUNT All of top torn up by deer					17
18				PIED " " " "					18

Yucca west of
village 2
dead

12/7/88

