PLANT COMMUNITIES OF LADWP LAND IN THE OWENS VALLEY:

AN EXPLORATORY ANALYSIS OF BASELINE CONDITIONS

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INTRODUCTION

Knowledge of the Owens Valley vegetation is essential for responsible management. The purpose of this report is to document some potentially useful information about the plant communities that cover the area over which water resources are managed under the long-term water agreement between Inyo County and the Los Angeles Department of Water and Power (LADWP).

In this report, I have assembled information collected by LADWP during the 1984-87 Owens Valley vegetation inventory and have applied some analytical techniques to explore patterns, interesting features and potential problems in the data. Analysis of the baseline vegetation data was first attempted by Rose (1991). In his report, no attempt was made to deal with redundancies in the data set, therefore, the statistics he presented to describe the communities were flawed.

There are myriad ways in which an extensive data set like the Owens Valley baseline vegetation data could be analyzed, so the results presented here should be viewed as a preliminary example of one approach; much more could be done. Over the years, parts of the investigation presented here have been developed, and this report is an attempt to move this information from my office to a broader audience. In the future, I expect to build on this baseline information by acquiring and incorporating additional environmental characteristics -- such as soil type and landscape position -- to see how well they predict plant assemblages. In addition, once the baseline information is better understood, a more thorough analysis of changes that have occurred in Owens Valley's plant communities during the last decade could be performed.

The baseline information presented here should have direct application to some current Inyo/LA activities. It may lead to a better understanding of the relationship between water table and plant community, it may provide useful background to consultants performing the aerial photo or other environmental studies in the Owens Valley, and it might be useful in revegetation efforts, when attempting to compile a list of species for revegetation at a site.

Report Organization

Due to data deficiencies, some of the plant communities identified in the Green Book (1990) are not discussed in detail in this report. However, most of the important plant communities occurring in management areas are presented. For each of these, I present summary statistics on their floristic composition, calculations of species diversity, the average depth to groundwater beneath each community, and a preliminary discussion of the similarities and differences among the communities and potential spatial and temporal gradients that may accompany the differences. Following this, a more detailed description of each community is presented, as well as a discussion of its classification according to different systems.

Nomenclature for plant communities, as well as for plant species (both common and Latin names), tends to be cumbersome. In the first part of this report, I use full community names in the text but abbreviate these names in graphs because of space limitations. Plant common names are used in the overview. In the individual community descriptions, "Cooperative Study" abbreviations are used for species' Latin names when applicable. A list of species' Latin names, common names, and abbreviations appears in Appendix 1.

Classification of Baseline Vegetation Data - Background

Categorization of mapped vegetation units, or "parcels," into plant communities was performed prior to completion of the Green Book. As stated in the Green Book (1990, p.39):

> *The final stage in mapping was the selection of a classification system. The system used is based on Cheatham and Haller's classification of California habitat types (Cheatham and Haller, 1975), as revised to plant community descriptions (Holland, 1986). This system was further refined for the Owens Valley using data collected for this inventory. To suit the needs of the Cooperative Vegetation Study, six additional plant communities and a non-native vegetation and miscellaneous lands category were added.*
>
> *The classification system used is primarily floristic; hence, parcels with similar species composition were grouped together. In instances where a parcel could fit into two different communities, factors such as soil type, water table depth, and landscape position were evaluated and used in determining the correct community.*

The Holland (1986) system of plant community classification, hereafter referred to as Holland, was a popular system for classifying plant communities in California and similar areas of other states. However, his system was admittedly a preliminary attempt to gather all known plant community information in one place and produce a simple, concise classification system, and he fully expected further refinement of his work (Holland 1986, p. ii). In 1991, the California Native Plant Society organized a committee of vegetation experts from academic institutions, agencies, and consulting firms. One of their goals was to standardize the plant community classification system for California. In 1995, the committee published the Manual of California Vegetation (Sawyer and Keeler-Wolf 1995), hereafter referred to as MCV. In the MCV, published and grey-literature plant community data were used to construct a floristic classification system for California's plant communities. The MCV builds on -- and the index contains crosswalks to -- the Holland plant community types. In this report, I present the modified-Holland classification system used by the Cooperative Vegetation Study (Green Book 1990). I compare it to the original Holland scheme (Holland 1986) and show how both classifications would be viewed in the MCV (Sawyer and Keeler-Wolf 1995).

METHODS

Statistical Summaries

A full list of the plant communities identified during the baseline vegetation inventory appears in Table 1. This report is limited to natural meadow and scrub communities (indicated in the "summarized?" column in Table 1), because only these had sufficient transect data for characterization. The Green Book plant community designations were strictly adhered to, and no "outlier" parcels were removed in analyzing data.

As in Rose (1991), parcel data were taken directly from the Cooperative Vegetation Study data base. This data base lists, for each parcel on each USGS quad, the percent live plant cover, the dominant species (up to 12) and the relative cover of each species. Those parcels for which no original transect data could be found were removed. For parcels with duplicate data only one of the set was kept. Duplication occurred when a parcel overlapped two or more quads and when the same set of transects was attributed to more than one parcel. Removing these parcels from the data set reduced the set to the numbers of parcels presented in the #parcels in this report column in Table 1. The list of actual parcels appears in Appendix 4.

Percent cover was computed for each species using the parcel percent live cover and the relative cover of each species (="composition"). For analysis, unless otherwise stated, species percent cover was used.

Diversity

Diversity indices were calculated for each plant community. Several diversity indices have been developed by ecologists, but some appear to describe community diversity better than others (Ludwig and Reynolds 1988). Therefore, the two indices presented in this report are: eH' and 1/lambda (also known as Hill's Number 1 and Number 2 indices, respectively, where H' is Shannon's index and lambda is Simpson's index). Both indices emphasize dominant species cover. In effect, N1 is the number of abundant species, and N2 is the number of *very* abundant species in the sample (that is, the set of parcels composing a plant community). See Ludwig and Reynolds (1988) for calculation details.

Baseline Depth to Water

Depth to water (DTW) data were obtained from the grid data generated by Team Consulting and loaded into the Inyo County GIS. For each parcel covered by DTW contours, baseline year DTW was obtained from the grid underlying the GIS label point (typically centrally located within the parcel). The DTW data were then edited by omitting parcels that occurred in the river floodplain, because many of these had zero or positive

Table 1. Plant communities listed in the Green Book. The five-digit number preceding the community name is based on the Holland (1986) classification hierarchy and was maintained in the Cooperative Vegetation Study. Asterisks denote communities added by the cooperative study. The last two columns list the number of unique, reliable parcel data sets per community and whether that community is described in detail in this report.

Green Book Community	in Coop. Veg. Study-- #parcels	#acres	in this report-- #parcels	summarized?
Non-native and Miscellaneous Lands				
11000 Irrigated Agriculture*	222	11218	0	no
12000 Urban*	69	2405	0	no
13100 Permanent Lakes & Reservoirs*	10	491	0	no
13200 Intermittent Ponds*	20	1865	0	no
14000 Barren Lands - ABAG*	80	6333	0	no
Scrub				
34100 Mojave Creosote Bush Scrub	11	549	0	no
34210 Mojave Mixed Woody Scrub	50	9124	18	yes
34300 Blackbrush Scrub	32	3963	15	yes
35100 Great Basin Mixed Scrub	234	27647	135	yes
35210 Big Sagebrush Scrub	80	10670	44	yes
35400 Rabbitbrush Scrub	83	9675	57	yes
36110 Desert Saltbush Scrub	38	3364	27	yes
36120 Desert Sink Scrub	201	23849	92	yes
36130 Desert Greasewood Scrub	91	25890	45	yes
36140 Shadscale Scrub	112	20810	57	yes
36150 Nevada Saltbush Scrub*	85	8163	47	yes
Meadow				
45310 Alkali Meadow	479	44807	340	yes
45320 Alkali Seep	1	20	0	no
45330 Rush/Sedge Meadow*	67	3728	52	yes
45340 Rabbitbrush Meadow*	29	1848	17	yes
45350 Nevada Saltbush Meadow*	33	3269	22	yes
45500 Non-native Meadow*	11	517	9	no
46000 Alkali Playa	3	384	0	no
Marsh				
52320 Transmontane Alkali Marsh	14	711	1	no
Riparian				
61610 Modoc-Gr.Basin Cot/Wil Riparian F	12	1989	2	no
61700 Mojave Riparian Forest	13	1104	1	no
63600 Modoc-Gr.Basin Riparian Scrub	29	2098	9	no
63810 Tamarisk Scrub	15	648	7	no
Woodland				
76100 Black Locust Woodland*	2	21	0	no

DTW values. Also, all Fish Slough DTW data were omitted because a systematic error was present in the data for this USGS quadrangle. For parcels that overlapped quads, the two or more label-point DTW values were averaged, using a weighted average based on acreage. By omitting regions where no data exist, by avoiding areas where hypothetical data are supplied (*e.g.* zeros for the Owens River), and by combining duplicate entries, I believe a fair approximation of parcel baseline DTW by plant community emerged. A more accurate estimate of DTW would have been to average DTW values for all grid cells underlying each parcel to obtain parcel DTW, but computer memory precluded this calculation at the time this preliminary analysis was performed.

Preliminary Classification Using Multidimensional Scaling

As stated in the Green Book (quoted earlier), parcels were assigned to plant communities based on the measured and observed characteristics and the field experience and other knowledge of the person(s) performing the classification. This is an acceptable method for classification for most purposes. However, computerized analytical techniques exist for simplifying and condensing information contained in large, complex data sets -- such as plot versus species matrices -- to reveal underlying patterns. These programs are designed to organize data (in this case, parcels) along one or more coordinate axes so that relative positions of the data units convey maximum information about their similarities. By sorting data, they often uncover relationships heretofore missed by the observer. When applying a standardized, repeatable technique to the data, the resulting groupings can be subjected to further analysis, or the researcher may reject the results if they appear to have little direct meaning to the research objective. Either way, other researchers may subsequently reconstruct the results by using the same techniques; in effect, subjectivity is removed from the sorting process, but it may later be applied to interpretation of the results.

For this report, the NTSYS software package was used to perform non-metric multidimensional scaling (MDS). I chose this multivariate technique after performing many trial analyses with parcel data using TWINSPAN and some cluster analysis programs. During those efforts, MDS provided results consistent with the other methods, but with MDS, results were easier to visualize and to explain, ecologically. Although MDS has not been used extensively in plant community classification, some researchers have highly recommended it (Pimentel 1979; Tueller *et al.* 1991; Kent and Coker 1992; McCune internet communication). MDS preserves the distance relationships of the original data better than other mulitvariate techniques (Rohlf 1993).

MDS is well-suited to perform dimensional reduction of plot-based data such as parcels and their species cover values. To perform MDS, each parcel is compared to every other parcel to create a matrix of distance values. I used the Bray-Curtis distance as the index upon which the matrix was based (this index had been recommended for ecological data by Ludwig and Reynolds 1988). The distance matrix serves as the input for MDS. An initial configuration of points is also recommended as input to MDS to avoid false solutions. The initial configuration is usually output of Principal Components Analysis (PCA) or

Principal Coordinates Analysis (PCO) (Rohlf 1993; Pimentel 1979). I used output of PCO. PCO output consists of eigenvectors calculated from a double-centered version of the Bray-Curtis distance matrix.

MDS, as its name implies, may be run such that the output arrays the parcels along several dimensions. Representations beyond three dimensions (axes x, y, and z), however, exceed graphical presentation capabilities. Therefore, I instructed the program to present the results as they would be arrayed along three axes. I have not attempted to relate axis scores to environmental variables. Rather, the results are indirect ordinations of the raw data used to begin to identify groupings, outliers, and possible gradients.

MDS was applied in the following ways:

(1) The parcels within each community were run through MDS. The results displayed along three dimensions provide a graphical representation of how each parcel is related to the other parcels classified into that community in terms of percent cover of species. If very similar, the parcels will form a dense clump. Parcels with less in common will be scattered in the three-dimensional space. The farther apart two parcels are, the less they have in common.

(2) All parcels for two or three communities of interest were combined and analyzed together to array them in three-dimensional space so that relationships between communities could be visualized. This was performed on communities that contained the same species, as well as on some communities with few if any species in common.

(3) I calculated a "centroid" for each community. The centroid is a hypothetical parcel that contains all the species found in that community and each species is represented by its average cover in all the parcels assigned to that community. Thus, because 14 communities were analyzed in this report, there were 14 centroids. The 14 centroids were related to each other using MDS. In the output, floristically similar communities were graphed close to each other.

One important note: For MDS output in NTSYS, it is not possible to either label the axes or present them all at the same scale. Each diagram in this report must be viewed with this in mind.

RESULTS AND DISCUSSION - Overview

General

The plant communities analyzed in this report (listed in Table 1) were native plant communities for which $\geq$ 15 parcel data sets occurred in the data base. Summary statistics for these plant communities appear in Table 2. The largest plant community in terms of both

acreage and total number of parcels was Alkali Meadow. It is the predominant plant community on the valley floor and covers nearly one-fifth of LADWP-owned land in the Owens Valley. Great Basin Mixed Scrub, Desert Greasewood Scrub, Desert Sink Scrub, and Shadscale Scrub also cover large portions of LADWP land.

Table 2. Summary statistics for plant communities analyzed in this report. Asterisks denote communities added by the Cooperative Vegetation Study. "N1" is a diversity index reflecting the number of abundant species, "N2" reflects the number of *very* abundant species (see text).

Green Book Community	#parcels	% COVER avg.	% COVER +/-std	DIVERSITY #spp	DIVERSITY N1	DIVERSITY N2	base dtw(m)
Scrub							
34210 Mojave Mixed Woody Scrub	18	19.6	5.0	28	10.49	6.29	8.16
34300 Blackbrush Scrub	15	15.7	3.0	16	3.78	2.27	no data
35100 Great Basin Mixed Scrub	135	15.6	4.0	56	20.09	13.33	6.03
35210 Big Sagebrush Scrub	44	17.9	8.8	40	5.7	2.44	6.71
35400 Rabbitbrush Scrub	57	14.8	7.1	33	7.03	3.27	3.85
36110 Desert Saltbush Scrub	27	13.7	8.0	21	4.44	2.57	5.00
36120 Desert Sink Scrub	92	14.2	4.4	30	8.41	6.09	2.30
36130 Desert Greasewood Scrub	45	13.0	4.7	27	6.3	3.83	3.44
36140 Shadscale Scrub	57	12.7	3.8	33	6.11	2.72	3.25
36150 Nevada Saltbush Scrub*	47	20.1	10.4	22	5.31	2.83	2.92
Meadow							
45310 Alkali Meadow	340	37.8	17.9	78	7.92	4.25	2.06
45330 Rush/Sedge Meadow*	52	69.4	13.5	55	18.18	10.9	2.43
45340 Rabbitbrush Meadow*	17	31.0	19.2	20	5.31	3.43	2.30
45350 Nevada Saltbush Meadow*	22	31.5	11.7	17	4.48	3.25	2.39

Average live cover for the ten scrub communities ranged from 12.7 - 20.1%; for the four meadow communities, it ranged from 31.0 - 69.4%

Diversity

Plant community diversity indices are listed in Table 2 and plotted in Figure 1. Diversity is sometimes, but not always, related to total number of species (Table 2).

In terms of both indices, Great Basin Mixed Scrub exhibited the highest species diversity. A total of 56 species were recorded in the 135 Great Basin Mixed Scrub parcels, and 20 of these species were abundant and 13 were very abundant. Slightly less species diversity, but still very high diversity, occurred in the Rush/Sedge Meadow parcels, which

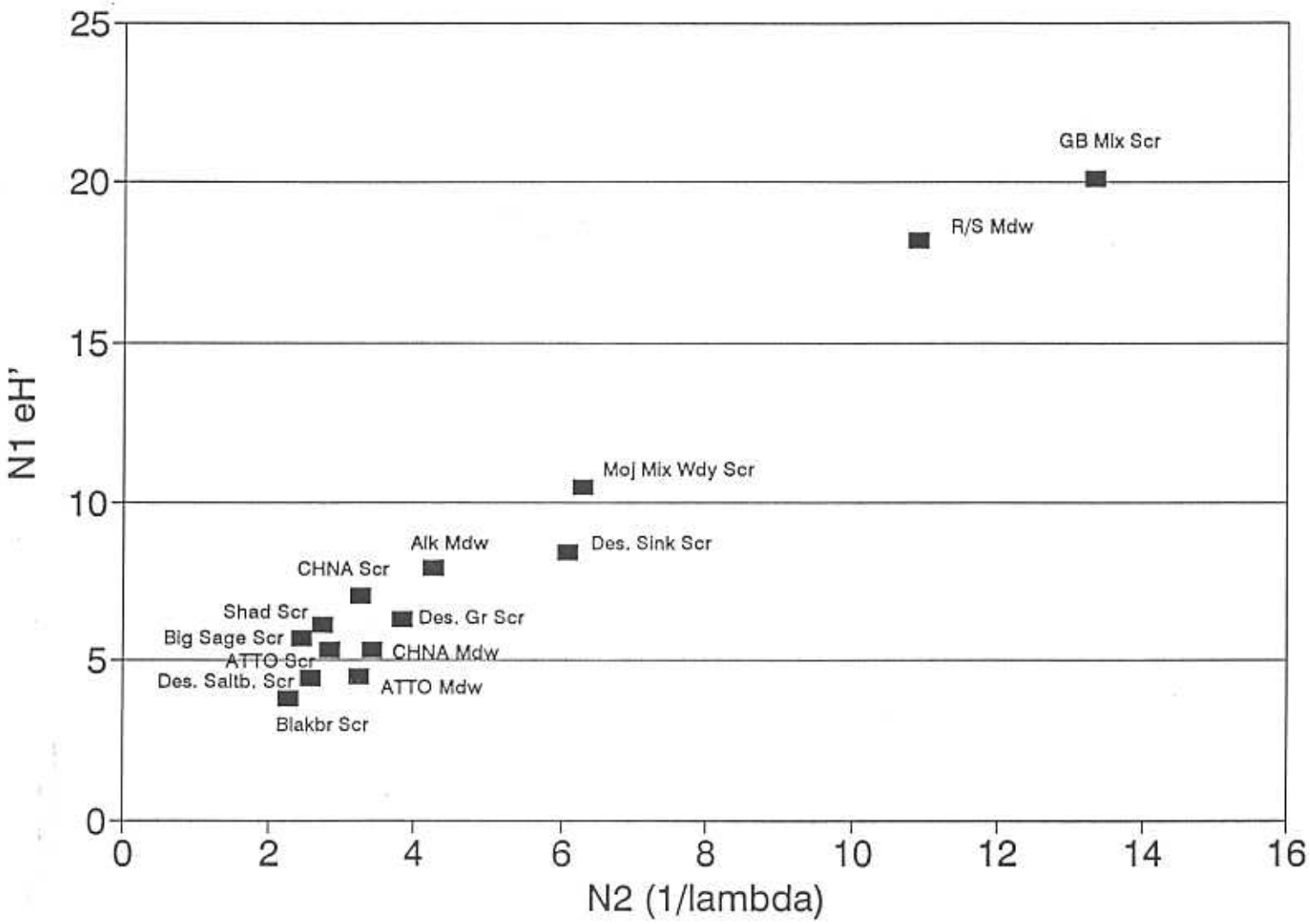


Figure 1. Plant community diversity indices: N1 plotted against N2. See text for discussion.

had 55 species represented in its 52 parcels. There is a gap between these two communities and the next highest diversity community, Mojave Mixed Woody Scrub. In the 18 Mojave Mixed Woody Scrub parcels, 28 species were recorded.

The next two highest diversity communities were Desert Sink Scrub and Alkali Meadow. Although Alkali Meadow had the highest number of species (78) in its 340 parcels, evidently only about four of them were very abundant. In contrast, Desert Sink Scrub, with only 30 species in 92 parcels, had six very abundant species. On both axes, Desert Sink Scrub scored higher than Alkali Meadow.

Not surprisingly, the lowest diversity community was Blackbrush Scrub, with only two very abundant species. It has been described as a characteristically uniform community (Beatley 1976, but some authors, *e.g.* Pritchett *et al.* 1997, argue that this community can be more complex). All the other communities ranged between Blackbrush Scrub and Alkali Meadow, in terms of diversity.

Depth to Water

Average baseline-year depth to water (DTW) is listed in Table 2 and graphed in Figure 2. Figure 2 shows some plant communities not analyzed in this report. Summary of all results of the DTW analysis appear in Appendix 2. The shallowest water table occurred under Tamarisk Scrub. The grass-dominated communities -- Alkali Meadow, Desert Sink Scrub, Rabbitbrush Meadow, Nevada Saltbush Meadow, and Rush/Sedge Meadow -- had baseline DTW averaging approximately 2 m. The scrub communities dominated by groundwater dependent shrubs -- Nevada Saltbush Scrub, Greasewood Scrub, and Rabbitbrush Scrub -- had DTW between 2 - 4 m.

Shadscale Scrub DTW averaged 3.25 m, thus aligning it with the communities dominated by phreatophytic shrubs. Although shadscale *(Atriplex confertifolia)* is not a phreatophyte (West 1988), it tends to occur in soils high in salt and fine-particle content (Billings 1949; Beatley 1976). Such substrates in the Great Basin typically formed as a result of drying near lake margins, for example, as Pleistocene lakes receded (West 1988; Stutz 1984). Therefore, while not currently dependent on shallow groundwater, the edaphic conditions in Shadscale Scrub communities suggest high water table as a pre-condition contributing toward the development of this community.

Average DTW beneath Desert Saltbush Scrub exceeded 4 m, and DTW exceeded 5 m for Great Basin Mixed Scrub, Sagebrush Scrub, Creosote Bush Scrub, Mojave Mixed Woody Scrub, and Black Locust Woodland. These communities do not typically contain phreatophytic species.

In Figure 3, community average percent live cover is plotted against DTW. This graph shows a rough trend, with two significant outliers, of decreasing cover with increasing DTW. The outliers are: Rush/Sedge Meadow, which is classified in the Green Book and

water agreement as Type E, or "irrigated"; and Desert Sink Scrub, which will be discussed in more detail in the descriptions below.

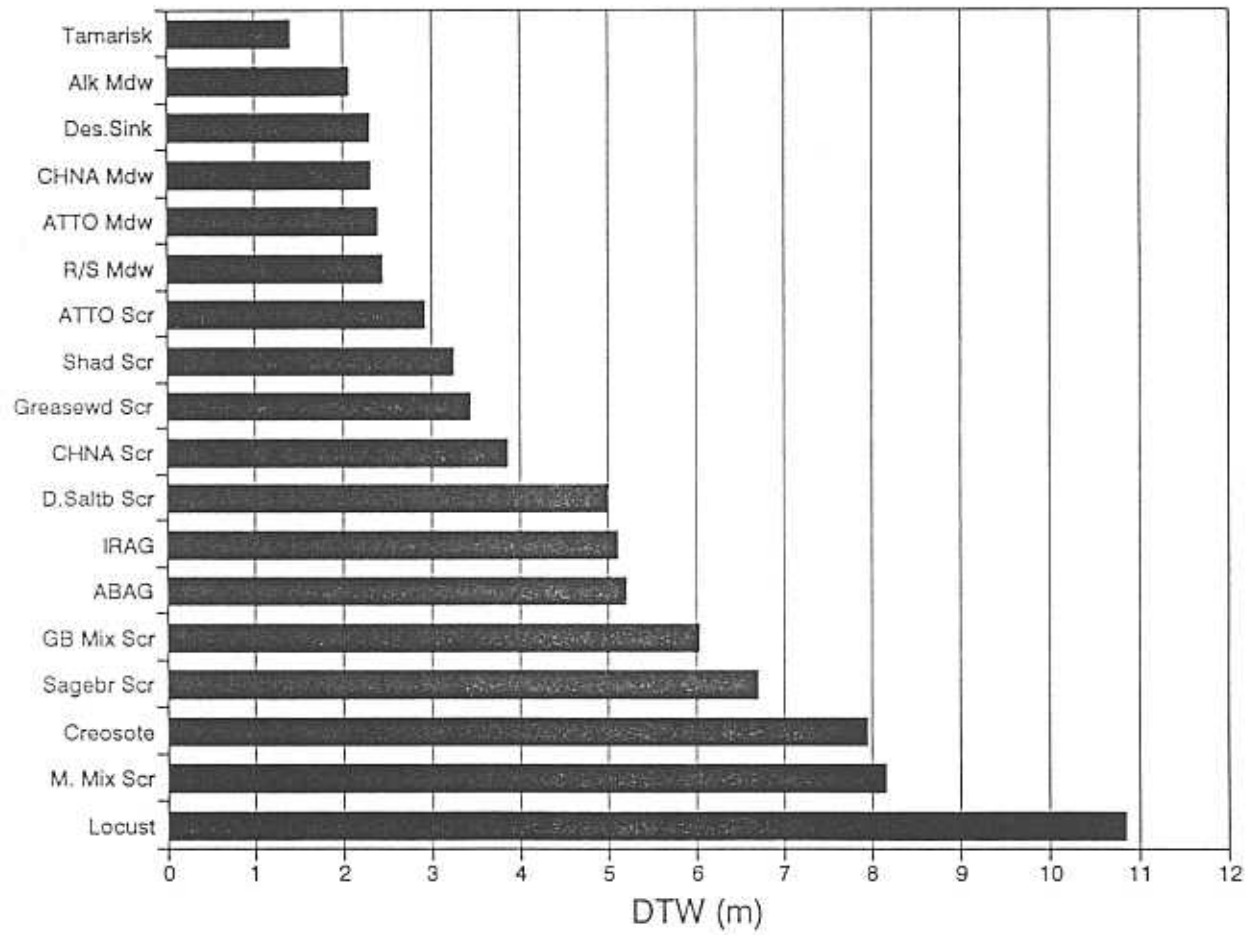


Figure 2. Average baseline-year depth to water table (DTW) for the Green Book plant communities. Communities are listed from highest (top) to lowest (bottom) average DTW.

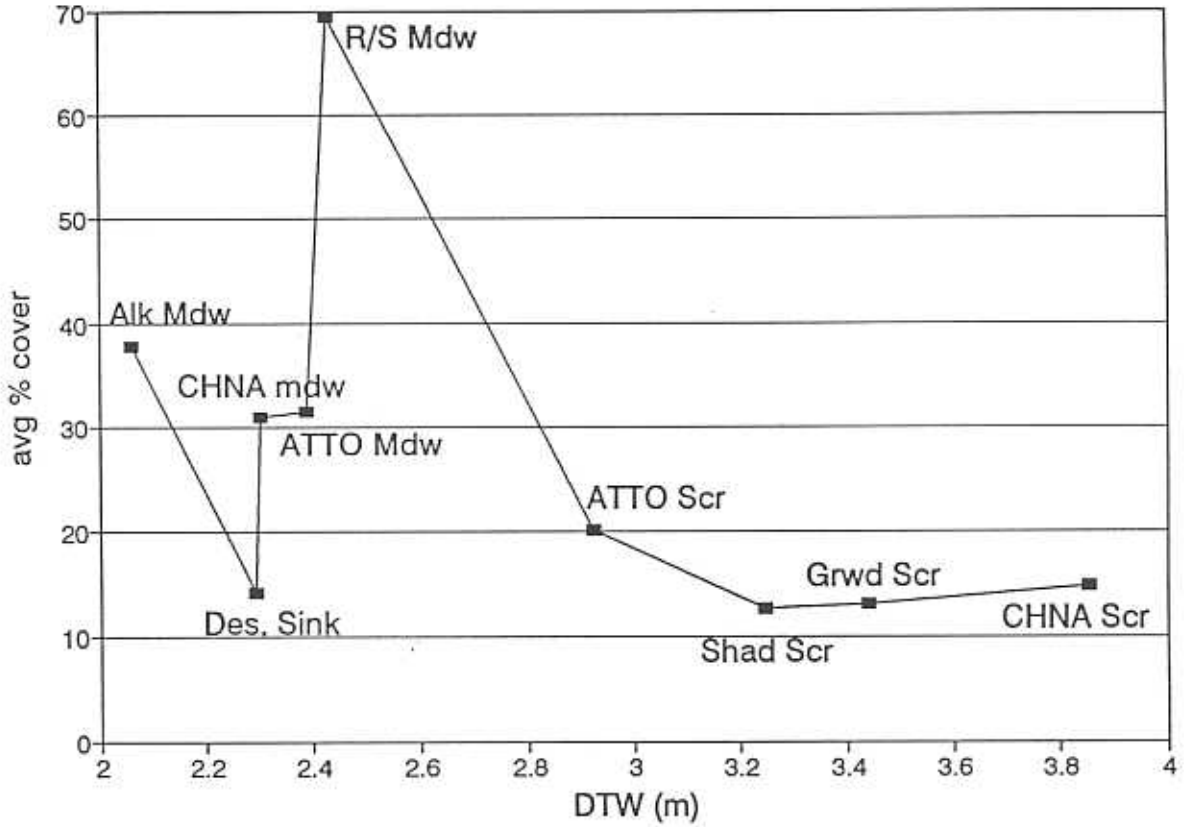


Figure 3. Community average percent live cover plotted against community average DTW.

To produce Figures 4 and 5, I removed Rush/Sedge Meadow and divided the plant communities into two groups that follow a hypothetical successional trajectory. For the Alkali Meadow group in Figure 4, average community cover declines with increasing DTW. This series suggests that there is a shift to lower cover and from grass dominance to shrub dominance as the water table declines. In Figure 5, a slight change in cover can be observed over a change in DTW of > 1 m between Desert Sink Scrub and Desert Greasewood Scrub. Although total parcel cover in this group may not be heavily influenced by DTW, species composition might be, as evidenced by the change in community designation. For comparison, Shadscale Scrub is presented on this graph.

Using the baseline DTW data set (described earlier), the parcels were divided into two groups, wellfield and control (see Appendix 2, p. 78a, for description of methods). In Figure 6, I plot the average DTW beneath the communities (arranged from highest average to lowest for the high-groundwater communities) with the average DTW beneath control versus wellfield parcels for that community (data in Appendix 2). Wellfield DTW was consistently lower for all communities, suggesting that during baseline year, some effects of pumping under the wellfield parcels had already occurred. (This hypothesis is supported by information presented in Rose 1991 p. 50.)

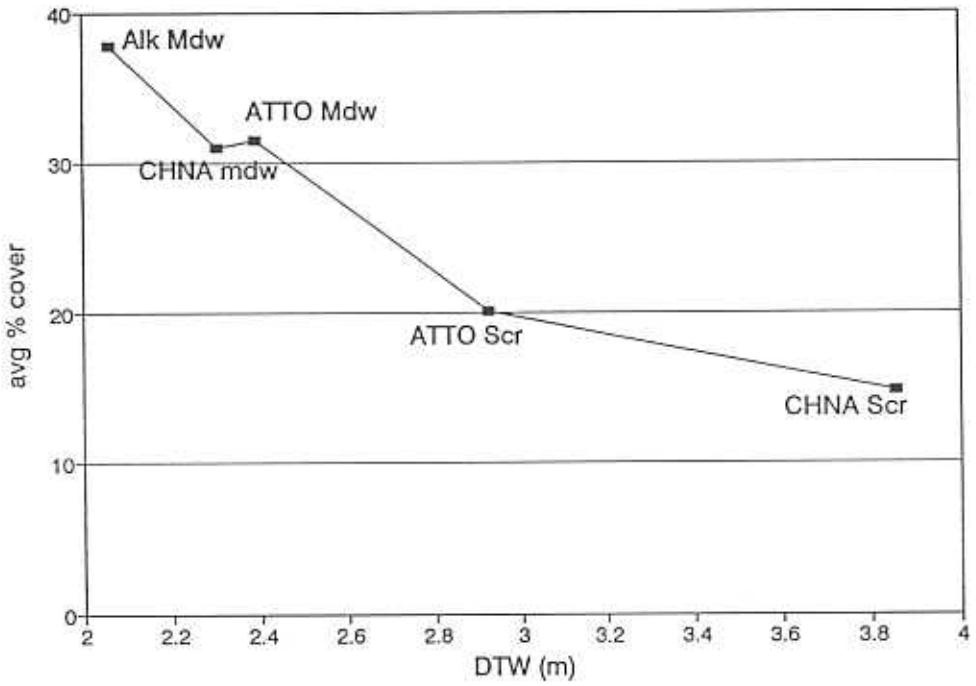


Figure 4. Community-average percent live cover plotted according to increasing community-average DTW for the Alkali Meadow community group.

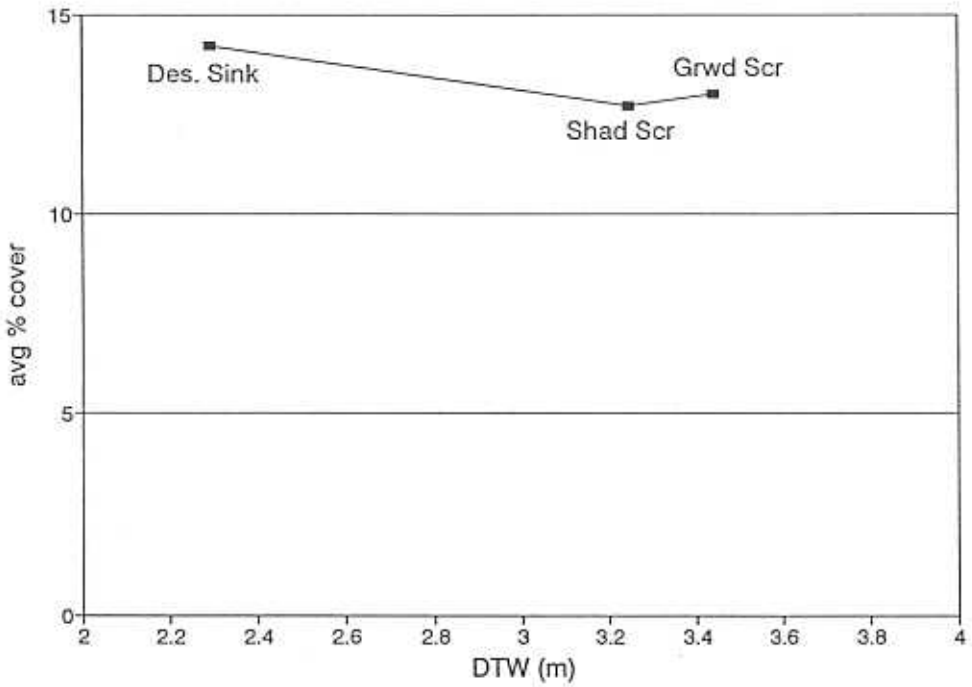


Figure 5. Community average percent live cover plotted according to increasing community-average DTW for the Desert Sink community group.

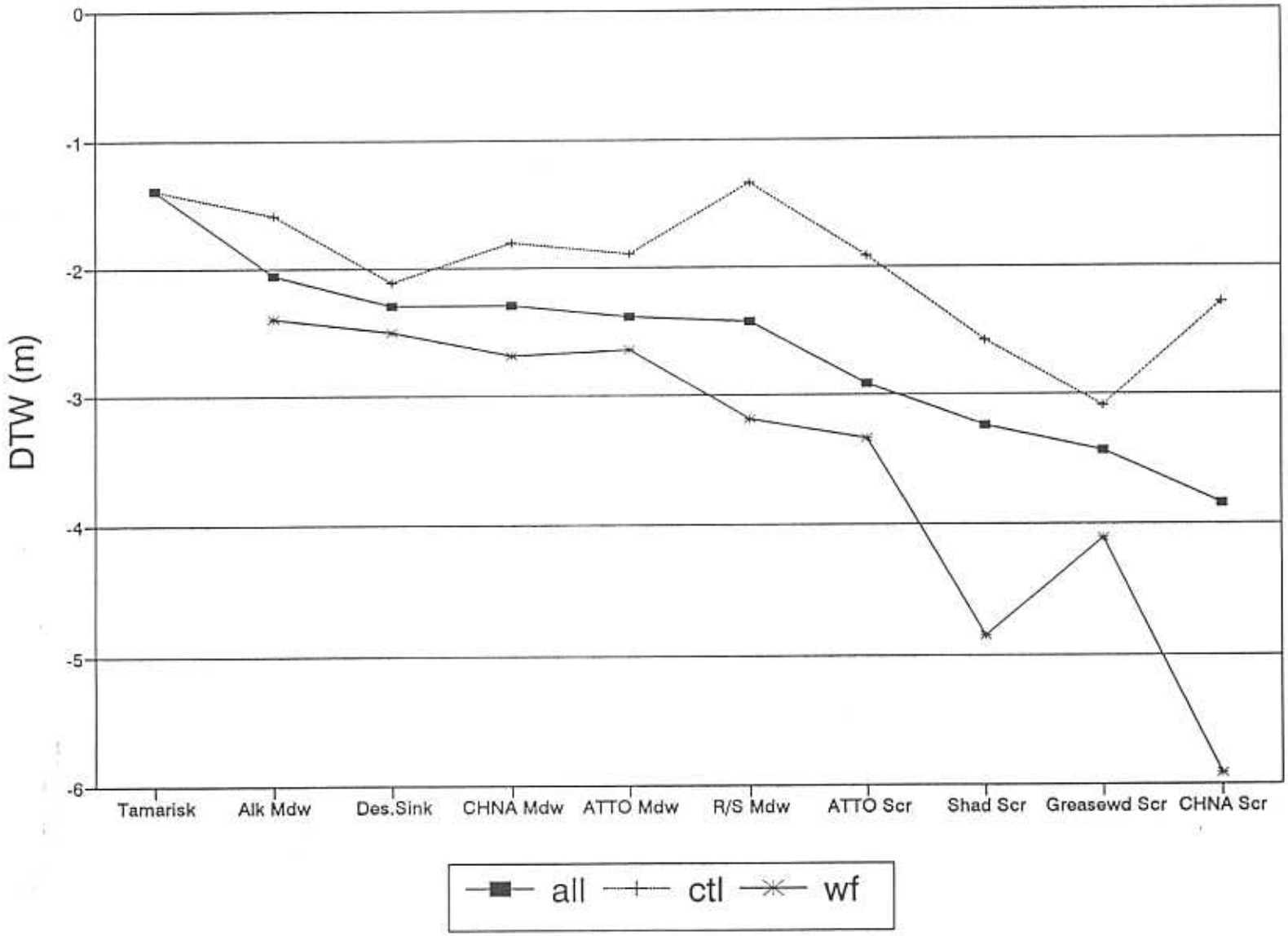


Figure 6. Average DTW beneath all parcels in the community and beneath the wellfield (wf) and control (ctl) parcel groups.

Multidimensional Scaling

Results of MDS on community centroids appear in Figure 7. I performed numerous between-community comparisons to determine degree of overlap between parcels in the communities that occurred near each other in Figure 7 as well as between communities that were farther apart (see Appendix 3). Based on these results, I present a proposed arrangement of the Owens Valley plant communities in Figure 8. Each Green Book plant community is represented by a circle, the size of which is proportional to the number of parcels used in analysis. The degree to which parcels were observed to intermingle in between-community MDS graphs is represented by overlap of the circles in Figure 8. Relationships and observations are discussed below.

Mojave Mixed Woody Scrub and Great Basin Mixed Woody Scrub share many species and characteristics. The Great Basin community, however, is more well-represented on LADWP land in the Owens Valley. One of the main differences between these two groups is not the presence of different species in each group, rather it is the proportions (cover) of the species that are common to both groups. For example, Cooper's goldenbush *(Ericameria cooperi)* and California buckwheat *(Eriogonum fasciculatum),* are dominant in the Mojave community but tend to be less important in the Great Basin community, while shadscale *(Atriplex confertifolia)* gains more importance in the Great Basin community.

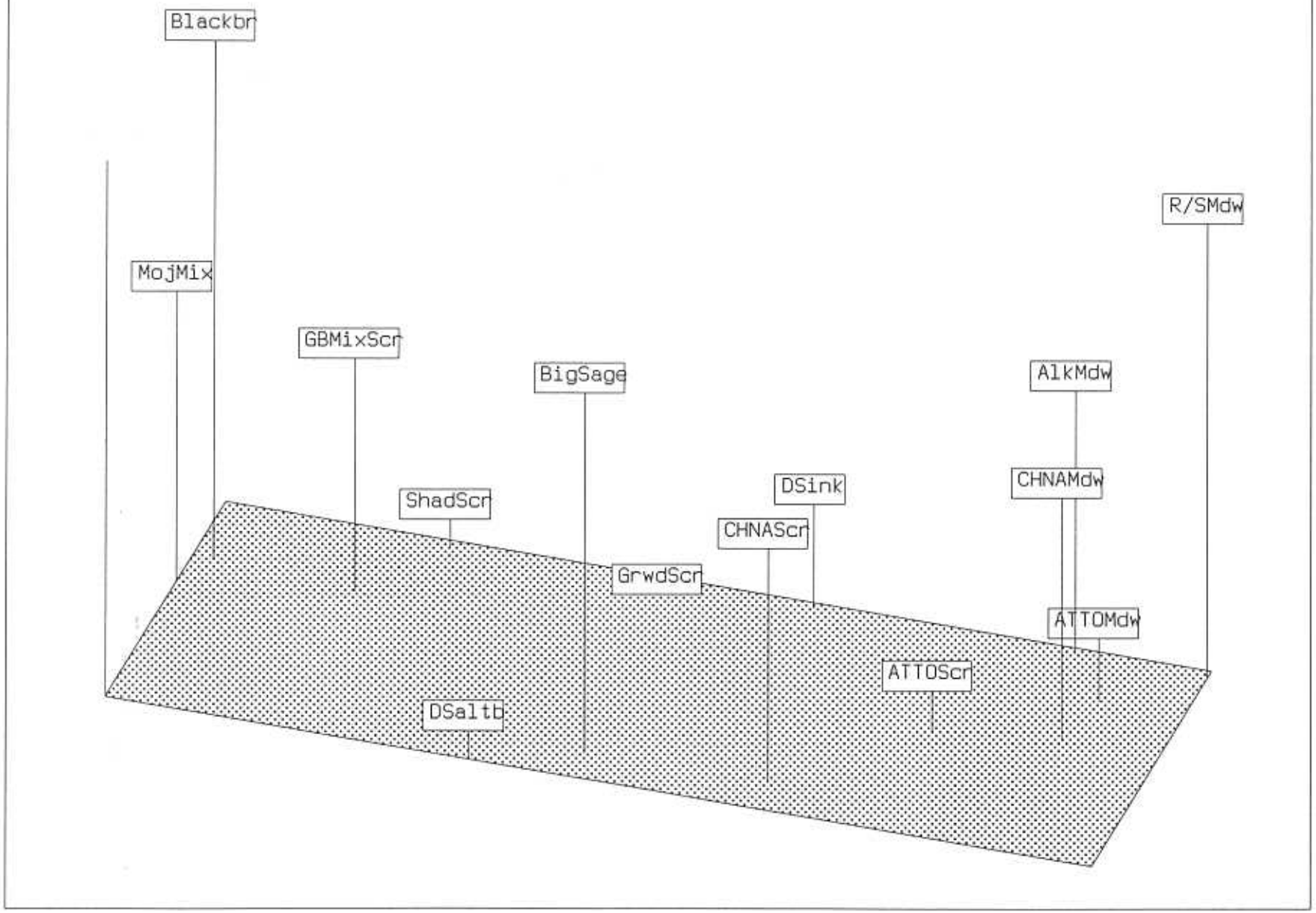
Blackbrush Scrub intergrades with Great Basin Mixed Scrub but not Mojave Mixed Woody Scrub. Although some Blackbrush Scrub parcels share characteristics with some Great Basin Mixed Scrub parcels, Blackbrush Scrub remains more distinct from Great Basin Mixed Scrub than Mojave Mixed Woody Scrub does from Great Basin Mixed Scrub.

Great Basin Mixed Scrub intergrades with Shadscale Scrub, which in turn, intergrades with Desert Greasewood Scrub. Further analysis may reveal that this trend is related to soil characteristics, elevation, and/or landscape position, with the mixed scrub occurring at higher elevations or on less saline soils, and the greasewood scrub occurring lower on more saline soils.

Desert Greasewood Scrub intergrades with Desert Sink Scrub. Both communities tend to occur at low elevations on saline soils. Desert Sink has relatively high cover of phreatophytic grasses, mixed with phreatophytic shrubs such as greasewood, while Greasewood Scrub has many of the same shrub species, but no grasses. Since the grasses do not root as deeply as shrubs, DTW may be one factor contributing to the separation of these two communities (Figure 5).

Desert Sink Scrub shares species and attributes with alkali sacaton-dominated Alkali Meadow; however, MDS analysis did not show strong overlap between the two types. Because both communities occur on the valley floor and DTW is approximately the same beneath them, the cause of differentiation between them is unclear. Not only may soil texture, salinity, and subsoil characteristics be different, but susceptibility to wind-blown

Figure 7. Results of Multidimensional Scaling (MDS) for community centroids.



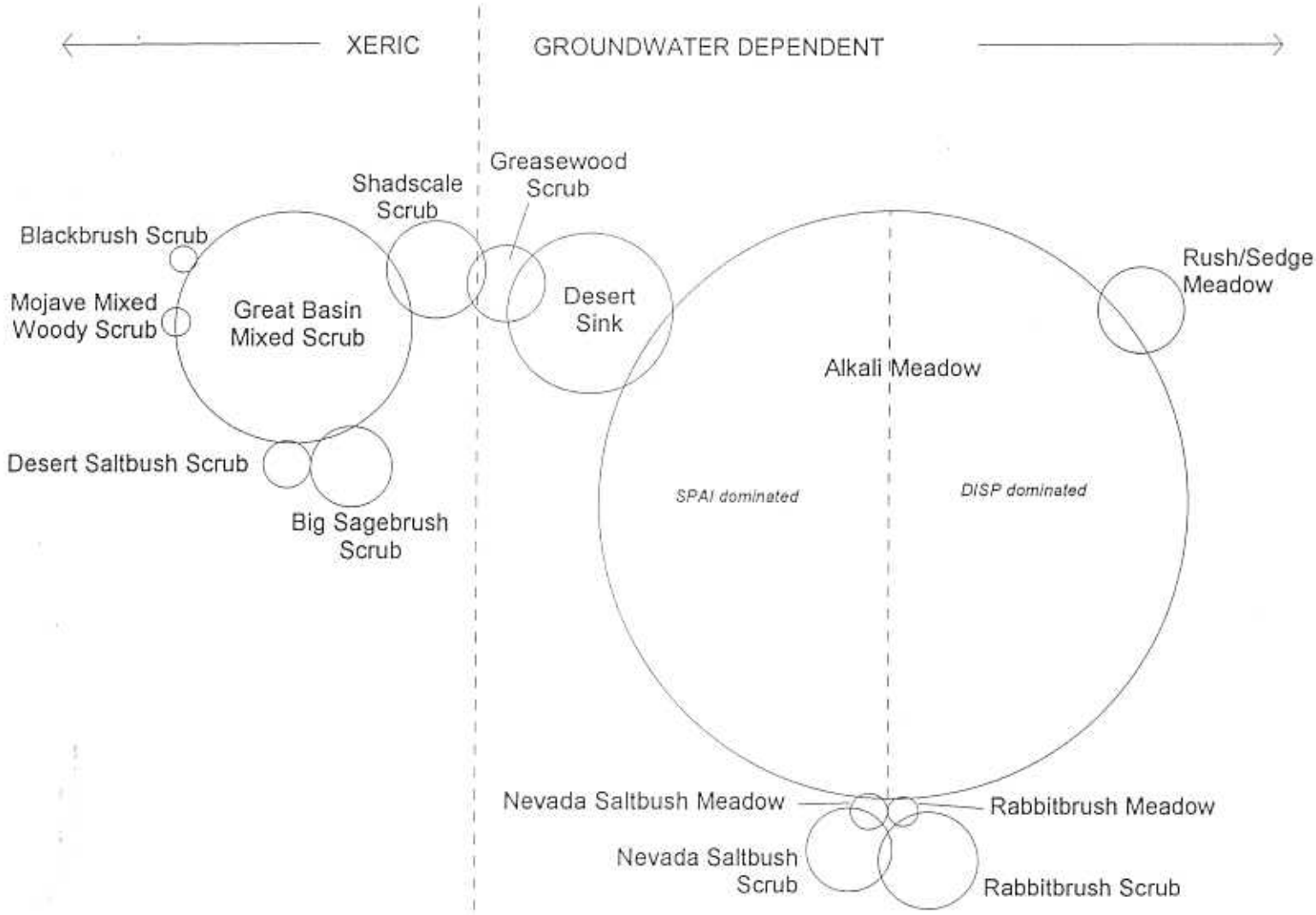


Figure 8. Hypothetical model showing how Owens Valley plant communities intergrade floristically. Size of circle is proportional to total number of parcels used to define the community.

deposits and periodicity of disturbances such as flooding, fire, or grazing may separate the two vegetation types. Further analysis of the processes that cause or sustain these two communities needs to be performed.

Alkali Meadow intergrades with three communities that were newly-described for the Owens Valley: Rush/Sedge Meadow, Rabbitbrush Meadow and Nevada Saltbush Meadow. Rush/Sedge Meadow, which tends to have very high cover, intergrades with saltgrass-dominated Alkali Meadow. Both Rabbitbrush Meadow and Nevada Saltbush Meadow can be explained as Alkali Meadows in which the native invasive species, rabbitbrush and Nevada saltbush, have encroached. DTW data indicate that lower water tables are associated with the invasive shrub encroachment (Figure 4 and Manning 1997). Results of MDS show greater similarity between Nevada Saltbush Meadow and alkali sacaton-dominated Alkali Meadow, whereas Rabbitbrush Meadow has more in common with saltgrass-dominated Alkali Meadow.

Rabbitbrush Meadow intergrades with Rabbitbrush Scrub, and similarly, Nevada Saltbush Meadow intergrades with Nevada Saltbush Scrub. As with Desert Sink Scrub and Desert Greasewood Scrub, a decrease in water table is associated with this transition (Figure 4). Conceivably, as water table decreases, grasses decline while groundwater-dependent shrubs persist. There is also overlap between Rabbitbrush Meadow and Nevada Saltbush Meadow and between Rabbitbrush Scrub and Nevada Saltbush Scrub. The reason for this overlap could be the inclusion of parcels which are relatively obvious outliers and/or it could be the result of the ability of both rabbitbrush and Nevada saltbush to establish in areas covering a wide variety of environmental conditions.

Somewhat surprisingly, there is no apparent overlap between Rabbitbrush Scrub and Big Sagebrush Scrub. Although they share species in common, percent cover of those species is markedly different between the two groups; a clean break appears in the three-dimensional MDS analysis of the two communities. Several of the Rabbitbrush Scrub parcels and Big Sagebrush Scrub parcels occur on abandoned agricultural fields. Perhaps when abandoned fields in the Owens Valley are re-colonized, the fields are populated by one species assemblage or the other, but not a combination of the two. Some factors that may contribute to this phenomenon would be soil drainage characteristics, soil salinity, surface soil characteristics, proximity to rabbitbrush or sagebrush seed sources, and timing of abandonment and subsequent weather patterns. It is possible that if rabbitbrush "arrives" first, it predominates at the expense of other species, but if sagebrush establishes first, it predominates.

Desert Saltbush Scrub does not intergrade with Owens Valley Desert Sink Scrub. Desert Saltbush Scrub, like Big Sagebrush Scrub and Blackbrush Scrub, is marginally associated with Great Basin Mixed Scrub.

There is a correlation with increasing dependency on groundwater from left to right in Figure 8.

RESULTS AND DISCUSSION - Individual Community Descriptions

Quantitative data for all Green Book communities analyzed in this report appear in Appendix 4. In this section, I present how the Green Book (1990) characterized the plant community, list statistics and major characteristics computed for the community, discuss how the community description compares with the actual parcel data, compare the descriptions with Holland (1986) and the more recent MCV (Sawyer and Keeler-Wolf 1995), and briefly discuss the significance of the results. Within-community MDS results are presented and tentative outlier parcels are highlighted. (A more thorough identification of outliers could be performed in the future.) It is important to remember that axis scales are not presented in the three-dimensional diagrams, and therefore these diagrams should be used cautiously for comparisons among communities. For reference, Table 3 shows the average Bray-Curtis distance index for all parcels in each community.

In MCV, the term "series" is used in the same manner as I use "community," and an "association" is a finer-scale unit within a series. Tables 4 and 5 summarize the comparison between the Holland and MCV treatment of Owens Valley communities analyzed in this report.

Table 3. Average Bray-Curtis distance index for all parcels within each community. The lower the average, the shorter the distance, thus the more they have in common. Blackbrush scrub parcels were the most similar and Great Basin Mixed Scrub were the least.

Green Book Community		avg B-C distance	RANGE low	RANGE high
34300	Blackbrush Scb	0.354	0.100	0.578
45350	Nev. Saltbush Mdw	0.358	0.097	0.650
35210	Big Sagebrush Scb	0.443	0.061	0.887
36140	Shadscale Scb	0.460	0.083	0.765
36150	Nev. Saltbush Scb	0.503	0.066	0.934
45340	Rabbitbrush Mdw	0.505	0.167	0.866
35400	Rabbitbrush Scb	0.514	0.082	0.945
36130	Des. Greasewood Scb	0.514	0.077	0.946
36120	Des. Sink Scb	0.558	0.010	1.000
34210	Moj. Mix. Woody Scb	0.589	0.206	0.953
45310	Alkali Mdw	0.594	0.038	1.000
	SPAI-dom.	0.469	0.038	0.884
	DISPS2-dom.	0.506	0.060	0.921
	southern OV	0.581	0.038	1.000
	northern OV	0.603	0.060	1.000
36110	Des. Saltbush Scb	0.642	0.022	1.000
45330	Rush/Sedge Mdw	0.694	0.178	1.000
35100	Gr. Basin Mix. Scb	0.779	0.127	1.000

Table 4. List showing how Holland (1986) plant communities, listed by code and name, were treated in the Manual of California Vegetation (MCV, Sawyer and Keeler-Wolf 1995). The MCV series name, whether the series was considered an upland (U) or wetland (W), and the dominant species defining that series are listed.

HOLLAND (or Green Book)	U/W?	MCV series	MCV dominants
34100 Mojave Creosote Bush Scrub	U	Big Galleta	*Hilaria rigida*
	U	Brittlebush	*Encelia actoni*
	U	Creosote Bush	LATR2
	U	Creosote-white bursage	LATR2/AMDU2
	U	White bursage	AMDU2
34210 Mojave Mixed Woody Scrub	U	Joshua tree	*Yucca brevifolia*
34300 Blackbrush Scrub	U	Black bush	CORA
35100 Great Basin Mixed Scrub	U	Big sagebrush	ARTRT
	U	Bitterbrush	PUGL2
35210 Big Sagebrush Scrub	U	Big sagebrush	ARTRT
	U	Bitterbrush	PUGL2
35400 Rabbitbrush Scrub	U	Rubber rabbitbrush	CHNA2
36110 Desert Saltbush Scrub	U	Allscale	ATPO
	U	Desert-holly	*A. hymenelytra*
	U	Fourwing saltbush	ATCA2
	U	Mixed saltbush	ATPO=ATLE=ATCA2=ATCO,etc
	W/U	Spinescale	*A. spinifera*
36120 Desert Sink Scrub	U	Fourwing saltbush	ATCA2
	U	Mixed saltbush	ATPO=ATLE=ATCA2=ATCO,etc
	W	Bush seepweed	SUTO
	W	Greasewood	SAVE4
	W	Iodine bush	ALOC
36130 Desert Greasewood Scrub	U	Mixed saltbush	ATPO=ATLE=ATCA2=ATCO,etc
	W	Greasewood	SAVE4
	W	Iodine bush	ALOC
	W	Bush seepweed	SUTO
36140 Shadscale Scrub	U	Hop-sage	GRSP
	U	Shadscale	ATCO
	W/U	Winter fat	CELA
36150* Nevada Saltbush Scrub		?	
45310 Alkali Meadow	W	Alkali sacaton	SPAI
	W	Saltgrass	DISPS2
45330* Rush/Sedge Meadow		?	
45340* Rabbitbrush Meadow		?	
45350* Nevada Saltbush Meadow		?	

* = newly described in Green Book

Table 5. List showing the Green Book communities, their dominant species, and thus, how they would be classified in MCV.

HOLLAND (Green Book)	OV dominant(s)	U/W?	MCV series
34100 Mojave Creosote Bush Scrub	LATR2/AMDU2	U	Creosote-white bursage
34210 Mojave Mixed Woody Scrub	ERCO23	(U)	*no equivalent*
	EPNE	(U)	*no equivalent*
	HYSA	(U)	*no equivalent*
	ERFA2	U	California buckwheat (?)
34300 Blackbrush Scrub	CORA	U	Black bush
35100 Great Basin Mixed Scrub	EPNE	(U)	*no equivalent*
	ATCO	U	Shadscale
35210 Big Sagebrush Scrub	ARTRT	U	Big sagebrush
	PUGL2	U	Bitterbrush
35400 Rabbitbrush Scrub	CHNA2	U	Rubber rabbitbrush
36110 Desert Saltbush Scrub	ATPO	U	Allscale
	ATCA2	U	Fourwing saltbush
	ATCO=ATPO	U	Mixed saltbush
36120 Desert Sink Scrub	SPAI	W	Alkali sacaton
	SAVE4	W	Greasewood
	ATCO	U	Shadscale
	DISPS2	W	Saltgrass
36130 Desert Greasewood Scrub	SAVE4	W	Greasewood
	ATCO	U	Shadscale
	SUTO	W	Bush seepweed
36140 Shadscale Scrub	ATCO	U	Shadscale
	ARSP5	(U)	*no equivalent*
	AMDU2	U	White bursage
	ATPO	U	Allscale
36150* Nevada Saltbush Scrub	ATTO	?	*no equivalent*
45310 Alkali Meadow	DISPS2	W	Saltgrass
	SPAI	W	Alkali sacaton
45330* Rush/Sedge Meadow	DISPS2	W	Saltgrass
	LETR	W	Creeping Ryegrass
	JUBA	W?	*no equivalent*
	CAPR5/CAREX	W?	*no equivalent*
45340* Rabbitbrush Meadow	CHNA2	?	Rubber rabbitbrush? co-dominant is DISPS2
45350* Nevada Saltbush Meadow	ATTO	?	co-dominant is SPAI

* = newly described in Green Book

Green Book Scrubs

Mojave Mixed Woody Scrub - 34210

The Green Book describes this community as occurring widely but erratically scattered at 2,000 - 5,000 ft elevation in the Mojave Desert region. In the Owens Valley, it occurs along the eastern base of the Sierra Nevada.

The Green Book description and site factors are as follows:

DESCRIPTION: A complex scrub,.... usually characterized by *Yucca brevifolia herbertii, Eriogonum fasciculatum polifolium,* and *Isomeris arborea arborea....*

SITE FACTORS: Very shallow, overly-drained, often rolling to steep soils, usually derived from granitic parent materials. These sites have extremely low water holding capacity, mild alkalinity, and are not very saline. Intergrades on deeper soils (with higher water holding capacity) or at cooler elevations with Great Basin Scrub (35000), Blackbrush Scrub (34300), or Pinyon Woodlands (72000); at warmer elevations with Creosote Bush Scrub (33100, 34100).

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	19.6 +/-5.0		
number of species:	28		
diversity N1:	10.49		
diversity N2:	6.29		
average DTW (m):	8.16		
characteristic species:	Cover	Freq	#1 (% of time)
highest	ERCO23	EPNE	ERCO23 (56)
second	EPNE	ERCO23	HYSA (17)
third	HYSA	HYSA = PSARM	EPNE (11) = ERFA2 (11)

Owens Valley distribution: In general, Mojave Mixed Woody Scrub occurs near the toe of the Sierran alluvial fans intermittently from Lone Pine to Big Pine.

The MDS diagram for the 18 analyzed parcels (Figure 9) shows a cluster of somewhat similar parcels in the Aberdeen and Fish Springs areas. These parcels contain the characteristic species (listed above) in similar proportions. BGP131 is the only parcel in the diagram with high cover of CORA. The two Manzanar parcels have relatively high cover of AMDU2, and LNP096 is the lowest cover parcel and contains ARSP5. TIN058 is dominated by HYSA, but otherwise contains high cover of less characteristic species such as PSPO.

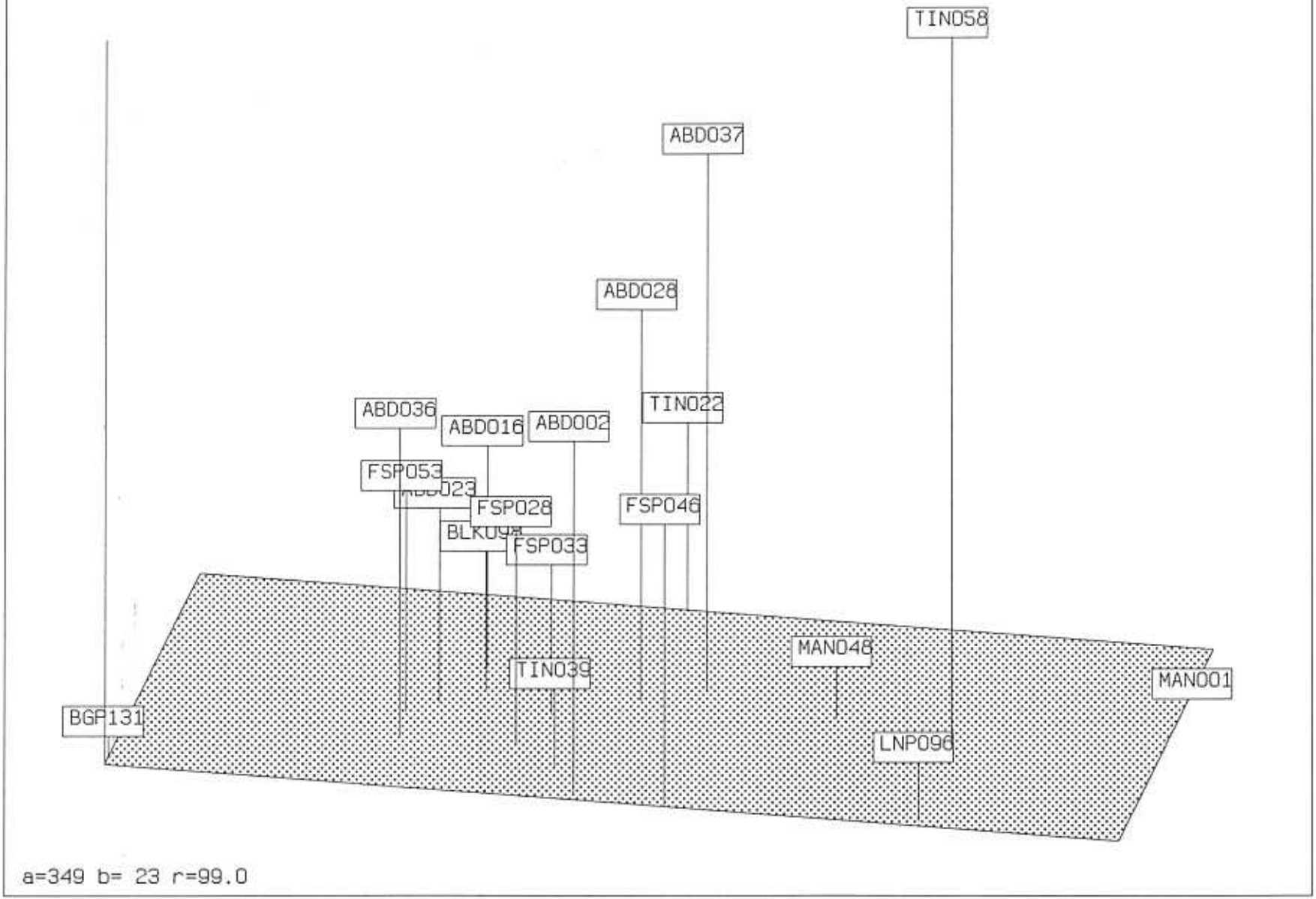
The actual species composition of Owens Valley Mojave Mixed Woody Scrub does not match its Green Book description. *Yucca brevifolia* (Joshua tree) and *Isomeris arborea* do not occur in the parcels surveyed in the Owens Valley, and *Eriogonum fasciculatum*

(ERFA2) is a relatively unimportant species in this community as classified. On LADWP land in the Owens Valley, the dominant species are ERCO23 *(Ericameria cooperi)* and (EPNE) *Ephedra nevadensis*. HYSA *(Hymenoclea salsola)* is also a common species. Observations suggest that *Y. brevifolia* is associated with these species west of Owens Lake and southward and that ERFA2 becomes a more important component in the plant communities as one moves up in elevation on the Sierran alluvial fans in the southern half of the valley. Therefore, the Mojave Mixed Woody Scrub delineated in the Owens Valley may be ecotonal between the community as described by Holland and Great Basin Mixed Scrub.

In MCV, all of Holland's Mojave Mixed Woody Scrub community has been assigned to the Joshua tree series (Table 4), dominated by *Y. brevifolia.* In MCV, there are no described communities dominated by ERCO23, HYSA, or EPNE, and the California buckwheat series (Table 5), typically dominated by a coastal subspecies of ERFA2, is described as a coastal and southern Californian plant community.

As represented by the parcels analyzed for this report, Mojave Mixed Woody Scrub does not appear to be a distinct, easily-definable community. The reason for this, as will be discussed later, is that more work needs to be done to characterize California's upland Mojave and Great Basin communities.

Figure 9. MDS diagram of Mojave Mixed Woody Scrub



Blackbrush Scrub - 34300

The Green Book describes this community as occurring between 4,000 - 7,000 ft elevation from Owens Valley to the Mojave Desert.

The Green Book description and site factors are as follows:

DESCRIPTION: ... Dominated by *Coleogyne ramosissima*....

SITE FACTORS: On dry, well-drained slopes and flats with shallow often calcareous soils of very low water holding capacity, often intergrading with Great Basin Sagebrush Scrub (35210), Joshua Tree Woodland (73000), or Pinyon/Juniper Woodlands (72000), but typically at somewhat lower elevations, warmer, and drier.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	15.7 +/-3.0		
number of species:	16		
diversity N1:	3.78		
diversity N2:	2.27		
average DTW (m):	no data		
characteristic species:	Cover	Freq	#1 (% of time)
highest	CORA	CORA	CORA (100)
second	EPNE	EPNE	---
third	CHTE4	CHTE4	---

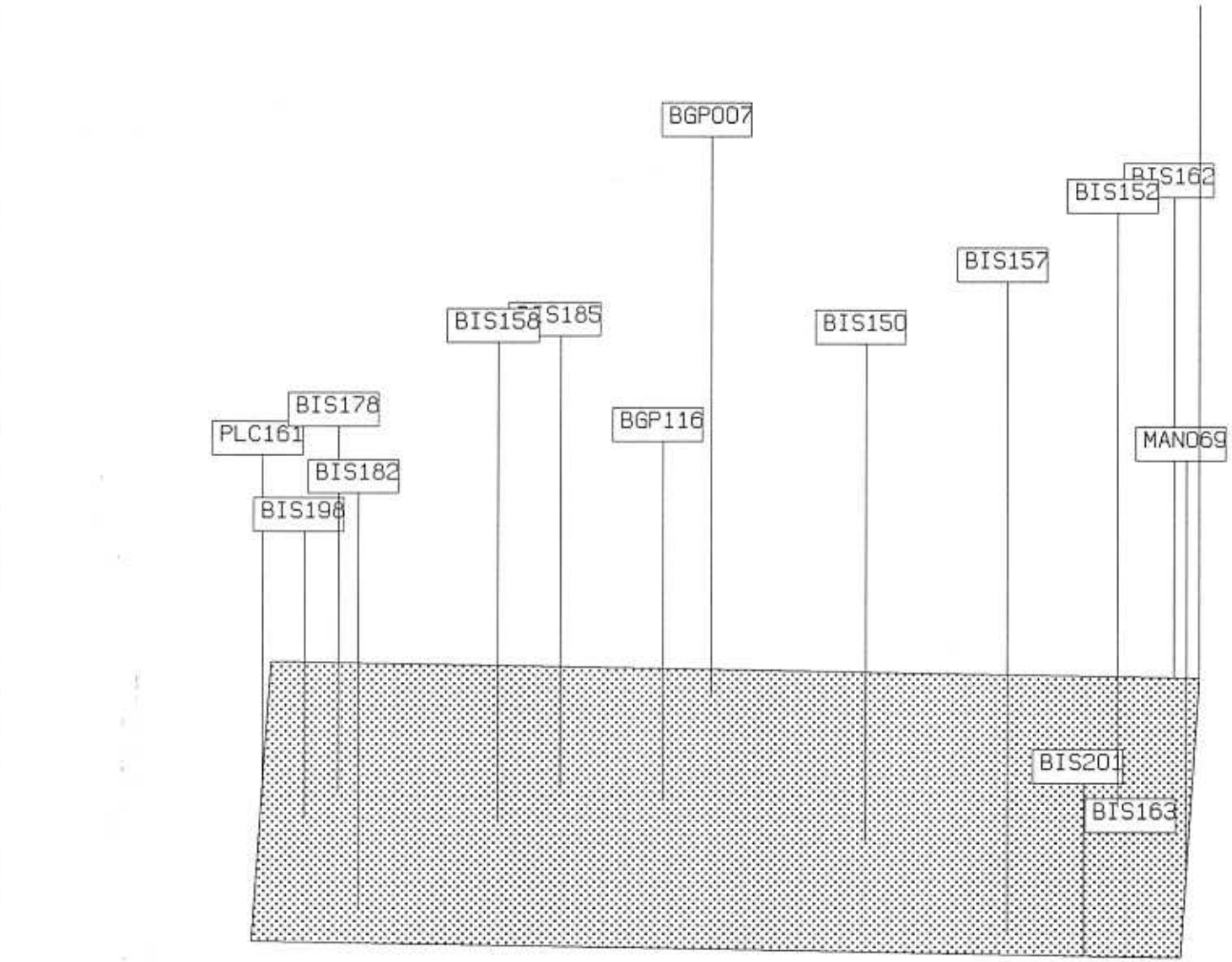
Owens Valley distribution: Blackbrush Scrub occurs on the Sierran alluvial fans west of Bishop and south to the Big Pine area. Two parcels appear on LADWP land on the Manzanar quad.

The MDS diagram for the 15 analyzed parcels appears in Figure 10. Although parcels appear scattered in the diagram, this is because of the diagram scale. The low average Bray-Curtis distance index (Table 3) indicated that parcels were very similar, and all had CORA as the dominant species. In the diagram, parcels with high cover of CORA are on the left side and those with lower cover of CORA are on the right. (Figures in Appendix 3, which show Blackbrush Scrub compared with other communities, more clearly show that Blackbrush Scrub parcels are clustered.)

The Owens Valley parcels classified as Blackbrush Scrub are truly dominated by *Coleogyne ramosissima* (CORA). In addition to the species listed above, ERCO23 and ERFA are often present in this community.

In MCV, all of Holland's Blackbrush Scrub community has been assigned to the upland Black bush series (Table 4). The Owens Valley parcels classified as Blackbrush Scrub fit the MCV Black bush series description (Table 5).

Figure 10. MDS diagram of Blackbrush Scrub



Great Basin Mixed Scrub - 35100

The Green Book describes this community as distributed in the northern Mojave and Great Basin deserts.

The Green Book description and site factors are as follows:

> DESCRIPTION: A low, shrubby, open community with several species contributing to the canopy. Total cover is low (approximately 20%) and dominants usually include *Ephedra nevadensis, Psorothamnus arborescens* var. *minutifolius, Atriplex confertifolia,* and *Tetradymia axillaris.*
>
> SITE FACTORS: Usually coarse to moderately coarse textured soils with a low available water holding capacity, on slopes and alluvial fans. Intergrades at higher elevations with Blackbush Scrub (34300) or Sagebrush Scrub (35200); at lower elevations with Desert Chenopod Scrub (36110).

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	15.6 +/-4.0		
number of species:	56		
diversity N1:	20.09		
diversity N2:	13.33		
average DTW (m):	6.03		
characteristic species:	Cover	Freq	#1 (% of time)
highest	EPNE	EPNE	EPNE (27)
second	ATCO	PSARM	ATCO (20)
third	PSARM	ATCO	ERFA2 (9)

Owens Valley distribution: Great Basin Mixed Scrub dominates both Sierran and White/Inyo alluvial fans from Laws and Fish Slough to Aberdeen. Although concentrated in the north half of the valley, there are also several parcels located in the Alabama Hills area.

The MDS diagram for the 135 Great Basin Mixed Scrub parcels appears in Figure 11. Although total cover for parcels within this community did not span a wide range, many species potentially dominated, and the parcels cover a fairly broad but contiguous space. Within the continuum, parcels dominated by the same species tend to cluster in the same regions; for example, parcels on tall pins on the right side of the diagram tend to be dominated by ERFA2, while those near the upper left are dominated by ATCO. LAW169, however, was the only parcel dominated by CHNA2, and it stands out as the most obvious outlier in this group.

The Green Book description of Great Basin Mixed Scrub generally matches the parcel data; however, neither matches Holland's description of this community. Holland describes Great Basin Mixed Scrub as moderately tall with dominants including *Artemisia tridentata, Purshia tridentata* and several perennial grasses between the shrubs. In MCV, Holland's

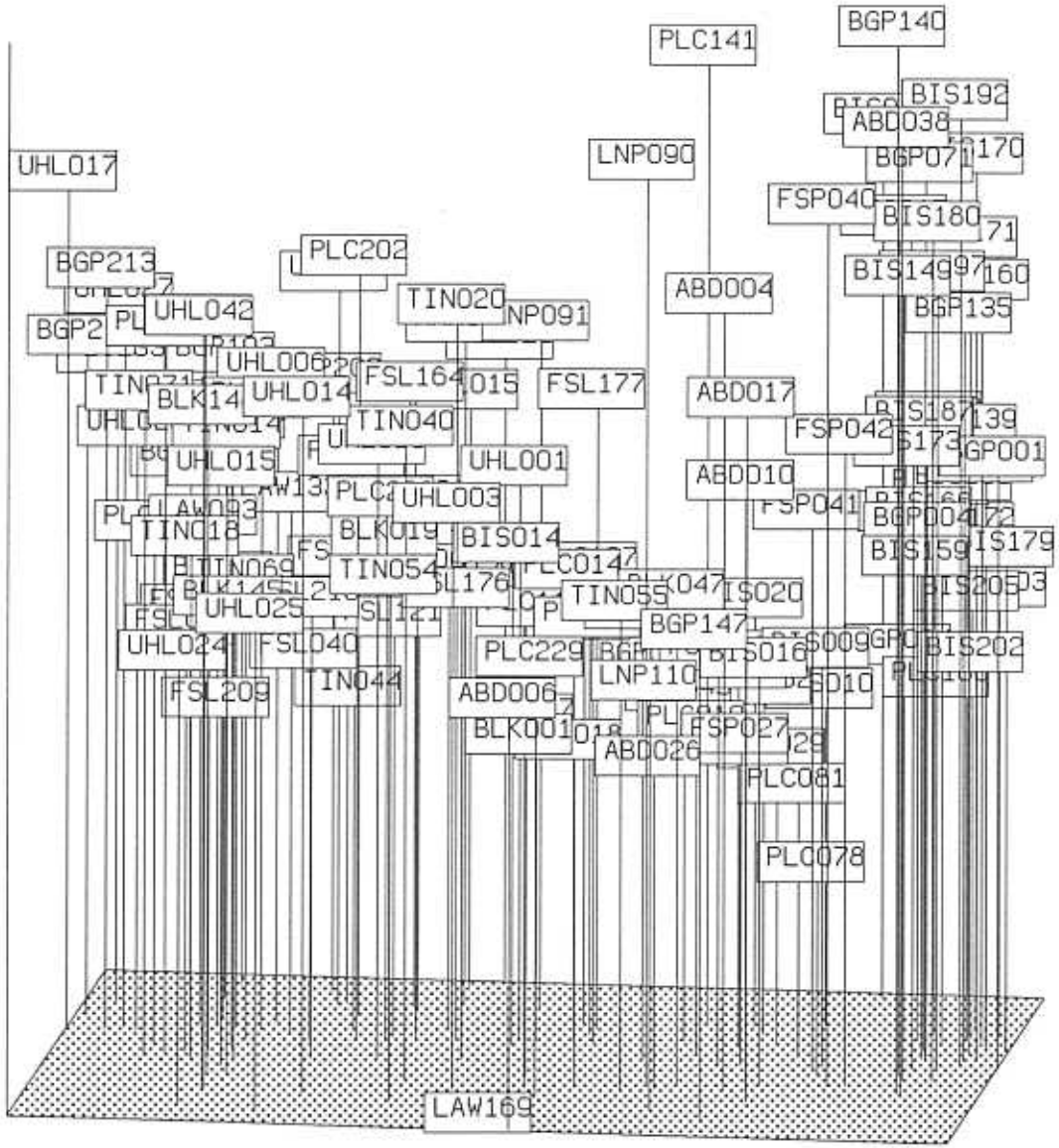
community is divided into either the Big sagebrush or Bitterbrush series, depending on which is the dominant species (Table 4). There is no MCV series that matches the Owens Valley "Great Basin Mixed Scrub" (Table 5), however, parcels dominated by ATCO could be placed in the Shadscale series.

In contrast, researchers in states east of California have described communities dominated by mixtures of EPNE and ATCO. Billings (1949) stated that ARSP5 and EPNE, among others, were the principal co-dominants with ATCO. Beatley (1976) described sites where EPNE was associated with GRSP, *Artemisia* sp., *Lycium* sp., and CORA, among others. MacMahon (1988) placed EPNE at the upper elevation limits of Joshua tree-dominated series in the Mojave, in association with CELA, CORA, and *Lycium* sp., among others. Pritchett *et al.* (1997) described an ATCO-EPNE association in central Nevada, which also contained ARSP5 and CELA as important species.

In the Owens Valley, the described Great Basin Mixed Scrub is a diverse community that intergrades, floristically, with the parcels composing the Mojave Mixed Woody Scrub community. EPNE is an important species in both of these groups of parcels, while ERCO23 is more important in the Mojave mixed scrub and ATCO is more important in the Great Basin (although both occur not infrequently in the other). Further analysis of the parcel data of both these community types might reveal smaller groups that could be distinguished from the entire set, but it is most likely that these two communities in the Owens Valley are not highly distinct. Also, LADWP land does not contain the entire extent of these communities in the region. The transition from the Mojave Desert to the Great Basin Desert that occurs in the Owens Valley is more overtly based on the transition between *Larrea tridentata*-dominated to *Artemisia tridentata*-dominated land than to the more subtle transition between Mojave Mixed Woody Scrub and Great Basin Mixed Scrub as described here.

Based on Holland and MCV community descriptions, however, it appears that more work needs to be done to characterize California's upland Mojave and Great Basin communities, particularly those not dominated by *L. tridentata* or *A. tridentata*.

Figure 11. MDS diagram of Great Basin Mixed Scrub



a=352 b= 12 r=99.0

Big Sagebrush Scrub - 35210

The Green Book describes this community as widely distributed east of the Sierra Nevada crest and usually occurring between 4,000 - 9,000 ft elevation throughout the Intermountain West.

The Green Book description and site factors are as follows:

DESCRIPTION: ... *Artemisia tridentata* is dominant. ...

SITE FACTORS: Occurs on a wide variety of soils and terrain, from rocky, well-drained slopes to fine-textured valley soils with high water table. May be colder (from cold air drainage), drier, or with less well-drained more alkaline soil than Pinyon/Juniper Woodlands (72000), a frequent associate.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	17.9 +/-8.8		
number of species:	40		
diversity N1:	5.70		
diversity N2:	2.44		
average DTW (m):	6.71		
characteristic species:	Cover	Freq	#1 (% of time)
highest	ARTRT	ARTRT	ARTRT (95)
second	CHNA2	CHNA2	CAREX (2) = PUGL2 (2)
third	ATCA2	EPNE	---

Owens Valley distribution: Big Sagebrush Scrub is scattered along the Sierran alluvial fans, with a somewhat higher concentration in the north half of the valley.

A few parcels included as Big Sagebrush Scrub may be viewed as outliers in the MDS diagram (Figure 12). All but two parcels (MAN084 and BGP132) were dominated by ARTRT. Very low cover (<10%) parcels tend to appear on the right side of the diagram, while IND033, on the far left, had unusually high cover for this community (55%).

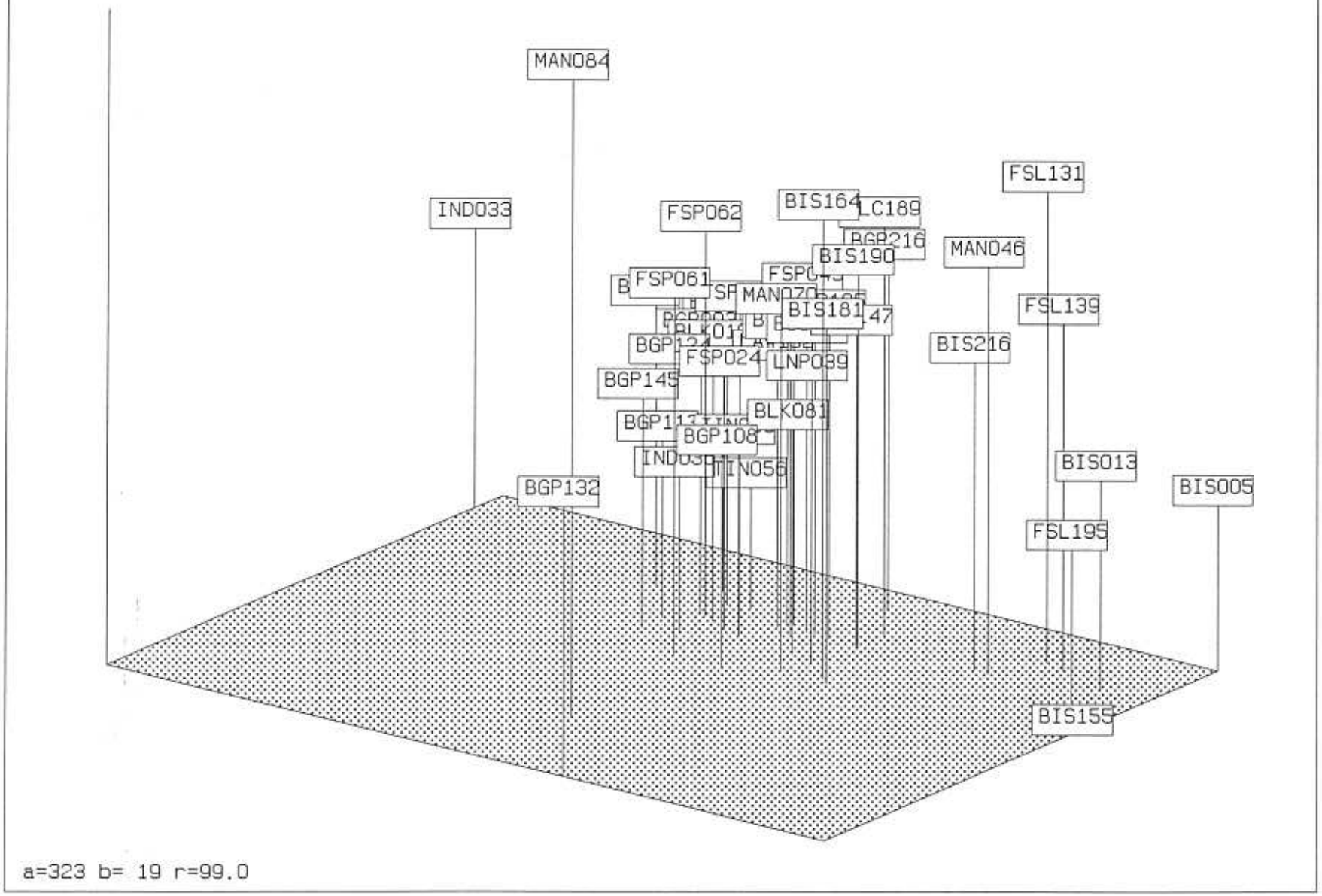
The Owens Valley parcels classified as Big Sagebrush Scrub are dominated by *Artemisia tridentata* (ARTRT) 95% of the time. CHNA2 is the second most important species in terms of cover and frequency, but for this parcel set, it is never the dominant. (In contrast, the order of these two species is reversed in the Rabbitbrush Scrub community discussed below.)

The Green Book description is virtually identical to the Holland description of this community, and the Owens Valley parcel data largely fit the description. Because of its widespread distribution, associations within this broad category have been defined by various authors (Sawyer and Keeler-Wolf 1995). In the Owens Valley, at least ten percent of the

parcels categorized as Big Sagebrush Scrub were previously cultivated, but have since recovered with ARTRT, CHNA2, and other species with overall cover > 5%.

In MCV, Holland's Big Sagebrush Scrub is divided between the Big sagebrush and Bitterbrush series, identical to the treatment of Great Basin Mixed Scrub (Table 4). Forty-two of the 44 Owens Valley parcels classified as Big Sagebrush Scrub fit the MCV Big sagebrush series and one (MAN084) fits the MCV Bitterbrush series (Table 5). No *Carex* sp. are listed as characteristic species of this community in the Green Book, Holland or MCV; therefore, this parcel (BGP132) should be considered an outlier.

Figure 12. MDS diagram of Big Sagebrush Scrub



Rabbitbrush Scrub - 35400

The Green Book describes this community as occurring in the Great Basin, on the western margin of the Mojave Desert, and into drainages on the west side of the Sierra and Cascade mountains.

The Green Book description and site factors are as follows:

DESCRIPTION: In the Owens Valley, this community is dominated by *Chrysothamnus nauseosus.*

SITE FACTORS: In the Owens Valley, this community is found predominantly on abandoned farmlands. Soils are coarse to moderately coarse-textured and range from well-drained to excessively well-drained. Available water capacity is low to moderate.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	14.8 +/-7.1		
number of species:	33		
diversity N1:	7.03		
diversity N2:	3.27		
average DTW (m):	3.85		
characteristic species:	Cover	Freq	#1 (% of time)
highest	CHNA2	CHNA2	CHNA2 (91)
second	ARTRT	ARTRT	BAHY (4)
third	SAKAT	SAKAT	ATCA2 (2) = MEAL (2)

Owens Valley distribution: Rabbitbrush Scrub occurs predominantly in the northern half of the valley, on or near the valley floor. Two parcels occur on the Manzanar quad.

Most of the 57 Rabbitbrush Scrub parcels are generally clustered in the MDS diagram (Figure 13), but the two Manzanar parcels are outliers. These two parcels were dominated by BAHY, and CHNA2 was the third or fourth most abundant species in them.

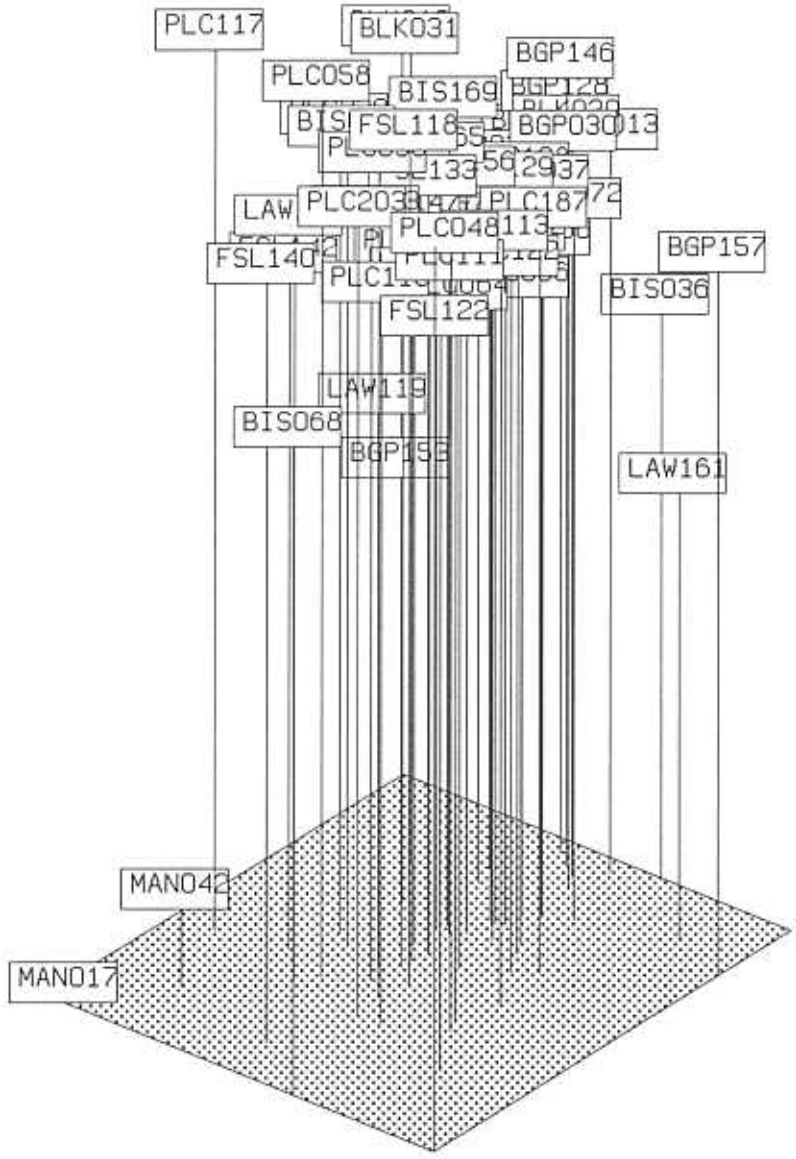
The Owens Valley parcels classified as Rabbitbrush Scrub are dominated by *Chrysothamnus nauseosus* (CHNA2) 91% of the time. ARTRT is the second most important species in terms of cover and frequency, but it is never the dominant, it occurs in fewer than half the parcels, and its total contribution to cover is far lower than CHNA2. As mentioned above, the order of these two species was reversed in the Big Sagebrush Scrub community, but in the latter community, CHNA2 occurred much more frequently than ARTRT occurred in Rabbitbrush Scrub. After ARTRT, invasive annuals, including SAKAT and BAHY, predominate.

Holland also describes this community as the result of disturbance: "A disturbance-

maintained community (fire, grazing, soil tilling). Vertisols (self-churning soils) may have been the only "pristine" rabbitbrush sites." In the Owens Valley, over half of the parcels classified as Rabbitbrush Scrub were noted as being abandoned agricultural land. Because not all of them were noted as such, and because it is not likely that this community occurs on vertisols in the Owens Valley, more information on parcel land-use history may be needed to fully understand the origin and perpetuation of this community in the Owens Valley.

In the MCV, Holland's Rabbitbrush Scrub was placed entirely in Rubber rabbitbrush series (Table 4), and based on dominance, the Owens Valley Rabbitbrush Scrub could also fit into this series (Table 5). The MCV states that the Rubber rabbitbrush series' ground layer may be sparse or grassy; for parcels identified as Rabbitbrush Scrub in the Owens Valley, however, grasses are infrequent and contribute little to total plant cover.

Figure 13. MDS diagram of Rabbitbrush Scrub



a= 51 b= 30 r=99.0

Desert Saltbush Scrub - 36110

The Green Book describes this community as being widely scattered in the Colorado, Great Basin, and Mojave deserts.

The Green Book description and site factors are as follows:

DESCRIPTION: Usually low, grayish.... shrubs, with some succulent species. Total cover often low, with much bare ground between the widely spaced shrubs. Stands typically are strongly dominated by a single *Atriplex* species.

SITE FACTORS: In the Owens Valley, found on coarse to moderately coarse-textured soils. They are very deep and range from well-drained to excessively drained. Available water capacity ranges from very low to moderate. Usually found where the alluvial fans and Valley floor join.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	13.7 +/-8.0		
number of species:	21		
diversity N1:	4.44		
diversity N2:	2.57		
average DTW (m):	5.00		
characteristic species:	Cover	Freq	#1 (% of time)
highest	ATPO	ATPO	ATPO (67)
second	ATCA2	ATCO	ATCA2 (26)
third	ATCO	ATCA2	ATCO (7)

Owens Valley distribution: This community occurs both east and west of the Owens River, often on the valley floor. Concentrations occur east of the Owens River on the Poleta Canyon quad and south of Independence between the LA Aqueduct and Highway 395.

The MDS diagram for the 27 Desert Saltbush Scrub parcels shows two main clusters (Figure 14). In general, the ATPO-dominated parcels appear on the left side of the plot and the ATCA2-dominated occur on the right. IND012 had both ATPO and ATCA2 in approximately equivalent abundance. Both Uhlmeyer parcels were dominated by ATCO, with ATPO as the second most dominant species.

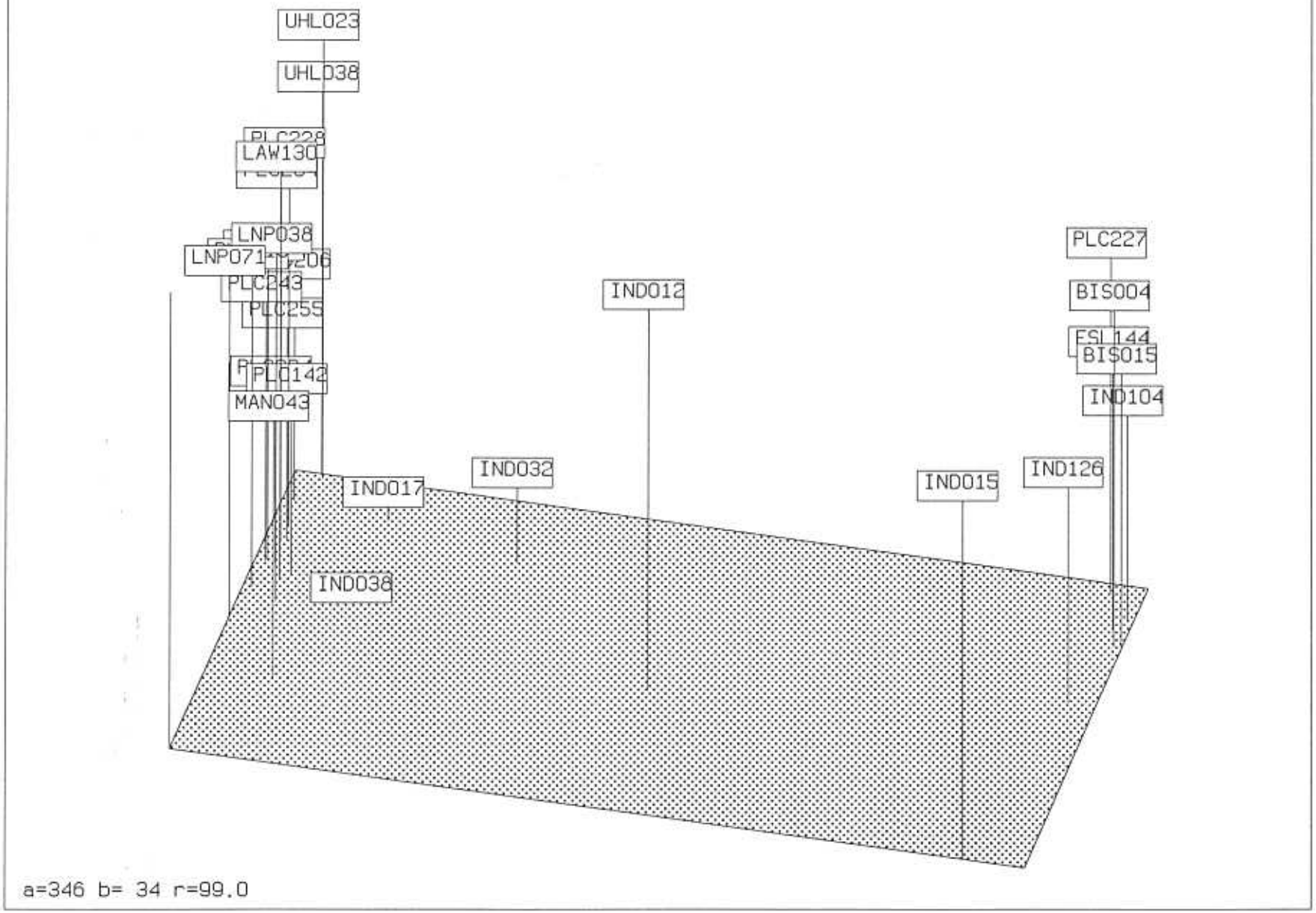
The Owens Valley parcels classified as Desert Saltbush Scrub are dominated by *Atriplex* species, most often ATPO, secondarily ATCA2. ATCO is also a relatively important species in terms of cover and frequency, and it is followed by CHNA2. The two succulent species, SAVE4 and SUTO, which are in a few parcels, were not significant components of this community in the Owens Valley.

Although his "description" of Desert Saltbush Scrub is identical to that of the Green

Book, Holland's description of the site factors varies significantly from the Green Book and reads as follows: "Fine-textured, poorly drained soils with high alkalinity and/or salinity, usually surrounding playas on slightly higher ground, hence somewhat drier than the adjacent Desert Sink Scrub (36120)." Perhaps, if this community were split into at least two associations, further investigation may reveal affinities of different associations with different soil types in the Owens Valley.

In MCV, Holland's Desert Saltbush Scrub was divided into five *Atriplex*-dominated series (Table 4). Based on dominance, the Owens Valley Desert Saltbush Scrub could be divided into three series: Allscale, Fourwing saltbush, and Mixed saltbush (Table 5). All three of these series are regarded as uplands in MCV, and the only consistent mention of soils is that they "may be carbonate-rich."

Figure 14. MDS diagram of Desert Saltbush Scrub



Desert Sink Scrub 36120

The Green Book describes this community as occurring in "moist valley bottoms and lake beds scattered throughout the Sonoran and Mojave deserts, in the Owens Valley and nearby areas, usually about 4,000 ft elevation."

The Green Book description and site factors are as follows:

DESCRIPTION: In the Owens Valley this is a shrub/grassland community with sparse cover. *Sarcobatus vermiculatus* and an *Atriplex* sp. comprise at least 20 percent of the cover, and *Sporobolus airoides* and *Distichlis spicata* var. *stricta* are the dominant grass species.

SITE FACTORS: Wind-blown hummocks and alkali slicks are common. Soils are moderately coarse-textured and range from shallow to very deep. They range from somewhat poorly drained to well-drained. Available water capacity ranges from very low to very high. These soils are sodic and often have a high water table with a salt crust at the surface. May intergrade with Alkaline Meadow (45310).

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	14.2 +/-4.4		
number of species:	30		
diversity N1:	8.41		
diversity N2:	6.09		
average DTW (m):	2.30		
characteristic species:	Cover	Freq	#1 (% of time)
highest	SPAI	SAVE4	SPAI (37)
second	SAVE4	DISPS2	SAVE4 (28)
third	ATCO	SPAI	ATCO (11)

Owens Valley distribution: Desert Sink Scrub occurs predominantly west of the Owens River on the valley floor from Fish Slough to Lone Pine.

The MDS diagram of the 92 Desert Sink Scrub parcels appears in Figure 15. Even though these parcels were not consistent in terms of dominant species, parcels cluster tightly near the center of the plot. Outliers include: the two Dolomite parcels, which are almost purely SUTO; LAW036, which is dominated by SAKAT; and IND022, which has very high total cover for this community (35%) and 70% of its cover is SAVE4.

Compared to other Owens Valley plant communities, there is greater variety in the characteristic species and, for most parcels, relative cover of the most dominant species is less than 50% (regardless of the species), which means that species abundances tend to be somewhat even. These features of this community were alluded to in the discussion of species diversity (p. 12). Grasses vie with shrubs for the highest cover, most frequent, and most-often dominant life forms. Grass is dominant in nearly half (SPAI, 37%; DISPS2, 9%) of the parcels classified as Desert Sink Scrub, which is highly uncharacteristic of

communities designated as "Scrub."

Holland's description of Desert Sink Scrub contrasts significantly with that of the Green Book:

DESCRIPTION: Similar to Desert Saltbush Scrub (36110), but plants often more widely spaced and with most species succulent chenopods.

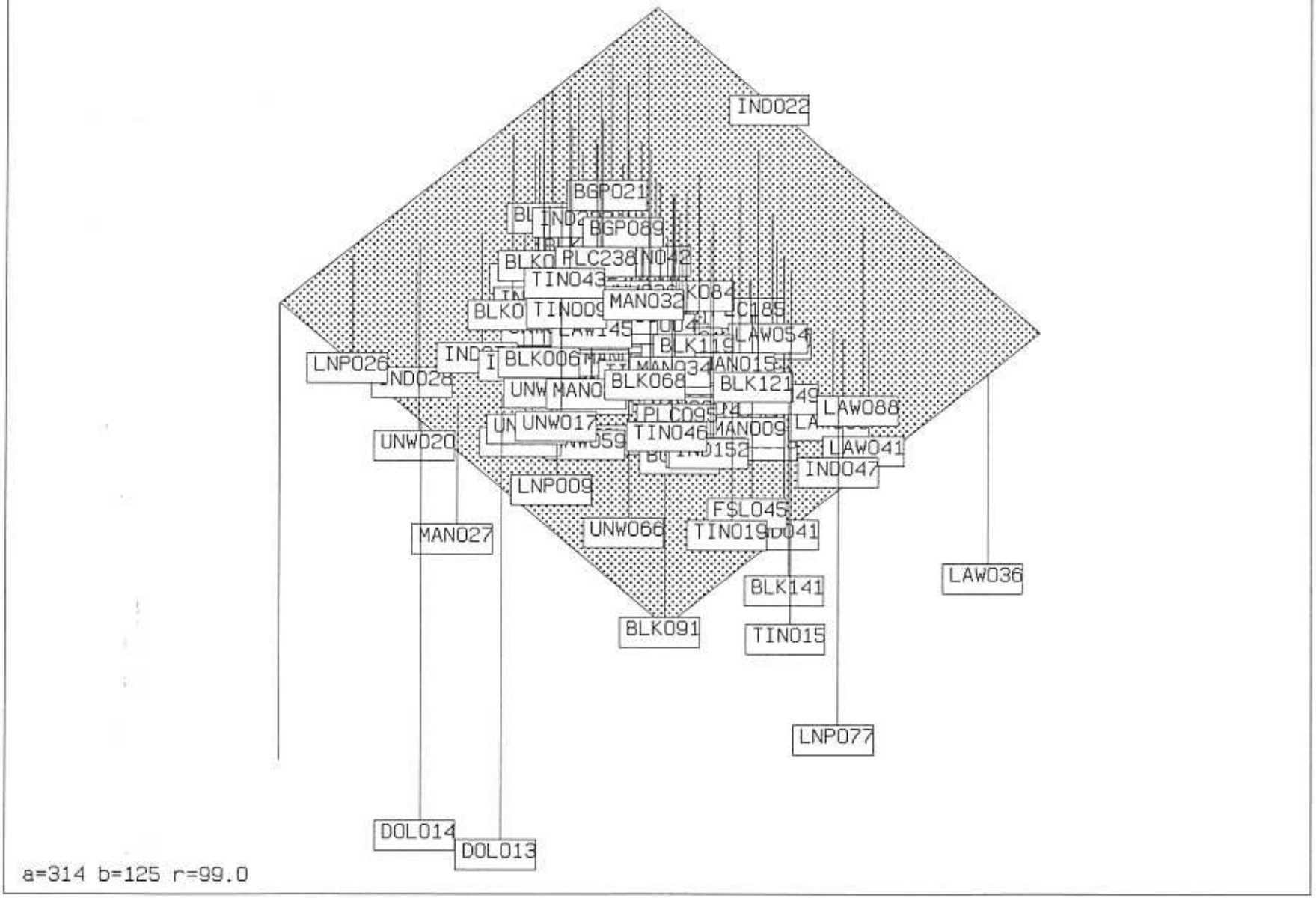
SITE FACTORS: Poorly drained soils with extremely high alkalinity and/or salt content. Often with high water table and with salt crust at the surface.

It appears that Holland and the Green Book describe two different plant communities with the same name. In the list of Owens Valley Desert Sink species (Appendix 4), very few are succulent chenopods. Rather, the community has species and characteristics in common with Alkali Meadow (45310) (such as SPAI, DISPS2, and average water table depth), as stated in the Green Book, than with Desert Saltbush Scrub, as Holland's description states. Holland cited five references from which he derived his community description; curiously, the Green Book cited the same references, plus an additional one that is not listed in my edition of Holland.

In MCV, Holland's Desert Sink Scrub was divided into five different series (Table 4). Two are uplands dominated by *Atriplex* species, and the other three are wetlands dominated by succulent chenopods. Based on the MCV dominance system of classification, the Owens Valley Desert Sink could be divided into at least four series: the upland Shadscale series, and three wetlands: Alkali sacaton, Greasewood, and Saltgrass series (Table 5).

From this brief analysis, it appears that the Owens Valley Desert Sink community is either somewhat unique and undescribed, or it is a transitional community between Alkali Meadow and Desert Greasewood Scrub. These two options are not mutually exclusive in the realm of plant community classification, but regardless of its classification, it does not appear to have anything in common with Desert Saltbush Scrub, as Holland and others had previously concluded. Except for some obvious outliers, this "community" appears to hold together fairly well, according to MDS analysis, but work should be done to further describe it and distinguish it from Alkali Meadow and Desert Greasewood Scrub. Furthermore, it should not be grouped strictly with other "scrub" communities.

Figure 15. MDS diagram of Desert Sink Scrub (inverted)



Desert Greasewood Scrub - 36130

The Green Book describes this community as being widely scattered through the Colorado, Great Basin, and Mojave deserts.

The Green Book description and site factors are as follows:

DESCRIPTION: Low shrubs up to 1 m tall with some succulent species. Total cover often low (approximately 15%). Stands are typically dominated by *Sarcobatus vermiculatus* and *Atriplex confertifolia.*

SITE FACTORS: Often on valley bottoms, and playa margins, with moderately coarse textured soils. Available water capacity is low to moderate for most soils. Wind erosion is severe, creating small dunes around the shrubs. The water table is in excess of 10 feet. Intergrades with Desert Sink Scrub (36120), near the valley bottom, and Shadscale Scrub (36140) at the toe of the alluvial fans.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	13.0 +/-4.7		
number of species:	27		
diversity N1:	6.30		
diversity N2:	3.83		
average DTW (m):	3.44		
characteristic species:	Cover	Freq	#1 (% of time)
highest	SAVE4	SAVE4	SAVE4 (64)
second	ATCO	ATCO	ATCO (31)
third	ATTO	SUTO	SUTO (4)

Owens Valley distribution: Desert Greasewood Scrub occurs throughout the valley, on both sides of the Owens River on the valley floor. An extensive area of this community type occurs east of the Owens River from south of Independence to north of Lone Pine.

The MDS diagram of the 45 parcels in this community are graphed in Figure 16. SAVE4 and ATCO are the most common dominant species in this community, and in the diagram, SAVE4-dominated parcels tend to occur on the left and ATCO-dominated, on the right. A clear break between the two, however, is not evident, since the parcels tend to share many species in common. DOL009 and DOL028 are the only two parcels dominated by SUTO, and both have SAVE4 as the second most dominant species. IND016 has a very high overall cover (35%) and 55% of this is SAVE4; UNW078 has very low total cover (7%), and its dominants -- ATCO, ATCA2, SAVE4, and DISPS2 -- occur in nearly equal proportions.

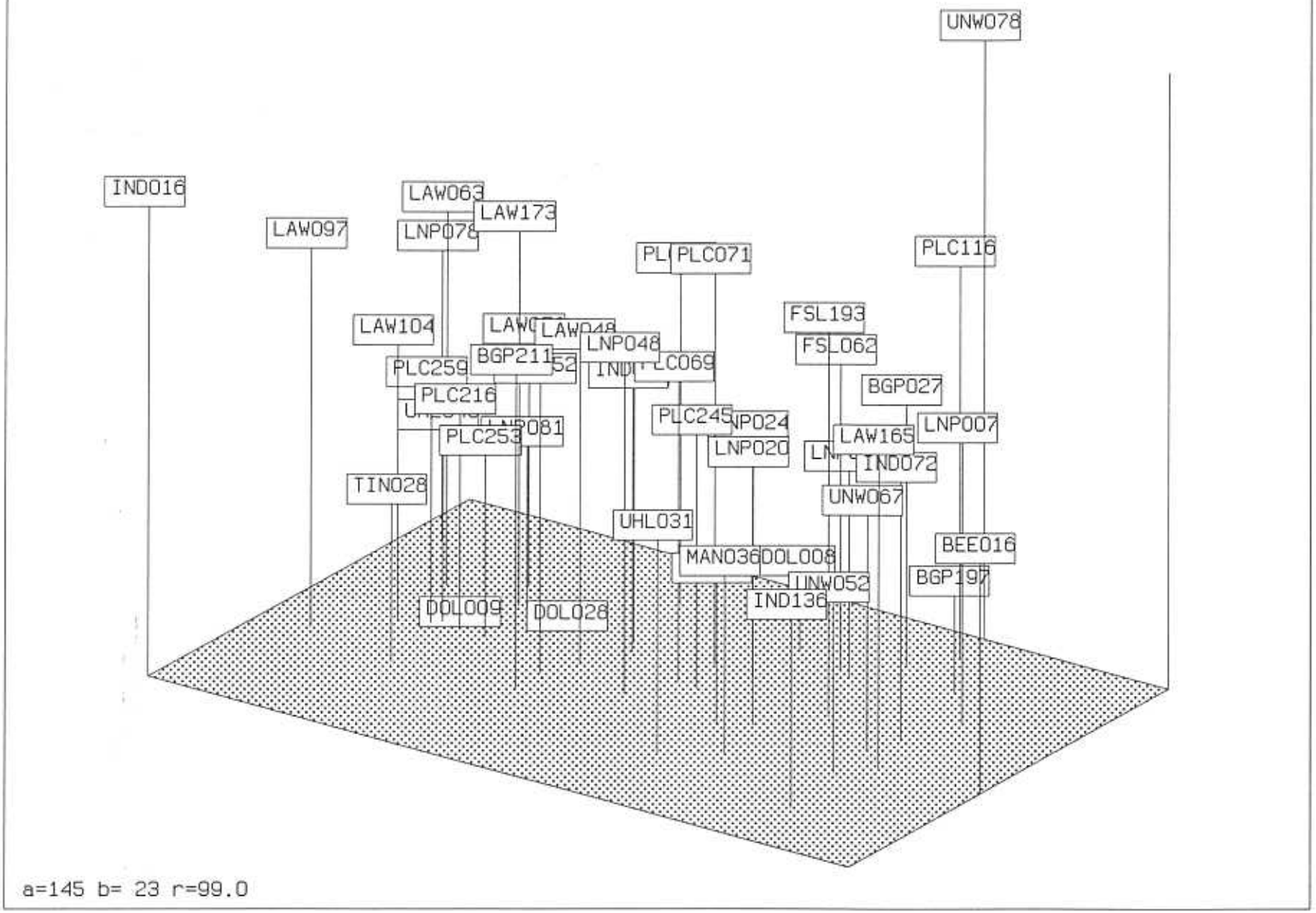
The Owens Valley parcels classified as Desert Greasewood Scrub exhibit a predominance of *Sarcobatus vermiculatus* (SAVE4). In the Owens Valley, ATTO is the third highest cover species for the parcels analyzed for this community, and ATTO and

CHNA2 are tied for fourth place in terms of frequency, both occurring in one-third of the parcels. All of the dominant species (SAVE4, ATTO, CHNA2, and perhaps even ATCO) are potentially invasive when water tables decline.

Although Holland's "description" of Desert Greasewood Scrub is similar to that of the Green Book, he states that this community is similar to Desert Saltbush Scrub (36110) but with lower cover, more succulent species, and lower species diversity. Parcel data show Owens Valley Desert Greasewood Scrub to have slightly lower cover, more succulent species, but higher species diversity than Desert Saltbush Scrub parcels. Holland's description of the site factors varies significantly from the Green Book and reads as follows: "Heavy, fine-textured, poorly drained soils of high osmotic potential. Often with high water table and salty soil surface crust." Average DTW for Desert Greasewood Scrub was 3.44 m (=11.3 ft), but its range from 1.4 ft to 31.8 ft (Appendix 2) shows that it is not always in excess of 10 ft.

In MCV, Holland's Desert Greasewood Scrub was divided into four series (Table 4). Based on dominance, the Owens Valley Desert Greasewood Scrub could be divided into three series: The upland Shadscale series or two wetland series, Greasewood and Bush seepweed (Table 5).

Figure 16. MDS diagram of Desert Greasewood Scrub



Shadscale Scrub - 36140

The Green Book describes this community as occurring between 3,000 and 6,000 feet from the Owens Valley to the Mojave Desert and north and eastward across southern Nevada.

The Green Book description and site factors are as follows:

DESCRIPTION: Low, intricately branched, often spiny shrubs, 0.3-0.6 m tall, usually well-spaced with bare ground between dominant *Atriplex confertifolia* and *Artemisia spinescens*....

SITE FACTORS: Often on poorly-drained flats with heavy, somewhat alkaline soil, adjacent to Desert Chenopod Scrub (36100). Also on well-drained slopes at higher elevations, intergrading at its upper limits with Blackbush Scrub (34300), Great Basin Sagebrush Scrub (35200) or Joshua Tree Woodland (73000). May occur above Creosote Bush Scrub (34100) on well-drained slopes or below it in poorly-drained basins with cold air accumulation.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	12.7 +/-3.8		
number of species:	33		
diversity N1:	6.11		
diversity N2:	2.72		
average DTW (m):	3.25		
characteristic species:	Cover	Freq	#1 (% of time)
highest	ATCO	ATCO	ATCO (96)
second	ARSP5	PSARM	ARSP5 = ATPO = AMDU2 (<2)
third	PSARM	ARSP5	

Owens Valley distribution: Shadscale Scrub parcels are mostly east of the Owens River on the lower parts of White/Inyo alluvial fans. Parcels west of the river may be abandoned agriculture.

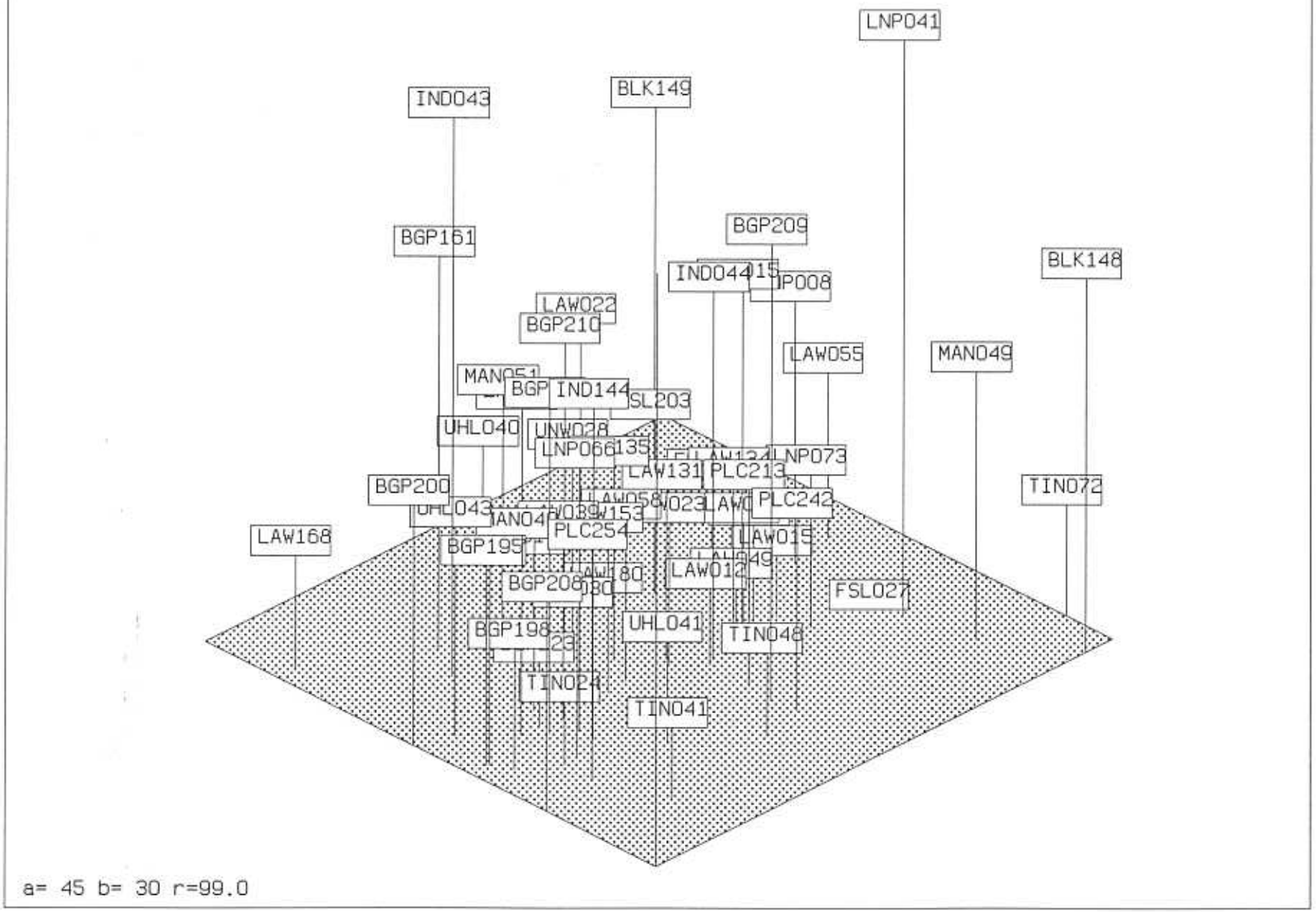
On the MDS diagram of Shadscale Scrub (Figure 17), the three (of 57) parcels that are not dominated by ATCO -- BLK148 (ATPO), TIN072 (AMDU2), and LNP041 (ARSP5) -- appear on the right side of the diagram. On the left side of the diagram, LAW168 is co-dominated by ATCO and PSPO. Some of the other parcels on the outskirts of the core group have <50% relative cover of ATCO, therefore other species, such as ARSP5 and SAVE4, are relatively abundant.

The Owens Valley parcels classified as Shadscale Scrub exhibit a predominance of *Atriplex confertifolia* (ATCO). *Artemisia spinescens* (ARSP5) and *Psorothamnus arborescens* var. *minutifolius* (PSARM) are second in terms of dominance, frequency and cover.

Holland's description and site factors of Shadscale Scrub are identical to that of the Green Book.

In MCV, Holland's Shadscale Scrub was divided into three series: Hop-sage, Shadscale, and Winter fat (Table 4). Based on dominance, most Owens Valley Shadscale Scrub parcels would be placed into the upland Shadscale series. The parcel dominated by AMDU2 could be placed in the upland White bursage series and the parcel dominated by ATPO could be placed in the upland Allscale series, but the parcel dominated by ARSP5 cannot be accounted for directly in MCV (Table 5).

Figure 17. MDS diagram of Shadscale Scrub



Nevada Saltbush Scrub - 36150

This community designation was developed for the Owens Valley Cooperative Vegetation Study. In the Green Book, it is described as occurring on the valley bottom of the Owens Valley and in the Mojave Desert, Nevada and Utah. The only referenced source for this community is "295," which is not listed in my copy of Holland.

The Green Book description and site factors are as follows:

> DESCRIPTION: A moderately tall shrubland with average total cover around 20-30%. *Atriplex torreyi* is dominant.... Perennial grass cover is sparse, as compared to Nevada Saltbush Meadow (45350), which has a dense understory of perennial grasses.
>
> SITE FACTORS: Found on moderately coarse to moderately fine-textured alkaline soils with available water holding capacity ranging from moderate to high. Often with high water table and a salty soil crust. This appears to be a disturbed community, formerly an Alkaline Meadow (45310) or Desert Sink Scrub (36120) which *Atriplex torreyi* has invaded and now dominates.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	20.1 +/-10.4		
number of species:	22		
diversity N1:	5.31		
diversity N2:	2.83		
average DTW (m):	2.92		
characteristic species:	Cover	Freq	#1 (% of time)
highest	ATTO	ATTO	ATTO (94)
second	CHNA2	CHNA2	BAHY = AAFF (2)
third	SAVE4	DISPS2	

Owens Valley distribution: Nevada Saltbush Scrub is located primarily on the valley floor in scattered locations throughout the valley. Concentrations occur in the Symmes Shepherd wellfield, south of Highway 168, and on abandoned agricultural land on the Poleta Canyon quad.

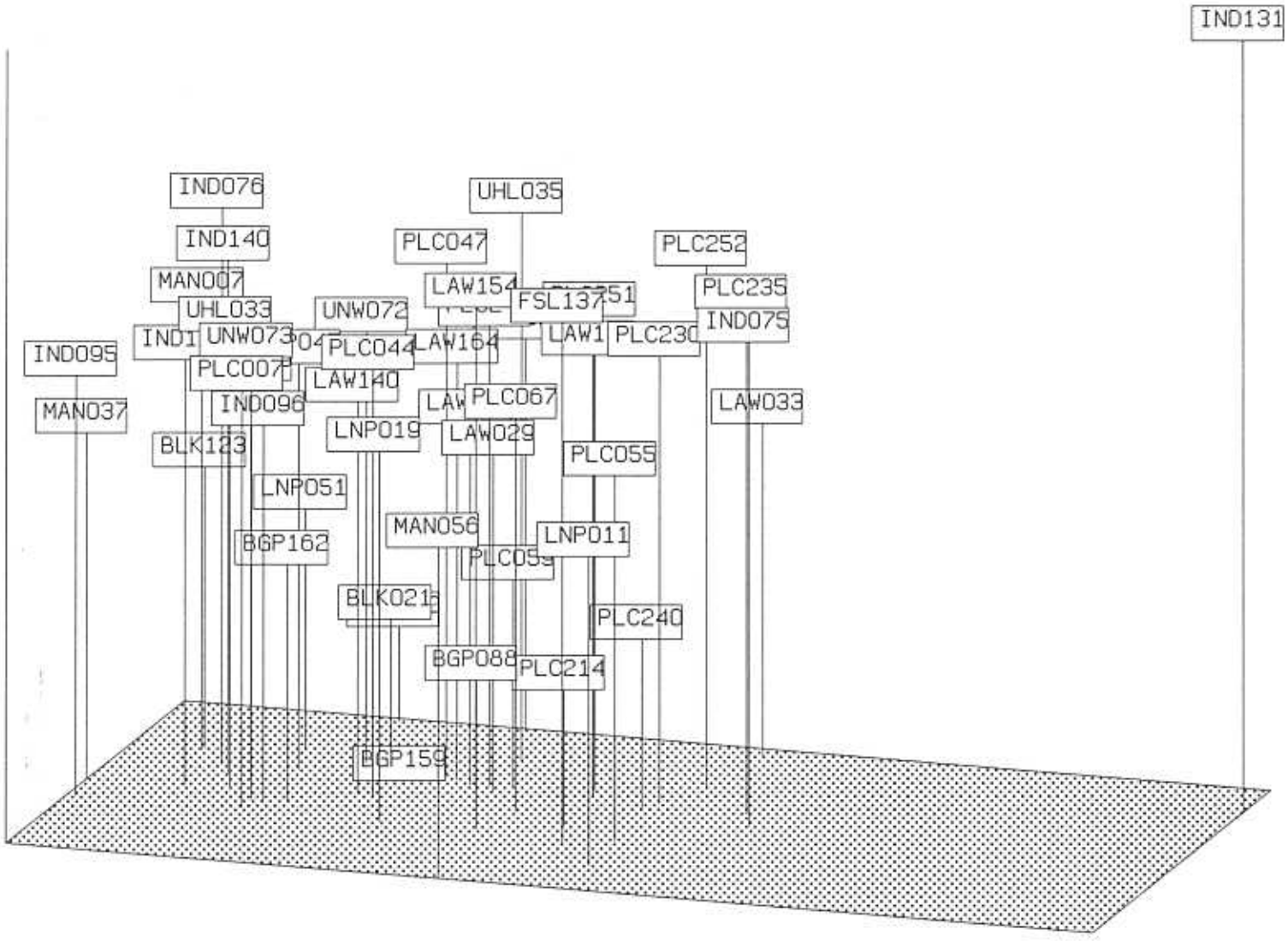
The MDS diagram of Nevada Saltbush Scrub is presented in Figure 18. IND131, on the far right, has very low overall cover (5%) and is dominated by AAFF (unidentified annual forbs). LAW033 is dominated by SAKAT and BGP159, by BAHY. All other parcels are dominated by ATTO. To the left of the relatively loose group of parcels, IND095 and MAN037 have very high total cover, with 41% and 45%, respectively.

Nevada Saltbush Scrub is dominated by *Atriplex torreyi* (ATTO). Although CHNA2 occurs frequently (72%) in these parcels, it contributes relatively little to total cover for this community, and it is never the dominant species. The third most frequent species is the

grass, DISPS2 (53%), and the fourth is SPAI (47%), and neither of these contribute significantly to total cover in this community.

Nevada Saltbush Scrub is not described in either Holland or MCV. Munz and Keck (1968) state that *A. torreyi* is an occasional in alkaline places, for example, Alkali Sink and Shadscale Scrub. Its elevation range is 2000-5500 ft, and it is distributed in the Mojave Desert to Owens Valley, in Utah and Arizona. Although *A. torreyi* is sometimes classified as a subspecies of *A. lentiformis* (*e.g.* Hickman 1993), *A. lentiformis* is described as occurring in alkaline places mostly below 2000 ft (Munz and Keck 1968). *A. lentiformis* is listed in MCV as a component of the upland Mixed saltbush series. However, the Owens Valley Nevada Saltbush Scrub could not be placed in that series, because it is characterized as having no one saltbush species dominant.

Figure 18. MDS diagram of Nevada Saltbush Scrub



a=342 b= 15 r=99.0

Alkali Meadow - 45310

The Green Book describes Alkali Meadow as occurring "in valley bottoms and on the lower portions of alluvial slopes of the Cascades and Sierra Nevada, from the Modoc Plateau to Owens Valley at elevations of 3,500 to 7,000 feet"... It also occurs in specified locations in California's central valley region.

The Green Book description and site factors are as follows:

DESCRIPTION: Dense to fairly open growth of perennial grasses and sedges.... Dominants are: *Sporobolus airoides, Distichlis spicata* var. *stricta, Juncus balticus.*

SITE FACTORS: On medium to moderately fine-textured, more or less permanently moist, alkaline soils. May intergrade with Great Basin Sagebrush (35200), Shadscale Scrub (34400, 35400), or Great Basin Grassland (43100) on moist, non-alkaline soil; with Desert Sink Scrub (36120) on drier, more alkaline soils; with Non-Native Grassland (42200), and Northern Claypan Vernal Pools (44120) on drier, less alkaline soils of the Central Valley; or with Alkali Marsh (52300) on permanently flooded sites.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	37.8 +/-17.9		
number of species:	78		
diversity N1:	7.92		
diversity N2:	4.25		
average DTW (m):	2.06		
characteristic species:	Cover	Freq	#1 (% of time)
highest	DISPS2	DISPS2	DISPS2 (49)
second	SPAI	SPAI	SPAI (46)
third	CHNA2	CHNA2	JUBA (1)

Owens Valley distribution: Alkali Meadow occurs primarily west of the Owens River on the valley floor.

Because there were 340 parcels in this community group, NTSYS could not analyze them all at once. Therefore, I split the large set into smaller groups for analysis. First, I split the group between northern (half of the Tinemaha Reservoir quad and all quads to the north = 195 parcels) (Figure 19) and southern (half of Tinemaha and south = 145 parcels) (Figure 20). Most of the northern parcels occurred in a cluster; outliers included several Fish Slough parcels that are located in the actual slough area. These Fish Slough parcels tended to be dominated by uncommon species: CHAL9, IVKI, and SPGR. For the southern Alkali Meadow parcels, some Blackrock, Independence and Dolomite parcels appear as outliers. BLK011 and BLK015, for example, were dominated by SAKAT, and BLK016 was dominated by BAHY.

In the next analysis, I removed the 18 parcels that did not have either DISPS2 or SPAI as the dominant species. Then, MDS was performed on the 166 DISPS2-dominated parcels (Figure 21) and the 156 SPAI-dominated parcels (Figure 22). In both sets, parcels tended to cluster with no obvious gaps. For DISPS2-dominated parcels, four Fish Slough parcels appear around the periphery of the core (FSL007, FSL117, FSL038, and FSL044). The SPAI-dominated parcels also have some parcels that may be identified as outliers, such as IND026, IND019, MAN026, TIN068, BLK115, BLK033, and PLC136.

To mix DISPS2 and SPAI-dominated and northern and southern parcels, I combined parcels on the Poleta Canyon, Big Pine and Manzanar quads. The MDS diagram (Figure 23) shows that the two dominance groups touch, but they do not obviously overlap. The parcels did not cluster according to quad location.

Except for 18 (out of 340) parcels, Owens Valley Alkali Meadow is dominated by DISPS2 or SPAI. There is near equality between the number of parcels dominated by one or the other, and the two species commonly co-occur within a parcel. Other perennial native grasses, LETR and SPGR, are dominant in two and one parcel, respectively, and all three of these occur in Fish Slough. The rush, JUBA, is the dominant species in four Alkali Meadow parcels. CHNA2 is the third most abundant species in terms of both cover and frequency in Alkali Meadows, it occurs in 68% of the parcels, but its contribution to total cover is typically low.

The Green Book lists several communities with which Alkali Meadow may intergrade. This list was copied directly from Holland, and it does not appear to hold true for Alkali Meadow in the Owens Valley. Several of the communities listed in Holland do not even occur in the Owens Valley, and of those that do, the upland scrub communities share little in common, floristically, with Alkali Meadow. Because they do not intergrade floristically, however, does not preclude the scrub and meadow communities from being situated adjacent to each other in the field; abrupt soil and moisture differences, as well as different land uses, could maintain such an ecotone.)

In the dominance-based system used in MCV, Owens Valley Alkali Meadow would primarily be split between the two wetland series: Saltgrass and Alkali sacaton. However, Owens Valley parcels show a wide spectrum of dominance between these two species, from only one but not the other species to nearly a half-and-half mixture of the two. While drawing an abrupt line between the two may not always be appropriate, the MDS diagram in Figure 23 suggests that there may be a place to draw a line when using some analytical techniques. This distinction may be an academic procedure for undisturbed meadows, but when disturbed, it appears that the species composition of the meadow may be used to predict its trajectory following disturbance (see the discussions of Nevada Saltbush Meadow and Rabbitbrush Meadow that follow).

Because DISPS2 and SPAI are widespread and abundant species in the Owens Valley that tend to dominate relatively large expanses, they may serve to mask more subtle features

of vegetation on the Owens Valley floor. There are species found in the Alkali Meadow areas, such as the rare plants SICO2 and CAEX2 and other uncommon species (COMAC, HARA, NIOC2, *Crepis runcinata* ssp. *hallii, Sisyrinchium halophilum, etc.)* that do not occur in abundance or elsewhere. DISPS2 and SPAI cover, however, undoubtedly play an important role in fostering these less common, less abundant species, by tempering the local microclimate, hiding forbs from herbivores, and mitigating wind- and water-caused soil erosion. In addition, the Owens Valley vole *(Microtus californicus* ssp. *vallicola)*, a rare mammal, is known to occur in Alkali Meadows of the Owens basin (U.S. Fish and Wildlife Service 1996). Furthermore, Alkali Meadow is relatively uncommon in California. Holland's description lists specific areas where it might be found in other parts of California. This community type may have been more widespread prior to agriculture in the Central Valley, and the Owens Valley may contain some of the last best, relatively extensive areas of this community. These reasons suggest a more careful analysis of Alkali Meadow -- both in the Owens Valley and statewide -- is warranted.

Figure 19. MDS diagram of Alkali Meadow parcels in the northern Owens Valley

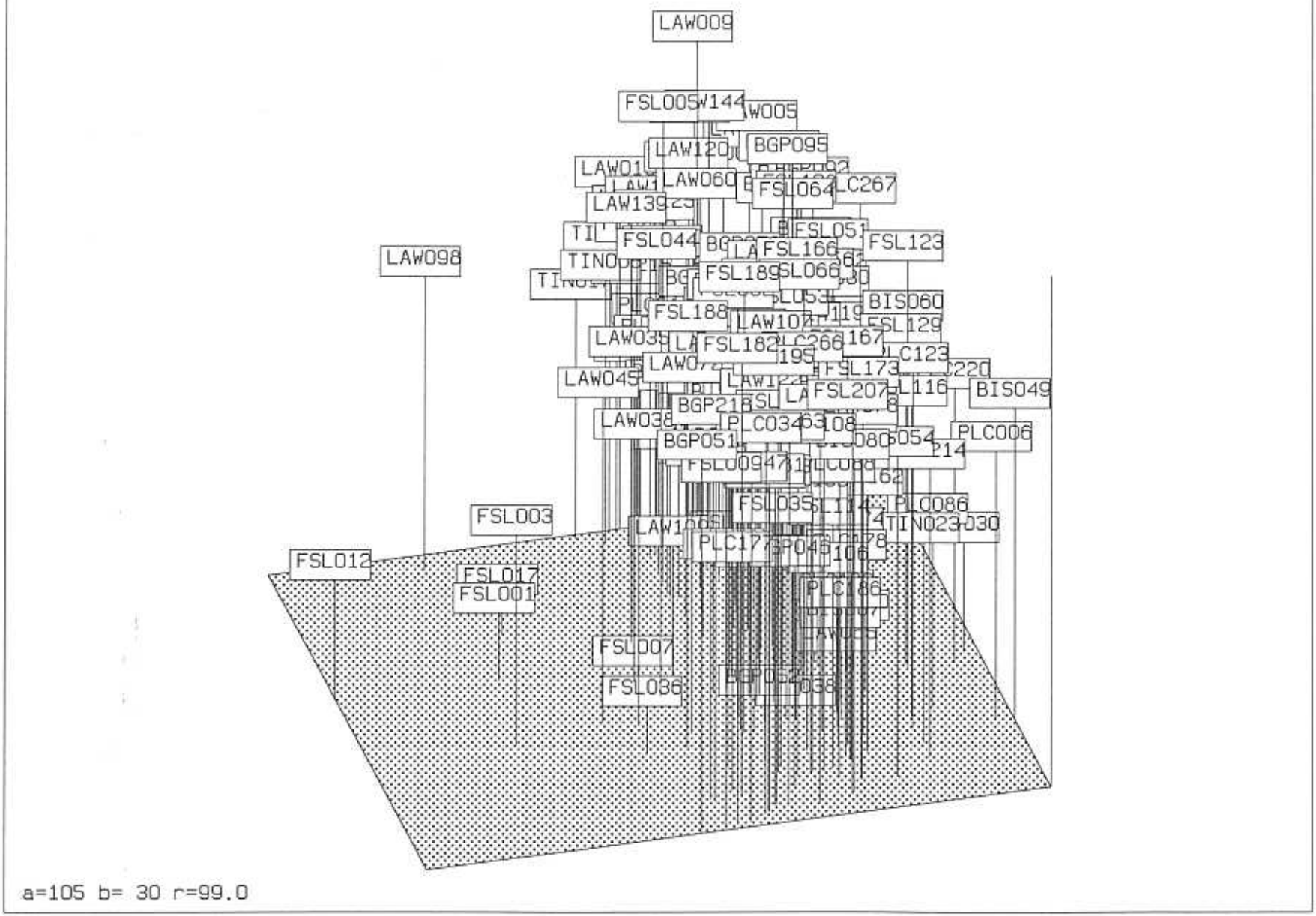
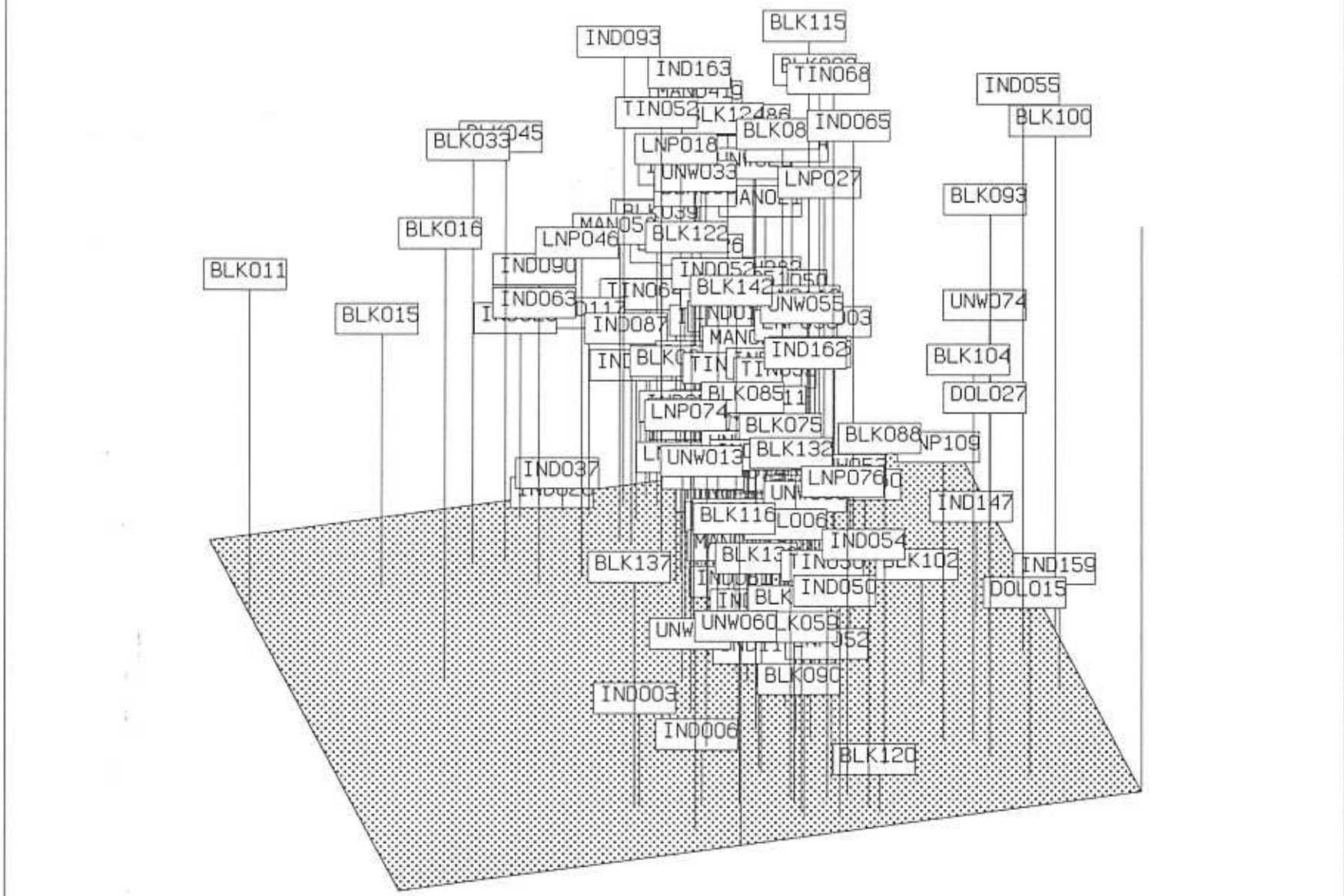


Figure 20. MDS diagram of Alkali Meadow parcels in the southern Owens Valley



a=105 b= 30 r=99.0

Figure 21. MDS diagram of Alkali Meadow parcels dominated by DISPS2

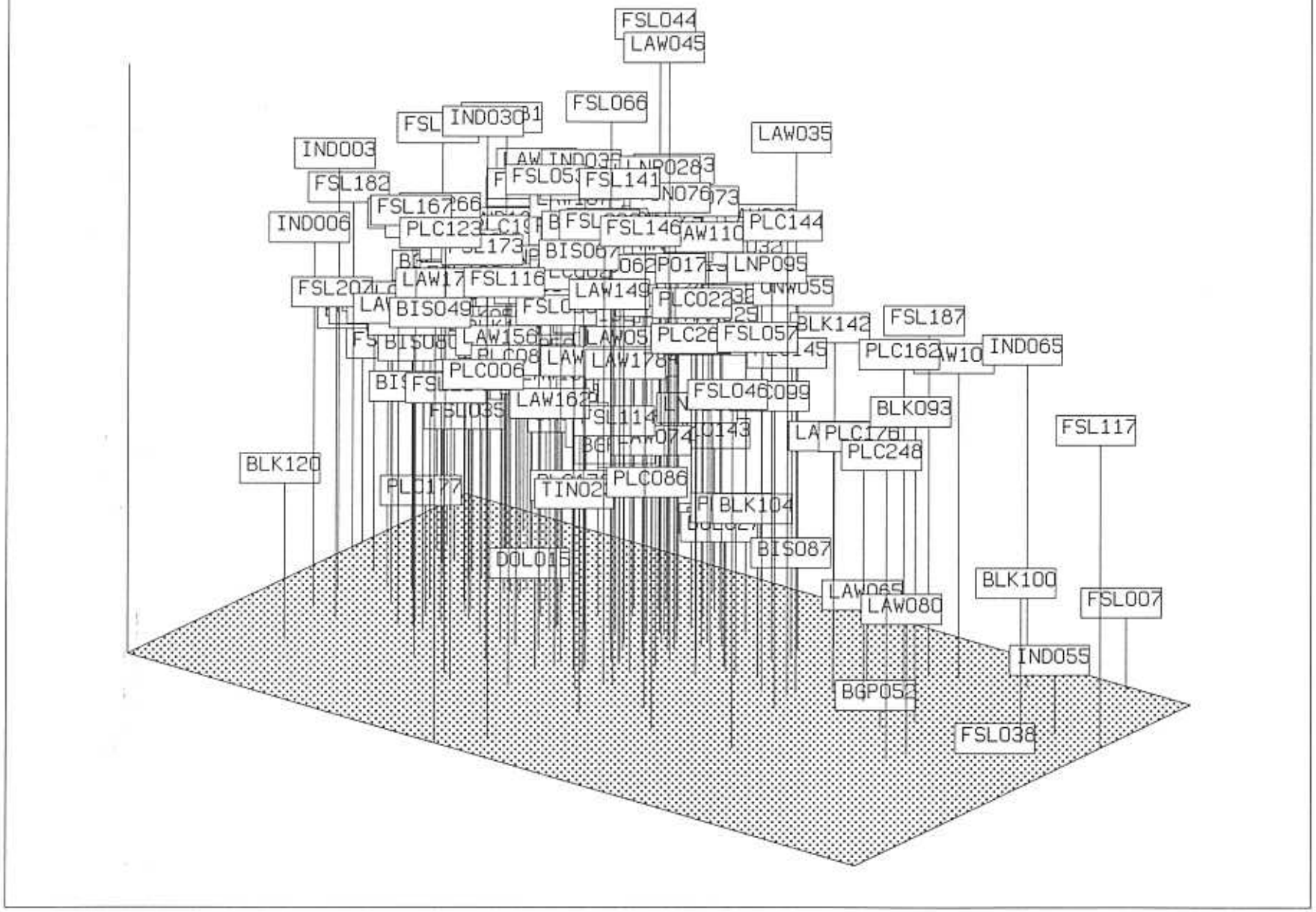
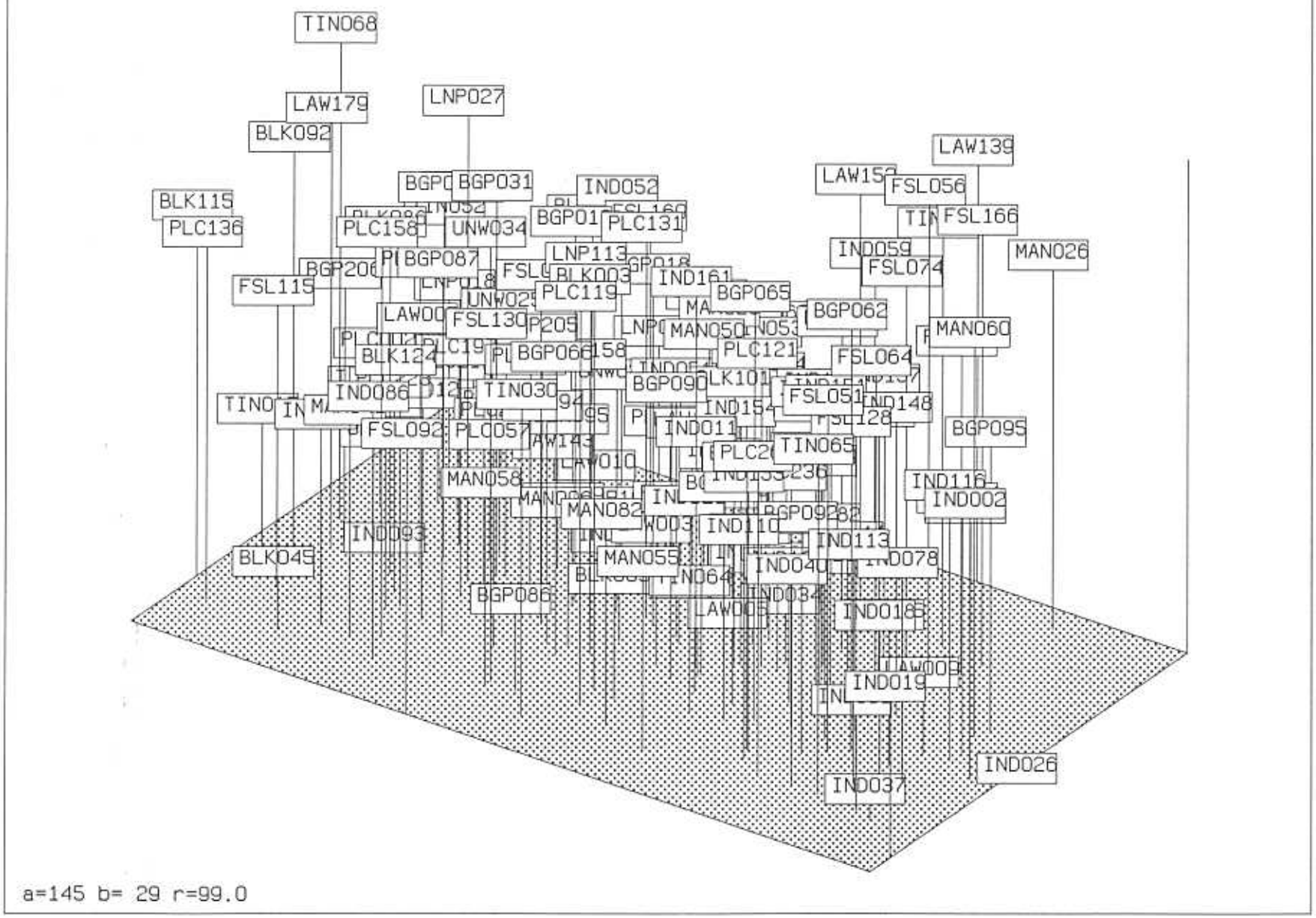
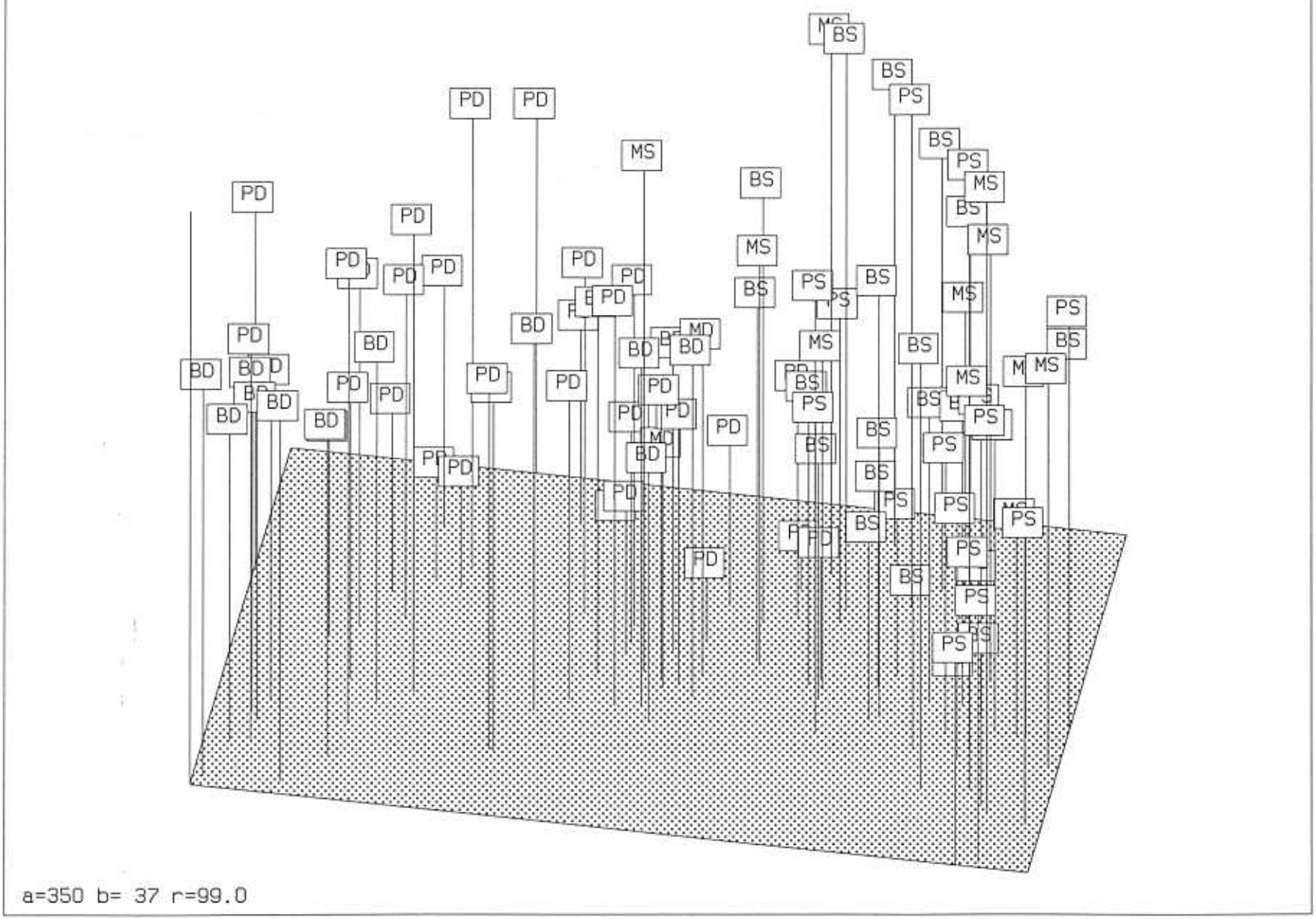


Figure 22. MDS diagram of Alkali Meadow parcels dominated by SPAI



a=145 b= 29 r=99.0

Figure 23. Alkali Meadow: P=Poleta Cyn, B=Big Pine, M=Manzanar, D=DISP, S=SPAI



Rush/Sedge Meadow - 45330

This community designation was developed for the Owens Valley Cooperative Vegetation Study. The Green Book describes Rush/Sedge Meadow as being "scattered throughout the Owens Valley."

The Green Book description and site factors are as follows:

> DESCRIPTION: Dense growth of many perennial grasses, sedges and forbs. Some grasses are introduced species due to pasture improvement by broadcasting seed....
>
> SITE FACTORS: On medium to moderately fine-textured, more or less permanently moist alkaline soils. Supplemental irrigation may occur on some sites during the growing season. May intergrade with Alkali Meadow (45310) or Non-native Meadow (45500).

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	69.4 +/-13.5		
number of species:	55		
diversity N1:	18.18		
diversity N2:	10.90		
average DTW (m):	2.43		
characteristic species:	Cover	Freq	#1 (% of time)
highest	DISPS2	DISPS2	DISPS2 = LETR (25)
second	LETR	JUBA	JUBA (17)
third	JUBA	LETR	CAPR5 = CAREX (10)

Owens Valley distribution: Rush/Sedge Meadow occurs primarily west of the Owens River on the valley floor throughout the valley.

The MDS diagram of the 52 Rush/Sedge Meadow parcels is presented in Figure 24. There is some degree of clustering of parcels, despite the high average Bray-Curtis distance index (Table 3) and the several species that occur as dominants in these parcels. The most dominant species in these parcels typically comprises <50% of the relative cover, meaning that one or more species typically occur in somewhat even abundance. Exceptions are LAW141 and FSL011, in which ELEOC is the dominant species, and it accounts for >60% of the relative cover in each parcel. These two parcels appear on the left side of the plot. Parcels with the same dominant species appear to cluster somewhat, with LETR-dominated parcels on the right, DISPS2-dominated parcels near the center and parcels dominated by other species arranged around these.

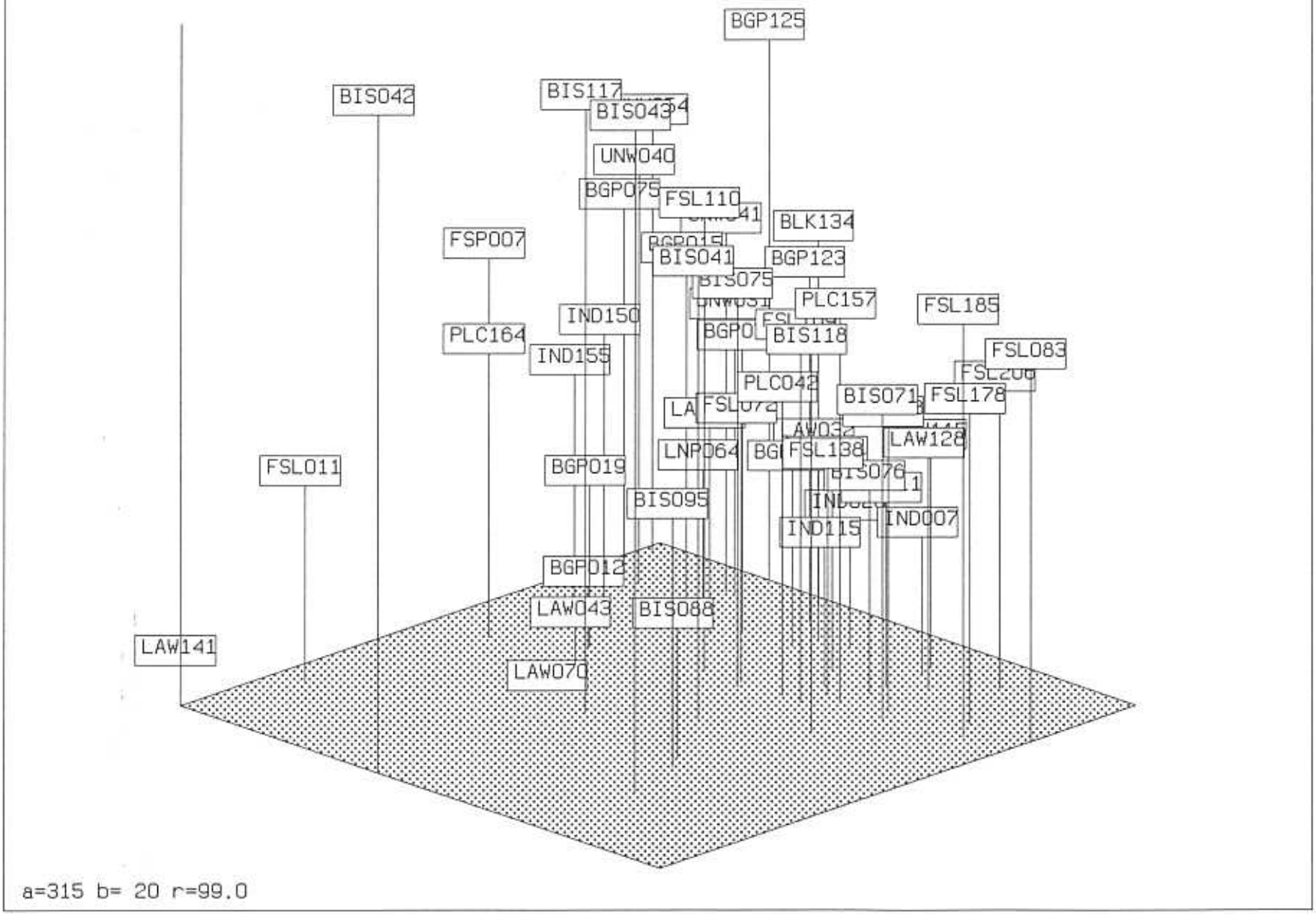
Owens Valley Rush/Sedge Meadow is dominated by grass, but rushes and sedges are important components. No species occurs in all 52 parcels, but DISPS2 occurs in 96% of

them, and the rush, JUBA, in 88%. Sedges were not always identified to species, so it is more difficult to decipher their importance in this community: "CAREX" occurred in 42% of the parcels, but sometimes sedges identified to species were present with CAREX and sometimes they were not. Some of the grasses that occurred in Rush/Sedge Meadow parcels (*e.g.* LOPEM, AGIN2, AGST2, ERPE, *etc.*) were not documented in any other community; these were likely the seeded grasses.

Average total cover for Rush/Sedge Meadow was the highest of the communities analyzed for this report, 69%. It ranged from 22-95%, but 22% was an unusually low value because then next highest value was 42%. The high cover is probably at least partially maintained by the occasional "irrigation" that may occur in these parcels. All are classified as irrigated (Type E), for management purposes.

This community is not described in Holland. In MCV, it would probably be split into several wetland series. Parcels dominated by DISPS2 would be placed in the Saltgrass series, and those dominated by LETR, in the Creeping ryegrass series (Table 5). Those dominated by JUBA have no equivalent in MCV, and although there are some sedge-dominated series, none of the sedges commonly identified in the Owens Valley serve as indicators of series in MCV. As currently grouped, Rush/Sedge Meadow does not match any of the associations identified in Fish Slough by Odion *et al.*, but further analysis and refinement may reveal some similarities to the Fish Slough associations in certain subsets of these parcels.

Figure 24. MDS diagram of Rush/Sedge Meadow



Rabbitbrush Meadow - 45340

This community designation was developed for the Owens Valley Cooperative Vegetation Study. The Green Book describes Rabbitbrush Meadow as being "scattered throughout the Owens Valley."

The Green Book description and site factors are as follows:

> DESCRIPTION: A moderate stand of perennial grasses with *Chrysothamnus nauseosus* dominant. Total cover is around 50%....
>
> SITE FACTORS: A disturbed (fire, grazing) Alkali Meadow (45310) which has been invaded by *Chrysothamnus nauseosus*. On medium to moderately fine-textured, more or less permanently moist alkaline soils.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	31.0 +/-19.2		
number of species:	20		
diversity N1:	5.31		
diversity N2:	3.43		
average DTW (m):	2.30		
characteristic species:	Cover	Freq	#1 (% of time)
highest	CHNA2	CHNA2	CHNA2 (100)
second	DISPS2	DISPS2	
third	SPAI	SPAI	

Owens Valley distribution: Rabbitbrush Meadow is located primarily west of the Owens River on the valley floor. It occurs north of Independence, and there is a concentration of this community on the southern part of the Poleta Canyon quad.

The MDS diagram of the 17 Rabbitbrush Meadow parcels is presented in Figure 25. Although the parcels are fairly similar floristically (Table 3), because of the scale at which it is presented, there is no obvious clustering of parcels. CHNA2 is the dominant species in all parcels, and parcel arrangement in the graph is based on the total cover of CHNA2 and the other species present. Low-cover parcels occur on the left side of the plot, while parcels with higher cover occur on the right. IND021 has the highest cover, 75%. FSP004 is the only parcel with a non-grass (BAHY) as the second most dominant.

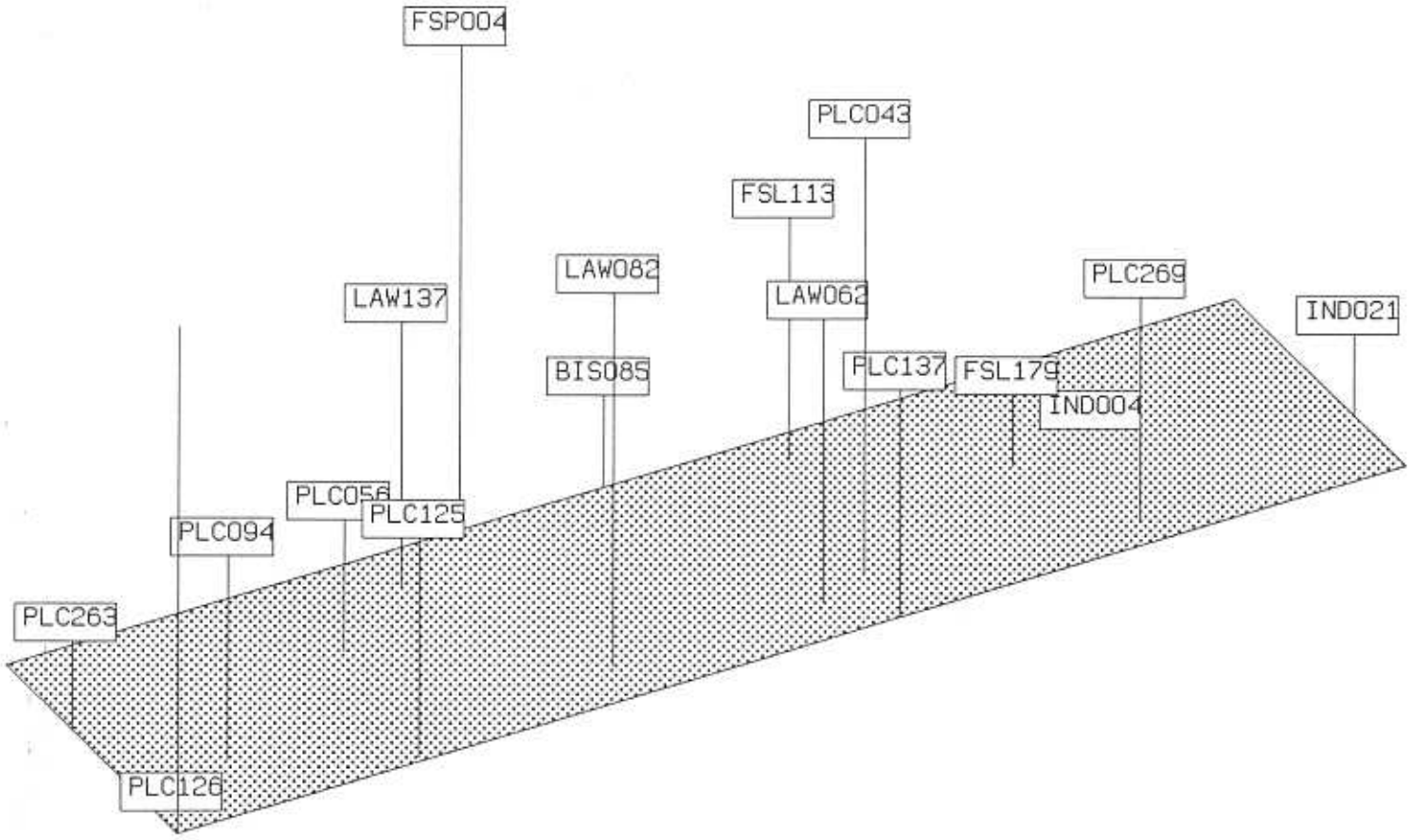
Owens Valley Rabbitbrush Meadow is dominated by *Chrysothamnus nauseosus* (CHNA2). DISPS2 is most often the second most dominant species, and, like CHNA2, it occurs in all 17 analyzed parcels. The association of CHNA2 with DISPS2 suggests a tendency for DISPS2-dominated Alkali Meadows to be more likely places for shrub invasion by CHNA2 as opposed to other invasive shrub species. (In Fish Slough, however, Ferren and Davis 1991 defined a Rubber-rabbitbrush-alkali sacaton association.) SPAI and ATTO

occur in Owens Valley Rabbitbrush Meadow with frequencies of 65% and 47%, respectively.

Although the Green Book states that total cover is around 50%, the actual cover for Rabbitbrush Meadow was found to range from 11-75%, and the average was only 31%.

This community is not described in Holland. In MCV, it would probably be classified as an association in the Rubber rabbitbrush series (Table 5). MCV states: "emergent shrubs may occur over a ground layer of grass," and that this series could be "dominated by any of 8 ssp. of rubber rabbitbrush. Some ssp. are local, others have extensive ranges including disturbed areas as abandoned agricultural land and over-grazed pastures. The species grow in series dominated by trees, shrubs, and even grasses." *C. nauseosus* ssp. *viridulus* has been identified as the subspecies inhabiting shallow groundwater sites in the Owens Valley (Groeneveld *et al.* 1986), but field observations of differences in leaf and floral morphology, flowering time, and other characteristics suggest that more work on rabbitbrush taxonomy is warranted in the Owens Valley. Something analogous to Rabbitbrush Meadow has been observed in other parts of California, but aside from the Fish Slough description (Ferren and Davis 1991), no known plot-based data or comprehensive descriptions exist for it (Sawyer and Keeler-Wolf 1995).

Figure 25. MDS diagram of Rabbitbrush Meadow



a= 29 b= 33 r=99.0

Nevada Saltbush Meadow - 45350

This community designation was developed for the Owens Valley Cooperative Vegetation Study. The Green Book describes Nevada Saltbush Meadow as being "scattered throughout the Owens Valley."

The Green Book description and site factors are as follows:

DESCRIPTION: A moderate stand of perennial grasses with *Atriplex torreyi* dominant. Total cover is around 40%....

SITE FACTORS: A disturbed (fire, grazing) Alkali Meadow (45310) which has been invaded by *Atriplex torreyi*. On moderately coarse to moderately fine-textured, more or less permanently moist alkaline soils.

Actual parcel data for this community type in the Owens Valley show the following characteristics:

average percent live cover:	31.5 +/-11.7		
number of species:	17		
diversity N1:	4.48		
diversity N2:	3.25		
average DTW (m):	2.39		
characteristic species:	Cover	Freq	#1 (% of time)
highest	ATTO	ATTO	ATTO (100)
second	SPAI	SPAI	
third	DISPS2	CHNA2	

Owens Valley distribution: Nevada Saltbush Meadow is located primarily west of the Owens River on the valley floor. It occurs sporadically in the northern half but is most common in the southern half of the valley.

The MDS diagram of the 22 Nevada Saltbush Meadow parcels is presented in Figure 26. Although the parcels are similar floristically (Table 3), because of the scale at which it is presented, there is no obvious clustering of parcels. ATTO is the dominant species in all parcels, and their arrangement in the diagram is based on the total cover of ATTO and the other species present. The two parcels with the lowest cover, TIN013 (13%) and LAW011 (14%), occur on the right side of the plot, while parcels with higher cover occur on the left. Pin height appears to be correlated with grass species and cover, with tallest pins representing parcels where DISPS2 is more important, and shorter pins representing parcels where SPAI is more important.

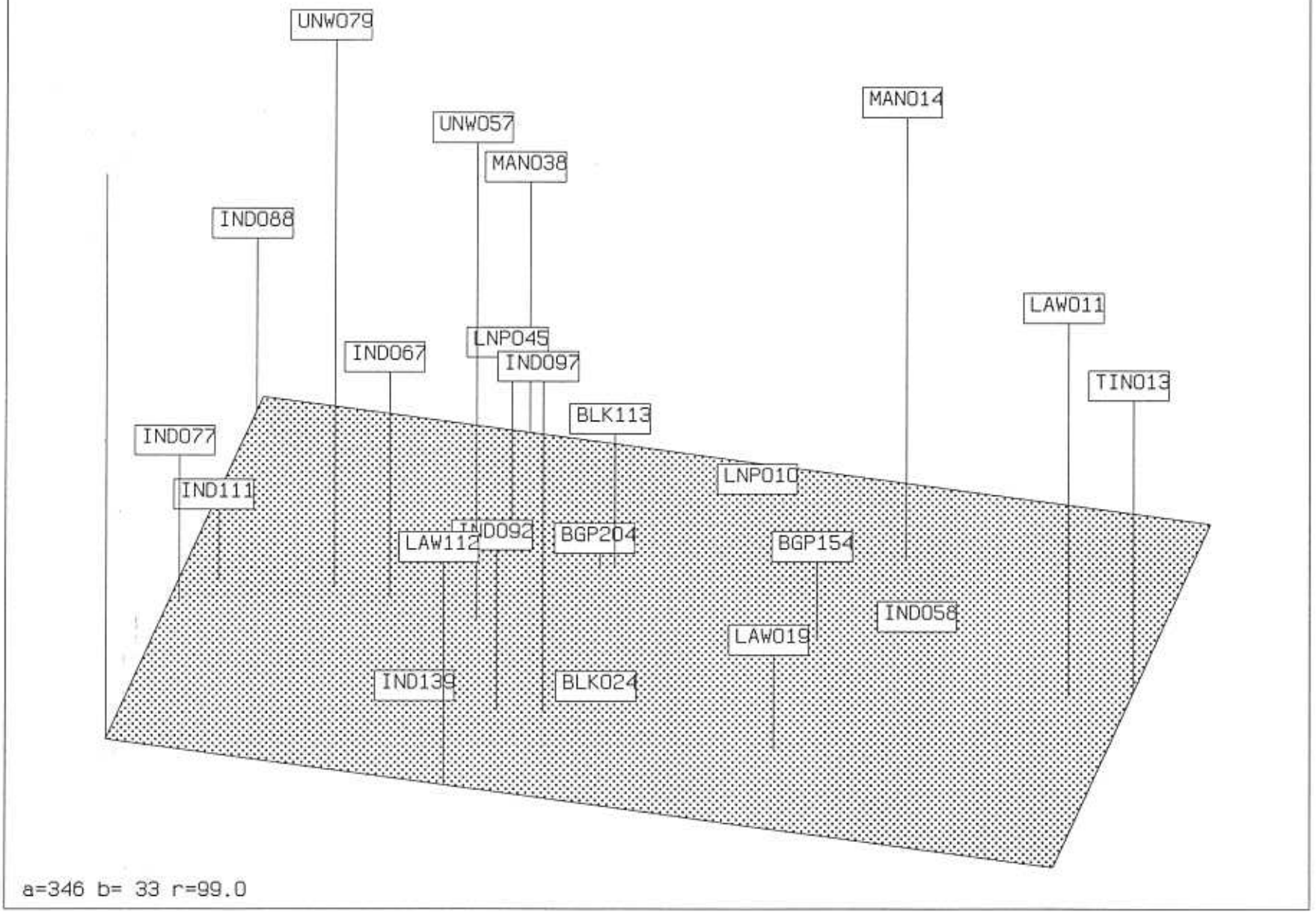
Owens Valley Nevada Saltbush Meadow is dominated by *Atriplex torreyi* (ATTO). SPAI is most often the second most dominant species, and it occurs in all 22 analyzed parcels. The association of ATTO with SPAI suggests a tendency for SPAI-dominated Alkali Meadows to be more likely places for ATTO invasion. However, DISPS2 and CHNA2 are also extremely common in this community; both species occur in 91% of the Nevada

Saltbush Meadows.

Although the Green Book states that total cover is around 40%, the actual cover for Nevada Saltbush Meadow was found to range from 13-50%, and the average was only 31.5%.

This community is not described by Holland, nor is there an equivalent category for it in MCV (see the preceding discussion on Nevada Saltbush Scrub). Unless further investigation reveals other such stands in California, for the time being, this disturbance-created community may be considered unique to the Owens Valley.

Figure 26. MDS diagram of Nevada Saltbush Meadow



CONCLUSION

This report represents a first attempt to examine the Owens Valley baseline vegetation data in a systematic manner. To obtain representative quantitative and floristic summaries, data were screened to remove redundancies and unknowns.

Two important findings were:

(1) The relationship between community and baseline DTW presented in Figure 2. Baseline DTW beneath Owens Valley plant communities was consistent with Green Book (1990) management procedures which are based on a 2m DTW for grass dominated sites and a 4m DTW for phreatophytic-shrub dominated sites.

(2) The floristic relationships between different Owens Valley plant communities presented in Figure 8. Figure 8 is an attempt to graphically depict the plant communities as they may occur along spatial (*e.g.* elevational) and/or temporal (*e.g.* successional or management-induced) gradients. One result of the analyses performed to develop Figure 8 was the similarity between Alkali Meadow and Desert Sink Scrub that had not previously been highlighted.

The classification scheme used for the Cooperative Vegetation Study presented in the Green Book (1990) was based on Holland (1986). However, as reviewed in this report, there are discrepancies between Holland's descriptions and the Owens Valley data for some communities. Because of a more recent attempt to classify California's plant communities (Sawyer and Keeler-Wolf 1995 = MCV), I compared the Green Book communities with the MCV. In some instances, this evaluation revealed somewhat greater discrepancies between the Owens Valley data and plot-based community data from other parts of California. The Owens Valley data used for this report were plot-based, so the discrepancies were primarily based on a lack of documentation of these communities by other authors.

The following Owens Valley communities showed little or no discrepancies with the Holland description, generally fit MCV descriptions, and/or have been described elsewhere:

- Blackbrush Scrub
- Big Sagebrush Scrub
- Rabbitbrush Scrub (although further distinction between this community on abandoned agricultural land versus on other sites (such as pump-affected areas) may be warranted.)
- Desert Greasewood Scrub
- Shadscale Scrub

Some Owens Valley communities in need of further study, and the reasons, are:

- Mojave Mixed Woody Scrub - Owens Valley dominant(s) unusual; discrepancies

between published versus observed communities and associations may occur throughout the Mojave and Great Basin areas of California

- Great Basin Mixed Scrub - Owens Valley dominant(s) unusual; discrepancies between published versus observed communities and associations may occur throughout the Mojave and Great Basin areas of California
- Desert Saltbush Scrub - may be at least two different communities or may be associations within the MCV Mixed saltbush series.
- Desert Sink Scrub - a natural community unique within the Owens Valley? As delineated in the Owens Valley, it has too much grass to be considered a true "scrub."
- Nevada Saltbush Scrub - a disturbance-maintained community unique to Owens Valley
- Alkali Meadow - may be further classified into associations. Although not unique to the Owens Valley, may represent some of the last large stands of this community within California.
- Rush/Sedge Meadow - may be at least two different communities and/or may be associations within the MCV Saltgrass and Creeping ryegrass series.
- Rabbitbrush Meadow - an invaded Alkali Meadow. Are the subspecies and associates similar to such areas in other parts of the state?
- Nevada Saltbush Meadow - an invaded Alkali Meadow. Invasion by *Atriplex torreyi* is probably not common in other parts of California.

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Appendix 1. List of USGS 7.5' quadrangles and all species contained in the Owens Valley baseline vegetation data base. They are listed alphabetically BY ABBREVIATION.

Quadrangles

ABBREVIATION	Quad
ABD	Aberdeen
BEE	Bee Springs
BGP	Big Pine
BIS	Bishop
BLK	Blackrock
DOL	Dolomite
FSL	Fish Slough
FSP	Fish Springs
IND	Independence
LAW	Laws
LNP	Lone Pine
MAN	Manzanar
PLC	Poleta Canyon
TIN	Tinemaha Reservoir
UHL	Uhlmeyer
UNW	Union Wash

Plant Species

ABBREVIATION	Latin Name	Common Name
AAFF	Annual Forbs	
AATRIP	Annual *Atriplex*	
ABAG	Abandoned Agriculture	
ACSP	*Acamptopappus sphaerocephalus*	Rayless Goldenhead
AGIN2	*Agropyron intermedium*	Intermediate Wheatgrass
AGST2	*Agrostis stolonifera*	Bentgrass
AIAL	*Ailanthus altissima*	Tree of Heaven
ALOC	*Allenrolfea occidentalis*	Iodine Bush
AMAC2	*Ambrosia acanthicarpa*	Ragweed
AMDU2	*Ambrosia dumosa*	White Bursage
ANCA10	*Anemopsis californica*	Yerba Mansa
APCAG	*Apocynum cannabinum glaberrimum*	Hemp Dogbane
ARSP5	*Artemisia spinescens*	Bud Sagebrush
ARTRT	*Artemisia tridentata tridentata*	Basin Big Sagebrush
ASIN4	*Aster intricatus*	Shrubby Alkali Aster
ASLE8	*Astragalus lentiginosus*	Specklepod LocoMilkvetch
ATCA2	*Atriplex canescens*	Fourwing Saltbush
ATCO	*Atriplex confertifolia*	Shadscale
ATPA3	*Atriplex parryi*	Parry Saltbush
ATPAH	*Atriplex patula hastata*	Spearleaf Saltweed
ATPO	*Atriplex polycarpa*	Allscale Saltbush

ATTO	*Atriplex torreyi*	Torrey Saltbush
BAHY	*Bassia hyssopifolia*	Fivehook Bassia
BEOC2	*Betula occidentalis*	Water Birch
BRCO4	*Bromus commutatus*	Hairy Brome
BRRU2	*Bromus rubens*	Red Brome
BRTE	*Bromus tectorum*	Cheatgrass
BURN	Burned	
CADO2	*Carex douglasii*	Douglas sedge
CAEX2	*Calochortus excavatus*	Alkali Mariposa Lily
CALI4	*Castilleja linariaefolia*	Wyoming Paintbrush
CANE2	*Carex nebraskensis*	Nebraska Sedge
CAPR5	*Carex praegracilis*	Clustered Field Sedge
CAREX	*Carex*	Carex or Sedge
CASTI2	*Castilleja*	Indian Paintbrush
CELA	*Ceratoides lanata*	Winterfat
CELE2	*Ceanothus leucodermis*	Chaparral Whitethorn
CHAL9	*Chrysothamnus albidus*	Whiteflower Rabbitbrush
CHNA2	*Chrysothamnus nauseosus*	Rubber Rabbitbrush
CHTE4	*Chrysothamnus teretifolius*	Needleleaf Rabbitbrush
CHVI8	*Chrysothamnus viscidiflorus*	Douglas Rabbitbrush
CIAR4	*Cirsium arvense*	Canada Thistle
CLEOM2	*Cleomella*	Cleomella
COMAC	*Cordylanthus maritimus canescens*	Alkali Bird's Beak
CORA	*Coleogyne ramosissima*	Blackbrush
CORA5	*Cordylanthus ramosus*	Busby Birdsbeak
CYDA	*Cynodon dactylon*	Bermudagrass
DASE	*Danthonia semiannularis*	Oatgrass
DEPI	*Descurainia pinnata*	Pinnate Tansymustard
DISPS2	*Distichlis spicata stricta*	Saltgrass
DRY LK	Dry Lake	
ECCR	*Echinochloa crusgalli*	Barnyardgrass
ELAN	*Elaeagnus angustifolius*	Russian Olive
ELEOC	*Eleocharis*	Spikerush
ELPA3	*Eleocharis palustris*	Common Spikerush
EPNE	*Ephedra nevadensis*	Nevada Ephedra
EPVI	*Ephedra viridis*	Green Mormon Tea
EQUIS	*Equisetum*	Horsetail
ERCO23	*Ericameria cooperi*	Cooper's Goldenbush
ERFA2	*Eriogonum fasciculatum*	California Buckwheat
ERIN4	*Eriogonum inflatum*	Desert Trumpet
ERKEK	*Eriogonum kearneyi kearneyi*	Knotty Buckwheat
ERPE	*Eragrostis pectinacea*	Tufted Lovegrass
FEAR3	*Festuca arundinacea*	Reed Fescue
FESTU	*Festuca*	Fescue
FONE	*Forestiera neomexicana*	Desert Olive
GLLE3	*Glycyrrhiza lepidota*	American Licorice
GRSP	*Grayia spinosa*	Spiny Hopsage
GUMI	*Gutierrezia microcephala*	Threadleaf Snakeweed
HARA	*Haplopappus racemosus*	Cluster Goldenweed
HEAN3	*Helianthus annuus*	Annual Sunflower
HOJU	*Hordeum jubatum*	Foxtail Barley

HYSA	*Hymeonoclea salsola*	Burrobush
IRAG	Irrigated agriculture	
IRMI	*Iris missouriensis*	Wild Iris
IVAX	*Iva axillaris*	Povertyweed
IVKI	*Ivesia kingii*	Alkali Ivesia
JUBA	*Juncus balticus*	Baltic Rush
JUTO	*Juncus torreyi*	Torrey Rush
LAKES	Lakes	
LATR2	*Larrea tridentata*	Creosote Bush
LECI	*Leymus cinereus*	Great Basin Wildrye
LEFA	*Leptochloa fasciculatum*	Bearded Sprangletop
LEFR2	*Lepidium fremontii*	Desert Alysum
LETR	*Leymus triticoides*	Beardless Wildrye
LOCO6	*Lotus corniculatus*	Birdsfoot Trefoil
LOPEM	*Lolium perenne multiflorum*	Italian Ryegrass
LYAN	*Lycium andersonii*	Anderson Wolfberry
MATO	*Machaeranthera tortifolia*	Desert Aster
MEAL2	*Melilotus alba*	White Sweetclover
MEHI	*Medicago hispida*	Burclover
MESA	*Medicago sativa*	Alfalfa
MESP2	*Menodora spinescens*	Spiney Menodora
MIRAB	*Mirabilis*	Four-O-Clock
MUAS	*Muhlenbergia asperifolia*	Alkali Muhly
MURI2	*Muhlenbergia rigins*	Deer Grass
NIOC2	*Nitrophila occidentalis*	Western Miterwort
OPSTR	Operating Structure/Corral	
ORHY	*Oryzopsis hymenoides*	Indian Ricegrass
OXCO	*Oxalis corniculata*	Creeping oxalis
PADI6	*Paspalum distichum*	Knotgrass
PENST	*Penstemon*	Penstemon
PHAU7	*Phragmites australis*	Common Reed
PHCO15	*Phragmites communis*	Common Reed
PIMO	*Pinus monophylla*	Singleleaf pinyon
PLMA2	*Plantago major*	Broadleaf Plantain
POA++	*Poa*	Bluegrass
POFR3	*Populus fremontii*	Fremont's Cottonwood
POJU	*Poa juncifolia*	Alkali Bluegrass
POMO5	*Polypogon monospeliensis*	Rabbitfoot Grass
PONDS	Ponds	
PONE3	*Poa nevadensis*	Nevada Bluegrass
POPR	*Poa pratensis*	Kentucky bluegrass
POSC	*Poa scabrella*	Pine Bluegrass
PPFF	Perennial Forb	
PRAN2	*Prunus andersonii*	Desert Peach
PSARM	*Psorothamnus arborescens minutifolius*	Indigo Bush
PSPO	*Psorothamnus polyadenius*	Nevada Dalea
PUGL2	*Purshia glandulosa*	Desert Bitterbrush
RIPAR		
ROPS	*Robinia pseudoacacia*	Black Locust
ROWO	*Rosa woodsii*	Woods Rose
SADO4	*Salvia dorrii*	Dorrs Sage

SAGOV	*Salix gooddingii variabilis*	Goodding Willow
SAKAT	*Salsola kali tenuifolia*	Russian-Thistle
SALIX	*Salix*	Willow
SAVE4	*Sarcobatus vermiculatus*	Black Greasewood
SAVEB	*Sarcobatus vermiculatus baileyi*	Bailey Greasewood
SCAC	*Scirpus acutus*	Common Tule
SCAM2	*Scirpus americanus*	American Bulrush
SCMAP	*Scirpus maritimus paludosus*	Saltmarsh Bulrush
SICO2	*Sidalcea covillei*	Owens Valley Sidalcea
SIHE	*Sida hederacea*	Alkali Mallow
SIHY	*Sitanion hystrix*	Bottlebrush Squirreltail
SPAI	*Sporobolus airoides*	Alkali Sacaton
SPAM2	*Sphaeralcea ambigua*	Desert Globemallow
SPGR	*Spartina gracilis*	Alkali Cordgrass
STEPH	*Stephanomeria*	Wirelettuce
STPA4	*Stephanomeria pauciflora*	Desert Milk Aster
STPI	*Stanleya pinnata*	Desert Princesplume
STSP3	*Stipa speciosa*	Desert Needlegrass
SUTO	*Suaeda torreyana*	Ink Weed
TAPA4	*Tamarix parviflora*	Smallflower tamarisk
TARA	*Tamarix ramosissima*	Saltcedar
TEAX	*Tetradymia axillaris*	Longspine Horsebrush
TECO2	*Tetradymia comosa*	Hairy Horsebrush
TEGL	*Tetradymia glabrata*	Little Horsebrush
TEST2	*Tetradymia stenolepis*	Mojave Cottonthorn
TRCOD	*Triglochin concinna debilis*	Weak Arrowgrass
TRIFO	*Trifolium*	Clover
TYLA	*Typha latifolia*	Common Cattail
TYPHA	*Typha*	Cattail
URBAN	Urban	
VUMI	*Vulpia microstachys*	Small Fescue
WOOD	Wood	
XASTC	*Xanthium strumarium canandensis*	Canada Cocklebur

Appendix 2. Baseline depth to water for Green Book plant communities.

The values presented in this table were obtained according to the following procedures:

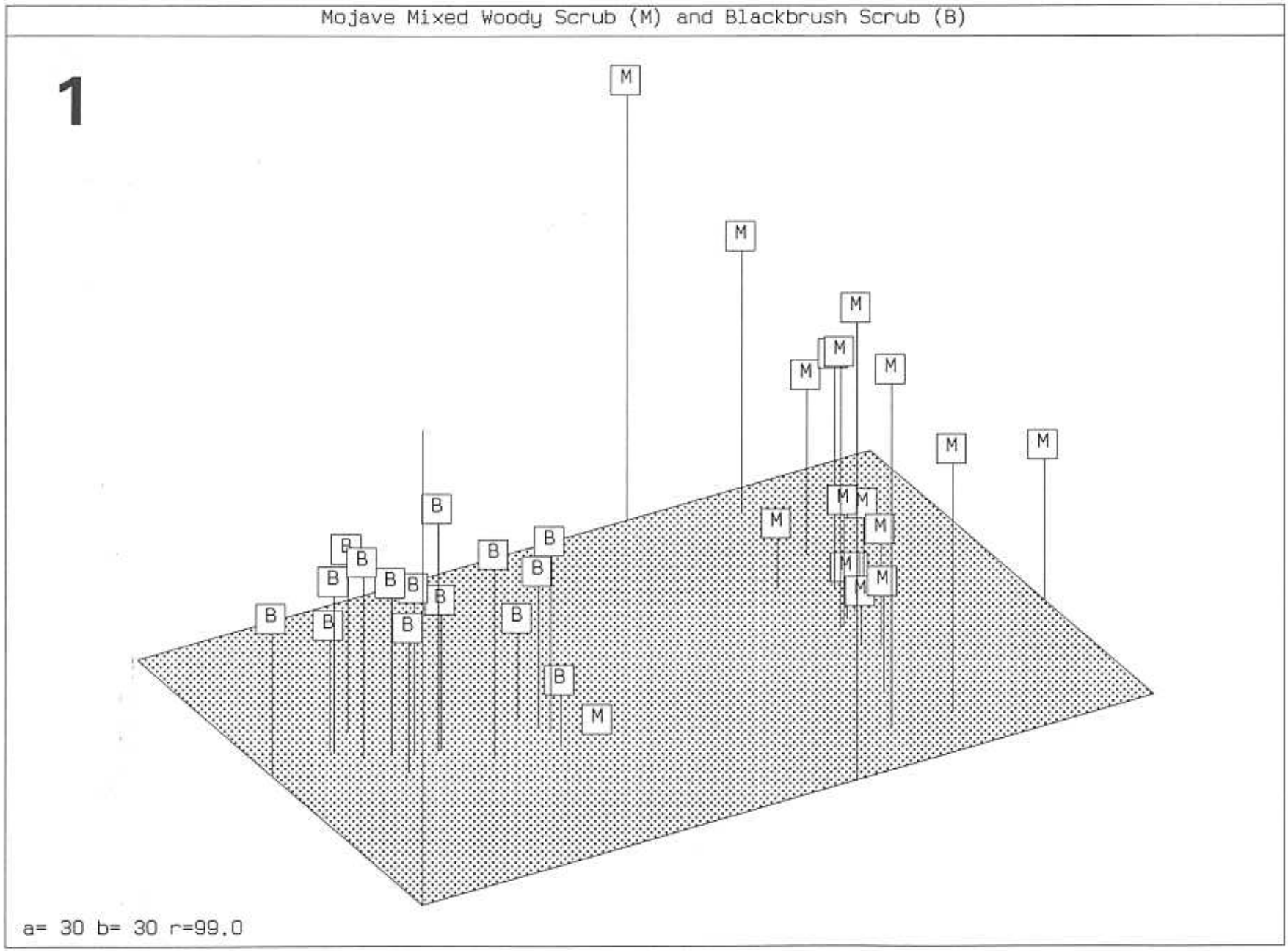
To divide parcels into wellfield and control groups, I used only the parcels contained in the edited data set (described in the Methods section). The difference between label-point DTW in baseline year and 1992 was calculated. Using the same criteria applied in Manning (1997), if the change in DTW from baseline year to 1992 exceeded 2.0 ft, I labelled that parcel "wellfield;" all others were labelled "control." As categorized, viewing these parcels in the GIS showed that wellfield parcels were typically clumped near wells. Because of the much smaller data set used in Manning (1997), the break in change-in-DTW values at 2 ft was distinct. In the current data set, because parcels range continuously from close to pumps to beyond, the change-in-DTW values were continuous from 0 through 28 ft. Thus, the parcels included in this wellfield group were *possibly* influenced by pumping; they represent a hypothetical maximum extent of pump influence. Some of the parcels contained in the wellfield group may never have actually experienced drawdown due to pumping, but hydrologic analysis would need to be performed to determine this. The effect of including actual control parcels in the wellfield group is that the calculated average DTW for the two groups may change somewhat. It is expected that the baseline DTW calculated for wellfield parcels in closest proximity to wells would be lower than presented here. The average for the control group may also be lower than presented here, but the overall average DTW would not change.

Appendix 2. Baseline depth to water (DTW) in FEET for Green Book plant communities. Methods described in text.

community		type	N #wf	N #ctl	BASE DTW (ft) all	BASE DTW (ft) ctl	BASE DTW (ft) wf	St.Dev. all	St.Dev. ctl	St.Dev. wf	RANGE (ft) ctl	RANGE (ft) wf
IRAG	11000	E	115	55	16.74	10.51	19.72	14.17	12.61	13.9	0.17-56.51	0.43-64.48
ABAG	14000	A	35	19	17.05	12.09	19.75	12.24	10.87	19.75	4.08-48.88	2.41-57.72
Creosote	34100	A	0	6	26.09	26.09		4.23	4.23		19.36-31.06	
M. Mix Scr	34210	A	5	4	26.78	17.94	33.85	14.79	16.02	8.72	1.32-43.2	21.98-44.26
GB Mix Sc	35100	A	20	45	19.78	15.97	28.36	20.42	18.63	21.65	0.83-77.4	2.07-80.86
Sagebr Scr	35210	A	16	15	22.01	23.3	20.8	16.53	20.87	10.85	1.15-64.96	7.65-38.87
CHNA Scr	35400	all	25	33	12.64	7.5	19.43	10.65	3.67	12.83	1.19-14.62	8.11-59.93
	35400	A	7	10	9.09	7.36	11.55	4.38	4.4	2.96	1.19-13.17	8.11-17.38
	35400	B	18	23	14.12	7.56	22.49	12.05	3.3	13.87	1.53-14.62	6.87-59.93
D.Saltb Sc	36110	A	14	9	16.41	11	18.97	10.65	8.72	10.54	2.14-30.98	6.72-42.22
Des.Sink	36120	A	68	82	7.53	6.95	8.22	4.39	4.11	4.62	0.09-22.58	0.36-25.83
Greasewd	36130	A	16	31	11.29	10.16	13.48	8.21	8.13	7.54	1.44-31.83	2.48-31.18
Shad Scr	36140	A	16	39	10.65	8.48	15.93	8.77	7.6	9.18	0.35-29.81	0.61-36.93
ATTO Scr	36150	all	41	17	9.59	6.28	10.97	6.73	4.41	7.04	0.5-14.99	1.38-33.42
	36150	A	10	7	11.72	7.77	14.48	7.42	3.82	8.06	3.05-12.97	2.94-29.05
	36150	B	31	10	8.72	5.24	9.83	6.21	4.5	6.27	0.5-14.99	1.38-33.42
Alk Mdw	45310	all	165	121	6.76	5.24	7.88	4.79	3.43	5.31	0.15-19.03	0.07-28.63
	45310	A	28	29	7.88	5.12	10.75	5.69	2.88	6.43	0.33-11.31	0.81-28.63
	45310	C	137	92	6.48	5.28	7.29	4.5	3.59	4.85	0.15-19.03	0.07-22.99
R/S Mdw	45330	E	24	16	7.97	4.39	10.46	4.68	3.12	3.91	0.32-13.07	4.35-20.6
CHNA Md	45340	all	13	10	7.56	5.95	8.81	3.42	2.74	3.37	1.39-10.33	4.1-13.24
	45340	A	0	4	5.27	5.27		3.22	3.22		1.39-10.33	
	45340	C	13	6	8.04	6.4	8.81	3.26	2.26	3.37	3.86-10.23	4.1-13.24
ATTO Mdw	45350	C	13	7	7.84	6.24	8.7	5.7	3.9	6.29	2.47-11.36	0.85-20.07
Tamarisk	63810	D	0	11	4.57	4.57			3.94		0.31-10.58	
Locust	76100	E	0	1	35.61	50.64	20.57					

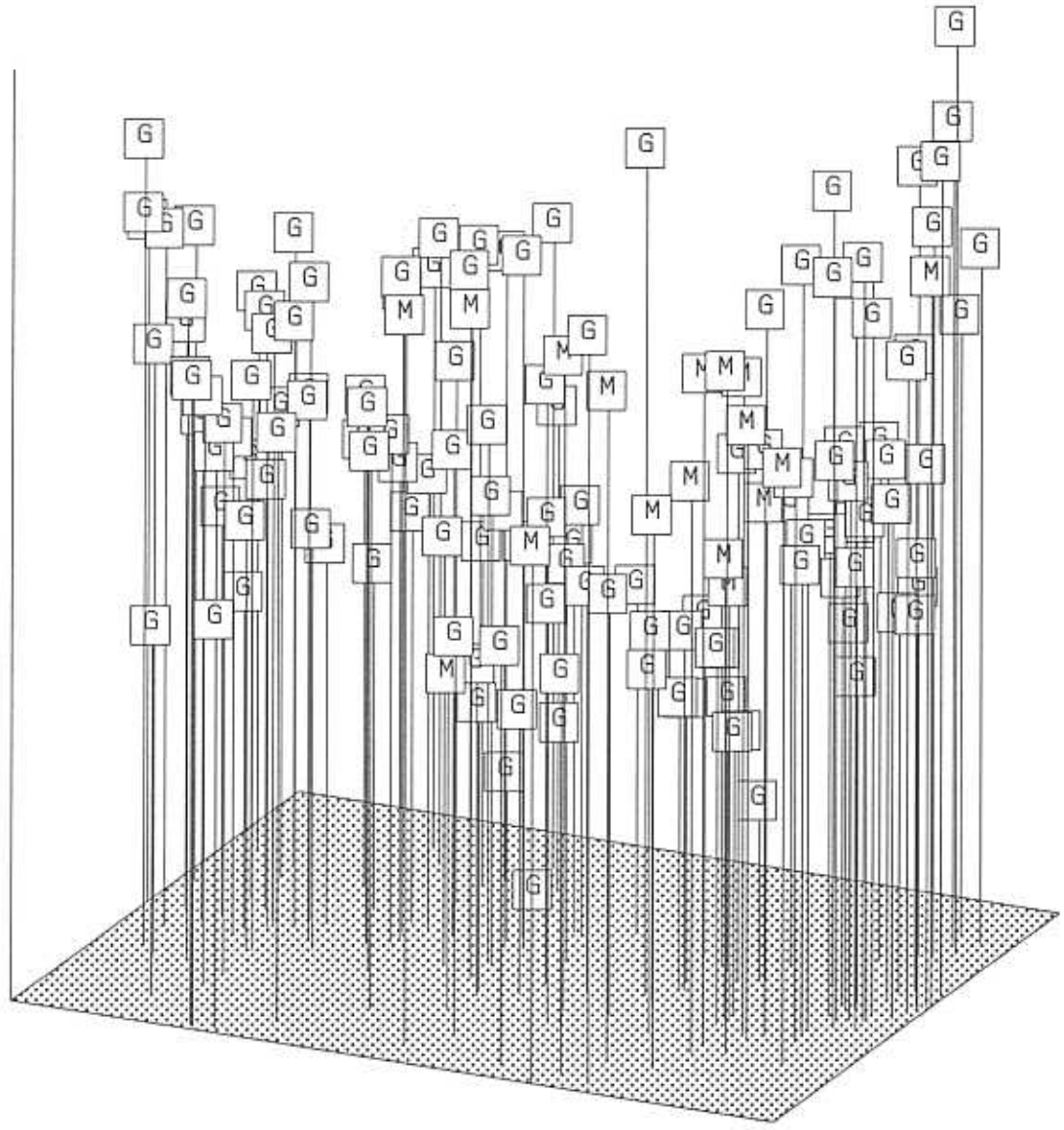
Appendix 3. Three-dimensional MDS graphs comparing different communities. Bar at top of each graph explains the symbols. The following community comparisons are presented:

1. Mojave Mixed Woody Scrub and Blackbrush Scrub
2. Mojave Mixed Woody Scrub and Great Basin Mixed Woody Scrub
3. Mojave Mixed Woody Scrub, Great Basin Mixed Scrub, and Blackbrush Scrub
4. Great Basin Mixed Scrub and Shadscale Scrub
5. Great Basin Mixed Scrub, Shadscale Scrub, and Blackbrush Scrub
6. Shadscale Scrub and Desert Greasewood Scrub
7. Shadscale Scrub and Blackbrush Scrub
8. Desert Greasewood Scrub and Desert Sink Scrub
9. Desert Sink Scrub and DISPS2- and SPAI-dominated southern Owens Valley Alkali Meadow
10. Desert Sink Scrub and DISPS2- and SPAI-dominated Alkali Meadow on Poleta Canyon, Big Pine and Manzanar quads
11. DISPS2-dominated Alkali Meadow and Rush/Sedge Meadow
12. SPAI-dominated Alkali Meadow and Rush/Sedge Meadow
13. DISPS2-dominated Alkali Meadow and Rabbitbrush Meadow
14. SPAI-dominated Alkali Meadow and Rabbitbrush Meadow
15. DISPS2-dominated Alkali Meadow and Nevada Saltbush Meadow
16. SPAI-dominated Alkali Meadow and Nevada Saltbush Meadow
17. Rabbitbrush Meadow and Rabbitbrush Scrub
18. Rabbitbrush Meadow and Nevada Saltbush Meadow
19. Nevada Saltbush Meadow and Nevada Saltbush Scrub
20. Rabbitbrush Scrub and Nevada Saltbush Scrub
21. Rabbitbrush Scrub and Big Sagebrush Scrub
22. Big Sagebrush Scrub and Great Basin Mixed Scrub
23. Great Basin Mixed Scrub, Shadscale Scrub, and Desert Saltbush Scrub
24. Desert Saltbush Scrub and Desert Sink Scrub
25. Desert Greasewood Scrub, Big Sagebrush Scrub and Desert Saltbush Scrub


Mojave Mixed Woody Scrub (M) and Blackbrush Scrub (B)
1
a= 30 b= 30 r=99.0

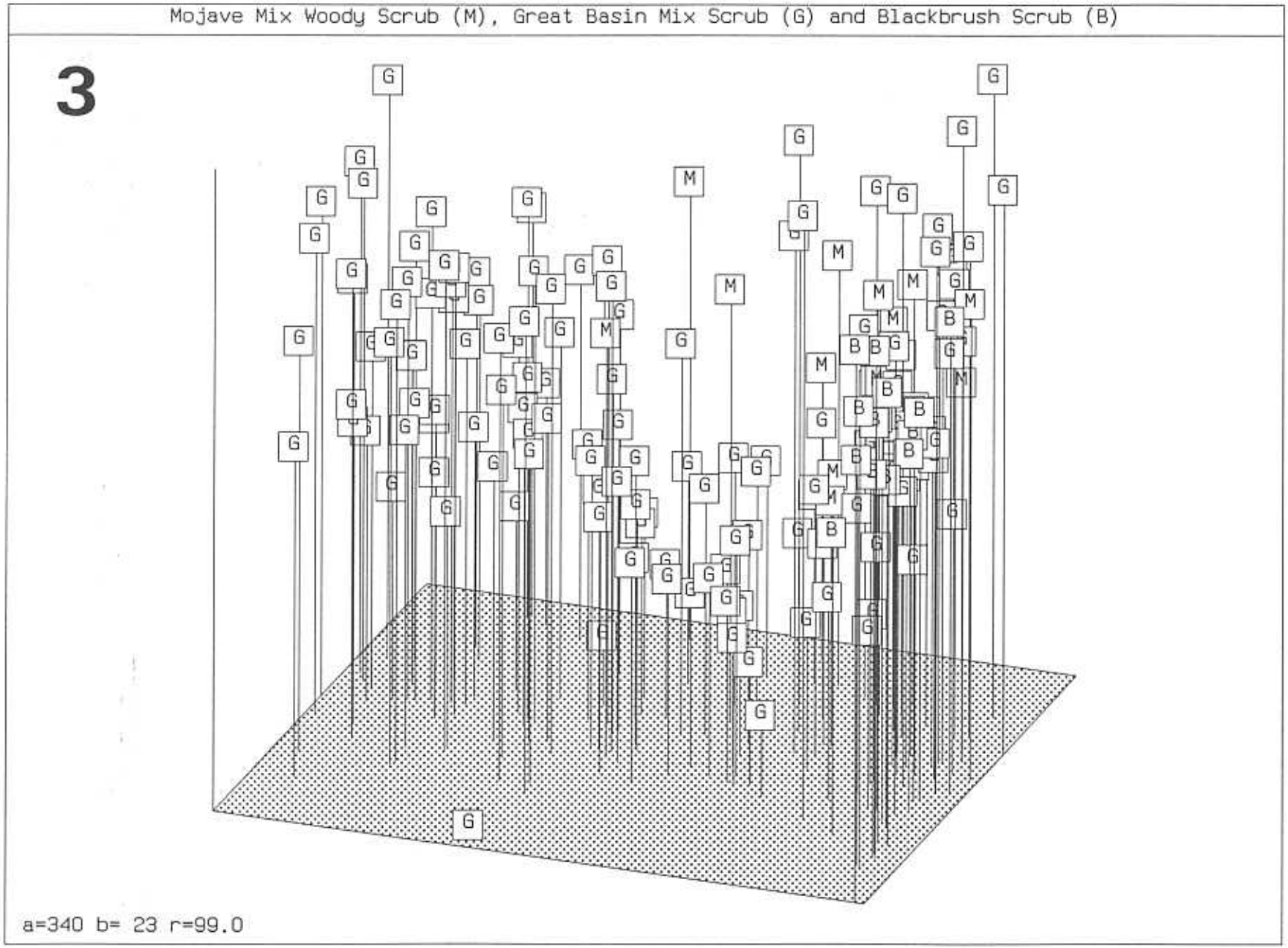
Mojave Mixed Woody Scrub (M) and Great Basin Mixed Scrub (G)

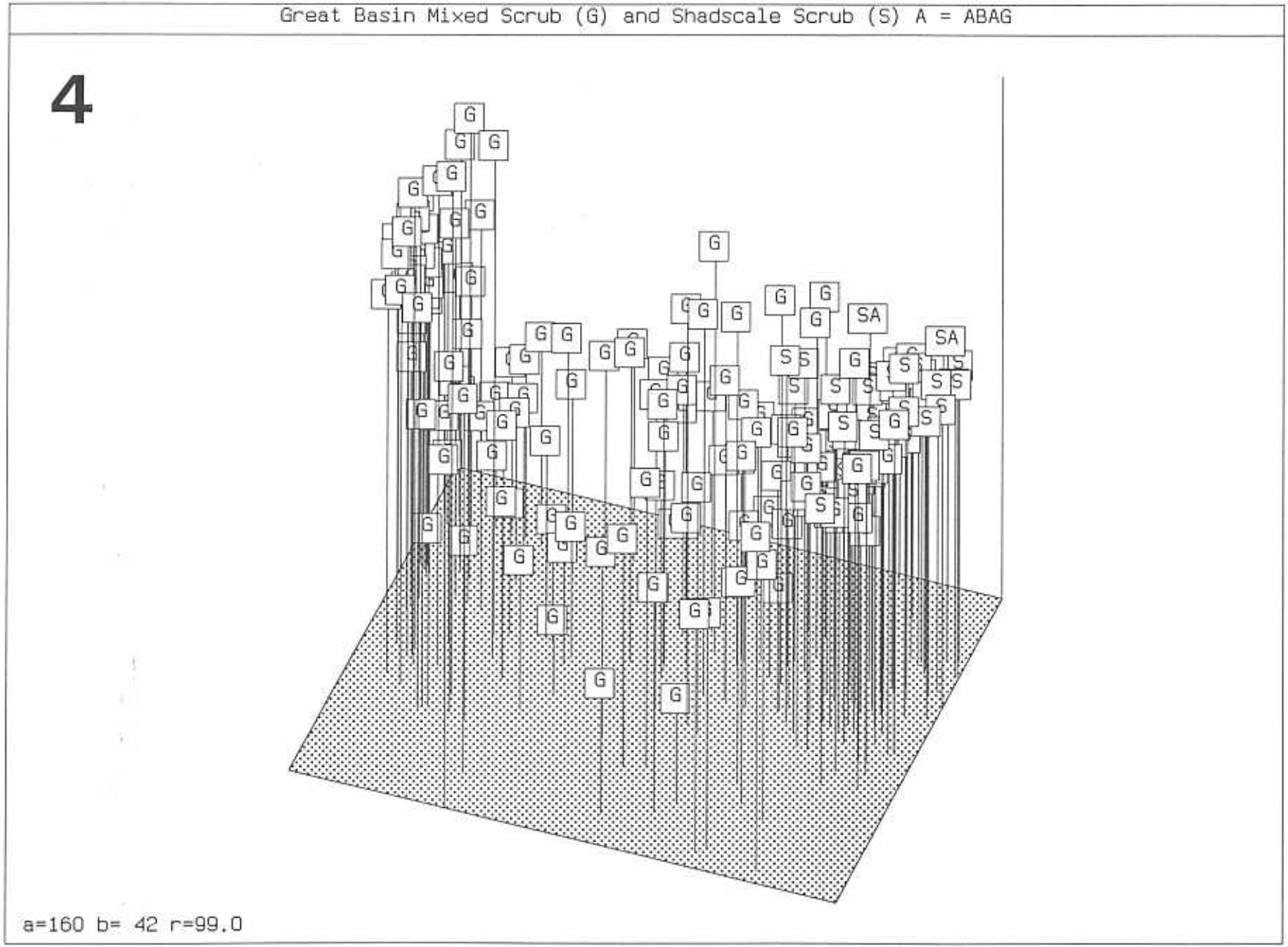
2



a=335 b= 20 r=99.0

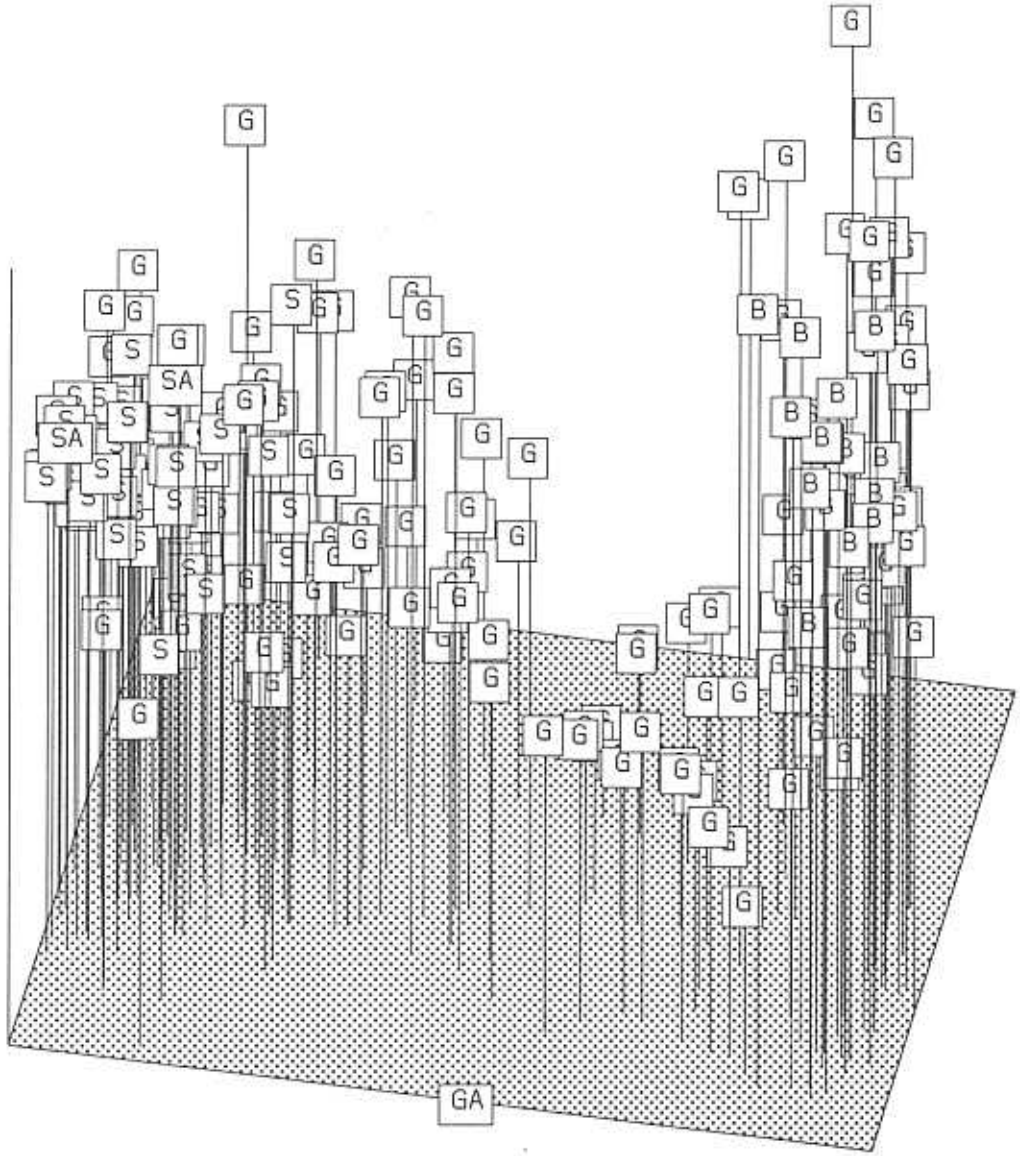
Mojave Mix Woody Scrub (M), Great Basin Mix Scrub (G) and Blackbrush Scrub (B)




Great Basin Mixed Scrub (G) and Shadscale Scrub (S) A = ABAG
4
a=160 b= 42 r=99.0

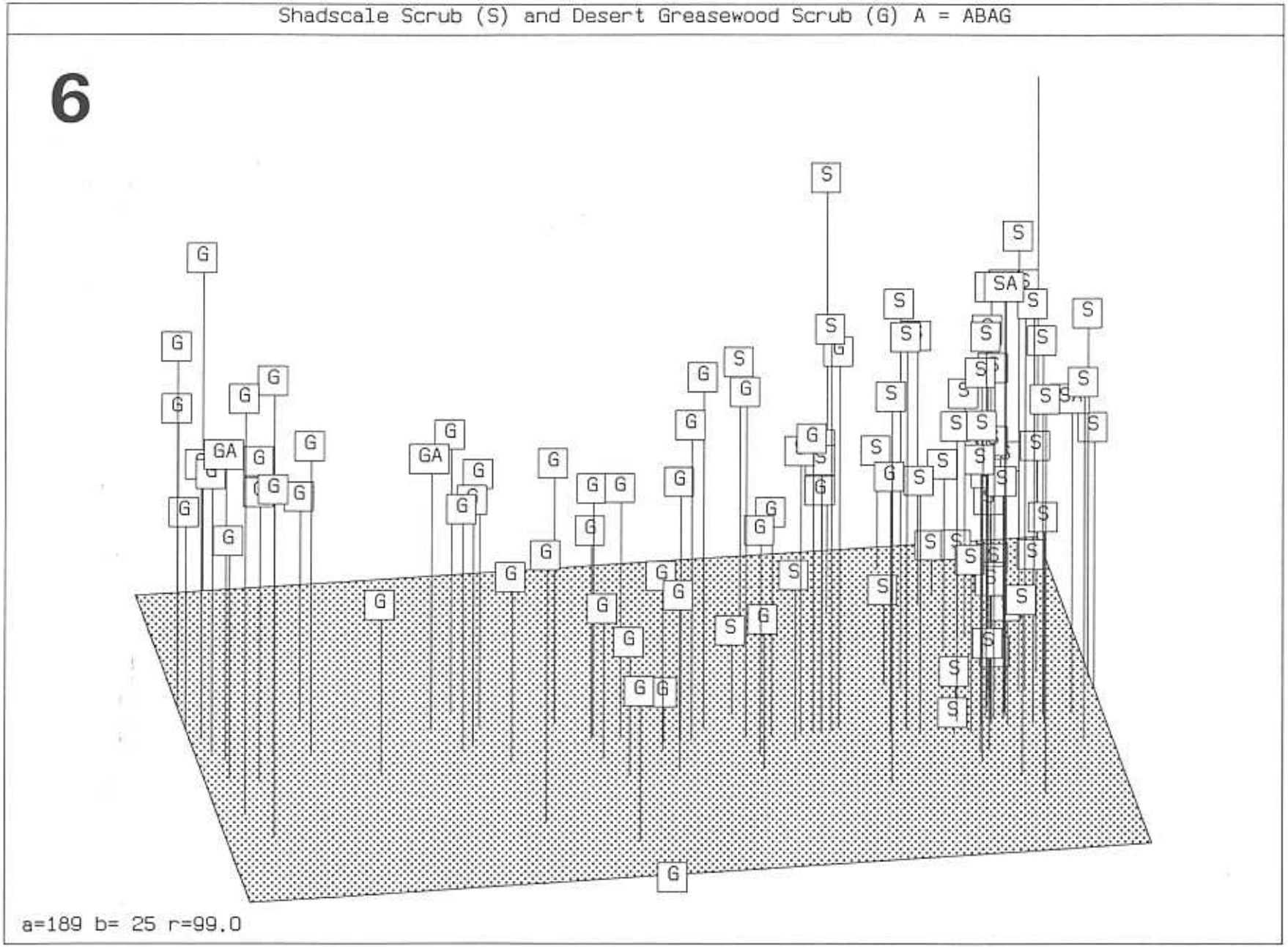
Great Basin Mix Scrub (G), Shadscale Scrub (S) and Blackbrush Scb (B) A = ABAG

5



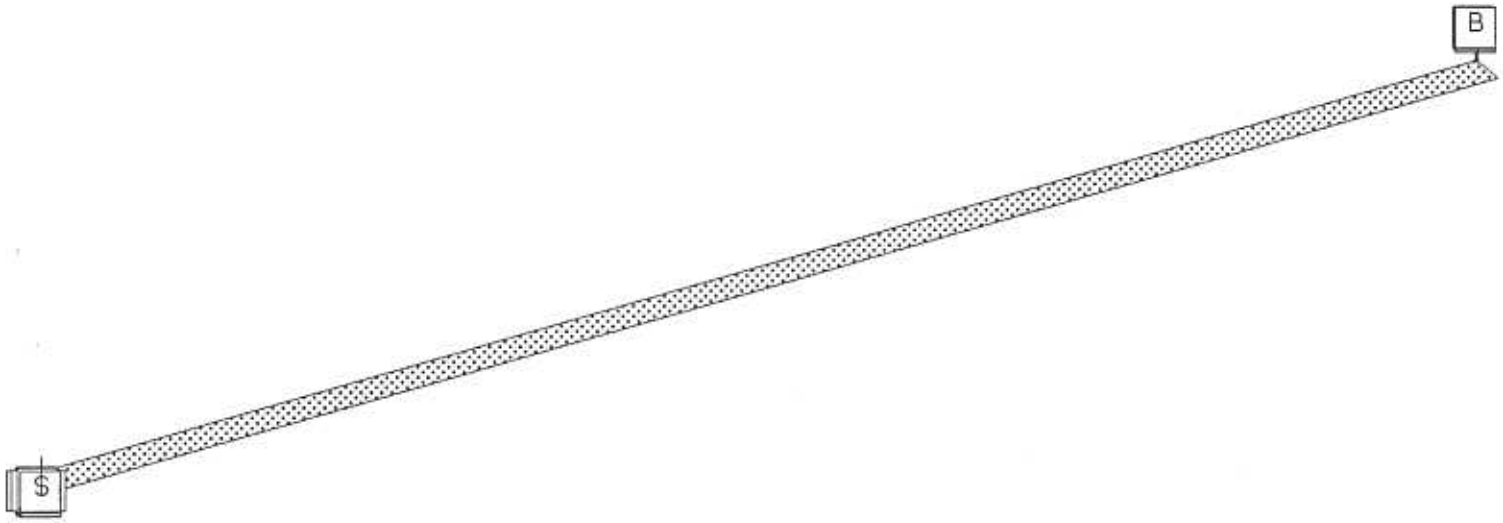
a=349 b= 39 r=99.0

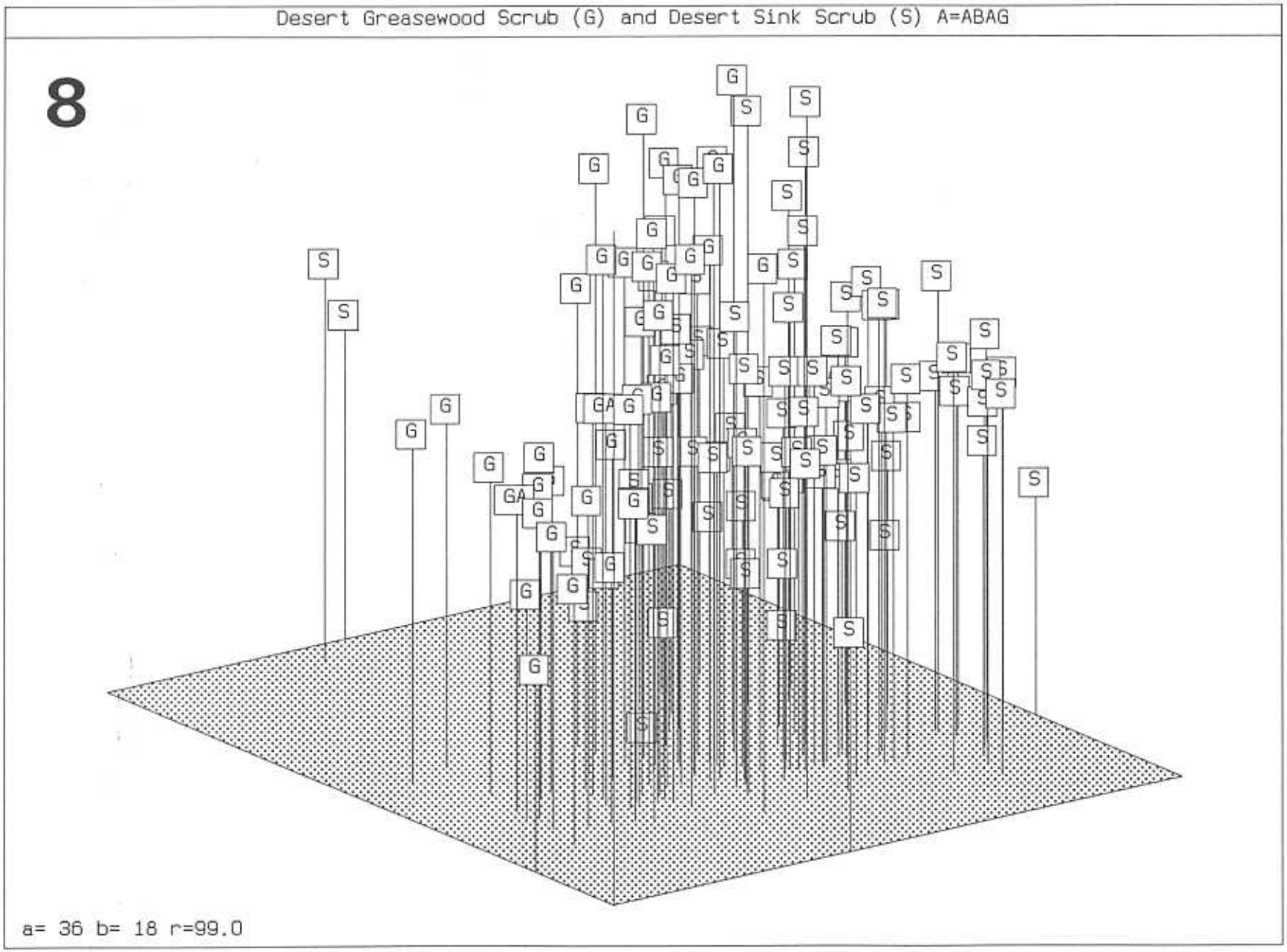
Shadscale Scrub (S) and Desert Greasewood Scrub (G) A = ABAG



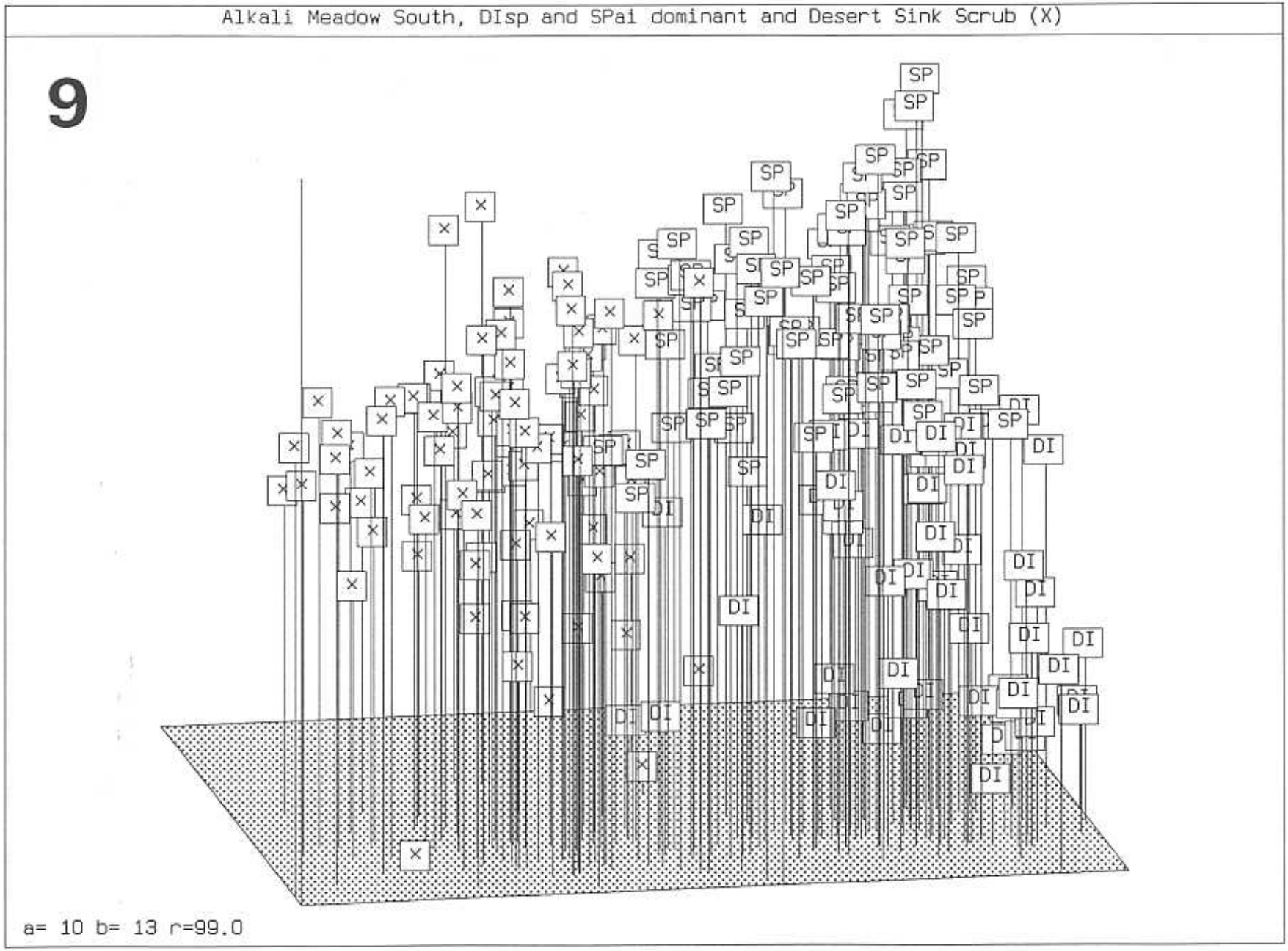
Shadscale Scrub (S) and Blackbrush Scrub (B)

7



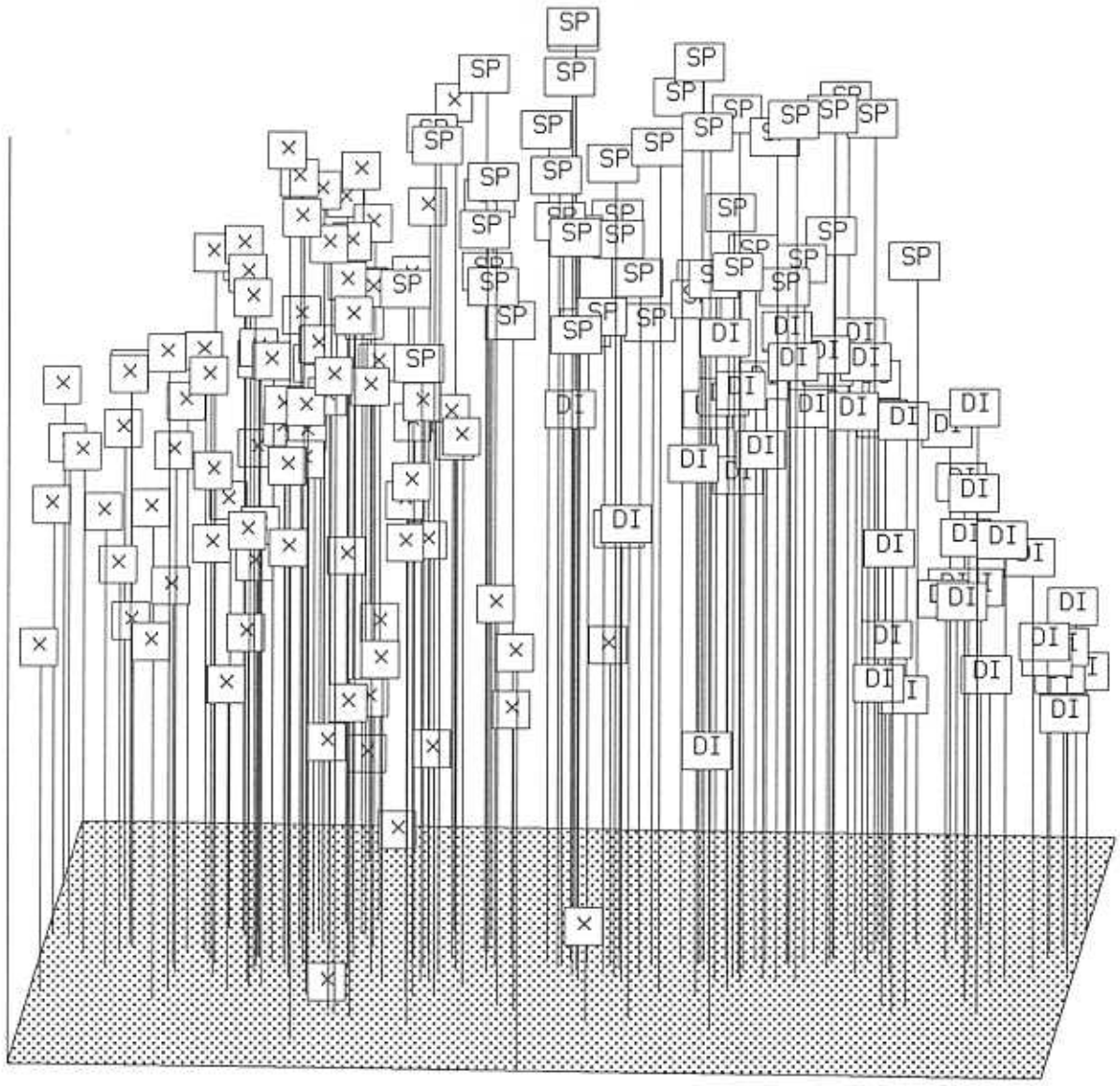

Desert Greasewood Scrub (G) and Desert Sink Scrub (S) A=ABAG
8
a= 36 b= 18 r=99.0

Alkali Meadow South, DIsp and SPai dominant and Desert Sink Scrub (X)



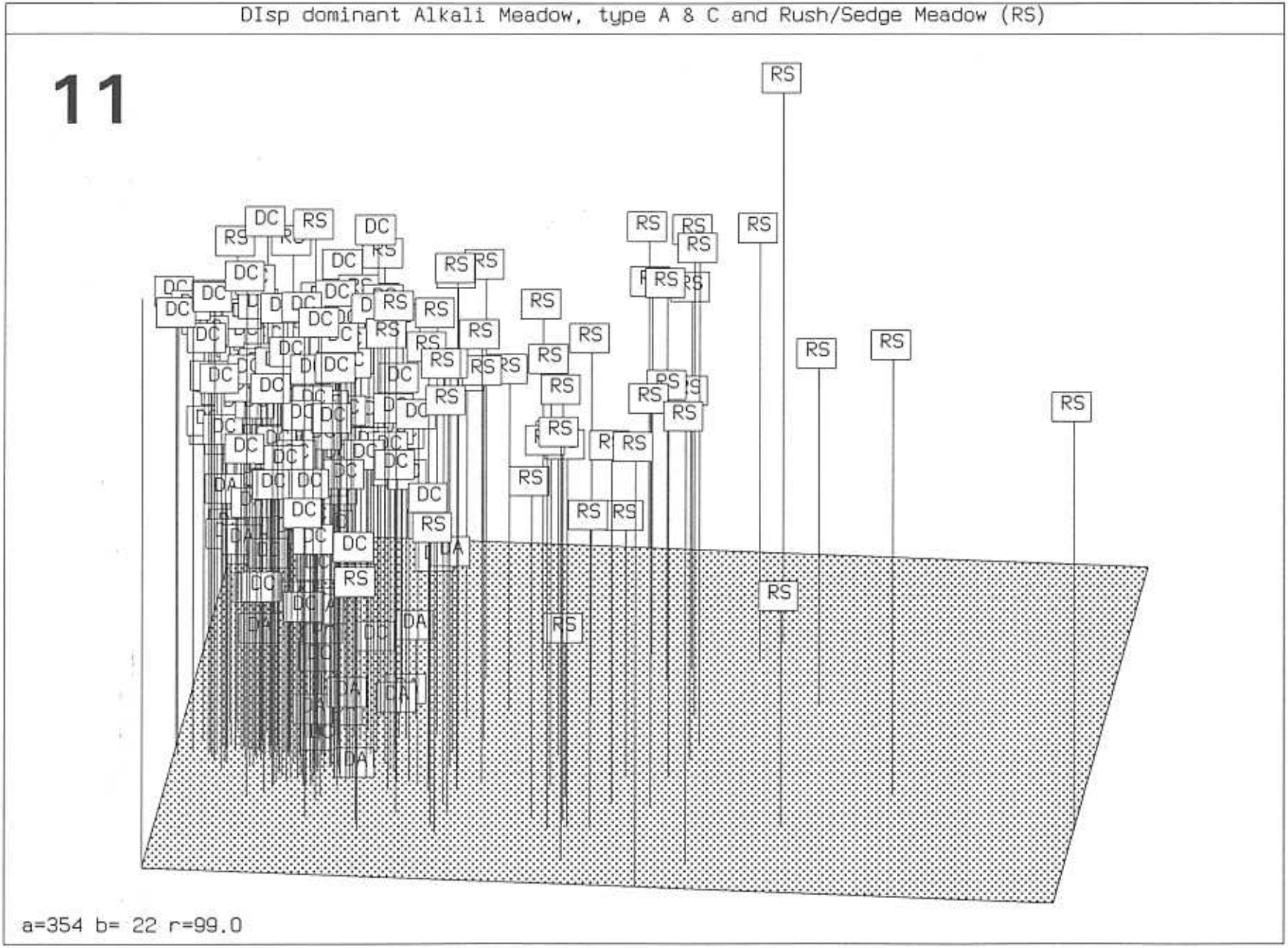
DIsp and SPai dominant Alk Mdw, PLC, BGP & MAN quads and Desert Sink Scrub (X)

10

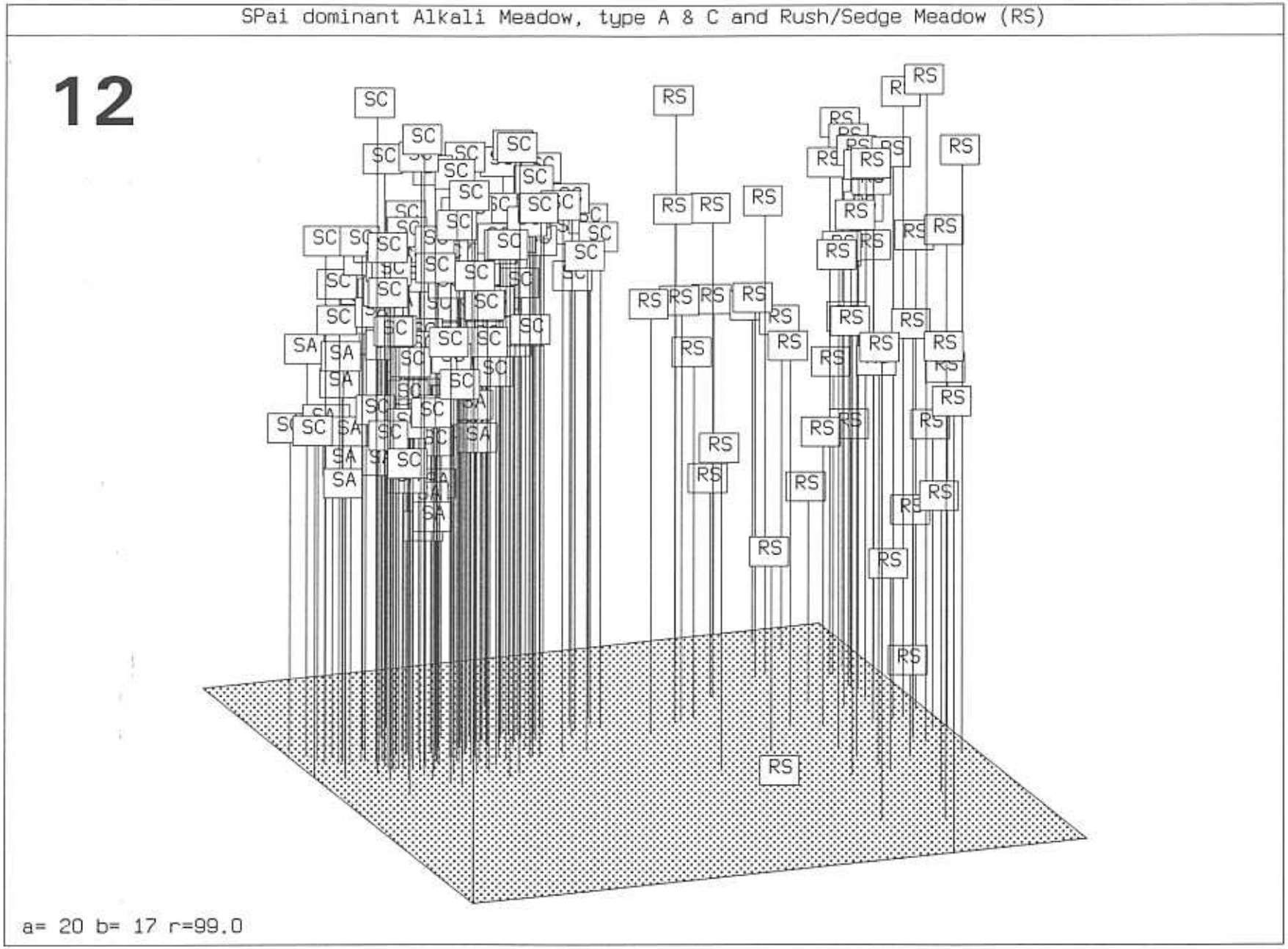


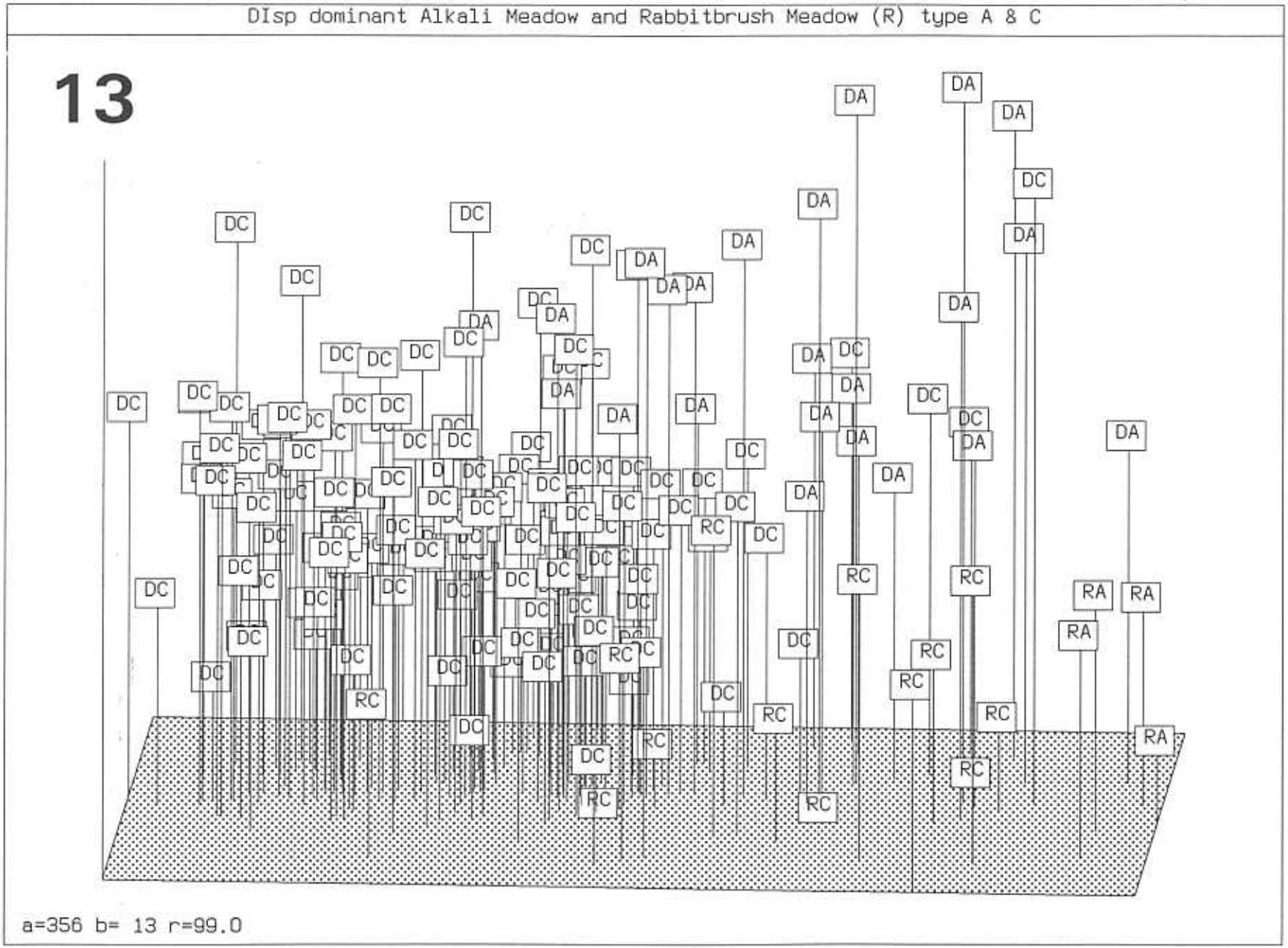
a= -4 b= 13 r=99.0

DIsp dominant Alkali Meadow, type A & C and Rush/Sedge Meadow (RS)

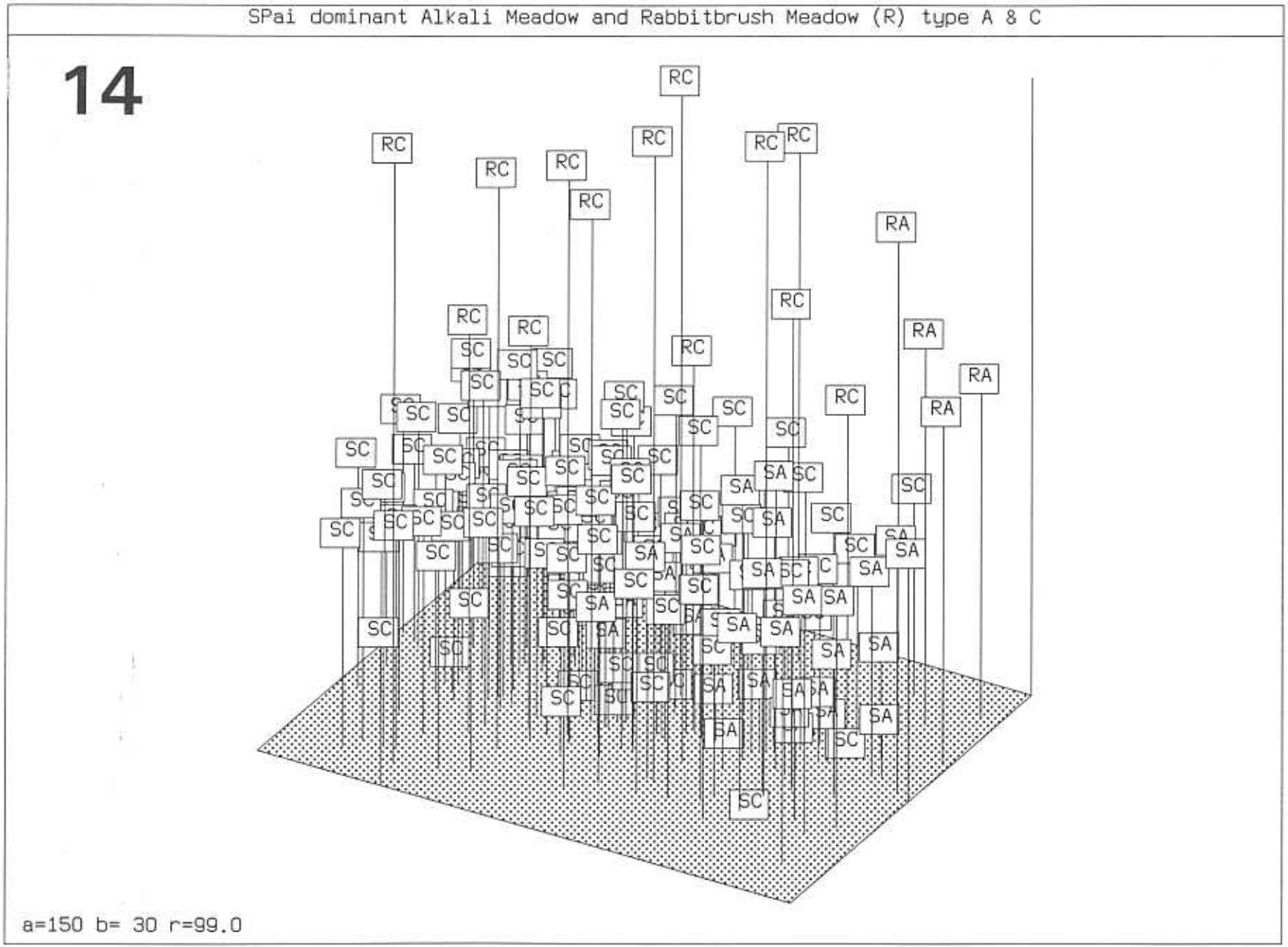


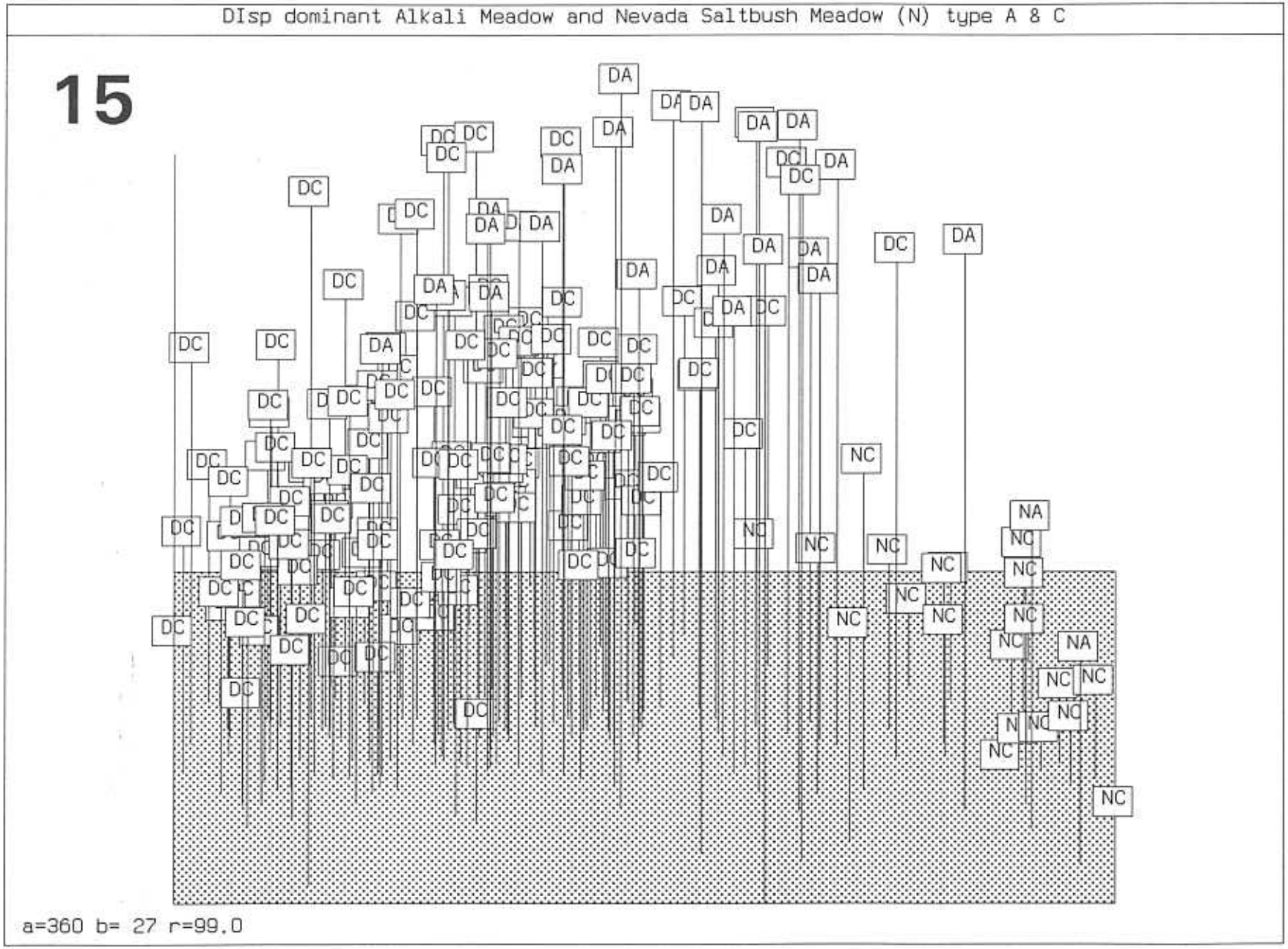
SPai dominant Alkali Meadow, type A & C and Rush/Sedge Meadow (RS)



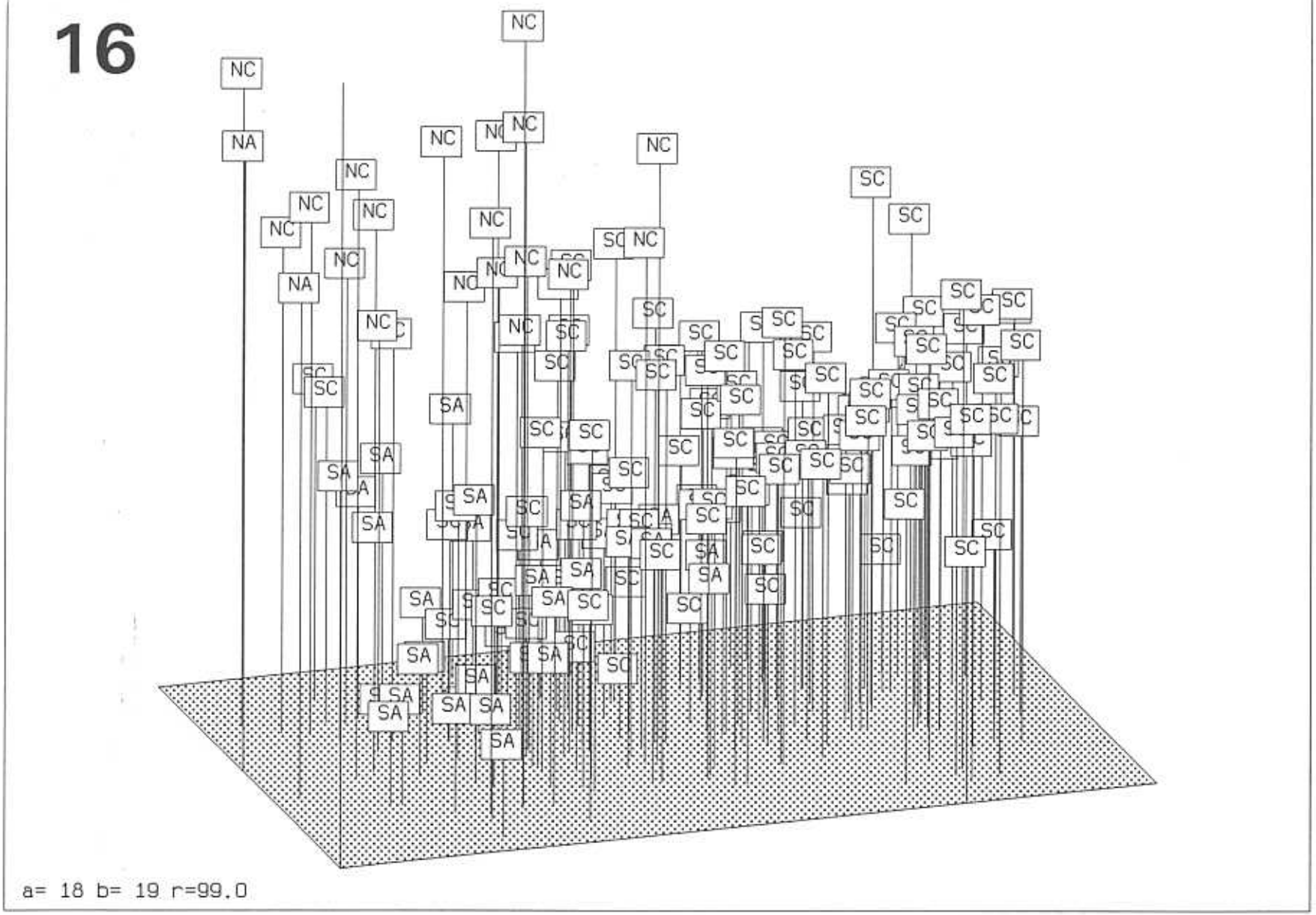

DIsp dominant Alkali Meadow and Rabbitbrush Meadow (R) type A & C
13
a=356 b= 13 r=99.0

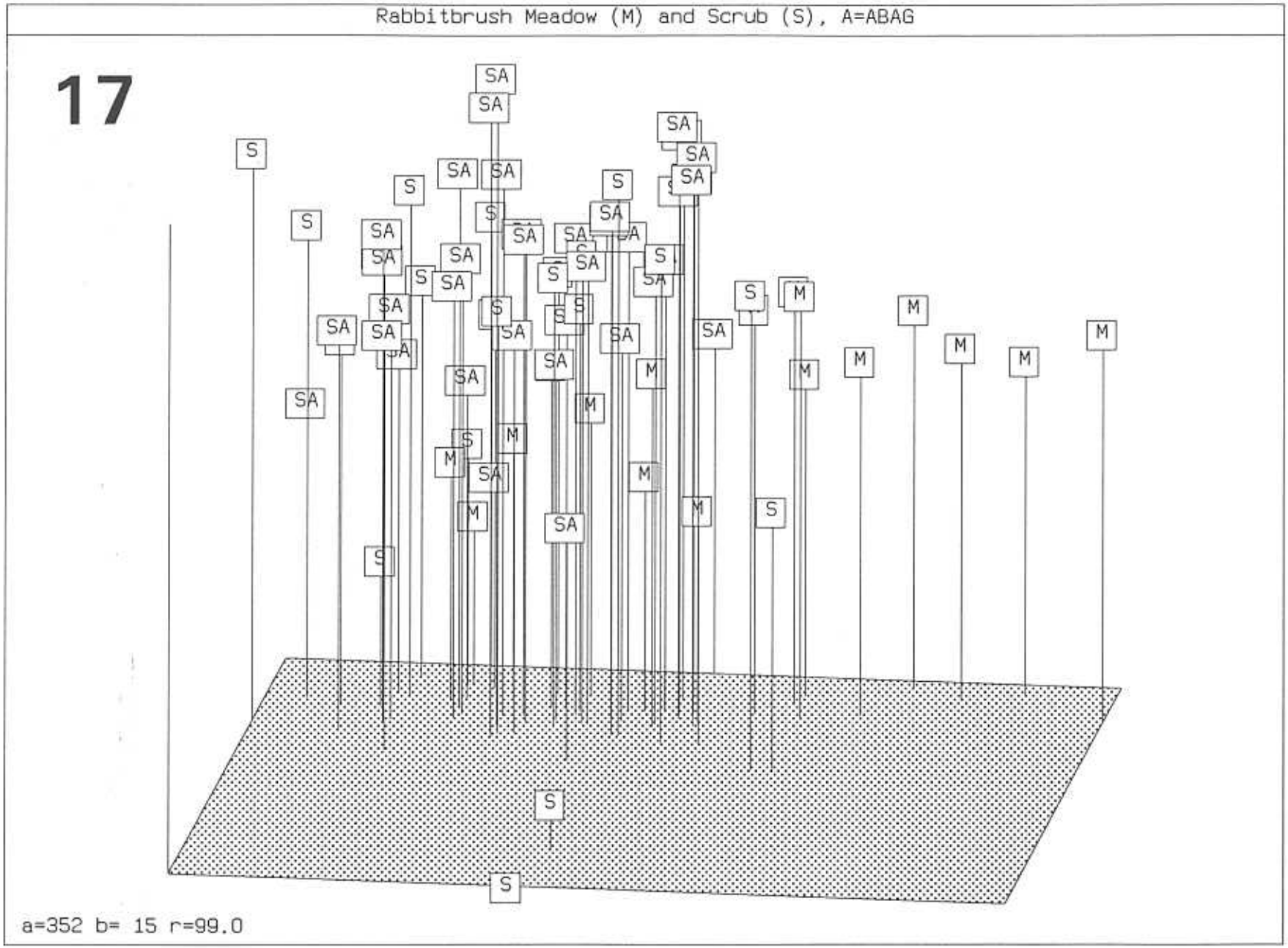
SPai dominant Alkali Meadow and Rabbitbrush Meadow (R) type A & C




DIsp dominant Alkali Meadow and Nevada Saltbush Meadow (N) type A & C
15
a=360 b= 27 r=99.0

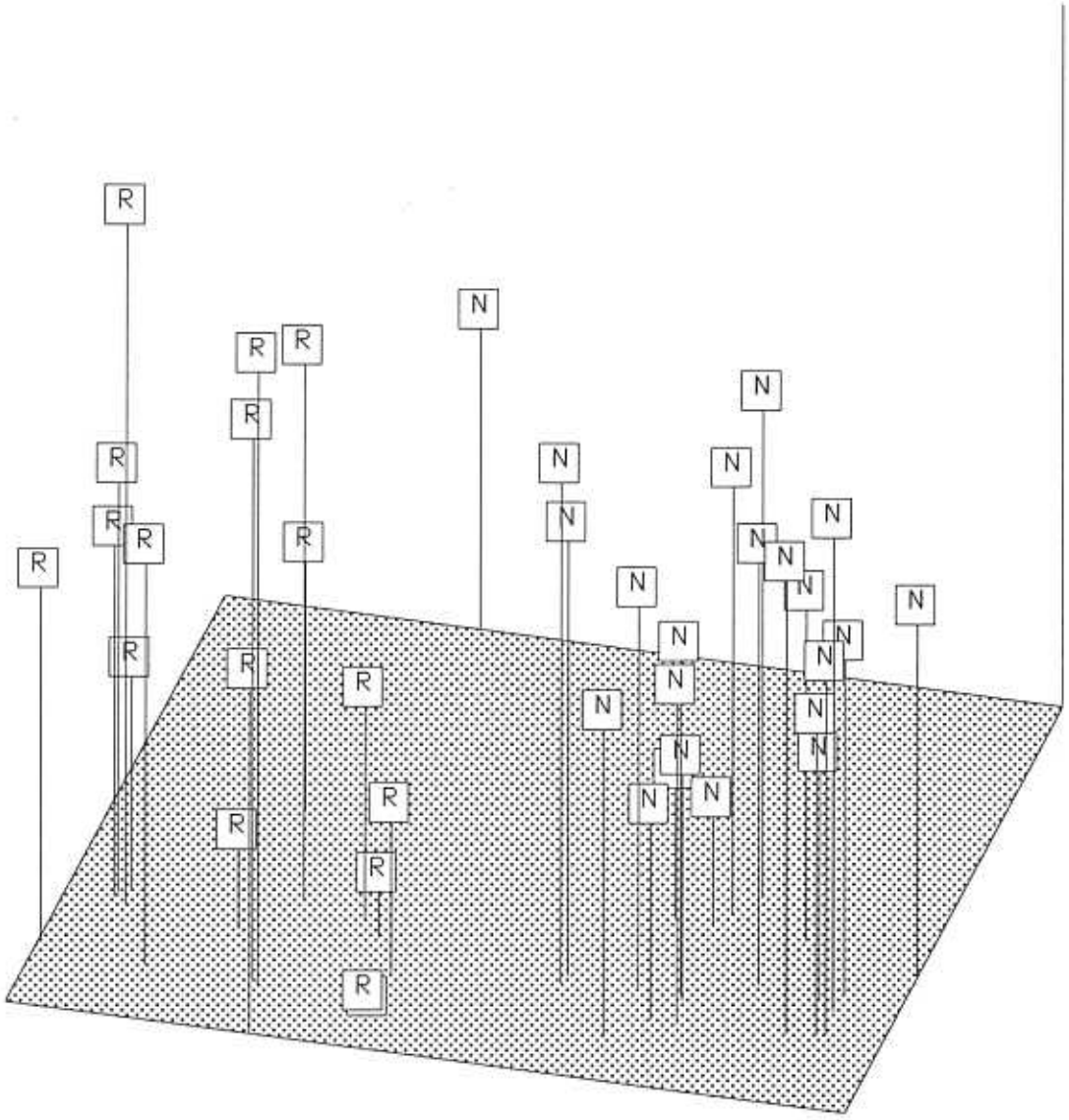
Spai dominant Alkali Meadow and Nevada Saltbush Meadow (N) type A & C

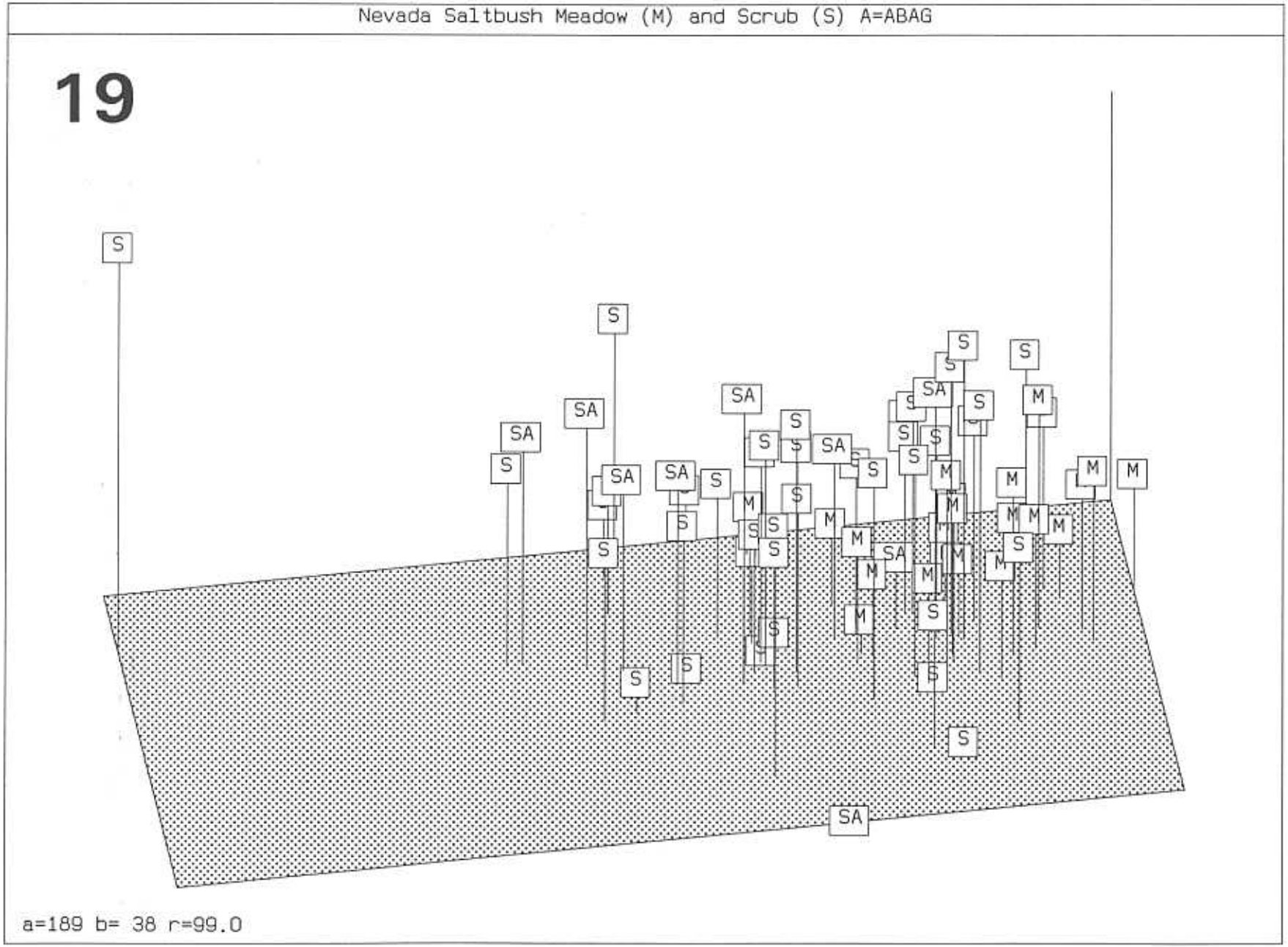



Rabbitbrush Meadow (M) and Scrub (S), A=ABAG
17
a=352 b= 15 r=99.0

Rabbitbrush Meadow (R) and Nevada Saltbush Meadow (N)

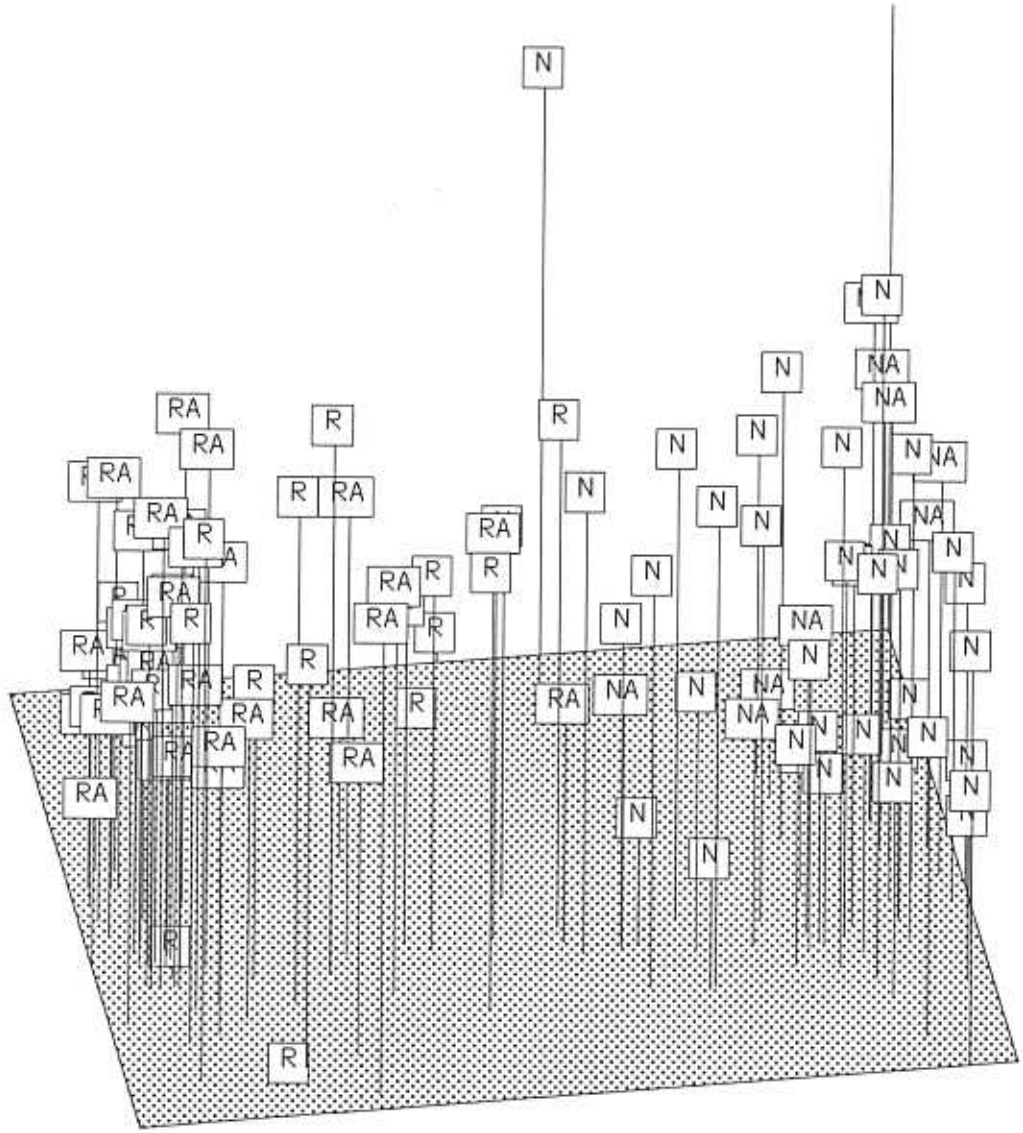
18



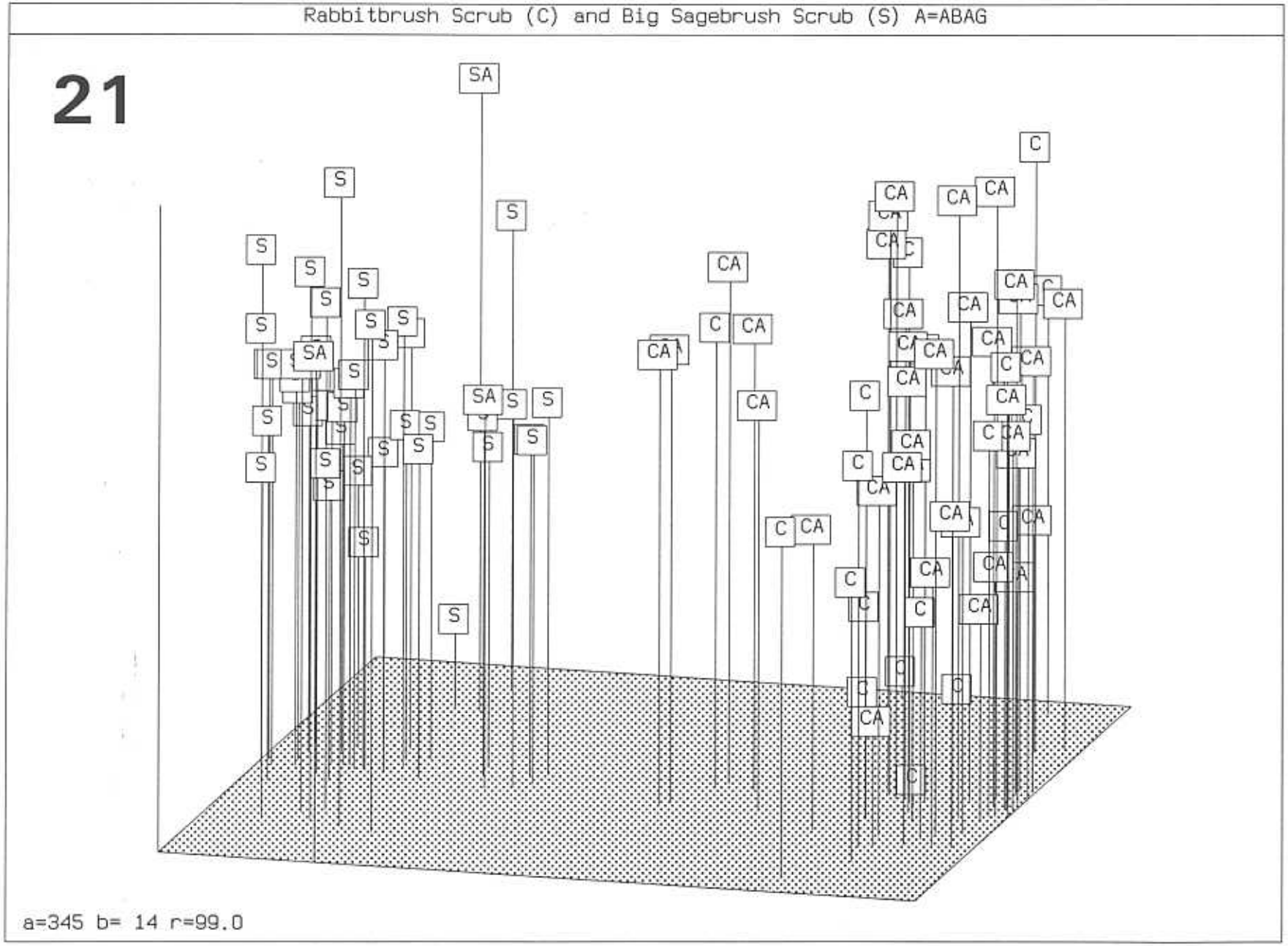

Nevada Saltbush Meadow (M) and Scrub (S) A=ABAG
19
a=189 b= 38 r=99.0

Rabbitbrush Scrub (R) and Nevada Saltbush Scrub (N) A=ABAG

20

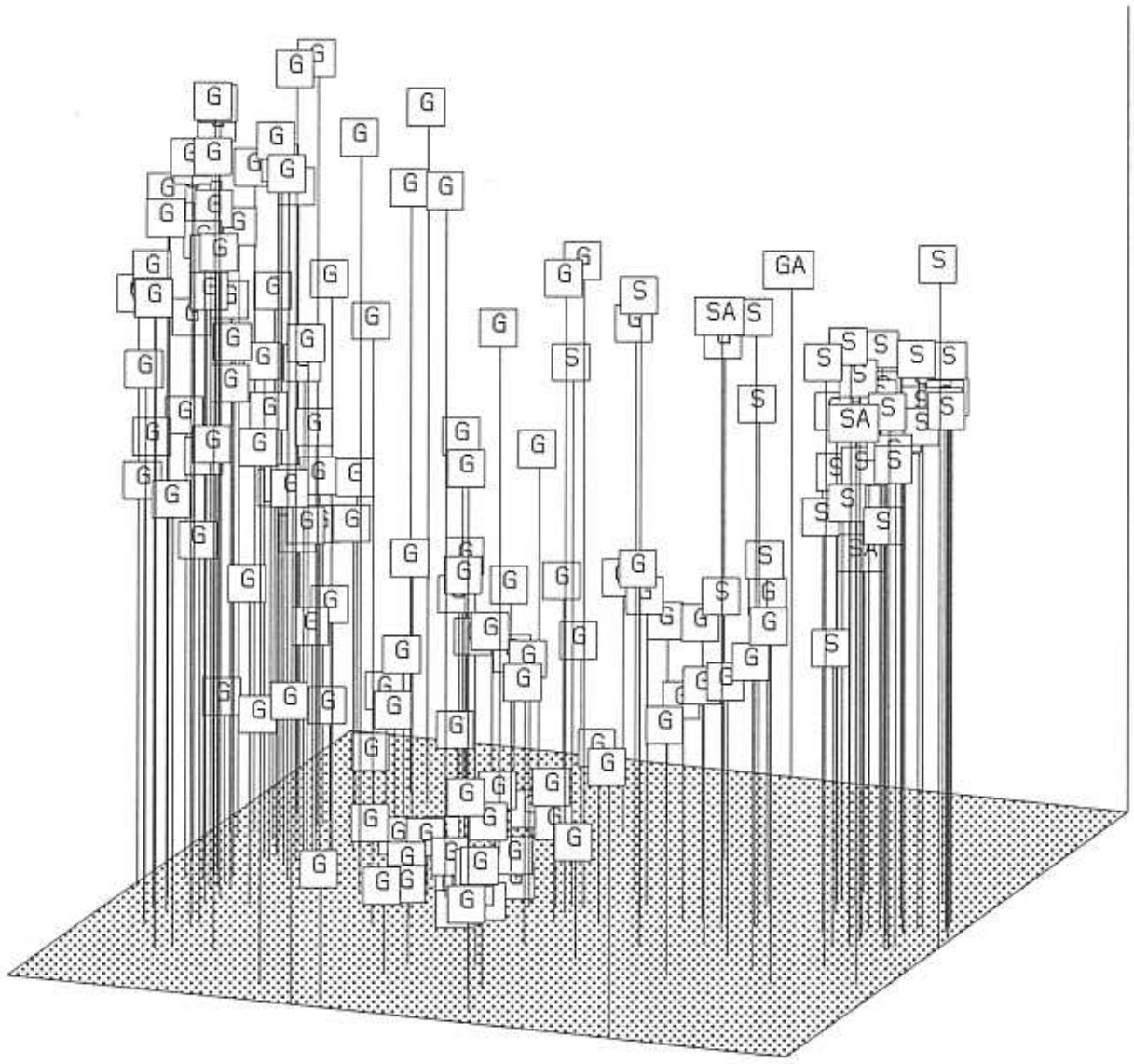


a=189 b= 31 r=99.0


Rabbitbrush Scrub (C) and Big Sagebrush Scrub (S) A=ABAG
21
a=345 b= 14 r=99.0

Big Sagebrush Scrub (S) and Great Basin Mixed Scrub (G) A=ABAG

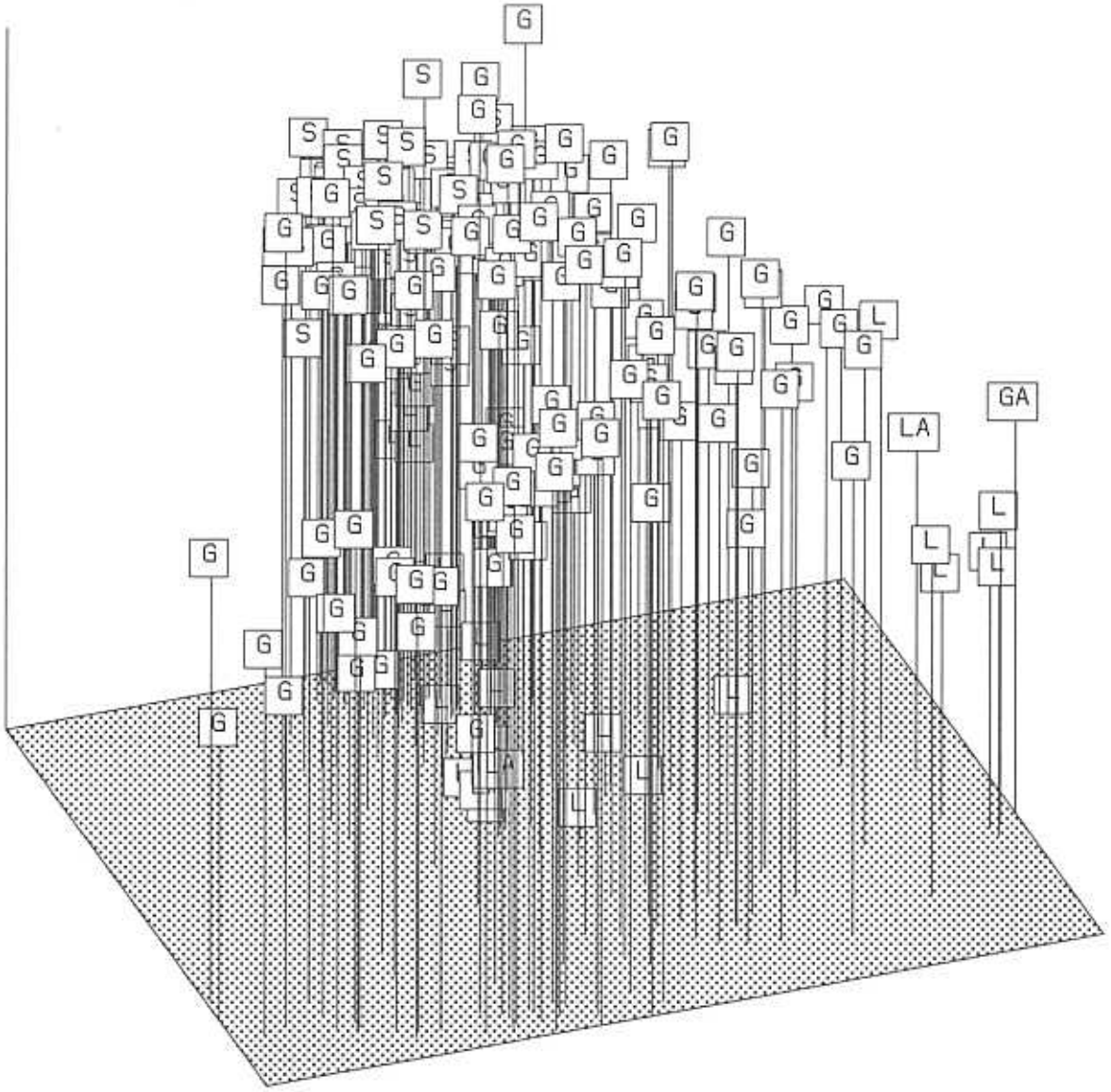
22



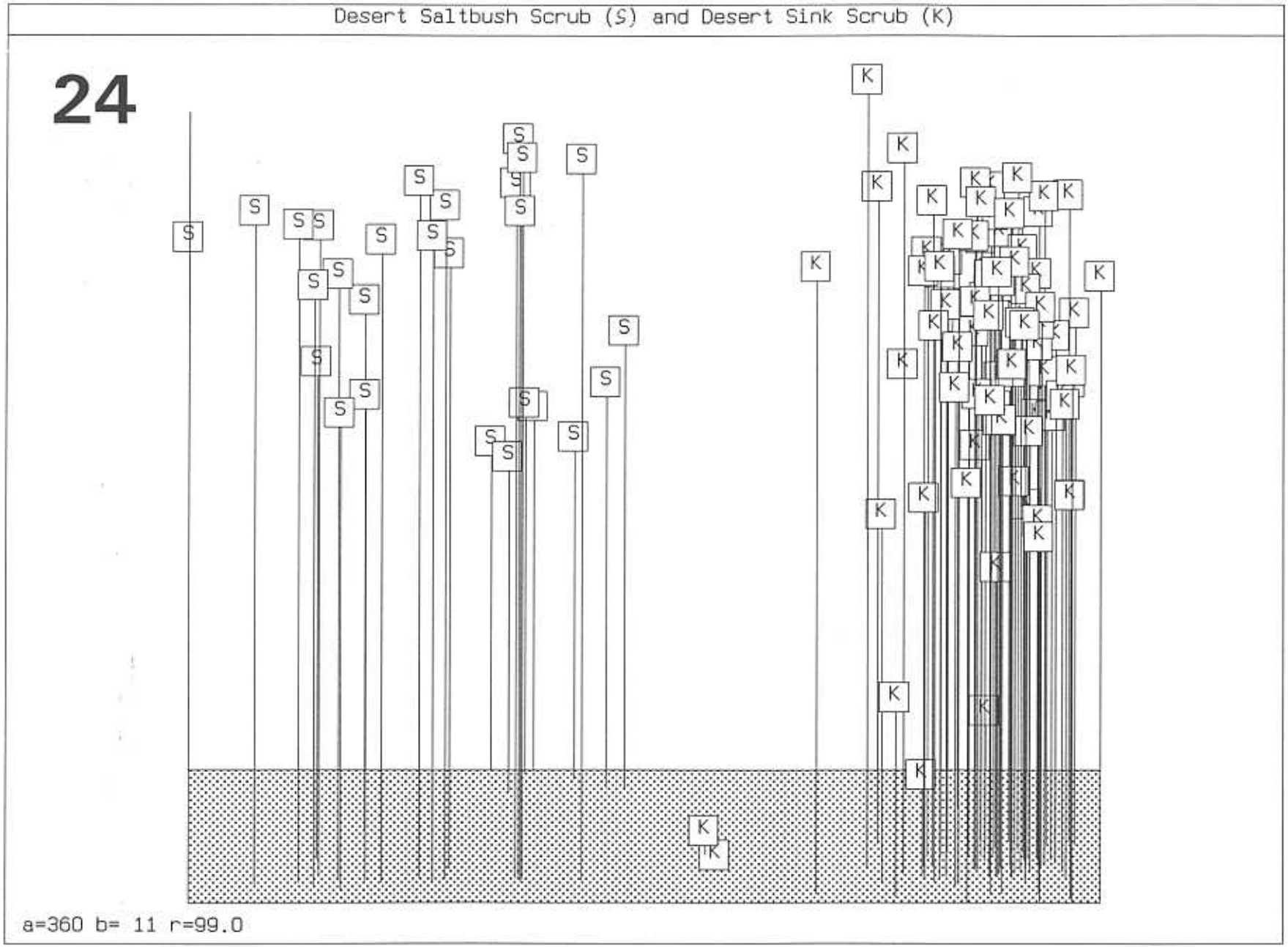
a=159 b= 16 r=99.0

Great Basin Mix Scb (G), Shadscale Scrub (S) & Des. Saltbush Scrub (L) A=ABAG

23

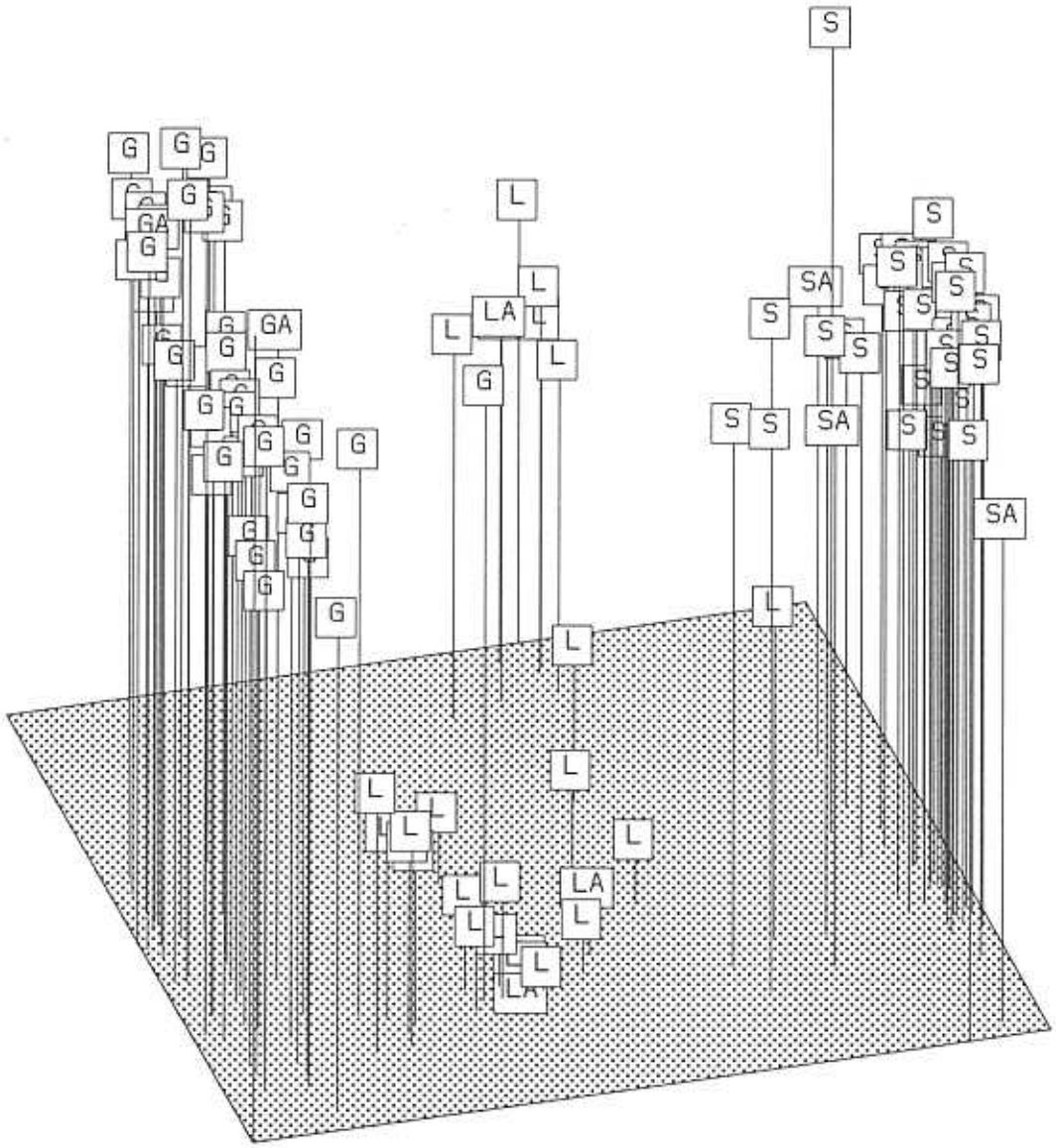


a=290 b= 30 r=99.0


Desert Saltbush Scrub (S) and Desert Sink Scrub (K)
24
a=360 b= 11 r=99.0

Des. Greasewood Scrub (G), Des. Saltbush Scrub (L) and Big Sage Scb (S) A=ABAG

25



a= 16 b= 30 r=99.0

Appendix 4. Summary statistics for Green Book plant communities, based on the set of parcels used for analysis in this report. For each community, there is a one-page summary of the species found in that community, where:

%cov = average percent cover for that species in all parcels

%comp = relative cover of that species in this community (sums to 100%)

%freq = the percent of parcels in which that species was found in the parcels assigned to that community. (If the species was found in all the parcels, %freq = 100%.)

Following the summary is a list of the actual parcels used in the analysis of that community, along with information on its total percent live cover, and the top six most dominant species in each parcel. This information is useful for comparison with MDS plots.

PAGE NUMBERS:

34210 Mojave Mixed Woody Scrub
Species Summary for 18 Parcels
Parcel Average % Live Cover = 19.6

spp	%cov	%comp	%freq	spp	%cov	%comp	%freq
ACSP	0.060	0.33	5.6	GRSP	0.362	2.02	50.0
AMDU2	0.396	2.20	22.2	**HYSA**	**2.044**	**11.39**	**66.7**
ARSP5	0.209	1.16	22.2	LEFR2	0.011	0.06	5.6
ARTRT	0.266	1.48	27.8	LYAN	0.042	0.24	11.1
ATCA2	0.070	0.39	5.6	MATO	0.035	0.20	5.6
ATCO	0.253	1.41	22.2	**PSARM**	**0.912**	**5.08**	**66.7**
ATPO	0.303	1.69	27.8	PSPO	0.200	1.11	5.6
BRRU2	0.271	1.51	22.2	PUGL2	0.144	0.80	11.1
CELA	0.266	1.48	22.2	SADO4	0.028	0.15	5.6
CHTE4	0.223	1.24	16.7	SIHY	0.047	0.26	11.1
CORA	0.242	1.35	11.1	STSP3	0.391	2.18	33.3
EPNE	**2.895**	**16.13**	**94.4**	TEAX	0.417	2.32	38.9
ERCO23	**5.705**	**31.79**	**88.9**	TEGL	0.011	0.06	5.6
ERFA2	**1.984**	**11.06**	**55.6**	TEST2	0.160	0.89	22.2

34210 Mojave Mixed Woody Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	24	*23*	**ABD002**	EPNE	37	ERCO2	24	STSP3	12	PSARM	10	HYSA	3	TEAX	3
2)	67	*22*	**ABD016**	ERCO2	50	PSARM	15	EPNE	13	ERFA2	6	STSP3	5	SIHY	2
3)	41	*23*	**ABD023**	ERCO2	40	ERFA2	24	ARTRT	9	EPNE	7	TEAX	5	PSARM	4
4)	4	*20*	**ABD028**	HYSA	35	ERCO2	32	EPNE	10	TEAX	5	ARTRT	4	ERFA2	3
5)	510	*25*	**ABD036**	ERFA2	29	ERCO2	20	EPNE	13	HYSA	10	BRRU2	6	PSARM	5
6)	121	*30*	**ABD037**	HYSA	50	ERCO2	14	EPNE	8	CELA	8	PSARM	7	GRSP	4
7)	133	*21*	**BGP131**	ERFA2	23	CORA	19	ERCO2	13	CHTE4	12	PUGL2	10	STSP3	6
8)	191	*18*	**BLK098**	ERCO2	46	ERFA2	16	HYSA	7	EPNE	5	TEAX	5	CELA	4
9)	320	*21*	**FSP028**	ERCO2	32	EPNE	27	ERFA2	14	HYSA	5	TEST2	4	PSARM	4
10)	370	*17*	**FSP033**	ERCO2	51	EPNE	15	ERFA2	12	HYSA	4	GRSP	4	TEST2	4
11)	230	*15*	**FSP046**	EPNE	43	ERCO2	23	TEAX	8	GRSP	5	TEST2	4	HYSA	4
12)	172	*24*	**FSP053**	ERCO2	38	ERFA2	26	EPNE	24	PSARM	4				
13)	305	*10*	**LNP096**	ERCO2	22	ARSP5	17	EPNE	14	ATCO	6	GRSP	5	TEAX	4
14)	1517	*12*	**MAN001**	AMDU2	24	EPNE	22	ATCO	14	ATPO	11	ACSP	9	ARSP5	8
15)	423	*13*	**MAN048**	ERCO2	35	AMDU2	23	EPNE	12	GRSP	7	ATPO	5	LYAN	4
16)	120	*21*	**TIN022**	ERCO2	51	HYSA	15	ATCO	9	AMDU2	5	ATPO	4	ARSP5	4
17)	67	*19*	**TIN039**	ERCO2	26	BRRU2	14	ATPO	12	EPNE	11	ERFA2	11	CHTE4	5
18)	29	*18*	**TIN058**	HYSA	21	PSPO	20	PSARM	13	TEAX	12	EPNE	9	CELA	7

34300 Blackbrush Scrub
Species Summary for 15 Parcels
Parcel Average % Live Cover = 15.7

spp	%cov	%comp	%freq
ARTRT	0.263	1.77	20.0
BRRU2	0.020	0.13	6.7
BRTE	0.081	0.54	13.3
CHTE4	**0.866**	**5.81**	**73.3**
CORA	**9.606**	**64.40**	**100.0**
EPNE	**1.919**	**12.86**	**93.3**
ERCO23	**0.731**	**4.90**	**66.7**
ERFA2	**0.841**	**5.64**	**53.3**
GRSP	0.090	0.60	13.3
HYSA	0.025	0.17	6.7
POSC	0.013	0.08	6.7
PSPO	0.093	0.63	6.7
SIHY	0.091	0.61	20.0
STSP3	0.232	1.56	33.3
TEAX	0.026	0.17	6.7
TECO2	0.020	0.13	6.7

34300 Blackbrush Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	17	*15*	**BGP007**	CORA	53	CHTE4	23	EPNE	9	ERCO2	3	ERFA2	2	SIHY	2
2)	423	*15*	**BGP116**	CORA	65	EPNE	10	ERCO2	6	CHTE4	3	ARTRT	3	ERFA2	2
3)	201	*14*	**BIS127**	CORA	49	EPNE	26	PSPO	10	STSP3	3	SIHY	3		
4)	349	*13*	**BIS150**	CORA	55	EPNE	13	STSP3	9	CHTE4	7	ERFA2	7	ERCO2	3
5)	62	*10*	**BIS152**	CORA	56	EPNE	25	ERCO2	8	STSP3	5				
6)	158	*16*	**BIS158**	CORA	76	EPNE	12	CHTE4	5						
7)	397	*13*	**BIS162**	CORA	38	EPNE	24	ERCO2	18	CHTE4	9	SIHY	5		
8)	99	*15*	**BIS163**	CORA	39	ERFA2	20	ERCO2	14	ARTRT	10	GRSP	6	CHTE4	3
9)	132	*18*	**BIS178**	CORA	81	CHTE4	6	EPNE	6	ERCO2	3				
10)	68	*22*	**BIS182**	CORA	75	EPNE	13	CHTE4	4	ERFA2	3				
11)	61	*15*	**BIS185**	CORA	72	EPNE	10	CHTE4	9	ERCO2	5				
12)	35	*19*	**BIS198**	CORA	75	CHTE4	7	ERFA2	6	BRTE	3	EPNE	3	HYSA	2
13)	3	*20*	**BIS201**	CORA	39	ERFA2	24	EPNE	18	ARTRT	10	ERCO2	6		
14)	84	*15*	**MAN069**	CORA	42	EPNE	20	ERCO2	10	ERFA2	10	STSP3	8	GRSP	3
15)	59	*16*	**PLC161**	CORA	85	CHTE4	7	BRTE	4						

35100 Great Basin Mixed Scrub
Species Summary for 135 Parcels
Parcel Average % Live Cover = 15.6

spp	%cov	%comp	%freq	spp	%cov	%comp	%freq
AAFF	0.059	0.41	8.9	HYSA	0.488	3.35	23.7
ABAG	0.000	0.00	0.7	LEFR2	0.068	0.47	5.9
AMDU2	0.068	0.46	8.1	LYAN	0.005	0.04	0.7
ARSP5	0.335	2.30	23.0	MATO	0.072	0.49	5.2
ARTRT	**0.778**	**5.34**	**31.1**	MESP2	0.615	4.22	23.7
ATCA2	0.456	3.13	24.4	MIRAB	0.008	0.06	1.5
ATCO	**1.649**	**11.31**	**54.1**	ORHY	0.082	0.56	13.3
ATPA3	0.003	0.02	0.7	PIMO	0.012	0.08	0.7
ATPO	0.439	3.01	16.3	POSC	0.023	0.16	3.0
ATTO	0.003	0.02	0.7	**PSARM**	**1.120**	**7.68**	**55.6**
BRRU2	0.125	0.85	8.9	PSPO	0.506	3.47	25.2
BRTE	0.050	0.34	7.4	PUGL2	0.018	0.13	2.2
CELA	0.292	2.01	24.4	SADO4	0.005	0.04	0.7
CHNA2	0.203	1.39	16.3	SAKAT	0.025	0.17	4.4
CHTE4	0.345	2.36	17.0	SALIX	0.003	0.02	0.7
CHVI8	0.025	0.17	3.7	SAVE4	0.158	1.08	11.9
CORA	0.318	2.18	20.7	SAVEB	0.001	0.00	0.7
CORA5	0.004	0.02	0.7	SIHY	0.076	0.52	10.4
DASE	0.003	0.02	0.7	SPAI	0.045	0.31	3.0
DISPS2	0.004	0.03	1.5	SPAM2	0.002	0.02	0.7
EPNE	**2.691**	**18.45**	**72.6**	STEPH	0.021	0.14	3.0
EPVI	0.024	0.16	0.7	STPA4	0.004	0.03	0.7
ERCO23	**0.595**	**4.08**	**31.1**	STSP3	0.343	2.35	27.4
ERFA2	**0.922**	**6.32**	**23.0**	SUTO	0.020	0.14	1.5
ERIN4	0.008	0.05	2.2	TAPA4	0.002	0.01	1.5
ERKEK	0.002	0.01	0.7	TARA	0.002	0.01	1.5
FESTU	0.004	0.03	0.7	**TEAX**	**0.879**	**6.03**	**52.6**
GRSP	**0.263**	**1.81**	**34.8**	TEGL	0.293	2.01	14.1
GUMI	0.012	0.08	2.2				

35100 Great Basin Mixed Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	415	*16*	**ABD004**	ARTRT	28	CHTE4	22	BRRU2	9	PSARM	8	ERFA2	8	EPNE	6
2)	72	*27*	**ABD006**	PSPO	39	ARTRT	19	PSARM	18	ATCA2	8	CHNA2	3	TEAX	2
3)	84	*21*	**ABD010**	EPNE	21	PSARM	17	ERFA2	16	BRRU2	14	ARTRT	11	MIRAB	4
4)	144	*27*	**ABD017**	ERFA2	31	PSARM	18	BRRU2	12	EPNE	11	ARTRT	10	STEPH	4
5)	17	*23*	**ABD018**	TEAX	30	PSPO	18	PSARM	11	HYSA	10	EPNE	9	ARTRT	7
6)	175	*25*	**ABD026**	ATCA2	29	HYSA	22	EPNE	18	PSARM	9	PSPO	8	GRSP	3
7)	173	*24*	**ABD038**	ERFA2	44	ARTRT	27	CHTE4	8	PUGL2	4	SADO4	3	SIHY	3
8)	2	*18*	**BGP001**	ERFA2	33	EPNE	28	CORA	24	ERCO2	5	CHTE4	2		
9)	833	*16*	**BGP004**	EPNE	43	ERCO2	28	ERFA2	11	HYSA	4	GRSP	3	CORA	3
10)	181	*19*	**BGP025**	EPNE	30	SAVE4	17	TEAX	14	TEGL	10	CHNA2	7	ATCO	7
11)	26	*18*	**BGP029**	EPNE	41	TEAX	21	CHNA2	14	PSPO	12	GRSP	3		
12)	27	*16*	**BGP045**	EPNE	25	TEAX	23	TEGL	20	ATCO	14	PSPO	10		
13)	242	*14*	**BGP064**	EPNE	61	CHTE4	21	TEAX	6	CHNA2	3				
14)	4	*19*	**BGP071**	CHTE4	27	ERFA2	24	ERCO2	22	STSP3	5	EPNE	4	ARTRT	3
15)	126	*21*	**BGP135**	ARTRT	28	ERFA2	17	ERCO2	14	EPNE	11	CORA	8	POSC	5
16)	7	*23*	**BGP140**	ERFA2	65	SIHY	9	CHTE4	8	ARTRT	7	POSC	3		
17)	189	*19*	**BGP144**	EPNE	37	CHTE4	23	ERCO2	17	ERFA2	6	SIHY	3	TEAX	3
18)	132	*14*	**BGP147**	HYSA	56	EPNE	15	CHNA2	7	ARTRT	4	TEAX	4	PSARM	3
19)	809	*16*	**BGP192**	ATCO	29	EPNE	15	TEAX	13	TEGL	9	SAVE4	6	PSPO	5
20)	275	*15*	**BGP193**	ATCO	29	MESP2	24	TEGL	13	SAVE4	6	ARSP5	5	CHNA2	4
21)	28	*17*	**BGP199**	ATCO	24	TEGL	22	SAVE4	21	MESP2	19	ATCA2	3	PSPO	3
22)	21	*11*	**BGP202**	ATCO	17	MESP2	16	SAVE4	14	ARTRT	12	PSPO	9	ARSP5	8
23)	16	*16*	**BGP212**	CELA	38	ATCO	29	ARSP5	19	AAFF	6				
24)	1	*18*	**BGP213**	ARSP5	29	ATPO	22	ATCO	22	CELA	11	SAKAT	4	AAFF	3
25)	170	*19*	**BGP215**	ATCO	27	MESP2	25	PSPO	18	TEAX	11	ARSP5	4	CELA	3
26)	54	*11*	**BIS009**	EPNE	51	GRSP	17	HYSA	14	PSARM	5	ARTRT	4		
27)	17	*15*	**BIS010**	TEAX	55	EPNE	26	CHVI8	4	GRSP	4	STSP3	2	ERCO2	2

35100 Great Basin Mixed Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	218	11	**BIS014**	TEAX	23	EPNE	21	ATCO	20	PSARM	15	GRSP	7	ERCO2	3
29)	87	11	**BIS016**	EPNE	23	GRSP	22	ATCA2	15	BRTE	10	TEAX	9	STSP3	7
30)	289	10	**BIS018**	CHTE4	39	STSP3	22	CORA	13	TEAX	7	MESP2	5	GRSP	4
31)	264	12	**BIS020**	TEAX	44	EPNE	27	STSP3	6	MESP2	5	GRSP	5	PSARM	3
32)	101	11	**BIS148**	EPNE	25	ERCO2	25	STSP3	15	CHTE4	15	CORA	8	TEAX	6
33)	88	12	**BIS149**	ERFA2	57	EPNE	15	STSP3	15	CORA	4	MESP2	3	HYSA	3
34)	353	14	**BIS154**	EPNE	30	ERCO2	24	GRSP	18	STSP3	12	TEAX	5	CORA	4
35)	58	16	**BIS159**	EPNE	29	STSP3	18	HYSA	15	CORA	11	CHTE4	8	PSPO	8
36)	74	17	**BIS165**	EPNE	33	STSP3	18	ERCO2	16	CORA	12	ERFA2	9	CHTE4	3
37)	40	15	**BIS166**	EPNE	44	ERCO2	20	STSP3	10	ERFA2	6	CORA	6	ARTRT	3
38)	37	11	**BIS170**	ARTRT	38	CHTE4	18	ERCO2	18	CORA	9	SIHY	6	STSP3	4
39)	46	17	**BIS171**	ARTRT	27	CHTE4	24	CORA	18	EPNE	9	SIHY	7	ERCO2	4
40)	209	18	**BIS172**	EPNE	33	CORA	25	ERCO2	25	STSP3	5	SIHY	4	TEAX	3
41)	225	13	**BIS173**	ARTRT	43	EPNE	24	ERCO2	9	ERFA2	5	SIHY	4	CHTE4	4
42)	124	22	**BIS179**	EPNE	62	ERFA2	14	ERCO2	7	STSP3	4	CORA	3		
43)	601	23	**BIS180**	ERFA2	18	ARTRT	17	EPVI	14	STSP3	9	CHVI8	7	PIMO	7
44)	94	15	**BIS186**	EPNE	37	ERCO2	25	CORA	12	ARTRT	8	STSP3	7	ERFA2	4
45)	34	18	**BIS187**	EPNE	25	ERFA2	20	ERCO2	16	ARTRT	16	STSP3	8	GRSP	4
46)	65	14	**BIS192**	ERFA2	49	CHTE4	28	STSP3	6	ERCO2	5	POSC	5	EPNE	2
47)	36	17	**BIS197**	ERFA2	41	CORA	15	ERCO2	10	EPNE	9	STSP3	7	HYSA	4
48)	17	20	**BIS202**	ARTRT	48	EPNE	42	CORA	3	CHNA2	2	SALIX	2		
49)	21	20	**BIS203**	EPNE	69	CORA	13	ERCO2	8	STSP3	4	ARTRT	1	SIHY	1
50)	28	20	**BIS205**	EPNE	53	CORA	23	STSP3	14	ERCO2	3	ARTRT	2	TEAX	2
51)	104	19	**BIS215**	ERFA2	37	STSP3	27	ERCO2	10	CORA	9	GRSP	5	EPNE	4
52)	418	16	**BLK001**	ATCA2	29	PSARM	26	TEAX	15	EPNE	11	PSPO	4	CELA	3
53)	1837	15	**BLK019**	ATCO	30	TEAX	19	PSARM	12	EPNE	10	SAVE4	9	ARSP5	6
54)	132	20	**BLK047**	PSARM	22	EPNE	21	ATCA2	10	HYSA	9	ARTRT	8	ERCO2	5

35100 Great Basin Mixed Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
55)	470	*19*	**BLK144**	ATPO	40	PSARM	24	ATCO	13	ARSP5	10	HYSA	5	TEAX	2
56)	22	*20*	**BLK145**	ATCO	35	PSARM	32	HYSA	8	TEAX	7	SAVE4	5	AMDU2	2
57)	24	*12*	**FSL006**	ATCO	38	PSPO	18	EPNE	15	AAFF	12	PSARM	10	TEAX	3
58)	72	*13*	**FSL014**	TEGL	29	PSPO	26	ATCO	22	SAVE4	11	ORHY	9	ERKEK	2
59)	550	*9*	**FSL015**	TEGL	44	ATCO	20	EPNE	10	CHVI8	4	ARSP5	4	MESP2	4
60)	28	*16*	**FSL020**	ATCO	31	PSARM	23	SUTO	15	PSPO	12	ORHY	9	ERIN4	1
61)	14	*8*	**FSL026**	TEGL	39	ATCO	20	CHTE4	12	EPNE	10	CHVI8	8	PSARM	4
62)	98	*12*	**FSL029**	ATCO	27	ARSP5	22	PSARM	16	MESP2	14	EPNE	8	TEAX	7
63)	142	*12*	**FSL040**	TEAX	38	ATCO	23	PSARM	19	PSPO	10	TEGL	4	GRSP	1
64)	45	*11*	**FSL121**	TEAX	27	ATCO	25	CHNA2	22	PSARM	12	EPNE	7	PSPO	2
65)	346	*10*	**FSL164**	MESP2	50	ATCO	13	EPNE	9	TEAX	7	ARSP5	6	GRSP	6
66)	32	*8*	**FSL170**	ATCO	35	PSPO	17	AAFF	13	BRTE	12	PSARM	10	LEFR2	8
67)	152	*10*	**FSL176**	PSARM	35	TEAX	19	EPNE	18	ATCO	17	ATCA2	3	CHNA2	2
68)	794	*10*	**FSL177**	ERCO2	24	ARSP5	22	EPNE	22	ATCO	17	PSARM	5	GRSP	2
69)	14	*12*	**FSL200**	EPNE	36	TEAX	20	PSARM	19	GRSP	10	HYSA	4	MESP2	4
70)	21	*10*	**FSL209**	PSARM	43	PSPO	35	ATCO	19	ATCA2	2				
71)	112	*13*	**FSL210**	PSARM	37	ATCO	23	TEAX	19	ATCA2	8	CELA	5	GRSP	2
72)	16	*8*	**FSL211**	TEAX	36	ATCO	31	MESP2	12	GRSP	10	CHNA2	3	ERCO2	1
73)	31	*15*	**FSP001**	EPNE	39	PSARM	11	BRRU2	10	BRTE	6	TEAX	5	GRSP	5
74)	73	*17*	**FSP027**	EPNE	60	ATCA2	14	PSARM	12	CHNA2	3	TEAX	3		
75)	51	*12*	**FSP040**	ERFA2	31	STSP3	21	PUGL2	7	CHTE4	7	EPNE	6	BRRU2	6
76)	390	*20*	**FSP041**	ARTRT	33	EPNE	31	ERFA2	12	PSARM	6	TEAX	6	STSP3	2
77)	1027	*22*	**FSP042**	ERFA2	46	EPNE	19	ERCO2	14	PSARM	6	HYSA	5		
78)	15	*18*	**FSP047**	TEAX	25	PSPO	16	PSARM	16	CELA	12	EPNE	12	GRSP	5
79)	11	*11*	**LAW001**	TEGL	44	ATCO	19	PSARM	17	EPNE	12	AAFF	5		
80)	21	*14*	**LAW056**	TEAX	40	EPNE	22	ATCO	20	PSARM	5	MESP2	5		
81)	17	*11*	**LAW093**	ATCO	42	PSARM	31	CELA	15	TEAX	4				

35100 Great Basin Mixed Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
82)	355	*10*	**LAW133**	ATCO	35	AMDU2	14	MATO	10	PSARM	10	HYSA	9	TEAX	8
83)	110	*11*	**LAW169**	CHNA2	38	PSPO	24	ATCA2	22	SAKAT	14	ABAG			
84)	27	*14*	**LAW171**	EPNE	54	ATCA2	15	PSPO	13	PSARM	9				
85)	47	*15*	**LNP090**	ERFA2	26	BRTE	16	CELA	9	TEGL	8	ATPO	7	EPNE	7
86)	41	*10*	**LNP091**	ATCO	22	TEGL	12	ERCO2	11	EPNE	10	LYAN	7	GRSP	6
87)	6	*15*	**LNP110**	LEFR2	20	EPNE	14	ORHY	14	GRSP	13	HYSA	12	TEGL	7
88)	62	*12*	**MAN064**	ATCO	25	TEGL	25	EPNE	10	ATPO	10	SAVE4	5	ERCO2	4
89)	6	*16*	**PLC014**	EPNE	40	ATCO	26	GRSP	11	TEAX	10	PSARM	6		
90)	60	*16*	**PLC019**	EPNE	45	ATCA2	24	PSPO	12	ATCO	5	TEAX	4	PSARM	3
91)	37	*17*	**PLC025**	EPNE	48	ATCO	18	TEAX	13	ATCA2	7	PSARM	6		
92)	135	*16*	**PLC049**	EPNE	59	ATCA2	10	PSPO	10	ATCO	10	CHNA2	5	TEAX	4
93)	96	*17*	**PLC066**	EPNE	57	ARTRT	9	ATCA2	8	TEAX	7	ATCO	6	CHNA2	6
94)	20	*17*	**PLC078**	ATCA2	43	EPNE	24	CHNA2	23	PSPO	4				
95)	142	*17*	**PLC081**	EPNE	47	ATCA2	20	CHNA2	16	PSPO	10	TEAX	5		
96)	66	*18*	**PLC118**	EPNE	30	ATCO	28	PSPO	19	TEAX	7	PSARM	6	ORHY	4
97)	42	*20*	**PLC127**	EPNE	28	ATCO	20	PSPO	13	ARTRT	13	TEAX	10	SAVE4	5
98)	14	*18*	**PLC139**	ERCO2	26	ARTRT	26	EPNE	23	CORA	10	ERFA2	7		
99)	75	*17*	**PLC140**	EPNE	22	ERCO2	18	STSP3	13	ERFA2	10	ARTRT	10	GRSP	9
100)	42	*14*	**PLC141**	ATPO	41	ERCO2	30	STSP3	7	GRSP	6	TEAX	6	ARTRT	3
101)	11	*17*	**PLC160**	ERCO2	26	CHTE4	20	STSP3	11	EPNE	10	SIHY	8	ARTRT	8
102)	35	*15*	**PLC168**	EPNE	85	ERCO2	3	HYSA	3	ARTRT	3	GRSP	2		
103)	26	*13*	**PLC182**	EPNE	60	TEAX	27	TEGL	6	ORHY	3	ATCO	3		
104)	31	*10*	**PLC202**	ATCO	42	ARTRT	37	ATTO	4	CHNA2	4	EPNE	2	PSARM	2
105)	10	*10*	**PLC212**	ATCO	42	ARSP5	16	PSARM	13	MESP2	12	ATPO	7	GRSP	5
106)	41	*10*	**PLC217**	ATCO	40	PSARM	24	MATO	14	ORHY	10	CELA	4		
107)	63	*13*	**PLC226**	ATCO	25	MESP2	18	PSARM	13	EPNE	8	GRSP	8	ATCA2	6
108)	48	*16*	**PLC229**	HYSA	27	CELA	19	EPNE	14	PSARM	10	TEAX	10	ATCA2	5

35100 Great Basin Mixed Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
109)	20	*10*	**PLC233**	MESP2	42	ATCO	41	ATPO	10						
110)	72	*12*	**PLC244**	ATPO	32	CELA	19	MESP2	14	ATCO	14	PSARM	13	ARSP5	6
111)	48	*16*	**PLC247**	MESP2	41	ATCO	27	PSARM	11	ARTRT	3	SAVE4	3	GRSP	3
112)	157	*15*	**PLC256**	MESP2	40	ATCO	28	PSARM	11	ATPO	5	TEAX	4	ERCO2	3
113)	280	*17*	**TIN014**	ATCO	43	HYSA	14	PSARM	12	MESP2	10	ATPO	4	ARSP5	2
114)	133	*15*	**TIN018**	ATCO	35	PSARM	31	AMDU2	15	HYSA	2	MATO	2	CELA	2
115)	115	*13*	**TIN020**	ATCO	29	ERFA2	13	ARSP5	10	EPNE	9	BRRU2	8	ATPO	7
116)	108	*20*	**TIN040**	ATPO	33	PSARM	14	GRSP	8	ATCO	7	TEAX	5	ARSP5	5
117)	83	*21*	**TIN044**	ATCO	28	TEAX	18	PSPO	18	SPAI	16	ATCA2	4	PSARM	3
118)	155	*18*	**TIN054**	ARTRT	37	PSARM	19	TEAX	14	SPAI	10	ATCO	7	PSPO	3
119)	17	*20*	**TIN055**	PSARM	24	BRRU2	18	EPNE	15	TEAX	10	CELA	8	ERCO2	8
120)	142	*15*	**TIN069**	ATCO	20	TEAX	19	SAVE4	19	PSARM	18	ARSP5	6	CELA	3
121)	164	*21*	**TIN071**	ATCO	28	ATPO	25	ARSP5	18	PSARM	15	AMDU2	5	CELA	4
122)	102	*16*	**UHL001**	EPNE	23	ATCO	17	CELA	11	AMDU2	11	MESP2	8	LEFR2	6
123)	18	*12*	**UHL003**	TEGL	20	PSARM	18	CHNA2	17	EPNE	10	ATCO	8	ARTRT	6
124)	17	*12*	**UHL006**	ATCO	31	MESP2	26	ARSP5	18	EPNE	6	PSARM	4	ATPO	4
125)	6	*19*	**UHL007**	HYSA	49	ATPO	19	ATCO	9	PSARM	6	CELA	5	LEFR2	4
126)	32	*20*	**UHL013**	PSARM	16	ATCO	15	ARSP5	11	EPNE	11	LEFR2	10	MATO	10
127)	51	*16*	**UHL014**	HYSA	41	ARSP5	15	PSARM	11	ATCO	7	ATPO	5	AMDU2	4
128)	18	*15*	**UHL015**	MATO	28	PSARM	21	ARSP5	15	ATCO	14	LEFR2	7	HYSA	3
129)	12	*18*	**UHL017**	MESP2	35	ATPO	20	CELA	11	ARSP5	11	SAVE4	7	ATCO	4
130)	63	*21*	**UHL024**	MESP2	30	ATCA2	29	PSARM	16	CELA	13	ATCO	4	ORHY	4
131)	73	*15*	**UHL025**	MESP2	44	CELA	13	PSARM	12	ATCA2	11	GRSP	8	TEAX	4
132)	248	*18*	**UHL026**	MESP2	47	ATCO	30	CELA	8	PSARM	8				
133)	18	*14*	**UHL027**	ATCO	30	ATPO	24	ARSP5	16	CELA	13	SAKAT	5	AAFF	4
134)	103	*12*	**UHL028**	ARTRT	33	ATCO	31	SAVE4	6	MESP2	6	CHNA2	6	DISPS2	3
135)	34	*18*	**UHL042**	HYSA	43	ATPO	33	ATCO	11	PSARM	7				

35210 Big Sagebrush Scrub
Species Summary for 44 Parcels
Parcel Average % Live Cover = 17.9

spp	%cov	%comp	%freq	spp	%cov	%comp	%freq
AAFF	0.160	0.95	13.6	GRSP	0.030	0.18	9.1
ABAG	0.000	0.00	9.1	HYSA	0.139	0.83	18.2
ARSP5	0.018	0.10	4.5	LETR	0.109	0.65	2.3
ARTRT	**10.56**	**63.10**	**100.0**	MESP2	0.025	0.15	4.5
ATCA2	0.745	4.45	34.1	PENST	0.040	0.24	2.3
ATCO	0.246	1.47	15.9	PRAN2	0.024	0.14	2.3
ATPO	0.122	0.73	9.1	PSARM	0.050	0.30	6.8
ATTO	0.258	1.54	6.8	PSPO	0.005	0.03	2.3
BAHY	0.250	1.49	2.3	PUGL2	0.476	2.85	9.1
BRTE	0.138	0.83	2.3	ROPS	0.079	0.47	4.5
CADO2	0.009	0.05	2.3	SAKAT	0.035	0.21	2.3
CAREX	0.207	1.23	6.8	SALIX	0.032	0.19	4.5
CELE2	0.056	0.33	2.3	SAVE4	0.063	0.37	6.8
CHNA2	**1.342**	**8.02**	**79.5**	SIHY	0.092	0.55	13.6
CHTE4	0.040	0.24	6.8	SPAI	0.273	1.63	9.1
CHVI8	0.025	0.15	4.5	STSP3	0.168	1.00	13.6
CORA	0.014	0.08	2.3	TAPA4	0.005	0.03	2.3
DISPS2	0.044	0.26	4.5	TARA	0.006	0.04	4.5
EPNE	0.453	2.70	43.2	TEAX	0.043	0.26	6.8
ERFA2	0.161	0.96	13.6	VUMI	0.010	0.06	2.3
GLLE3	0.188	1.12	2.3				

35210 **Big Sagebrush Scrub** Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	44	*20*	**BGP003**	ARTRT	80	CHNA2	13								
2)	38	*22*	**BGP108**	ARTRT	44	CHNA2	19	ROPS	10	ATCA2	9	EPNE	7	HYSA	3
3)	9	*27*	**BGP113**	ARTRT	58	CHNA2	19	ATCA2	13	HYSA	6				
4)	11	*15*	**BGP115**	ARTRT	79	CHTE4	5	SIHY	5	CHNA2	2	EPNE	2		
5)	87	*19*	**BGP121**	ARTRT	85	CHNA2	4	CAREX	3	SIHY	3				
6)	35	*21*	**BGP124**	ARTRT	65	CHNA2	25	CAREX	4						
7)	44	*32*	**BGP132**	CAREX	24	ARTRT	22	BRTE	19	LETR	15	CHNA2	4	ROPS	4
8)	52	*26*	**BGP145**	ARTRT	59	CHNA2	14	EPNE	10	ATCA2	7	SAKAT	6		
9)	107	*17*	**BGP216**	ARTRT	57	ATCO	9	DISPS2	9	SPAI	8	CHNA2	3	ARSP5	3
10)	90	*8*	**BIS005**	ARTRT	49	AAFF	43	ATCA2	7						
11)	173	*7*	**BIS013**	ARTRT	64	ATCA2	16	AAFF	14						
12)	132	*10*	**BIS147**	ARTRT	86	CHNA2	5	EPNE	3						
13)	162	*10*	**BIS155**	ARTRT	33	ATCA2	28	STSP3	13	HYSA	8	GRSP	5	SIHY	3
14)	102	*12*	**BIS160**	ARTRT	90	CHNA2	2	EPNE	2						
15)	73	*15*	**BIS164**	ARTRT	51	EPNE	18	ERFA2	8	CHTE4	4	STSP3	4	TEAX	4
16)	65	*13*	**BIS181**	ARTRT	57	EPNE	29	CHNA2	9						
17)	75	*12*	**BIS183**	ARTRT	84	CHNA2	9	SIHY	4						
18)	15	*13*	**BIS190**	ARTRT	69	SIHY	13	STSP3	5	EPNE	4	CHTE4	3	HYSA	1
19)	57	*13*	**BIS212**	ARTRT	86	CHNA2	8	SIHY	2	EPNE	2				
20)	28	*7*	**BIS216**	ARTRT	85	CHNA2	7	AAFF	5						
21)	1197	*21*	**BLK010**	ARTRT	70	CHNA2	10	PSARM	4	EPNE	3	ATCA2	2	GRSP	1
22)	73	*26*	**BLK032**	ARTRT	85	CHNA2	5	AAFF	5						
23)	64	*16*	**BLK081**	ARTRT	59	CHNA2	20	ATCA2	12	HYSA	4	ABAG			
24)	13	*13*	**FSL131**	ARTRT	45	ATCO	20	PSARM	7	TEAX	6	MESP2	6	GRSP	4
25)	68	*7*	**FSL139**	ARTRT	72	ATCO	19	CHNA2	5	ATTO	1	ABAG			
26)	113	*7*	**FSL195**	ARTRT	55	ATCA2	22	CHNA2	8	SPAI	6	AAFF	5	EPNE	2
27)	343	*20*	**FSP024**	ARTRT	66	CHNA2	18	ATCA2	4	EPNE	2				

35210 Big Sagebrush Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	171	*18*	**FSP035**	ARTRT	82	EPNE	6	ERFA2	2	CHNA2	2				
29)	62	*14*	**FSP045**	ARTRT	75	ERFA2	8	HYSA	4	VUMI	3				
30)	116	*21*	**FSP061**	ARTRT	50	STSP3	16	CHNA2	10	ERFA2	8	PRAN2	5	PUGL2	2
31)	150	*20*	**FSP062**	ARTRT	61	PUGL2	26	CHNA2	2	CADO2	2				
32)	63	*55*	**IND033**	ARTRT	35	ATTO	20	BAHY	20	GLLE3	15				
33)	35	*25*	**IND036**	ARTRT	50	CHNA2	20	ATCA2	20	ATPO	8	ATCO	1		
34)	12	*15*	**LAW182**	ARTRT	86	ATCA2	6	CHNA2	5						
35)	349	*15*	**LNP039**	ARTRT	60	ATPO	16	CHNA2	10	AAFF	4	TARA	1		
36)	26	*15*	**LNP070**	ARTRT	80	HYSA	8	CHNA2	5	ATCO	2				
37)	112	*12*	**LNP105**	ARTRT	83	EPNE	7								
38)	49	*23*	**MAN045**	ARTRT	68	SPAI	14	CHNA2	4	ATPO	3	SALIX	2	SAVE4	2
39)	177	*13*	**MAN046**	ARTRT	50	ATCO	32	CHNA2	6	HYSA	4	ATPO	2	ATCA2	2
40)	67	*14*	**MAN070**	ARTRT	58	CHNA2	13	ERFA2	7	EPNE	7	STSP3	3	CHVI8	3
41)	160	*35*	**MAN084**	PUGL2	43	ARTRT	19	CELE2	7	EPNE	5	CHNA2	5	ERFA2	5
42)	151	*13*	**PLC189**	ARTRT	66	SAVE4	15	EPNE	5	ATCO	5	TEAX	4	DISPS2	3
43)	163	*23*	**TIN038**	ARTRT	52	ATCA2	23	CHNA2	10	EPNE	3	PSARM	2		
44)	53	*27*	**TIN056**	ARTRT	44	SPAI	26	ATCA2	18	CHNA2	4				

35400 Rabbitbrush Scrub
Species Summary for 57 Parcels
Parcel Average % Live Cover = 14.8

spp	%cov	%comp	%freq	spp	%cov	%comp	%freq
AAFF	0.492	3.50	31.6	GLLE3	0.035	0.25	3.5
ABAG	0.000	0.00	64.9	IVAX	0.013	0.09	1.8
AMAC2	0.021	0.15	1.8	LETR	0.020	0.14	1.8
ARTRT	**0.886**	**6.31**	**42.1**	MEAL2	0.301	2.14	1.8
ATCA2	0.574	4.08	29.8	ORHY	0.016	0.11	7.0
ATCO	0.244	1.74	24.6	POFR3	0.034	0.24	5.3
ATTO	0.640	4.55	28.1	PSPO	0.128	0.91	10.5
BAHY	0.740	5.27	14.0	ROPS	0.004	0.02	1.8
BRRU2	0.015	0.11	1.8	ROWO	0.012	0.08	1.8
BRTE	0.067	0.48	3.5	SAKAT	0.770	5.48	38.6
CADO2	0.179	1.27	5.3	SALIX	0.266	1.89	8.8
CAREX	0.012	0.09	1.8	SAVE4	0.192	1.36	14.0
CHNA2	**7.550**	**53.70**	**100.0**	SIHY	0.021	0.15	3.5
CYDA	0.010	0.07	1.8	SPAI	0.226	1.61	14.0
DEPI	0.056	0.40	1.8	TAPA4	0.019	0.14	14.0
DISPS2	0.470	3.35	29.8	TARA	0.017	0.12	8.8
EPNE	0.023	0.16	1.8	TEAX	0.007	0.05	1.8

35400 **Rabbitbrush Scrub** Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	6	18	**BGP028**	CHNA2	55	ARTRT	27	SAKAT	8	ABAG					
2)	118	18	**BGP030**	CHNA2	80	ARTRT	12	TAPA4	1	ABAG					
3)	53	23	**BGP128**	CHNA2	54	ARTRT	25	BRTE	8	CAREX	3	AAFF	3	ABAG	
4)	616	22	**BGP146**	CHNA2	60	ATCA2	18	BRTE	9	BRRU2	4	ABAG			
5)	167	25	**BGP153**	SAKAT	30	CHNA2	27	BAHY	13	SPAI	8	SAVE4	5	SALIX	5
6)	45	29	**BGP157**	CHNA2	36	ATTO	35	SPAI	19	DISPS2	4	ABAG			
7)	73	8	**BIS019**	CHNA2	61	ATCA2	19	AAFF	13	TEAX	5	ABAG			
8)	13	28	**BIS036**	CHNA2	35	CADO2	33	SALIX	15	LETR	4	CYDA	2	POFR3	2
9)	15	18	**BIS068**	CHNA2	21	ATTO	18	SPAI	15	SAKAT	15	SAVE4	10	ATCO	10
10)	148	10	**BIS090**	CHNA2	80	POFR3	9	SAKAT	4	CADO2	2	ROPS	2		
11)	644	10	**BIS156**	CHNA2	73	ARTRT	10	AAFF	4	SIHY	4	TAPA4	1	ABAG	
12)	622	10	**BIS169**	CHNA2	56	ARTRT	29	SIHY	8	ABAG					
13)	173	23	**BLK002**	CHNA2	62	AAFF	21	ARTRT	7	SAKAT	3	SPAI	2	ATCA2	2
14)	62	21	**BLK012**	CHNA2	33	ARTRT	28	ATCA2	25	AAFF	10	TAPA4	1	ABAG	
15)	34	20	**BLK013**	CHNA2	61	AAFF	20	DEPI	16	ABAG					
16)	12	20	**BLK029**	CHNA2	80	ARTRT	10	AAFF	5	ABAG					
17)	90	18	**BLK031**	CHNA2	35	ARTRT	30	AAFF	25	ATCA2	5	TAPA4	1	ABAG	
18)	146	10	**FSL118**	CHNA2	45	ATTO	17	ARTRT	15	ATCA2	10	SAVE4	7	DISPS2	1
19)	187	11	**FSL122**	CHNA2	35	DISPS2	24	ATTO	20	ATCO	10	SPAI	4	SAVE4	2
20)	70	7	**FSL133**	CHNA2	83	ARTRT	10	ATCO	3	ABAG					
21)	17	13	**FSL140**	CHNA2	30	SAVE4	29	ATCO	17	AAFF	10	DISPS2	9	ATCA2	3
22)	227	9	**FSL142**	CHNA2	50	AAFF	28	SAKAT	20	ABAG					
23)	219	5	**FSL143**	CHNA2	92	SAKAT	3	ATCO	3	AAFF	1	ABAG			
24)	102	10	**FSL199**	CHNA2	76	AAFF	16	ATCA2	3	ARTRT	2	ORHY	1	ABAG	
25)	346	20	**FSP037**	CHNA2	51	ARTRT	31	AAFF	7	SAKAT	5				
26)	47	15	**LAW066**	CHNA2	77	BAHY	11	DISPS2	4	ABAG					
27)	33	11	**LAW069**	CHNA2	61	AMAC2	11	SAKAT	10	DISPS2	6	PSPO	5	ABAG	

35400 **Rabbitbrush Scrub** Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	146	12	**LAW119**	CHNA2	38	BAHY	25	DISPS2	19	SAKAT	6	ATTO	5	ABAG	
29)	172	9	**LAW147**	CHNA2	65	ARTRT	8	ATCO	8	AAFF	7	SAKAT	5	ATTO	5
30)	14	35	**LAW161**	MEAL2	49	CHNA2	22	DISPS2	11	BAHY	6	SALIX	6		
31)	76	6	**LAW167**	CHNA2	65	AAFF	15	ATCO	8	SAKAT	8	ABAG			
32)	104	12	**MAN016**	CHNA2	77	ARTRT	10	SAKAT	7	ATCO	2				
33)	155	33	**MAN017**	BAHY	47	SAKAT	40	CHNA2	5	SALIX	3	GLLE3	2	TARA	1
34)	132	33	**MAN042**	BAHY	42	SALIX	20	SAKAT	16	CHNA2	8	GLLE3	4	ROWO	2
35)	118	11	**PLC004**	CHNA2	87	SAKAT	6	AAFF	4	ABAG					
36)	31	21	**PLC012**	CHNA2	61	BAHY	13	ATCA2	8	ARTRT	8	SAKAT	6		
37)	726	9	**PLC027**	CHNA2	73	SAKAT	18	AAFF	3	ORHY	2	TAPA4	1		
38)	83	15	**PLC036**	CHNA2	60	DISPS2	18	SAKAT	7	CADO2	5	POFR3	3	ABAG	
39)	100	13	**PLC037**	CHNA2	88	ARTRT	4	ATTO	4	ABAG					
40)	318	11	**PLC048**	CHNA2	44	ATTO	38	ATCO	5	SAKAT	4	SAVE4	3	ABAG	
41)	253	12	**PLC058**	ATCA2	41	CHNA2	36	ATTO	14						
42)	72	13	**PLC063**	CHNA2	58	ATCA2	28	PSPO	10	ABAG					
43)	35	11	**PLC064**	CHNA2	60	DISPS2	27	SAKAT	9	ABAG					
44)	65	10	**PLC065**	CHNA2	66	ARTRT	13	ATCA2	9	PSPO	6				
45)	60	15	**PLC072**	CHNA2	87	DISPS2	7	ATTO	2	ABAG					
46)	345	6	**PLC090**	CHNA2	75	ARTRT	10	ATCA2	6	AAFF	6	ABAG			
47)	38	11	**PLC092**	CHNA2	76	DISPS2	8	SPAI	7	ATTO	6				
48)	78	13	**PLC110**	CHNA2	40	SAVE4	18	ATCO	15	EPNE	10	ARTRT	6	DISPS2	6
49)	60	9	**PLC111**	CHNA2	53	DISPS2	20	ATTO	20	ABAG					
50)	69	13	**PLC113**	CHNA2	49	ATTO	28	ATCO	9	DISPS2	3	ORHY	3	TAPA4	1
51)	74	10	**PLC117**	CHNA2	35	ATCA2	34	PSPO	25	ARTRT	3				
52)	58	13	**PLC122**	CHNA2	56	DISPS2	19	PSPO	13	ATCA2	4	ABAG			
53)	12	12	**PLC129**	CHNA2	74	ARTRT	11	SPAI	3	ATCO	2	ORHY	2	TARA	1
54)	416	13	**PLC138**	CHNA2	80	ARTRT	12	TAPA4	1	ABAG					

35400 Rabbitbrush Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
55)	57	13	**PLC187**	CHNA2	61	ATTO	30	TARA	1						
56)	62	7	**PLC203**	CHNA2	58	ATCO	20	ATTO	10	ATCA2	4	SAKAT	2	TARA	1
57)	71	13	**PLC239**	CHNA2	45	ATCA2	25	ATCO	13	PSPO	5	SAVE4	4	ARTRT	3

36110 Desert Saltbush Scrub
Species Summary for 27 Parcels
Parcel Average % Live Cover = 13.7

spp	%cov	%comp	%freq
AAFF	0.258	1.95	33.3
ABAG	0.000	0.00	14.8
ARSP5	0.114	0.86	7.4
ARTRT	0.349	2.64	33.3
ATCA2	**1.936**	**14.63**	**44.4**
ATCO	**1.243**	**9.40**	**48.1**
ATPO	**7.887**	**59.62**	**81.5**
ATTO	0.204	1.54	11.1
BAHY	0.104	0.78	3.7
CELA	0.031	0.24	3.7
CHNA2	0.569	4.30	37.0
EPNE	0.019	0.14	3.7
HYSA	0.065	0.49	3.7
MESP2	0.079	0.60	7.4
ORHY	0.048	0.36	7.4
PSARM	0.024	0.18	7.4
PSPO	0.073	0.55	3.7
SAKAT	0.142	1.07	14.8
SAVE4	0.032	0.24	7.4
SPAI	0.020	0.15	7.4
SUTO	0.033	0.25	3.7
TEAX	0.004	0.03	3.7

36110 Desert Saltbush Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	17	9	**BIS004**	ATCA2	72	AAFF	25	ARTRT	2						
2)	254	10	**BIS015**	ATCA2	69	CHNA2	12	ORHY	12	AAFF	3				
3)	73	10	**FSL144**	ATCA2	74	CHNA2	13	ATCO	7	AAFF	3	ORHY	1	ABAG	
4)	50	5	**IND012**	ATPO	50	ATCA2	35	CHNA2	10	ARTRT	5				
5)	77	5	**IND015**	ATCA2	45	HYSA	35	EPNE	10						
6)	51	35	**IND017**	ATPO	80	ATTO	10	ATCA2	5	ATCO	2	SPAI	1		
7)	85	10	**IND027**	ATPO	80	ATCO	15	ARTRT	3	PSARM	1	TEAX	1		
8)	25	30	**IND032**	ATPO	75	ATCA2	15	ARTRT	5	ATTO	5				
9)	24	35	**IND038**	ATPO	65	CHNA2	20	BAHY	8	SAKAT	3	ARTRT	2	ATCA2	1
10)	100	10	**IND104**	ATCA2	95	CHNA2	1	AAFF	1	SAKAT	1	ATPO	1	ARTRT	1
11)	14	10	**IND126**	ATCA2	50	SAKAT	25	CHNA2	15	ATPO	5	AAFF	4		
12)	38	18	**IND206**	ATPO	68	ATCO	25	SUTO	5	SPAI	1	SAVE4	1		
13)	86	6	**LAW130**	ATPO	81	ATCO	15								
14)	163	9	**LNP038**	ATPO	72	AAFF	14	CHNA2	2	ARTRT	2	SAKAT	2		
15)	36	10	**LNP071**	ATPO	68	ARSP5	24	AAFF	2						
16)	211	17	**MAN043**	ATPO	41	ARTRT	33	CHNA2	11	ATCO	4	ATTO	3	ATCA2	2
17)	34	15	**PLC142**	ATPO	80	CHNA2	4	ARTRT	4	AAFF	3	ABAG			
18)	156	7	**PLC218**	ATPO	98	ABAG									
19)	51	13	**PLC224**	ATPO	98	ABAG									
20)	98	11	**PLC227**	ATCA2	55	PSPO	18	CHNA2	10	ATCO	10				
21)	64	11	**PLC228**	ATPO	56	ATCO	31	MESP2	7						
22)	31	14	**PLC232**	ATPO	95										
23)	83	10	**PLC234**	ATPO	65	ATCO	30								
24)	47	11	**PLC243**	ATPO	86	ATCO	6	PSARM	5						
25)	35	15	**PLC255**	ATPO	80	ATCO	12								
26)	59	17	**UHL023**	ATCO	39	ATPO	34	MESP2	8	CELA	5	ARSP5	4	SAVE4	4
27)	278	17	**UHL038**	ATCO	47	ATPO	38	AAFF	10						

36120 Desert Sink Scrub
Species Summary for 92 Parcels
Parcel Average % Live Cover = 14.2

spp	%cov	%comp	%freq
AAFF	0.008	0.06	2.2
ALOC2	0.024	0.18	3.3
ARSP5	0.008	0.06	2.2
ARTRT	0.418	3.12	19.6
ASIN4	0.227	1.69	20.7
ATCA2	0.038	0.28	1.1
ATCO	**1.822**	**13.59**	**82.6**
ATPA3	**0.617**	**4.60**	**47.8**
ATTO	0.303	2.26	23.9
BRRU2	0.013	0.09	2.2
CHNA2	**0.573**	**4.27**	**51.1**
CLEOM2	0.021	0.16	2.2
CORA5	0.005	0.04	1.1
DISPS2	**1.729**	**12.89**	**87.0**
EPNE	0.049	0.37	5.4
ERKEK	0.002	0.02	1.1
GLLE3	0.001	0.01	1.1
JUBA	0.012	0.09	3.3
ORHY	0.002	0.02	1.1
PSARM	0.026	0.19	5.4
PSPO	0.018	0.14	4.3
SAKAT	0.167	1.25	2.2
SAVE4	**3.273**	**24.41**	**97.8**
SPAI	**3.343**	**24.93**	**83.7**
STPA4	0.010	0.08	2.2
SUTO	0.517	3.85	26.1
TAPA4	0.002	0.01	1.1
TARA	0.034	0.25	25.0
TEAX	0.041	0.31	4.3
TEGL	0.110	0.82	12.0

36120 Desert Sink Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	661	*17*	**BGP021**	SPAI	38	TEGL	17	EPNE	16	SAVE4	11	ATCO	5	DISPS2	3
2)	160	*14*	**BGP024**	SAVE4	35	SPAI	32	DISPS2	12	ATCO	7	ATPA3	3	TEGL	3
3)	106	*13*	**BGP089**	SPAI	38	ARTRT	24	SAVE4	8	ATTO	7	ATCO	6	CHNA2	6
4)	294	*12*	**BGP190**	DISPS2	27	SAVE4	22	ATCO	13	SPAI	11	ATPA3	9	CHNA2	7
5)	32	*12*	**BGP191**	SPAI	48	ATCO	8	SAVE4	8	DISPS2	7	TEGL	5	CHNA2	4
6)	11	*18*	**BLK006**	SPAI	30	ATCO	25	CHNA2	10	DISPS2	8	SAVE4	6	STPA4	4
7)	82	*22*	**BLK018**	SPAI	34	SAVE4	25	ATCO	15	TEAX	8	ARTRT	4	ATPA3	3
8)	120	*10*	**BLK040**	SPAI	62	ATCO	20	DISPS2	5	SAVE4	5	AAFF	5		
9)	171	*13*	**BLK062**	SPAI	39	ATCO	25	SAVE4	16	PSPO	4	PSARM	4	EPNE	3
10)	190	*14*	**BLK064**	SAVE4	30	SPAI	25	ATCO	19	TEGL	6	DISPS2	5	ATPA3	3
11)	124	*5*	**BLK068**	SPAI	45	SAVE4	19	DISPS2	18	ATCO	11	TARA	1		
12)	46	*16*	**BLK077**	SPAI	49	ATCO	31	DISPS2	7	ATPA3	5	SAVE4	3		
13)	143	*23*	**BLK084**	SPAI	28	DISPS2	24	SAVE4	21	ARTRT	12	ATCO	8		
14)	218	*17*	**BLK091**	DISPS2	55	ATCO	15	ATPA3	5	ASIN4	5	CHNA2	4	SAVE4	4
15)	84	*22*	**BLK096**	ARTRT	34	SPAI	34	SAVE4	10	ATCO	8	DISPS2	5	PSARM	2
16)	287	*15*	**BLK119**	SPAI	36	DISPS2	26	SAVE4	22	ATCO	5	CHNA2	5	TARA	1
17)	152	*9*	**BLK121**	SPAI	31	DISPS2	21	ATTO	19	ALOC2	12	ATCO	6	SUTO	6
18)	166	*10*	**BLK125**	SPAI	38	SAVE4	24	ATCO	15	CHNA2	11	DISPS2	6	TARA	1
19)	340	*8*	**BLK141**	DISPS2	48	SAVE4	16	SUTO	7	ATPA3	7	ASIN4	6	ATCO	5
20)	43	*15*	**BLK147**	SAVE4	53	SPAI	13	ATCO	12	ATPA3	10	DISPS2	2	CHNA2	2
21)	256	*10*	**BLK151**	SPAI	50	SAVE4	20	ATCO	13	ATPA3	3	CHNA2	2	TEGL	2
22)	39	*15*	**DOL013**	SUTO	72	ATPA3	22	TARA	1						
23)	144	*11*	**DOL014**	SUTO	88	ATPA3	5	SAVE4	4						
24)	139	*10*	**FSL008**	SAVE4	35	ATCO	25	DISPS2	17	TEGL	8	CHNA2	4	SPAI	4
25)	62	*13*	**FSL042**	SAVE4	32	SPAI	26	DISPS2	15	ASIN4	12	CHNA2	5	ATPA3	3
26)	154	*12*	**FSL045**	DISPS2	33	SAVE4	26	ATPA3	19	SPAI	5	ATCO	4	CHNA2	3
27)	20	*35*	**IND022**	SAVE4	70	SPAI	13	ATCA2	10	CHNA2	5				

36120 Desert Sink Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	46	15	**IND028**	ATCO	55	ARTRT	20	SPAI	10	SAVE4	10	DISPS2	4		
29)	156	12	**IND041**	DISPS2	40	CHNA2	20	SAVE4	15	ATTO	10	ATCO	10	AAFF	2
30)	248	10	**IND046**	SAVE4	39	SPAI	38	ATCO	15	DISPS2	6				
31)	8	11	**IND047**	SAVE4	40	DISPS2	30	ATTO	20	ALOC2	5	SUTO	4		
32)	81	12	**IND066**	ATCO	35	SPAI	30	CHNA2	15	DISPS2	10	SAVE4	7	STPA4	2
33)	174	10	**IND068**	SAVE4	45	ATCO	25	SPAI	20	ATPA3	3	TEGL	3	TEAX	2
34)	384	15	**IND069**	SPAI	40	ATCO	25	SAVE4	15	ATPA3	8	TEGL	7		
35)	427	10	**IND071**	ATCO	55	SPAI	23	SAVE4	17	CHNA2	3	DISPS2	2		
36)	58	10	**IND091**	SPAI	38	SAVE4	31	ATCO	19	CHNA2	6	SUTO	5	DISPS2	1
37)	39	15	**IND152**	ATPA3	21	SAVE4	20	ASIN4	20	SPAI	17	DISPS2	13	ATCO	4
38)	89	15	**IND223**	SPAI	51	SAVE4	15	ATCO	10	TEGL	10	EPNE	5		
39)	99	19	**LAW036**	SAKAT	58	DISPS2	17	SAVE4	6	ATTO	6	CHNA2	6		
40)	66	16	**LAW041**	DISPS2	41	SAVE4	38	ATTO	15						
41)	11	16	**LAW042**	SAVE4	56	DISPS2	17	ATCO	15	ATTO	9				
42)	35	20	**LAW054**	SAVE4	27	SPAI	22	DISPS2	21	CHNA2	15	ATTO	5	PSPO	3
43)	19	12	**LAW068**	SAVE4	61	DISPS2	30	TARA	1						
44)	136	14	**LAW088**	SAKAT	31	DISPS2	24	SPAI	15	SAVE4	14	ATTO	9	TAPA4	1
45)	6	12	**LAW145**	SPAI	50	ATCO	16	DISPS2	13	ATPA3	6	CHNA2	4	SAVE4	4
46)	14	11	**LAW174**	SAVE4	34	ATCO	30	SPAI	10	DISPS2	10	ARTRT	6	CHNA2	4
47)	64	12	**LNP009**	SUTO	25	SAVE4	18	SPAI	13	ATCO	13	CHNA2	11	ARTRT	7
48)	90	11	**LNP026**	ATCO	53	ARTRT	10	SPAI	10	SAVE4	6	EPNE	5	TEAX	3
49)	42	14	**LNP077**	ATPA3	58	DISPS2	27	SUTO	10	TARA	1				
50)	570	12	**LNP079**	SPAI	32	SAVE4	25	ATCO	14	CHNA2	12	DISPS2	4	ATPA3	2
51)	63	20	**MAN009**	DISPS2	25	SAVE4	23	ATTO	15	SPAI	10	CHNA2	6	ATCO	6
52)	40	15	**MAN013**	ATPA3	21	SAVE4	20	ASIN4	20	SPAI	17	DISPS2	13	ATCO	4
53)	90	18	**MAN015**	SPAI	30	DISPS2	27	SAVE4	20	ASIN4	10	ATPA3	5	CHNA2	2
54)	60	15	**MAN020**	SAVE4	45	DISPS2	17	SPAI	12	ATCO	12	SUTO	6	ATPA3	4

36120 Desert Sink — Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
55)	188	15	**MAN024**	SPAI	30	ATCO	22	DISPS2	12	ATPA3	9	SAVE4	9	SUTO	4
56)	76	15	**MAN027**	ATCO	40	ARTRT	22	DISPS2	16	CHNA2	12	CORA5	3	ATTO	2
57)	114	18	**MAN031**	SPAI	50	SAVE4	20	ATCO	10	DISPS2	6	SUTO	5	ATPA3	2
58)	88	20	**MAN032**	SPAI	50	ASIN4	19	ATPA3	15	DISPS2	5	SAVE4	4		
59)	31	18	**MAN033**	SAVE4	31	ATCO	26	SPAI	22	DISPS2	10	CHNA2	5	SUTO	2
60)	31	17	**MAN034**	SPAI	30	DISPS2	25	SAVE4	15	ATCO	10	ATPA3	7	CLEOM	7
61)	22	15	**MAN035**	SAVE4	45	SPAI	20	ATCO	14	DISPS2	10	CLEOM	5	ATPA3	3
62)	91	12	**PLC068**	SAVE4	61	DISPS2	10	ATCO	7	CHNA2	7	ATTO	6		
63)	51	19	**PLC080**	SAVE4	48	DISPS2	18	SPAI	17	CHNA2	14				
64)	74	10	**PLC095**	SAVE4	28	SPAI	23	CHNA2	16	DISPS2	15	ATPA3	7	ATCO	5
65)	69	14	**PLC124**	SAVE4	49	DISPS2	17	ATCO	17	CHNA2	12				
66)	2	15	**PLC130**	ATCO	41	SAVE4	35	SPAI	14	ARTRT	5				
67)	45	11	**PLC133**	CHNA2	40	SAVE4	35	DISPS2	9	ATTO	8	ARTRT	5		
68)	273	14	**PLC183**	SAVE4	43	SPAI	16	ARTRT	12	ATCO	10	CHNA2	10	DISPS2	4
69)	174	12	**PLC184**	SPAI	32	SAVE4	30	DISPS2	18	ATCO	6	ATPA3	5		
70)	276	12	**PLC185**	SAVE4	82	SPAI	6	DISPS2	4	ATCO	4	TARA	1		
71)	44	10	**PLC190**	SAVE4	40	DISPS2	19	SPAI	14	ARTRT	10	ATCO	9		
72)	293	13	**PLC191**	SPAI	38	SAVE4	31	DISPS2	16	ATCO	3	ATPA3	3	TARA	1
73)	32	16	**PLC238**	SPAI	63	ATCO	10	DISPS2	6	SAVE4	6	CHNA2	5	ATTO	4
74)	82	15	**PLC249**	SAVE4	23	DISPS2	20	ATTO	18	SPAI	16	CHNA2	15		
75)	330	13	**PLC250**	SPAI	43	SAVE4	15	ATCO	12	CHNA2	10	DISPS2	9	ATTO	4
76)	878	15	**TIN004**	SPAI	34	SAVE4	30	ATPA3	11	ATCO	6	DISPS2	5	ARTRT	4
77)	418	13	**TIN009**	SPAI	51	ATCO	15	DISPS2	8	ATPA3	8	SAVE4	4	ARTRT	4
78)	699	4	**TIN015**	ATPA3	39	DISPS2	28	ASIN4	22	SAVE4	6				
79)	659	9	**TIN019**	DISPS2	30	ATPA3	20	ASIN4	16	SPAI	13	SAVE4	9	ATCO	5
80)	241	20	**TIN042**	SAVE4	31	SPAI	26	ARTRT	12	CHNA2	8	ATTO	8	ATCO	8
81)	39	15	**TIN043**	SPAI	51	TEAX	10	ATCO	9	ATPA3	9	SAVE4	5	PSARM	4

36120 Desert Sink — Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
82)	140	*10*	**TIN046**	SPAI	32	ATPA3	26	DISPS2	21	SAVE4	6	ATCO	6		
83)	281	*11*	**TIN047**	ATCO	33	SAVE4	27	SPAI	11	SUTO	11	ATPA3	5	ASIN4	3
84)	51	*20*	**TIN051**	SPAI	26	SAVE4	17	ATCO	12	DISPS2	11	ATTO	10	SUTO	8
85)	98	*15*	**UNW017**	SUTO	33	SPAI	30	DISPS2	13	ATCO	11	SAVE4	5	CHNA2	3
86)	81	*25*	**UNW020**	ARTRT	30	SUTO	25	SPAI	15	ATCO	14	SAVE4	5	ATTO	4
87)	70	*20*	**UNW036**	SPAI	52	SAVE4	15	ATCO	9	CHNA2	8	DISPS2	7	SUTO	2
88)	19	*14*	**UNW051**	ATCO	32	SPAI	30	DISPS2	10	SAVE4	6	SUTO	5	ATPA3	5
89)	213	*10*	**UNW059**	SAVE4	35	ATCO	30	DISPS2	10	SUTO	10	SPAI	5	CHNA2	3
90)	131	*14*	**UNW062**	ATCO	42	SPAI	18	DISPS2	12	SAVE4	10	SUTO	3	ASIN4	3
91)	117	*10*	**UNW066**	ATPA3	34	SAVE4	24	ATCO	11	SPAI	10	SUTO	7	DISPS2	7
92)	517	*12*	**UNW071**	ATCO	30	SAVE4	26	SPAI	25	TEGL	10	SUTO	2	EPNE	1

36130 Desert Greasewood Scrub
Species Summary for 45 Parcels
Parcel Average % Live Cover = 13.0

spp	%cov	%comp	%freq
AAFF	0.020	0.16	4.4
ABAG	0.000	0.00	4.4
AMDU2	0.011	0.09	2.2
ARSP5	0.098	0.79	13.3
ARTRT	0.115	0.93	15.6
ASIN4	0.005	0.04	2.2
ATCA2	0.162	1.31	8.9
ATCO	**3.060**	**24.74**	**77.8**
ATPA3	0.194	1.57	15.6
ATPO	0.023	0.19	2.2
ATTO	**1.015**	**8.21**	**35.6**
CHNA2	0.299	2.42	35.6
DISPS2	0.229	1.85	31.1
EPNE	0.129	1.04	15.6
GRSP	0.008	0.07	4.4
MESP2	0.055	0.44	4.4
PSARM	0.034	0.27	4.4
PSPO	0.121	0.98	17.8
SALIX	0.003	0.02	2.2
SAVE4	**5.322**	**43.02**	**100.0**
SPAI	0.076	0.62	15.6
STEPH	0.014	0.11	2.2
STPI	0.018	0.14	2.2
SUTO	**0.951**	**7.69**	**57.8**
TAPA4	0.011	0.09	6.7
TARA	0.018	0.14	4.4
TEAX	0.098	0.79	15.6
TEGL	0.280	2.26	24.4

36130 Desert Greasewood Scrub — Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	157	11	**BEE016**	ATCO	60	SAVE4	8	TEGL	8	EPNE	5	ARSP5	4	PSPO	4
2)	96	14	**BGP027**	SAVE4	28	ATCO	25	TEGL	21	TEAX	8	PSPO	4	ARSP5	4
3)	409	11	**BGP197**	ATCO	26	SAVE4	19	ARSP5	15	SUTO	11	MESP2	11	EPNE	7
4)	77	21	**BGP211**	SAVE4	35	ATTO	24	ATCO	18	SUTO	7	CHNA2	6	DISPS2	5
5)	320	10	**DOL008**	SAVE4	30	ATCO	23	SUTO	21	ATPA3	12	PSPO	10		
6)	73	14	**DOL009**	SUTO	57	SAVE4	39								
7)	51	9	**DOL028**	SUTO	47	SAVE4	45	ATPA3	4						
8)	28	12	**FSL062**	SAVE4	34	ATCO	32	PSPO	13	PSARM	10	TEAX	5	EPNE	2
9)	30	9	**FSL193**	ATCO	40	SAVE4	30	CHNA2	19	ARTRT	5	GRSP	2		
10)	44	35	**IND016**	SAVE4	55	ATTO	25	ATCA2	15	ATPO	3	SUTO	1		
11)	196	11	**IND045**	SAVE4	64	ATCO	25	SPAI	5	DISPS2	2	SUTO	2		
12)	384	12	**IND072**	ATCO	45	SAVE4	22	TEGL	22	EPNE	5	SUTO	3	CHNA2	2
13)	91	15	**IND136**	ATCO	75	SAVE4	15	SUTO	5	AAFF	2				
14)	45	15	**LAW048**	SAVE4	52	ATCO	23	ATTO	12	CHNA2	6				
15)	40	12	**LAW063**	SAVE4	82	DISPS2	10								
16)	10	7	**LAW076**	SAVE4	86	CHNA2	8								
17)	42	19	**LAW097**	SAVE4	54	ATTO	30	CHNA2	6	TAPA4	1				
18)	28	10	**LAW104**	SAVE4	65	ATTO	32								
19)	56	10	**LAW165**	ATCO	59	SAVE4	20	TEAX	7	DISPS2	3	ARTRT	2	GRSP	2
20)	12	12	**LAW173**	SAVE4	78	ATCO	9	DISPS2	6	AAFF	5				
21)	336	10	**LNP007**	ATCO	41	SAVE4	21	TEGL	16	EPNE	5	TEAX	3	PSPO	3
22)	13	13	**LNP020**	ATCO	40	SAVE4	26	SUTO	10	CHNA2	6	ARTRT	4	DISPS2	4
23)	133	12	**LNP024**	SAVE4	42	ATCO	30	TEGL	7	ARSP5	6	TEAX	3	SUTO	3
24)	63	16	**LNP048**	SAVE4	33	ATCO	27	ATTO	16	SPAI	6	DISPS2	6	CHNA2	3
25)	2677	10	**LNP049**	SAVE4	34	ATCO	30	TEGL	11	SUTO	6	AMDU2	5	ARSP5	4
26)	66	14	**LNP078**	SAVE4	60	ATPA3	38								
27)	18	10	**LNP081**	SAVE4	63	SUTO	16	ATPA3	8	DISPS2	5	ATCO	2		

36130 Desert Greasewood Scrub — Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	63	*16*	**MAN036**	ATCO	55	SAVE4	25	SUTO	8	ARTRT	5	SPAI	5		
29)	39	*12*	**PLC069**	SAVE4	48	ATCO	36	DISPS2	8	CHNA2	6				
30)	142	*12*	**PLC071**	SAVE4	34	ATCO	24	DISPS2	13	CHNA2	13	ATTO	9		
31)	201	*16*	**PLC116**	SAVE4	20	ATCO	18	EPNE	17	ARTRT	13	CHNA2	10	TEAX	7
32)	120	*11*	**PLC216**	SAVE4	61	ATTO	19	SUTO	15	ATCO	4				
33)	127	*10*	**PLC219**	SAVE4	66	ATCO	25	ATPA3	3						
34)	624	*13*	**PLC245**	SAVE4	43	ATCO	35	SUTO	3	TEGL	3	PSPO	3	ARTRT	2
35)	62	*8*	**PLC246**	SAVE4	49	ATTO	22	ATCO	16	DISPS2	10				
36)	186	*14*	**PLC253**	SAVE4	53	SUTO	22	ATTO	11	ATCO	8	ATPA3	3		
37)	157	*10*	**PLC259**	SAVE4	65	ATTO	22	SUTO	7	TAPA4	1				
38)	161	*17*	**TIN028**	SAVE4	35	ATTO	26	SUTO	25	CHNA2	6	ATCO	4		
39)	141	*21*	**UHL031**	ATCO	40	SAVE4	28	MESP2	6	PSPO	3	TEGL	3	SUTO	3
40)	80	*11*	**UHL048**	SAVE4	63	SUTO	19	ATTO	14	ABAG					
41)	82	*17*	**UHL052**	SAVE4	42	ATTO	19	ATCO	17	CHNA2	5	SUTO	5	ARTRT	5
42)	96	*15*	**UNW035**	ATCO	44	SAVE4	27	SUTO	22	SPAI	3	DISPS2	2	CHNA2	2
43)	63	*11*	**UNW052**	ATCO	62	SAVE4	17	SUTO	11	ATPA3	3	ASIN4	2	DISPS2	1
44)	228	*10*	**UNW067**	ATCO	52	SAVE4	23	STPI	8	SUTO	5	TEGL	5		
45)	102	*7*	**UNW078**	ATCO	23	ATCA2	20	SAVE4	17	DISPS2	16	TARA	10	PSPO	8

36140 Shadscale Scrub
Species Summary for 57 Parcels
Parcel Average % Live Cover = 12.7

spp	%cov	%comp	%freq	spp	%cov	%comp	%freq
AAFF	0.164	1.38	24.6	ERCO23	0.040	0.34	3.5
ABAG	0.000	0.00	3.5	ERFA2	0.013	0.11	1.8
AMDU2	0.304	2.56	12.3	GRSP	0.046	0.39	7.0
ARSP5	**0.785**	**6.62**	**42.1**	HYSA	0.058	0.49	8.8
ARTRT	0.138	1.16	8.8	LEFR2	0.024	0.20	5.3
ASIN4	0.004	0.03	1.8	MESP2	0.283	2.39	19.3
ATCA2	0.037	0.31	5.3	ORHY	0.031	0.26	8.8
ATCO	**7.051**	**59.46**	**100.0**	**PSARM**	**0.708**	**5.97**	**50.9**
ATPA3	0.010	0.08	3.5	PSPO	0.341	2.87	14.0
ATPO	0.389	3.28	24.6	SAVE4	0.380	3.20	31.6
ATTO	0.059	0.50	1.8	SAVEB	0.052	0.44	5.3
BRRU2	0.027	0.23	1.8	SPAI	0.074	0.63	7.0
CELA	0.169	1.42	14.0	STEPH	0.006	0.05	1.8
CHNA2	0.074	0.63	10.5	SUTO	0.100	0.85	12.3
CLEOM2	0.004	0.03	1.8	TARA	0.002	0.02	1.8
DISPS2	0.020	0.17	3.5	TEAX	0.323	2.72	19.3
EPNE	0.090	0.76	17.5	TEGL	0.054	0.46	12.3

36140 Shadscale Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	121	*18*	**BGP161**	ATCO	40	ARTRT	28	ARSP5	9	SPAI	8	SAVE4	8	ABAG	
2)	3	*14*	**BGP195**	ATCO	94	AAFF	2								
3)	24	*16*	**BGP198**	ATCO	54	TEAX	17	MESP2	11	AAFF	5	CELA	4		
4)	120	*17*	**BGP200**	ATCO	71	SAVE4	12	SUTO	10						
5)	129	*18*	**BGP208**	ATCO	57	CELA	10	AAFF	10	ATPO	6	MESP2	6	ORHY	2
6)	43	*17*	**BGP209**	ATCO	32	ARSP5	19	CELA	17	MESP2	6	AAFF	6	ORHY	3
7)	131	*13*	**BGP210**	ATCO	51	SAVE4	16	ARSP5	8	ARTRT	5	ORHY	3	SUTO	2
8)	51	*17*	**BGP214**	ATCO	62	ARSP5	20	SAVE4	8						
9)	57	*17*	**BGP223**	ATCO	48	MESP2	18	PSARM	7	CELA	5	PSPO	5	TEGL	5
10)	521	*15*	**BLK148**	ATPO	25	ARSP5	24	ATCO	23	PSARM	10	AMDU2	8		0
11)	678	*11*	**BLK149**	ATCO	32	SAVE4	18	ARSP5	11	SPAI	10	EPNE	8	PSARM	5
12)	5	*11*	**FSL027**	ATCO	36	PSARM	35	MESP2	5	TEAX	5	SUTO	4	ARSP5	4
13)	436	*9*	**FSL135**	ATCO	75	ERCO2	12	CHNA2	5	ARSP5	2	PSARM	2		
14)	31	*8*	**FSL174**	ATCO	56	MESP2	17	GRSP	9	PSARM	5	ARTRT	5	TEAX	2
15)	39	*11*	**FSL191**	ATCO	78	CHNA2	11	AAFF	5	ATCA2	3				
16)	59	*7*	**FSL203**	ATCO	75	GRSP	18	SAVE4	1	EPNE	1	ARSP5	1		
17)	53	*25*	**IND043**	ATCO	26	ARSP5	21	PSPO	21	TEAX	17	SAVE4	6	SPAI	5
18)	144	*12*	**IND044**	ATCO	50	ARSP5	45	PSARM	2						
19)	25	*15*	**IND144**	ATCO	65	ARSP5	30	EPNE	2						
20)	113	*9*	**LAW002**	ATCO	55	PSARM	19	PSPO	9	TEGL	4	ARSP5	3		
21)	1121	*11*	**LAW012**	ATCO	56	PSARM	29	LEFR2	7						
22)	99	*8*	**LAW015**	ATCO	57	PSARM	26	LEFR2	5	TEAX	2	AAFF	2		
23)	102	*8*	**LAW022**	ATCO	56	SAVE4	15	DISPS2	11	CHNA2	7	SUTO	6		
24)	62	*9*	**LAW023**	ATCO	72	PSARM	20								
25)	297	*7*	**LAW028**	ATCO	67	PSARM	25								
26)	36	*11*	**LAW037**	ATCO	60	SAVE4	19	CHNA2	11	SAVEB	3				
27)	35	*10*	**LAW039**	ATCO	94	AAFF	2								

36140 Shadscale Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	96	10	**LAW049**	ATCO	56	PSARM	20	SAVEB	18						
29)	34	7	**LAW055**	ATCO	54	SAVEB	12	ARSP5	11	PSARM	8	MESP2	5	GRSP	5
30)	78	9	**LAW058**	ATCO	83	PSARM	9	EPNE	3						
31)	189	8	**LAW131**	ATCO	78	PSARM	8	HYSA	4	ATPO	3				
32)	214	8	**LAW134**	ATCO	69	ATPO	17	PSARM	8						
33)	53	11	**LAW153**	ATCO	75	PSARM	11	SAVE4	6						
34)	51	17	**LAW168**	ATCO	42	PSPO	42	ATCA2	6	AAFF	3				
35)	7	11	**LAW180**	ATCO	47	PSPO	20	TEAX	12	ATCA2	7	PSARM	7		
36)	24	11	**LNP008**	ATCO	45	AMDU2	31	SAVE4	6	ARSP5	5	TEAX	3	TEGL	3
37)	116	10	**LNP015**	ATCO	53	ARSP5	28	EPNE	8	AMDU2	3	CELA	3		
38)	12	15	**LNP041**	ARSP5	40	ATCO	26	ERCO2	8	ERFA2	5	ATPO	3	GRSP	2
39)	86	13	**LNP066**	ATCO	77	ARSP5	15	TEGL	4						
40)	1054	10	**LNP073**	ATCO	54	AMDU2	24	PSARM	11	TEGL	2	LEFR2	2	ARSP5	2
41)	21	12	**MAN040**	ATCO	87	CHNA2	5	ARTRT	5						
42)	289	12	**MAN049**	ATCO	39	ATPO	25	AMDU2	17	HYSA	5	ARSP5	4	EPNE	2
43)	78	11	**MAN051**	ATCO	61	SAVE4	23	SPAI	4	ATPA3	3	ASIN4	2	SUTO	2
44)	60	13	**PLC114**	ATCO	58	TEAX	11	ARTRT	9	EPNE	8	PSARM	5	SAVE4	4
45)	254	10	**PLC213**	ATCO	62	ATPO	28	PSARM	4						
46)	75	12	**PLC242**	ATCO	52	ATPO	31	MESP2	9	PSARM	4				
47)	94	15	**PLC254**	ATCO	75	ATPO	19								
48)	416	18	**TIN024**	ATCO	52	CELA	13	PSARM	11	TEAX	10	PSPO	7		
49)	47	20	**TIN041**	ATCO	42	TEAX	26	PSARM	8	HYSA	8	EPNE	5	ARSP5	2
50)	738	17	**TIN048**	ATCO	43	PSARM	27	BRRU2	9	ATPO	5	ARSP5	3	AAFF	3
51)	75	17	**TIN072**	AMDU2	45	ATCO	27	PSARM	10	ARSP5	4	AAFF	3	ATPO	2
52)	16	15	**UHL030**	ATCO	72	MESP2	15	PSARM	7	ORHY	2				
53)	120	14	**UHL037**	ATCO	86	AAFF	10								
54)	204	12	**UHL040**	ATCO	41	ATTO	28	SUTO	20	AAFF	5	ABAG			

36140 Shadscale Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
55)	34	*16*	**UHL041**	ATCO	52	MESP2	21	PSARM	11	ATPO	6				
56)	32	*16*	**UHL043**	ATCO	64	SAVE4	9	PSPO	7	AAFF	5	CELA	4	TEAX	3
57)	442	*10*	**UNW028**	ATCO	65	PSPO	8	SAVE4	6	TEGL	6	EPNE	4	ARSP5	2

36150 Nevada Saltbush Scrub
Species Summary for 47 Parcels
Parcel Average % Live Cover = 20.1

spp	%cov	%comp	%freq
AAFF	0.107	0.56	12.8
ABAG	0.000	0.00	19.1
ARTRT	0.333	1.74	12.8
ATCA2	0.007	0.04	2.1
ATCO	0.154	0.80	19.1
ATPO	0.055	0.29	6.4
ATTO	**11.008**	**57.54**	**100.0**
BAHY	0.710	3.71	17.0
CHNA2	**1.811**	**9.47**	**72.3**
DISPS2	**0.986**	**5.15**	**53.2**
GLLE3	0.352	1.84	19.1
LECI	0.017	0.09	2.1
LETR	0.024	0.13	2.1
POFR3	0.017	0.09	2.1
POMO5	0.015	0.08	2.1
ROWO	0.001	0.01	2.1
SAKAT	0.528	2.76	27.7
SALIX	0.119	0.62	10.6
SAVE4	**1.369**	**7.16**	**42.6**
SPAI	**0.998**	**5.22**	**46.8**
SUTO	0.309	1.61	25.5
TAPA4	0.016	0.08	10.6
TARA	0.198	1.03	17.0

36150 Nevada Saltbush Scrub

Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	72	*19*	**BGP088**	ATTO	25	CHNA2	17	SPAI	16	SAVE4	13	DISPS2	12	ARTRT	6
2)	80	*38*	**BGP159**	BAHY	44	ATTO	19	SAVE4	18	SPAI	7	CHNA2	5	ABAG	
3)	278	*33*	**BGP162**	ATTO	36	CHNA2	19	ARTRT	9	SPAI	8	SAVE4	7	DISPS2	7
4)	44	*33*	**BLK021**	ATTO	28	SAVE4	25	SPAI	21	DISPS2	15	CHNA2	3	SUTO	2
5)	152	*36*	**BLK123**	ATTO	52	SAVE4	26	SPAI	8	DISPS2	4	POMO	2	TARA	2
6)	108	*13*	**FSL137**	ATTO	50	ARTRT	31	ATCO	10	CHNA2	5				
7)	126	*23*	**FSP020**	ATTO	40	BAHY	16	SAKAT	12	SAVE4	7	ARTRT	7	LETR	5
8)	154	*35*	**IND042**	ATTO	24	TARA	20	SPAI	20	SAVE4	17	DISPS2	12	SUTO	5
9)	311	*5*	**IND075**	ATTO	90	SAKAT	2	CHNA2	2	AAFF	2	SUTO	2		
10)	32	*25*	**IND076**	ATTO	90	ATPO	5	SAKAT	2	SUTO	1	SPAI	1	AAFF	1
11)	403	*41*	**IND095**	ATTO	55	GLLE3	20	CHNA2	15	DISPS2	5	SAVE4	2	LECI	2
12)	76	*25*	**IND096**	ATTO	60	CHNA2	20	SUTO	11	SPAI	5	DISPS2	3		
13)	85	*30*	**IND122**	ATTO	70	CHNA2	10	SPAI	10	GLLE3	5				
14)	33	*5*	**IND131**	AAFF	50	ATTO	30	SAKAT	18	ROWO	1	SALIX	1		
15)	40	*25*	**IND140**	ATTO	90	CHNA2	5	SAKAT	2						
16)	170	*14*	**LAW029**	ATTO	60	SAVE4	12	DISPS2	11	CHNA2	9				
17)	93	*19*	**LAW033**	SAKAT	45	ATTO	30	DISPS2	7	CHNA2	5	BAHY	5		
18)	39	*14*	**LAW040**	ATTO	68	SAVE4	17	CHNA2	11						
19)	17	*19*	**LAW140**	ATTO	67	DISPS2	16	CHNA2	12						
20)	40	*11*	**LAW142**	ATTO	68	SPAI	11	ARTRT	8	ATCO	7	TARA	1	TAPA4	1
21)	21	*13*	**LAW154**	ATTO	78	CHNA2	6	ATCO	5	AAFF	4				
22)	15	*15*	**LAW164**	ATTO	71	ATCO	8	SPAI	6	SAVE4	6	CHNA2	5		
23)	100	*10*	**LNP011**	ATTO	36	CHNA2	30	DISPS2	11	ATCO	7	SPAI	2	SUTO	2
24)	46	*19*	**LNP019**	ATTO	48	CHNA2	27	DISPS2	7	GLLE3	5	SALIX	3	SUTO	3
25)	346	*23*	**LNP047**	ATTO	71	SAVE4	11	GLLE3	5	CHNA2	5	TARA	1		
26)	268	*33*	**LNP051**	ATTO	38	SAVE4	20	DISPS2	11	SUTO	9	BAHY	8	CHNA2	4
27)	581	*38*	**MAN007**	ATTO	50	BAHY	12	SAKAT	10	CHNA2	7	SUTO	5	SPAI	4

36150 Nevada Saltbush Scrub Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	146	*45*	**MAN037**	ATTO	53	CHNA2	20	SPAI	10	SAKAT	5	BAHY	5	DISPS2	4
29)	62	*18*	**MAN056**	ATTO	30	CHNA2	29	ARTRT	28	SPAI	6	ATPO	3		
30)	102	*26*	**PLC007**	ATTO	56	CHNA2	11	DISPS2	10	SALIX	8	GLLE3	8	POFR3	3
31)	35	*17*	**PLC044**	ATTO	74	CHNA2	13	DISPS2	4	ATCA2	2	ABAG			
32)	52	*13*	**PLC047**	ATTO	85	BAHY	7	SALIX	3						
33)	115	*8*	**PLC055**	ATTO	58	CHNA2	28	DISPS2	7						
34)	61	*17*	**PLC059**	ATTO	41	DISPS2	20	SAVE4	19	SPAI	11	CHNA2	5		
35)	151	*11*	**PLC067**	ATTO	68	CHNA2	19	DISPS2	8	TAPA4	1				
36)	85	*12*	**PLC214**	ATTO	31	SAVE4	22	CHNA2	18	SPAI	17	DISPS2	8		
37)	154	*8*	**PLC230**	ATTO	76	SPAI	11	SAKAT	6	CHNA2	3	TARA	1	ABAG	
38)	90	*6*	**PLC235**	ATTO	80	SAKAT	16	ABAG							
39)	129	*11*	**PLC240**	ATTO	37	SAVE4	30	SPAI	11	CHNA2	7	DISPS2	7		
40)	63	*11*	**PLC241**	ATTO	89	DISPS2	8								
41)	79	*9*	**PLC251**	ATTO	83	SPAI	4	AAFF	4	SAVE4	3	TAPA4	1	ABAG	
42)	215	*9*	**PLC252**	ATTO	66	SAKAT	28	TAPA4	1	ABAG					
43)	151	*25*	**UHL033**	ATTO	78	CHNA2	16	SAVE4	2	ABAG					
44)	27	*16*	**UHL035**	ATTO	60	SUTO	11	SAKAT	8	AAFF	8	ATPO	5	ABAG	
45)	402	*27*	**UNW039**	ATTO	70	DISPS2	9	CHNA2	6	SPAI	3	SAVE4	2	GLLE3	2
46)	64	*18*	**UNW072**	ATTO	78	SAVE4	12	SUTO	5	ATCO	2	DISPS2	1		
47)	38	*25*	**UNW073**	ATTO	65	CHNA2	10	SALIX	10	GLLE3	5	DISPS2	5		

45310 Alkali Meadow
Species Summary for 340 Parcels
Parcel Average % Live Cover = 37.8

spp	%cov	%comp	%freq	spp	%cov	%comp	%freq
AAFF	0.084	0.24	5.6	JUTO	0.007	0.02	0.3
AATRIP	0.009	0.02	0.3	LECI	0.037	0.10	4.4
ALOC2	0.067	0.19	2.6	LEFA	0.008	0.02	0.3
ANCA10	0.044	0.12	1.5	LETR	1.471	4.13	29.1
ARTRT	0.082	0.23	5.3	LOCO6	0.017	0.05	0.9
ASIN4	0.045	0.13	6.5	MEAL2	0.110	0.31	5.6
ASLE8	0.076	0.21	0.9	MESA	0.029	0.08	0.3
ATCA2	0.004	0.01	0.3	MUAS	0.043	0.12	2.1
ATCO	0.082	0.23	10.0	NIOC2	0.083	0.23	3.5
ATPA3	0.043	0.12	4.1	PADI6	0.024	0.07	0.6
ATPAH	0.002	0.00	0.6	PHAU7	0.024	0.07	1.2
ATPO	0.004	0.01	0.3	PHCO15	0.052	0.15	1.5
ATTO	1.158	3.25	36.5	PLMA2	0.014	0.04	0.3
BAHY	0.200	0.56	7.9	POA++	0.037	0.10	1.8
CADO2	0.137	0.39	5.0	POFR3	0.013	0.04	0.9
CAEX2	0.002	0.00	0.3	POJU	0.054	0.15	2.9
CALI4	0.005	0.01	0.6	POMO5	0.062	0.17	2.6
CAPR5	0.146	0.41	6.2	PONE3	0.028	0.08	0.3
CAREX	0.126	0.35	5.0	PPFF	0.027	0.07	0.9
CASTI2	0.009	0.02	0.6	PSARM	0.002	0.01	0.3
CHAL9	0.064	0.18	3.2	ROWO	0.083	0.23	5.0
CHNA2	**2.463**	**6.92**	**68.2**	SAGOV	0.027	0.08	0.3
CLEOM2	0.004	0.01	0.3	SAKAT	0.245	0.69	3.8
COMAC	0.006	0.02	0.6	SALIX	0.307	0.86	15.9
CYDA	0.109	0.31	1.8	SAVE4	0.248	0.70	18.5
DEPI	0.018	0.05	0.6	SCAC	0.029	0.08	1.8
DISPS2	**13.082**	**36.73**	**94.7**	SCAM2	0.006	0.02	0.6
ELEOC	0.084	0.24	2.9	SCMAP	0.010	0.03	0.3
ELPA3	0.015	0.04	0.6	SICO2	0.002	0.00	0.3
EQUIS	0.004	0.01	0.3	SIHE	0.011	0.03	0.6
FONE	0.010	0.03	0.6	**SPAI**	**10.611**	**29.79**	**86.5**
GLLE3	1.160	3.26	34.7	SPGR	0.146	0.41	5.9
HARA	0.089	0.25	8.8	STPA4	0.005	0.01	0.9
HEAN3	0.093	0.26	4.1	SUTO	0.110	0.31	5.9
HOJU	0.016	0.04	0.6	TAPA4	0.008	0.02	2.4
IRMI	0.006	0.02	0.6	TARA	0.189	0.53	19.1
IVAX	0.031	0.09	0.9	TRCOD	0.003	0.01	0.6
IVKI	0.026	0.07	0.6	TRIFO	0.006	0.02	0.6
JUBA	1.761	4.94	48.2	TYLA	0.063	0.18	1.5

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	13	*52*	**BGP011**	DISPS2	47	SPAI	17	POA+	12	CAREX	7	JUBA	6	GLLE3	3
2)	95	*21*	**BGP013**	SPAI	45	DISPS2	39	CHNA2	6	ASIN4	3				
3)	74	*38*	**BGP017**	DISPS2	38	SPAI	22	CHNA2	20	CAPR5	7	JUBA	5		
4)	46	*27*	**BGP018**	SPAI	45	DISPS2	36	CHNA2	7	POA+	3				
5)	276	*16*	**BGP020**	SPAI	48	DISPS2	28	ATCO	6	ASIN4	6	SAVE4	3		
6)	20	*17*	**BGP031**	SPAI	47	DISPS2	34	ASIN4	6	ATPA3	4	CHNA2	4		
7)	154	*30*	**BGP032**	DISPS2	52	SPAI	27	ATTO	7	SAVE4	4	ASIN4	3		
8)	49	*25*	**BGP046**	DISPS2	77	CHAL9	16								
9)	47	*47*	**BGP047**	DISPS2	84	NIOC2	13								
10)	165	*76*	**BGP051**	DISPS2	81	JUBA	11	TARA	1						
11)	88	*13*	**BGP052**	DISPS2	46	NIOC2	18	JUBA	17	SAVE4	6	TRCOD	5	CHAL9	5
12)	62	*38*	**BGP056**	DISPS2	96	BAHY	2								
13)	58	*61*	**BGP062**	SPAI	35	CAREX	17	DISPS2	12	JUBA	7	MEAL2	5	PPFF	5
14)	145	*41*	**BGP065**	SPAI	39	DISPS2	31	CHNA2	10	JUBA	6	POA+	5	TARA	1
15)	206	*22*	**BGP066**	SPAI	52	DISPS2	19	CHNA2	15	POA+	3	JUBA	3		
16)	75	*51*	**BGP076**	SPAI	56	DISPS2	27	CHNA2	4	JUBA	2	COMA	2		
17)	420	*40*	**BGP078**	SPAI	60	CHNA2	20	DISPS2	10						
18)	80	*44*	**BGP081**	DISPS2	82	SCMAP	8	JUBA	6						
19)	99	*37*	**BGP086**	SPAI	32	ATTO	30	CHNA2	23	DISPS2	7	JUBA	3		
20)	57	*19*	**BGP087**	SPAI	38	DISPS2	29	CHNA2	19	ARTRT	8				
21)	13	*40*	**BGP090**	SPAI	39	CHNA2	16	DISPS2	15	ATTO	11	CAREX	5	LETR	4
22)	130	*52*	**BGP092**	SPAI	62	DISPS2	12	CHNA2	12	CAREX	3	BAHY	3		
23)	110	*52*	**BGP094**	DISPS2	41	CHNA2	24	SPAI	18	GLLE3	4	JUBA	2	AAFF	2
24)	102	*58*	**BGP095**	SPAI	52	LETR	13	DISPS2	12	CAREX	9	JUBA	4	GLLE3	3
25)	28	*22*	**BGP158**	SPAI	59	DISPS2	19	CHNA2	7	ARTRT	5	ATCO	3		
26)	178	*20*	**BGP194**	SPAI	75	CHNA2	13								
27)	132	*24*	**BGP205**	SPAI	41	DISPS2	23	CHNA2	18	ATTO	13	TARA	1		

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	213	*13*	**BGP206**	SPAI	53	DISPS2	15	ATCO	9	SAVE4	8	CHNA2	3	ATTO	3
29)	215	*40*	**BGP217**	DISPS2	46	SPAI	33	CHNA2	10	ATTO	5				
30)	235	*67*	**BGP218**	DISPS2	82	SPAI	4	LETR	4	TARA	1				
31)	150	*52*	**BGP219**	DISPS2	61	CHNA2	25	ATTO	3	SPAI	3				
32)	152	*47*	**BGP220**	DISPS2	42	SPAI	21	CHNA2	15	ATTO	10	LETR	4		
33)	551	*58*	**BGP221**	DISPS2	63	SPAI	15	ATTO	6	LETR	6	CHNA2	3	TARA	1
34)	72	*52*	**BGP224**	DISPS2	82	ATTO	6	SPAI	3	CHNA2	3		0		
35)	14	*48*	**BIS049**	DISPS2	24	LETR	20	CAPR5	15	CHNA2	15	GLLE3	10	MUAS	7
36)	49	*52*	**BIS054**	DISPS2	45	GLLE3	25	JUBA	5	CHNA2	5	CADO2	5	IRMI	3
37)	46	*50*	**BIS060**	CADO2	19	SPAI	19	DISPS2	18	AAFF	9	JUBA	7	LETR	7
38)	34	*37*	**BIS062**	DISPS2	40	SPAI	19	GLLE3	15	JUBA	13	CADO2	5	LETR	4
39)	61	*46*	**BIS067**	DISPS2	38	CHNA2	22	GLLE3	15	SPAI	13	POFR3	5		
40)	28	*51*	**BIS078**	DISPS2	57	GLLE3	19	LETR	8	CHNA2	5	CAPR5	2		
41)	29	*42*	**BIS080**	DISPS2	60	LETR	15	CAPR5	12	GLLE3	6				
42)	25	*10*	**BIS087**	DISPS2	97										
43)	17	*34*	**BLK003**	SPAI	31	CHNA2	28	DISPS2	27	JUBA	4	MEAL2	3		
44)	67	*50*	**BLK008**	SPAI	45	CHNA2	28	DISPS2	11	GLLE3	3	LETR	3	JUBA	2
45)	168	*29*	**BLK009**	SPAI	57	CHNA2	20	ARTRT	7	SAVE4	4	LECI	2		
46)	120	*44*	**BLK011**	SAKAT	48	BAHY	19	SPAI	12	CHNA2	7	AAFF	5	ATCA2	3
47)	104	*55*	**BLK015**	SAKAT	19	SPAI	16	BAHY	13	GLLE3	13	DEPI	10	CHNA2	9
48)	297	*35*	**BLK016**	BAHY	17	DISPS2	16	CHNA2	13	ATTO	11	SAKAT	11	SAVE4	10
49)	39	*18*	**BLK033**	SPAI	44	ATTO	30	SAKAT	15	AAFF	5	DISPS2	2		
50)	66	*25*	**BLK039**	SPAI	55	CHNA2	15	SAVE4	7	DISPS2	5	LECI	5	AAFF	5
51)	47	*20*	**BLK045**	SPAI	30	ATTO	22	CHNA2	21	AAFF	13	SAKAT	7	DISPS2	5
52)	7	*55*	**BLK059**	DISPS2	65	TARA	15	JUBA	7	SPAI	4	SPGR	2		
53)	56	*41*	**BLK075**	DISPS2	49	SPAI	20	SAVE4	7	BAHY	5	LETR	5	AAFF	2
54)	110	*40*	**BLK085**	DISPS2	48	SPAI	19	CHNA2	7	SAVE4	6	ATTO	5	GLLE3	5

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
55)	86	*14*	**BLK086**	SPAI	45	DISPS2	28	CHNA2	10	ATCO	6	SAVE4	4	ATTO	3
56)	14	*24*	**BLK088**	DISPS2	72	SAVE4	6	ATCO	2	BAHY	2	SPAI	2	CHNA2	2
57)	505	*58*	**BLK090**	DISPS2	61	JUBA	16	LETR	7	ATTO	5	PHCO1	4		
58)	129	*11*	**BLK092**	SPAI	44	DISPS2	30	ATCO	7	CHNA2	6	ARTRT	4	ASIN4	2
59)	65	*18*	**BLK093**	DISPS2	35	POJU	26	SPAI	15	CHNA2	8	JUBA	7	ATCO	4
60)	332	*43*	**BLK094**	SPAI	41	DISPS2	19	ATTO	12	CHNA2	8	ARTRT	5	GLLE3	2
61)	120	*17*	**BLK095**	SPAI	75	DISPS2	8	CHNA2	7	ATTO	2				
62)	171	*50*	**BLK099**	SPAI	58	DISPS2	16	ATTO	8	CHNA2	7	GLLE3	4		
63)	267	*8*	**BLK100**	DISPS2	53	JUBA	15	SPAI	12	ATCO	5	CHNA2	4	ASIN4	2
64)	208	*33*	**BLK101**	SPAI	56	DISPS2	20	GLLE3	9	CHNA2	6				
65)	53	*70*	**BLK102**	JUBA	35	DISPS2	25	SPAI	15	PHCO1	6	TYLA	3	SALIX	3
66)	602	*14*	**BLK104**	DISPS2	82	SUTO	3	ATTO	2	SAVE4	2	ATCO	2	SPAI	2
67)	153	*10*	**BLK115**	SPAI	40	DISPS2	23	CHNA2	17	ATCO	10	SAVE4	3	TARA	1
68)	216	*41*	**BLK116**	DISPS2	60	ATTO	18	SAVE4	8	LETR	3	SUTO	3	JUBA	2
69)	152	*70*	**BLK120**	DISPS2	30	TYLA	20	JUBA	13	PHCO1	13	SCAC	6	ATTO	5
70)	97	*25*	**BLK122**	SPAI	35	DISPS2	25	ATTO	18	SAVE4	10	SUTO	5	CHNA2	4
71)	154	*15*	**BLK124**	SPAI	55	CHNA2	18	DISPS2	12	SAVE4	7	ATCO	4	TARA	1
72)	117	*35*	**BLK132**	DISPS2	71	SPAI	15	CHNA2	4	TARA	3	ATCO	2		
73)	397	*50*	**BLK136**	DISPS2	71	SPAI	8	LETR	4	BAHY	3	JUBA	2	ATTO	2
74)	600	*70*	**BLK137**	DISPS2	48	ATTO	25	BAHY	6	SUTO	5	SPAI	4	TARA	3
75)	59	*26*	**BLK142**	DISPS2	41	SPAI	20	ATTO	19	SAVE4	7	ATPA3	3	CHNA2	3
76)	25	*45*	**BLK143**	DISPS2	74	JUBA	8	ATTO	4	SPAI	3	PHCO1	2	SPGR	2
77)	116	*37*	**DOL006**	DISPS2	75	ATTO	5	SUTO	5	SAVE4	4	CHNA2	3	TARA	1
78)	36	*36*	**DOL015**	DISPS2	41	JUBA	24	ANCA1	9	HEAN3	8	BAHY	4	COMA	3
79)	12	*15*	**DOL027**	DISPS2	82	SUTO	15								
80)	34	*18*	**FSL001**	IVKI	20	DISPS2	16	SPGR	15	SPAI	11	CHAL9	11	JUBA	7
81)	37	*47*	**FSL003**	SPGR	32	JUBA	20	DISPS2	12	GLLE3	9	LETR	8	SPAI	7

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
82)	29	*38*	**FSL005**	SPAI	49	JUBA	15	GLLE3	11	SPGR	11	ALOC2	6	DISPS2	3
83)	136	*15*	**FSL007**	DISPS2	30	CHAL9	28	SPGR	10	ASIN4	9	SPAI	8	JUBA	5
84)	32	*59*	**FSL009**	DISPS2	57	JUBA	27	ELEOC	9	MUAS	2	CAPR5	2		
85)	65	*11*	**FSL012**	IVKI	49	SPGR	16	SPAI	10	JUBA	6	DISPS2	6	CHAL9	6
86)	14	*13*	**FSL017**	CHAL9	46	SPAI	18	DISPS2	15	LECI	3	POJU	3	SPGR	2
87)	65	*43*	**FSL035**	DISPS2	56	JUBA	20	SPGR	13	LETR	2	SALIX	2	GLLE3	1
88)	17	*19*	**FSL036**	JUBA	29	DISPS2	28	SPGR	24	CHAL9	9	LETR	2	HARA	2
89)	16	*11*	**FSL038**	DISPS2	48	ATPA3	36	SAVE4	6	ASIN4	2	JUBA	2	LECI	1
90)	45	*74*	**FSL044**	DISPS2	24	SPAI	23	JUBA	21	ELEOC	12	JUTO	3	TYLA	3
91)	28	*22*	**FSL046**	DISPS2	31	JUBA	19	GLLE3	19	SPAI	12	SPGR	5	LETR	5
92)	51	*58*	**FSL051**	SPAI	40	CHNA2	22	DISPS2	20	GLLE3	4	SALIX	4	SCAC	2
93)	73	*65*	**FSL052**	DISPS2	54	SPAI	31	CHNA2	2	JUBA	2	GLLE3	2	SALIX	2
94)	42	*61*	**FSL053**	DISPS2	35	SPAI	30	CHNA2	10	LETR	8	SALIX	4	JUBA	3
95)	40	*60*	**FSL056**	SPAI	27	DISPS2	22	LETR	17	GLLE3	10	HARA	5	JUBA	5
96)	51	*22*	**FSL057**	DISPS2	43	CHNA2	24	SPAI	22	ATTO	3	JUBA	2	CHAL9	1
97)	33	*60*	**FSL063**	DISPS2	65	JUBA	14	LETR	7	CAREX	4	GLLE3	3	MEAL2	2
98)	38	*49*	**FSL064**	SPAI	48	GLLE3	16	DISPS2	15	MEAL2	6	LETR	4	CHNA2	2
99)	78	*21*	**FSL065**	SPAI	46	DISPS2	30	CHNA2	11	SAVE4	5	LETR	1	ASLE8	1
100)	65	*54*	**FSL066**	DISPS2	28	SPAI	19	MEAL2	18	SALIX	7	MUAS	5	LETR	5
101)	120	*46*	**FSL074**	SPAI	39	DISPS2	29	GLLE3	15	JUBA	5	LETR	2	HARA	2
102)	80	*44*	**FSL084**	DISPS2	45	GLLE3	18	SPAI	10	JUBA	8	LETR	6	SALIX	5
103)	30	*39*	**FSL088**	DISPS2	49	CHNA2	19	GLLE3	14	SPAI	9	LETR	5	ATTO	1
104)	8	*42*	**FSL090**	DISPS2	27	LETR	25	SPAI	19	CHNA2	10	JUBA	8	GLLE3	7
105)	5	*26*	**FSL092**	SPAI	35	GLLE3	30	CHNA2	18	DISPS2	8	SAKAT	3		
106)	78	*23*	**FSL114**	DISPS2	68	LETR	10	CADO2	5	GLLE3	5	JUBA	3	SPAI	3
107)	37	*11*	**FSL115**	SPAI	51	CHNA2	19	DISPS2	17	ATCO	5	SAVE4	4	ASIN4	1
108)	84	*54*	**FSL116**	DISPS2	32	CADO2	12	GLLE3	11	ANCA1	10	CHNA2	10	SPAI	7

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
109)	144	*11*	**FSL117**	DISPS2	29	SPAI	21	CHNA2	15	SAVE4	13	ASIN4	7	ATPA3	4
110)	39	*32*	**FSL119**	DISPS2	50	SPAI	36	JUBA	7	HARA	1				
111)	117	*55*	**FSL120**	DISPS2	53	LETR	12	JUBA	10	CAPR5	8	SPAI	7	HARA	1
112)	18	*59*	**FSL123**	LETR	32	GLLE3	18	SPAI	17	DISPS2	17	JUBA	7	HARA	2
113)	29	*50*	**FSL127**	SPAI	45	DISPS2	38	JUBA	5	NIOC2	2	CAPR5	1	SPGR	1
114)	68	*52*	**FSL128**	SPAI	51	DISPS2	15	SALIX	5	GLLE3	5	HARA	5	CHNA2	5
115)	109	*50*	**FSL129**	LETR	29	DISPS2	20	CHNA2	20	SPAI	15	JUBA	7	GLLE3	2
116)	96	*26*	**FSL130**	SPAI	35	CHNA2	29	DISPS2	20	ASLE8	4	LETR	2	JUBA	2
117)	28	*50*	**FSL141**	DISPS2	31	SPAI	25	CHNA2	13	ATTO	13	LETR	8	GLLE3	5
118)	53	*38*	**FSL146**	DISPS2	21	CHNA2	19	SPAI	18	GLLE3	13	JUBA	12	LETR	8
119)	44	*57*	**FSL166**	SPAI	31	DISPS2	25	LETR	15	GLLE3	10	HARA	6	JUBA	3
120)	37	*72*	**FSL167**	DISPS2	42	LETR	18	GLLE3	9	SPAI	7	CHNA2	6	ROWO	6
121)	52	*60*	**FSL168**	DISPS2	53	JUBA	23	CAPR5	7	SPAI	4	ELEOC	3	HARA	1
122)	30	*23*	**FSL169**	SPAI	51	DISPS2	30	CHAL9	9	SAVE4	3	HARA	2	JUBA	1
123)	95	*52*	**FSL173**	DISPS2	35	LETR	27	JUBA	10	SPAI	8	GLLE3	4	ROWO	4
124)	28	*83*	**FSL182**	DISPS2	60	SALIX	10	LETR	6	NIOC2	6	PHAU7	5	SPAI	4
125)	73	*14*	**FSL187**	DISPS2	48	SPAI	40	SPGR	6	NIOC2	3	JUBA	1		
126)	47	*63*	**FSL188**	DISPS2	68	SPAI	20	NIOC2	10						
127)	27	*81*	**FSL189**	DISPS2	48	SPAI	18	LETR	15	NIOC2	5	PHAU7	4	SALIX	2
128)	31	*68*	**FSL207**	DISPS2	44	GLLE3	12	JUBA	10	LETR	8	CAPR5	8	HEAN3	5
129)	12	*45*	**FSL214**	DISPS2	45	CHNA2	41	LETR	4	GLLE3	2	CADO2	1	JUBA	1
130)	71	*55*	**IND001**	SPAI	70	CHNA2	25	GLLE3	1	ATTO	1	JUBA	1		
131)	52	*70*	**IND002**	SPAI	70	DISPS2	15	LETR	5	CHNA2	4	GLLE3	2		
132)	32	*85*	**IND003**	DISPS2	38	LETR	33	SPAI	5	GLLE3	5	MEAL2	5	PPFF	5
133)	27	*85*	**IND006**	DISPS2	40	CYDA	32	LETR	7	CHNA2	4	GLLE3	3	SPAI	2
134)	86	*30*	**IND011**	SPAI	65	DISPS2	15	CHNA2	10	SALIX	6				
135)	351	*55*	**IND018**	SPAI	77	CHNA2	6	JUBA	4	DISPS2	4	GLLE3	3		

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
136)	118	75	IND019	SPAI	48	ASLE8	33	JUBA	8	CHNA2	6	DISPS2	4		
137)	42	60	IND024	DISPS2	33	SPAI	25	CHNA2	15	ATTO	9	LETR	6	JUBA	5
138)	37	60	IND026	SPAI	70	SAKAT	12	BAHY	8	ATTO	5	ARTRT	3	GLLE3	1
139)	36	30	IND029	SPAI	60	ATTO	30	ATPO	5	ARTRT	5				
140)	154	80	IND030	DISPS2	36	SPAI	25	JUBA	10	GLLE3	7	HOJU	6	LETR	3
141)	28	30	IND034	SPAI	70	SAVE4	20	CHNA2	4	ATTO	3	ARTRT	2		
142)	69	50	IND035	SPAI	85	DISPS2	5	CHNA2	4	GLLE3	4	JUBA	1		
143)	20	75	IND037	SPAI	50	SAKAT	30	CHNA2	10	ATTO	5	DISPS2	2		
144)	90	60	IND039	DISPS2	47	SPAI	45	JUBA	2	CHNA2	1	SICO2	1	CAEX2	1
145)	272	55	IND040	SPAI	55	GLLE3	20	CHNA2	15	DISPS2	6	JUBA	1	ATTO	1
146)	530	35	IND050	DISPS2	83	JUBA	3	HEAN3	3	ALOC2	2				
147)	410	25	IND051	SPAI	65	DISPS2	20	CHNA2	5	TARA	5	SAVE4	2		
148)	229	25	IND052	SPAI	35	DISPS2	32	ATTO	15	SUTO	5	GLLE3	3	CHNA2	3
149)	125	30	IND054	DISPS2	75	TARA	15	JUBA	2						
150)	132	10	IND055	DISPS2	45	ALOC2	18	SAVE4	10	TARA	10	SPAI	5	CHNA2	5
151)	111	30	IND057	SPAI	65	SAVE4	15	DISPS2	12	CHNA2	5	ATTO	1	TARA	1
152)	714	45	IND059	SPAI	35	DISPS2	30	ATTO	10	SUTO	5	SIHE	5	BAHY	3
153)	94	45	IND060	DISPS2	50	ATTO	28	SPAI	10	SALIX	3	TARA	2	CHNA2	2
154)	84	35	IND063	SPAI	35	ATTO	35	GLLE3	14	DISPS2	10	CHNA2	2	JUBA	1
155)	64	35	IND064	DISPS2	70	SPAI	16	ATTO	10	JUBA	1	CHNA2	1	AAFF	1
156)	69	12	IND065	DISPS2	40	SPAI	37	SAVE4	10	TARA	5	AAFF	3	CHNA2	2
157)	60	20	IND070	SPAI	70	SAVE4	20	CHNA2	4	ATCO	4	ATPA3	1		
158)	133	60	IND078	SPAI	80	DISPS2	12	CHNA2	6	AAFF	1				
159)	322	40	IND079	SPAI	65	CHNA2	15	GLLE3	7	DISPS2	6	ATTO	3		
160)	84	80	IND081	DISPS2	40	SPAI	40	GLLE3	8	JUBA	4	CHNA2	2		
161)	94	45	IND082	SPAI	75	DISPS2	10	CHNA2	7	GLLE3	4	JUBA	2	AAFF	1
162)	196	65	IND084	SPAI	60	DISPS2	15	JUBA	10	TYLA	4	CHNA2	3		

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
163)	141	*45*	**IND085**	SPAI	50	DISPS2	25	ATTO	9	CHNA2	5	SUTO	3	GLLE3	3
164)	54	*20*	**IND086**	SPAI	41	CHNA2	28	DISPS2	12	ATCO	10	LECI	6		
165)	26	*39*	**IND087**	SPAI	52	SUTO	14	ATTO	13	DISPS2	9	CHNA2	4		
166)	49	*25*	**IND090**	SPAI	57	ATTO	19	AATRIP	12	GLLE3	8	DISPS2	3		
167)	88	*20*	**IND093**	SPAI	47	TARA	30	SAVE4	5	ATCO	5	CHNA2	3	BAHY	3
168)	249	*50*	**IND110**	SPAI	55	CHNA2	25	DISPS2	9	SAVE4	4				
169)	138	*60*	**IND113**	SPAI	60	CHNA2	11	JUBA	10	DISPS2	8	LETR	5	GLLE3	2
170)	84	*75*	**IND114**	DISPS2	50	LETR	17	JUBA	8	SPAI	7	CHNA2	5	SALIX	5
171)	34	*65*	**IND116**	SPAI	60	DISPS2	22	CHNA2	5	BAHY	5	GLLE3	3	SALIX	2
172)	27	*30*	**IND117**	SPAI	65	ATTO	25	CHNA2	9						
173)	84	*40*	**IND118**	SPAI	60	DISPS2	25	JUBA	5	CHNA2	5	AAFF	2	TARA	1
174)	72	*35*	**IND119**	SPAI	65	DISPS2	25	SAVE4	5	TARA	1				
175)	66	*35*	**IND121**	SPAI	60	CHNA2	25	DISPS2	8						
176)	44	*70*	**IND147**	JUBA	34	CHNA2	18	DISPS2	15	SPAI	14	GLLE3	5	LETR	5
177)	826	*55*	**IND148**	SPAI	50	DISPS2	30	JUBA	7	CHNA2	5				
178)	41	*45*	**IND151**	SPAI	55	DISPS2	27	CHNA2	4	SAVE4	3	GLLE3	3		
179)	31	*50*	**IND153**	SPAI	45	CHNA2	20	GLLE3	9	DISPS2	8	JUBA	6	SALIX	3
180)	43	*40*	**IND154**	SPAI	50	DISPS2	20	ATTO	10	CHNA2	10	SAVE4	5		
181)	42	*35*	**IND156**	DISPS2	60	SPAI	33	JUBA	5	GLLE3	1				
182)	36	*40*	**IND157**	SPAI	60	DISPS2	27	JUBA	10	AAFF	1				
183)	99	*60*	**IND159**	JUBA	50	DISPS2	20	LETR	15	SPAI	10	TRIFO	2		
184)	67	*40*	**IND160**	DISPS2	55	SPAI	40	CHNA2	2	JUBA	2				
185)	64	*35*	**IND161**	SPAI	40	DISPS2	35	CHNA2	15	SUTO	8	JUBA	1		
186)	126	*25*	**IND162**	DISPS2	50	SPAI	20	ATTO	8	CHNA2	7	JUBA	7	GLLE3	5
187)	308	*15*	**IND163**	SPAI	50	CHNA2	25	ATCO	5	DISPS2	5	STPA4	5	SAVE4	4
188)	350	*65*	**IND164**	DISPS2	60	JUBA	20	SPAI	14						
189)	165	*40*	**IND167**	SPAI	65	CHNA2	10	ATTO	10	SUTO	5	GLLE3	5	DISPS2	3

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
190)	32	*24*	**LAW003**	SPAI	71	CHNA2	17	ATTO	5	TAPA4	1				
191)	118	*26*	**LAW004**	SPAI	85	CHNA2	5	ALOC2	4	ATTO	3				
192)	72	*36*	**LAW005**	SPAI	59	CHNA2	18	ALOC2	9	ATTO	8				
193)	230	*17*	**LAW007**	SPAI	45	CHNA2	21	DISPS2	20	SAVE4	3	ASIN4	2		
194)	51	*37*	**LAW008**	SPAI	36	DISPS2	25	ATTO	18	CHNA2	11	GLLE3	3	TAPA4	1
195)	86	*41*	**LAW009**	SPAI	94	CHNA2	2	TARA	1						
196)	84	*19*	**LAW010**	SPAI	58	ATTO	20	ALOC2	13						
197)	30	*16*	**LAW021**	SPAI	38	DISPS2	30	ATTO	18	CHNA2	7	SAVE4	5		
198)	59	*23*	**LAW030**	ALOC2	32	DISPS2	31	ATTO	18	CHNA2	14				
199)	41	*44*	**LAW035**	DISPS2	32	SPAI	23	IVAX	13	HEAN3	8	ELEOC	7	SAKAT	5
200)	93	*46*	**LAW038**	DISPS2	38	SPAI	14	HEAN3	12	BAHY	10	LEFA	6	IVAX	6
201)	46	*54*	**LAW045**	DISPS2	27	MESA	18	SPAI	13	PLMA2	9	CYDA	8	LETR	8
202)	17	*32*	**LAW052**	DISPS2	61	CHNA2	15	SPAI	12	BAHY	5	TARA	1		
203)	17	*32*	**LAW060**	SPAI	74	DISPS2	14	JUBA	8						
204)	25	*11*	**LAW065**	DISPS2	74	SAVE4	11	BAHY	9	ABAG					
205)	26	*66*	**LAW072**	DISPS2	40	JUBA	35	SPAI	13	LETR	3	ELEOC	3		
206)	123	*43*	**LAW073**	DISPS2	39	SPAI	37	BAHY	7	CHNA2	6	HEAN3	3		
207)	15	*21*	**LAW074**	DISPS2	73	CHNA2	14	BAHY	6						
208)	40	*54*	**LAW078**	DISPS2	55	GLLE3	16	LETR	11	CHNA2	5	CAREX	4		
209)	21	*43*	**LAW079**	DISPS2	45	SPAI	28	BAHY	9	ELEOC	7	JUBA	6		
210)	25	*9*	**LAW080**	DISPS2	64	CHNA2	16	SAKAT	7	ATTO	4				
211)	25	*19*	**LAW098**	SAKAT	40	SPAI	32	BAHY	17	ATTO	4				
212)	193	*26*	**LAW105**	SPAI	55	ATTO	31	DISPS2	9	TAPA4	1				
213)	25	*22*	**LAW106**	DISPS2	70	ALOC2	15	LETR	6	ATTO	4				
214)	27	*47*	**LAW107**	DISPS2	44	SPAI	27	LETR	15	GLLE3	7				
215)	295	*55*	**LAW108**	DISPS2	56	LETR	19	JUBA	8	CAREX	5	AAFF	3		
216)	13	*18*	**LAW109**	DISPS2	33	JUBA	25	SPAI	20	POJU	9	HARA	4	TARA	1

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
217)	42	*35*	**LAW110**	DISPS2	41	SPAI	39	CHNA2	6	GLLE3	5				
218)	51	*26*	**LAW120**	SPAI	78	ATTO	10	DISPS2	5	CHNA2	4				
219)	53	*60*	**LAW122**	DISPS2	52	LETR	20	SPAI	9	JUBA	5	SPGR	5		
220)	69	*16*	**LAW123**	DISPS2	53	SPAI	15	ATTO	11	CHNA2	10	SAVE4	3	BAHY	3
221)	29	*23*	**LAW125**	SPAI	68	DISPS2	10	SAVE4	9	JUBA	5				
222)	103	*12*	**LAW127**	SPAI	65	ATTO	26	DISPS2	2	CHNA2	2				
223)	12	*32*	**LAW132**	SPAI	57	CHNA2	16	ATTO	11	SALIX	6	ROWO	3	TAPA4	1
224)	22	*53*	**LAW139**	SPAI	31	DISPS2	19	HEAN3	13	POMO	10	MUAS	5	IVAX	4
225)	14	*14*	**LAW143**	SPAI	83	ATTO	6	DISPS2	3						
226)	28	*32*	**LAW144**	SPAI	80	GLLE3	9	DISPS2	5						
227)	35	*36*	**LAW146**	DISPS2	47	CHNA2	14	JUBA	8	LETR	7	ATTO	6	SPAI	5
228)	59	*37*	**LAW149**	DISPS2	33	LETR	18	SPAI	14	JUBA	9	CHNA2	7	GLLE3	6
229)	55	*27*	**LAW150**	SPAI	55	DISPS2	16	POJU	10	JUBA	4	CAREX	4	LETR	3
230)	43	*31*	**LAW151**	DISPS2	57	SPAI	25	JUBA	5	GLLE3	3				
231)	51	*43*	**LAW152**	SPAI	34	DISPS2	22	LETR	15	JUBA	6	CAREX	6	AAFF	5
232)	12	*40*	**LAW156**	DISPS2	59	LETR	11	CHNA2	11	GLLE3	6	JUBA	5		
233)	52	*30*	**LAW160**	DISPS2	81	CHNA2	9	JUBA	3						
234)	11	*32*	**LAW162**	DISPS2	57	CHNA2	15	LETR	7	MEAL2	5	BAHY	4	ELEOC	2
235)	49	*54*	**LAW177**	DISPS2	52	LETR	21	SPAI	4	JUBA	4	ANCA1	4	SALIX	4
236)	22	*31*	**LAW178**	DISPS2	48	CHNA2	14	GLLE3	10	JUBA	8	SPAI	6	ATTO	6
237)	45	*13*	**LAW179**	SPAI	40	DISPS2	30	ATPA3	13	ATCO	8	CHNA2	5		
238)	15	*31*	**LAW184**	DISPS2	56	ATTO	15	CHNA2	9	SPAI	8	JUBA	7		
239)	102	*48*	**LAW187**	DISPS2	49	SPAI	14	LETR	10	CHNA2	6	JUBA	6	SALIX	5
240)	55	*16*	**LNP018**	SPAI	47	DISPS2	18	ATTO	16	CHNA2	7	SUTO	6		
241)	10	*19*	**LNP027**	SPAI	33	DISPS2	32	SUTO	16	CHNA2	8	ASIN4	2	ATPAH	2
242)	127	*50*	**LNP028**	DISPS2	27	SPAI	24	JUBA	18	ATTO	7	SALIX	4	LETR	4
243)	172	*30*	**LNP046**	SPAI	35	ATTO	27	DISPS2	9	GLLE3	6	SAVE4	4	CHNA2	4

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
244)	84	50	**LNP050**	DISPS2	40	SPAI	25	ATTO	18	GLLE3	10				
245)	72	63	**LNP052**	DISPS2	56	JUBA	26	SPAI	7	GLLE3	3	ELEOC	2		
246)	11	43	**LNP074**	DISPS2	42	ATTO	22	SPAI	17	SALIX	8	TARA	4		
247)	29	27	**LNP076**	DISPS2	76	SAVE4	10	SUTO	4	ATTO	3	ARTRT	3		
248)	444	55	**LNP083**	DISPS2	62	SPAI	14	ATTO	4	CHNA2	4	SALIX	4	JUBA	3
249)	102	30	**LNP095**	DISPS2	35	SPAI	33	CHNA2	8	JUBA	5	SALIX	3	POJU	2
250)	15	26	**LNP109**	DISPS2	59	POJU	20	SPAI	9	JUBA	8				
251)	87	30	**LNP113**	SPAI	34	DISPS2	28	CHNA2	14	JUBA	7	POJU	5	ARTRT	2
252)	20	25	**MAN006**	SPAI	55	CHNA2	20	ATTO	5	CLEOM	5	DISPS2	4	ATCO	3
253)	329	40	**MAN011**	DISPS2	39	SPAI	30	CHNA2	10	JUBA	5	SALIX	4	ATTO	2
254)	24	25	**MAN021**	SPAI	59	SUTO	10	DISPS2	10	ATCO	8	SAVE4	5		
255)	8	31	**MAN023**	SPAI	48	DISPS2	30	ATTO	5	CHNA2	3	JUBA	2	SALIX	2
256)	14	23	**MAN025**	DISPS2	61	SPAI	31	CHNA2	3	SALIX	1	TARA	1		
257)	32	65	**MAN026**	SPAI	27	DISPS2	27	SALIX	17	JUBA	11	GLLE3	5	ATTO	4
258)	19	45	**MAN029**	SPAI	41	DISPS2	28	GLLE3	9	ATTO	5	SALIX	4	CHNA2	3
259)	83	16	**MAN041**	SPAI	48	CHNA2	28	DISPS2	8	ARTRT	5	ATCO	3		
260)	253	30	**MAN050**	SPAI	54	DISPS2	17	JUBA	5	SALIX	5	SAVE4	3	ATCO	3
261)	38	40	**MAN055**	SPAI	45	CHNA2	18	SALIX	8	FONE	7	DISPS2	5	ROWO	5
262)	101	30	**MAN058**	SPAI	38	ARTRT	15	CHNA2	13	DISPS2	9	SALIX	7	ATTO	6
263)	14	70	**MAN060**	SPAI	34	DISPS2	13	SALIX	10	POMO	8	PADI6	8	ANCA1	5
264)	21	35	**MAN082**	SPAI	46	CHNA2	15	CAREX	9	DISPS2	7	CYDA	5	ROWO	4
265)	5	13	**PLC002**	SPAI	48	ATTO	27	CHNA2	10	DISPS2	6				
266)	4	47	**PLC006**	DISPS2	27	CHNA2	27	CADO2	14	ROWO	11	LETR	8	SALIX	3
267)	65	30	**PLC022**	DISPS2	46	SPAI	22	CHNA2	13	ATTO	8	GLLE3	4		
268)	54	33	**PLC024**	DISPS2	46	SPAI	24	GLLE3	7	CHNA2	7	LETR	3	LECI	2
269)	169	45	**PLC028**	DISPS2	34	SPAI	17	LETR	14	CHNA2	7	SALIX	5	HEAN3	5
270)	28	70	**PLC034**	DISPS2	76	JUBA	5	CADO2	4	CHNA2	3	LETR	3		

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
271)	78	*20*	**PLC057**	SPAI	55	CHNA2	25	DISPS2	9	ATCO	2	LECI	2	ATTO	2
272)	246	*45*	**PLC062**	DISPS2	35	LETR	16	CHNA2	14	SPAI	12	JUBA	5	CAPR5	5
273)	43	*36*	**PLC082**	DISPS2	62	CHNA2	16	LETR	12	JUBA	4				
274)	39	*23*	**PLC086**	DISPS2	50	CHNA2	37	ARTRT	7						
275)	50	*43*	**PLC088**	DISPS2	60	CHNA2	16	JUBA	12	CADO2	7				
276)	164	*34*	**PLC091**	DISPS2	78	GLLE3	8	SPAI	3	CHNA2	2	CADO2	2	TARA	1
277)	35	*36*	**PLC097**	DISPS2	63	SPAI	22	GLLE3	4	CHNA2	3	JUBA	3		
278)	93	*18*	**PLC099**	DISPS2	44	CHNA2	21	SPAI	16	JUBA	8	ATTO	4	LETR	4
279)	248	*37*	**PLC119**	SPAI	28	CHNA2	28	DISPS2	20	GLLE3	8	LETR	6	ATTO	2
280)	251	*18*	**PLC120**	SPAI	48	DISPS2	16	ASIN4	8	ATPA3	8	ATCO	7	CHNA2	5
281)	51	*37*	**PLC121**	SPAI	51	DISPS2	29	CHNA2	7	HARA	4				
282)	68	*66*	**PLC123**	DISPS2	27	LETR	25	CHNA2	8	JUBA	8	CADO2	6	SPAI	6
283)	58	*34*	**PLC131**	SPAI	30	DISPS2	23	ATTO	17	CHNA2	13	GLLE3	12		
284)	78	*12*	**PLC136**	SPAI	36	DISPS2	21	CHNA2	15	ARTRT	11	SAVE4	11		
285)	44	*36*	**PLC143**	DISPS2	45	PONE3	26	SPAI	6	HARA	6	JUBA	5	CADO2	5
286)	73	*32*	**PLC144**	DISPS2	28	CHNA2	24	SPAI	23	LECI	12	CALI4	4		
287)	204	*23*	**PLC145**	DISPS2	48	SPAI	22	JUBA	6	LOCO6	5	POJU	5	CAPR5	3
288)	96	*18*	**PLC158**	SPAI	33	DISPS2	27	CHNA2	19	ARTRT	12	TARA	1		
289)	47	*14*	**PLC162**	DISPS2	44	SPAI	33	CHNA2	13	SAVE4	3				
290)	164	*40*	**PLC163**	DISPS2	87	JUBA	5								
291)	147	*15*	**PLC176**	DISPS2	52	SPAI	18	CHNA2	6	ATCO	5	MEAL2	3	CAREX	3
292)	142	*52*	**PLC177**	DISPS2	42	JUBA	38	ELPA3	7	LOCO6	4	CADO2	3		
293)	279	*30*	**PLC178**	DISPS2	46	JUBA	27	CHNA2	7	ELPA3	5	CAREX	4	LETR	2
294)	24	*13*	**PLC180**	DISPS2	92	ATTO	2								
295)	14	*16*	**PLC186**	DISPS2	78	TARA	15								
296)	114	*23*	**PLC194**	SPAI	54	CHNA2	18	DISPS2	12	SAVE4	4	ASIN4	3		
297)	30	*70*	**PLC195**	DISPS2	49	LETR	29	SPAI	7	CAPR5	4	JUBA	3		

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
298)	204	*62*	**PLC196**	DISPS2	61	SPAI	12	CHNA2	10	ATTO	8	LETR	4		
299)	174	*18*	**PLC197**	SPAI	49	DISPS2	15	CHNA2	13	ATTO	7	SAVE4	7	ATCO	3
300)	179	*13*	**PLC206**	SPAI	77	ATTO	12	CHNA2	3	DISPS2	3	TARA	1		
301)	52	*20*	**PLC207**	SPAI	86	CHNA2	8	DISPS2	2						
302)	100	*15*	**PLC215**	SPAI	54	ATTO	30	DISPS2	5	CHNA2	3	SAVE4	3	ATCO	3
303)	142	*35*	**PLC220**	GLLE3	31	LETR	23	DISPS2	23	SPAI	13	JUBA	2	CHNA2	2
304)	59	*23*	**PLC221**	SPAI	58	ATTO	26	DISPS2	8	GLLE3	3				
305)	72	*15*	**PLC223**	SPAI	50	CHNA2	19	ATTO	12	DISPS2	10	SAVE4	4		
306)	68	*43*	**PLC236**	SPAI	62	GLLE3	16	DISPS2	11	CHNA2	8				
307)	68	*19*	**PLC237**	SPAI	55	DISPS2	17	CHNA2	13	ATTO	5	GLLE3	3		
308)	201	*14*	**PLC248**	DISPS2	39	CHNA2	16	SPAI	12	GLLE3	8	LECI	7	MEAL2	6
309)	144	*30*	**PLC262**	DISPS2	42	SPAI	15	GLLE3	10	CHNA2	9	SPGR	6	ATTO	5
310)	225	*67*	**PLC266**	DISPS2	43	LETR	24	SPAI	9	GLLE3	5	CAPR5	4	SALIX	3
311)	172	*55*	**PLC267**	SPAI	41	CHNA2	20	GLLE3	15	LETR	10	DISPS2	9		
312)	288	*55*	**PLC268**	DISPS2	49	SPAI	30	CHNA2	4	ATTO	3	JUBA	3	LETR	3
313)	16	*15*	**TIN008**	SPAI	60	ATCO	9	ATPA3	8	ARTRT	7	DISPS2	5	CHNA2	3
314)	221	*10*	**TIN012**	SPAI	86	ATTO	7	DISPS2	2						
315)	47	*13*	**TIN017**	SPAI	56	ARTRT	21	CHNA2	6	PSARM	5	STPA4	2	DISPS2	2
316)	257	*29*	**TIN023**	DISPS2	43	TARA	24	LETR	17	SPAI	5	SALIX	3		
317)	351	*39*	**TIN030**	SPAI	28	CHNA2	26	GLLE3	14	DISPS2	12	ATTO	7	SAVE4	4
318)	153	*51*	**TIN031**	SPAI	34	DISPS2	27	LETR	20	GLLE3	9	TARA	2		
319)	39	*31*	**TIN032**	DISPS2	45	SPAI	44	CHNA2	2	SAVE4	2	TARA	1		
320)	101	*36*	**TIN050**	DISPS2	81	SPAI	4	JUBA	3	PHCO1	3				
321)	44	*17*	**TIN052**	SPAI	39	ATTO	17	DISPS2	14	SUTO	11	ATCO	5	JUBA	5
322)	68	*35*	**TIN053**	SPAI	48	DISPS2	32	ATTO	10	CHNA2	3				
323)	42	*33*	**TIN064**	SPAI	60	CHNA2	17	ATTO	6	SAVE4	6	CASTI2	3		
324)	45	*67*	**TIN065**	SPAI	37	CHNA2	12	GLLE3	11	LETR	9	DISPS2	8	MEAL2	8

45310 Alkali Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
325)	84	*15*	**TIN068**	SPAI	33	DISPS2	27	SUTO	10	ATPA3	8	ATCO	7	ASIN4	3
326)	224	*50*	**TIN076**	DISPS2	30	CHNA2	26	SPAI	21	ATTO	9	JUBA	5	TARA	1
327)	491	*45*	**UNW013**	DISPS2	50	ATTO	28	SPAI	10	SALIX	3	CHNA2	2	TARA	2
328)	46	*15*	**UNW025**	SPAI	65	DISPS2	21	CHNA2	3	ASIN4	3	ATTO	2	TARA	1
329)	80	*22*	**UNW026**	SPAI	60	DISPS2	16	ATTO	8	CHNA2	6	JUBA	2	GLLE3	2
330)	30	*17*	**UNW029**	SPAI	55	CHNA2	13	ASIN4	12	ATPA3	9	DISPS2	5	SAVE4	3
331)	339	*40*	**UNW030**	SPAI	59	DISPS2	18	JUBA	6	GLLE3	3	HARA	2	CHNA2	2
332)	82	*20*	**UNW033**	SPAI	47	DISPS2	15	CHNA2	12	ATTO	10	ATCO	3	ASIN4	3
333)	194	*17*	**UNW034**	SPAI	54	DISPS2	22	ASIN4	10	SAVE4	6	ATPA3	2		
334)	118	*45*	**UNW042**	DISPS2	53	SPAI	25	ATTO	4	CHNA2	4	CAREX	2	TRIFO	2
335)	158	*45*	**UNW053**	DISPS2	34	SPAI	27	JUBA	18	GLLE3	5	POA+	4	CAREX	3
336)	62	*25*	**UNW055**	DISPS2	44	SPAI	31	NIOC2	9	ATTO	3	SALIX	3	CHNA2	2
337)	147	*38*	**UNW058**	DISPS2	66	SPAI	15	JUBA	9	SALIX	2	LETR	1	TARA	1
338)	93	*60*	**UNW060**	DISPS2	85	TARA	6	SAVE4	2	ATTO	1	SPAI	1		
339)	552	*70*	**UNW061**	DISPS2	60	SAGOV	13	TARA	5	ATTO	2	CHNA2	2	LETR	2
340)	51	*30*	**UNW074**	GLLE3	44	DISPS2	30	SPAI	15	CHNA2	5	ATTO	2	TARA	1

45330 Rush/Sedge Meadow
Species Summary for 52 Parcels
Parcel Average % Live Cover = 69.4

spp	%cov	%comp	%freq	spp	%cov	%comp	%freq
AAFF	0.581	0.91	13.5	**LETR**	**9.131**	**14.25**	**73.1**
AGIN2	0.048	0.07	1.9	LOCO6	0.841	1.31	13.5
AGST2	0.272	0.42	7.7	LOPEM	0.211	0.33	3.8
ANCA10	1.160	1.81	13.5	MEAL2	0.320	0.50	13.5
APCAG	0.115	0.18	1.9	MEHI	0.049	0.08	1.9
BAHY	0.050	0.08	3.8	MESA	0.113	0.18	1.9
BRCO4	0.050	0.08	1.9	MUAS	0.949	1.48	26.9
CADO2	0.832	1.30	11.5	OXCO	0.092	0.14	1.9
CANE2	0.554	0.86	13.5	PADI6	0.171	0.27	7.7
CAPR5	**4.114**	**6.42**	**40.4**	PHAU7	0.447	0.70	7.7
CAREX	**4.972**	**7.76**	**42.3**	PLMA2	0.384	0.60	7.7
CHNA2	1.112	1.73	25.0	POA++	0.133	0.21	3.8
CYDA	1.705	2.66	26.9	POFR3	0.063	0.10	3.8
DISPS2	**11.75**	**18.34**	**96.2**	POMO5	0.762	1.19	15.4
ECCR	0.035	0.05	1.9	POPR	0.605	0.94	5.8
ELEOC	**3.660**	**5.71**	**28.8**	PPFF	0.513	0.80	11.5
EQUIS	0.041	0.06	3.8	ROWO	0.831	1.30	19.2
ERPE	0.087	0.14	1.9	SAKAT	0.042	0.07	1.9
FEAR3	0.208	0.32	3.8	SALIX	1.182	1.84	28.8
FESTU	0.055	0.09	3.8	SCAC	0.225	0.35	5.8
GLLE3	1.704	2.66	26.9	SCAM2	0.096	0.15	5.8
HARA	0.167	0.26	5.8	**SPAI**	**1.829**	**2.86**	**32.7**
HEAN3	0.629	0.98	19.2	SPGR	0.090	0.14	5.8
HOJU	0.441	0.69	9.6	TARA	0.083	0.13	7.7
IRMI	0.139	0.22	3.8	TRIFO	1.213	1.89	19.2
JUBA	**8.882**	**13.86**	**88.5**	TYPHA	0.065	0.10	1.9
LECI	0.011	0.02	1.9	XASTC	0.190	0.30	3.8
LEFA	0.065	0.10	1.9				

45330 Rush/Sedge Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	38	*65*	**BGP010**	DISPS2	43	CAREX	20	LETR	18	JUBA	6	TRIFO	3		
2)	8	*73*	**BGP012**	DISPS2	47	HOJU	13	JUBA	12	ELEOC	11	POMO	10		
3)	208	*70*	**BGP015**	CAREX	30	JUBA	30	DISPS2	12	POA+	7	SPAI	5	LETR	5
4)	107	*69*	**BGP019**	DISPS2	38	JUBA	28	ELEOC	21	POMO	4	LETR	3		
5)	100	*66*	**BGP075**	ANCA1	33	JUBA	30	CAREX	21	DISPS2	8				
6)	46	*68*	**BGP077**	JUBA	22	DISPS2	19	SPAI	17	CAREX	14	LETR	13	POA+	3
7)	45	*65*	**BGP123**	CAREX	29	DISPS2	15	JUBA	8	LETR	8	SALIX	7	SPAI	5
8)	25	*75*	**BGP125**	CAREX	30	POPR	15	CYDA	13	SALIX	10	JUBA	7	DISPS2	5
9)	59	*50*	**BIS041**	CAPR5	32	JUBA	15	DISPS2	13	IRMI	13	CYDA	6	CANE2	4
10)	17	*46*	**BIS042**	CAPR5	29	CYDA	17	CADO2	9	PLMA2	8	CHNA2	7	JUBA	7
11)	26	*70*	**BIS043**	CAPR5	31	CYDA	28	TRIFO	12	CANE2	9	POPR	7	ELEOC	5
12)	13	*64*	**BIS071**	CAPR5	30	LETR	29	DISPS2	15	GLLE3	5	JUBA	5	ROWO	4
13)	9	*42*	**BIS075**	JUBA	32	LETR	25	CANE2	17	DISPS2	10	CAPR5	5	CHNA2	3
14)	134	*75*	**BIS076**	LETR	39	DISPS2	24	CAPR5	6	JUBA	6	GLLE3	4	AAFF	4
15)	39	*50*	**BIS088**	DISPS2	24	CHNA2	22	CADO2	17	PLMA2	9	ERPE	9	LETR	4
16)	48	*22*	**BIS095**	CADO2	20	LETR	19	DISPS2	19	JUBA	15	SAKAT	10	CHNA2	7
17)	29	*85*	**BIS117**	POPR	18	TRIFO	17	JUBA	11	CAPR5	11	CYDA	9	AAFF	9
18)	47	*49*	**BIS118**	CAPR5	26	LETR	22	CHNA2	20	DISPS2	11	JUBA	9	CANE2	4
19)	78	*86*	**BLK134**	CAREX	43	JUBA	15	LETR	11	DISPS2	6	GLLE3	6	MUAS	5
20)	52	*72*	**FSL011**	ELEOC	65	JUBA	15	MUAS	5	SPGR	4	CAPR5	3	LETR	1
21)	63	*63*	**FSL072**	DISPS2	29	CAPR5	15	JUBA	15	LETR	10	MUAS	5	HOJU	4
22)	31	*90*	**FSL083**	LETR	23	GLLE3	20	SALIX	19	CAPR5	15	DISPS2	5	ROWO	4
23)	83	*75*	**FSL109**	LETR	26	CAPR5	21	JUBA	15	CHNA2	13	DISPS2	8	SPAI	4
24)	143	*72*	**FSL110**	JUBA	37	CAPR5	22	LETR	7	DISPS2	6	GLLE3	5	SPAI	4
25)	91	*72*	**FSL138**	DISPS2	29	LETR	18	CAPR5	11	JUBA	7	GLLE3	6	HARA	6
26)	115	*63*	**FSL158**	LETR	37	DISPS2	12	PHAU7	10	JUBA	9	CAPR5	8	CHNA2	4
27)	104	*86*	**FSL178**	LETR	18	PHAU7	16	CAPR5	11	DISPS2	10	MUAS	8	HEAN3	6

45330 Rush/Sedge Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
28)	69	*85*	**FSL185**	LETR	20	ROWO	16	CAPR5	11	CANE2	10	SALIX	8	DISPS2	6
29)	23	*58*	**FSL206**	LETR	25	ROWO	17	DISPS2	15	SPAI	12	GLLE3	10	CHNA2	8
30)	43	*85*	**FSP007**	JUBA	22	ELEOC	15	TRIFO	12	LOPEM	12	CAREX	11	SPAI	8
31)	38	*90*	**IND007**	LETR	35	DISPS2	25	CYDA	12	GLLE3	6	HEAN3	5	TRIFO	3
32)	56	*95*	**IND020**	GLLE3	22	DISPS2	20	LETR	10	HOJU	7	PPFF	7	TRIFO	6
33)	42	*80*	**IND115**	DISPS2	31	LETR	21	FEAR3	10	MUAS	9	CYDA	8	SPAI	5
34)	24	*75*	**IND150**	JUBA	30	SPAI	19	DISPS2	18	CHNA2	6	LOCO6	5	HARA	4
35)	209	*70*	**IND155**	JUBA	28	LOCO6	23	DISPS2	20	AAFF	15	FEAR3	4	CAREX	4
36)	4	*84*	**LAW032**	DISPS2	25	LETR	13	CAREX	11	PLMA2	11	CYDA	10	MESA	7
37)	44	*68*	**LAW043**	DISPS2	43	ELEOC	29	JUBA	8	TYPHA	5	LEFA	5	TARA	1
38)	17	*66*	**LAW070**	DISPS2	49	ELEOC	34	POMO	4	BAHY	3	JUBA	2		
39)	163	*57*	**LAW111**	LETR	35	DISPS2	25	SCAC	12	JUBA	5	CAREX	5	SCAM2	5
40)	34	*56*	**LAW115**	LETR	57	DISPS2	15	CAREX	11	JUBA	5	ELEOC	4		
41)	145	*66*	**LAW121**	LETR	51	DISPS2	24	JUBA	13	CAREX	5				
42)	66	*72*	**LAW128**	LETR	32	CADO2	19	DISPS2	12	SPAI	11	JUBA	6	MUAS	6
43)	36	*68*	**LAW141**	ELEOC	62	POMO	16	OXCO	7	AAFF	3	DISPS2	3	TARA	1
44)	67	*57*	**LAW155**	DISPS2	34	CAREX	27	JUBA	14	LETR	8	ELEOC	8		
45)	103	*70*	**LNP064**	DISPS2	45	JUBA	14	GLLE3	11	CAREX	9	SALIX	5	CYDA	4
46)	124	*75*	**PLC042**	LETR	21	DISPS2	18	JUBA	17	CAPR5	16	APCAG	8	CADO2	8
47)	29	*66*	**PLC157**	ANCA1	30	CAPR5	22	LETR	21	JUBA	11	DISPS2	11		
48)	47	*82*	**PLC164**	JUBA	27	LOCO6	17	TRIFO	16	DISPS2	13	ELEOC	9	CADO2	8
49)	76	*70*	**UNW031**	DISPS2	16	MUAS	15	JUBA	15	CAREX	15	SPAI	13	PADI6	6
50)	96	*67*	**UNW040**	JUBA	40	SPAI	17	CAREX	15	HEAN3	5	CYDA	4	SALIX	4
51)	39	*82*	**UNW041**	JUBA	23	CAREX	15	POMO	10	XASTC	9	ANCA1	8	LETR	7
52)	95	*83*	**UNW054**	CAREX	30	JUBA	18	AGST2	10	ANCA1	6	POMO	5	LOCO6	5

45340 Rabbitbrush Meadow
Species Summary for 17 Parcels
Parcel Average % Live Cover = 31.0

spp	%cov	%comp	%freq
ANCA10	0.065	0.22	5.9
ATCO	0.162	0.55	11.8
ATPA3	0.054	0.18	5.9
ATTO	**1.039**	**3.50**	**47.1**
BAHY	0.639	2.16	17.6
CADO2	0.430	1.45	11.8
CHNA2	**13.514**	**45.59**	**100.0**
DISPS2	**7.872**	**26.56**	**100.0**
GLLE3	0.660	2.23	29.4
IVAX	0.056	0.19	5.9
JUBA	0.254	0.86	17.6
LETR	0.824	2.78	29.4
MEAL2	0.082	0.28	11.8
POFR3	0.051	0.17	5.9
ROWO	0.061	0.21	5.9
SAKAT	0.534	1.80	29.4
SALIX	0.242	0.82	11.8
SAVE4	0.141	0.47	11.8
SPAI	**2.940**	**9.92**	**64.7**
TARA	0.025	0.09	17.6

45340 **Rabbitbrush Meadow** Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	44	*32*	**BIS085**	CHNA2	35	SPAI	25	LETR	20	DISPS2	15				
2)	166	*37*	**FSL113**	CHNA2	36	DISPS2	20	SPAI	8	GLLE3	8	CADO2	8	LETR	5
3)	30	*52*	**FSL179**	CHNA2	44	DISPS2	26	SPAI	19	GLLE3	3	ROWO	2	LETR	2
4)	64	*34*	**FSP004**	CHNA2	28	BAHY	25	DISPS2	14	SAKAT	14	ATTO	8	SPAI	5
5)	27	*65*	**IND004**	CHNA2	50	DISPS2	25	SPAI	20	GLLE3	2	MEAL2	1	ATTO	1
6)	80	*75*	**IND021**	CHNA2	50	DISPS2	34	LETR	5	SALIX	5	GLLE3	4		
7)	46	*23*	**LAW062**	CHNA2	58	DISPS2	33	BAHY	4	ABAG					
8)	36	*18*	**LAW082**	CHNA2	49	DISPS2	29	SAKAT	13	TARA	1				
9)	80	*24*	**LAW137**	CHNA2	28	DISPS2	21	SPAI	13	ATTO	13	BAHY	6	SAKAT	4
10)	257	*29*	**PLC043**	CHNA2	54	DISPS2	18	CADO2	15	POFR3	3	SAKAT	2	JUBA	2
11)	54	*16*	**PLC056**	CHNA2	40	SPAI	27	DISPS2	18	ATTO	12				
12)	259	*12*	**PLC094**	CHNA2	39	DISPS2	23	SPAI	13	ATTO	11	SAVE4	8	TARA	1
13)	55	*11*	**PLC125**	CHNA2	57	DISPS2	26	SPAI	6	ATTO	4				
14)	81	*13*	**PLC126**	CHNA2	28	DISPS2	19	SPAI	19	SAVE4	11	ATCO	11	ATPA3	7
15)	113	*27*	**PLC137**	CHNA2	43	DISPS2	43	JUBA	7						
16)	19	*11*	**PLC263**	CHNA2	37	SPAI	21	DISPS2	14	ATCO	12	ATTO	7	SAKAT	4
17)	83	*48*	**PLC269**	CHNA2	45	DISPS2	30	ATTO	14	GLLE3	5				

45350 Nevada Saltbush Meadow
Species Summary for 22 Parcels
Parcel Average % Live Cover = 31.5

spp	%cov	%comp	%freq
AAFF	0.020	0.07	4.6
ALOC2	0.030	0.10	4.6
ATTO	**14.566**	**48.14**	**100.0**
BAHY	0.049	0.16	9.1
CHNA2	**2.986**	**9.87**	**90.9**
DISPS2	**3.859**	**12.75**	**90.9**
GLLE3	0.726	2.40	45.5
JUBA	0.122	0.40	13.6
LECI	0.057	0.19	4.6
ROWO	0.031	0.10	4.6
SALIX	0.242	0.80	22.7
SAVE4	0.467	1.54	22.7
SIHE	0.032	0.11	4.6
SPAI	**6.721**	**22.21**	**100.0**
SUTO	0.239	0.79	4.6
TAPA4	0.012	0.04	4.6
TARA	0.101	0.33	31.8

45350 Nevada Saltbush Meadow Parcel data, top six species and their relative cover (comp)

	acres	%live cover	parcel	sp1	comp1	sp2	comp2	sp3	comp3	sp4	comp4	sp5	comp5	sp6	comp6
1)	27	*25*	**BGP154**	ATTO	39	SPAI	23	CHNA2	14	DISPS2	9	SAVE4	8		
2)	106	*31*	**BGP204**	ATTO	39	SPAI	32	CHNA2	18	DISPS2	3				
3)	271	*27*	**BLK024**	ATTO	47	SPAI	28	SAVE4	11	CHNA2	5	GLLE3	2	DISPS2	2
4)	385	*33*	**BLK113**	ATTO	36	SPAI	30	DISPS2	13	CHNA2	9	ALOC2	2	TARA	1
5)	121	*25*	**IND058**	ATTO	30	SPAI	25	CHNA2	15	SAVE4	11	DISPS2	7	GLLE3	7
6)	97	*35*	**IND067**	ATTO	50	SPAI	30	DISPS2	15	CHNA2	2	SIHE	2		
7)	231	*40*	**IND077**	ATTO	60	SPAI	30	DISPS2	5	JUBA	1	BAHY	1	GLLE3	1
8)	254	*62*	**IND088**	ATTO	35	CHNA2	21	SPAI	20	GLLE3	10	DISPS2	10		
9)	163	*25*	**IND092**	ATTO	65	SPAI	25	CHNA2	6	DISPS2	2	TARA	1		
10)	134	*25*	**IND097**	ATTO	60	DISPS2	15	SPAI	15	LECI	5	GLLE3	2	CHNA2	2
11)	251	*45*	**IND111**	ATTO	65	SPAI	22	CHNA2	5	DISPS2	5	SAVE4	1	AAFF	1
12)	155	*35*	**IND139**	ATTO	45	SPAI	25	SUTO	15	SAVE4	6	CHNA2	5	DISPS2	3
13)	132	*14*	**LAW011**	ATTO	48	DISPS2	22	SPAI	13	CHNA2	12	TARA	1		
14)	8	*20*	**LAW019**	ATTO	51	SPAI	25	CHNA2	10	GLLE3	3	SALIX	3		
15)	19	*21*	**LAW112**	ATTO	76	SPAI	21								
16)	94	*34*	**LNP010**	ATTO	28	SPAI	25	CHNA2	14	GLLE3	10	DISPS2	7	SALIX	5
17)	47	*42*	**LNP045**	ATTO	37	SPAI	23	DISPS2	14	CHNA2	12	JUBA	3	GLLE3	3
18)	23	*22*	**MAN014**	ATTO	40	DISPS2	35	CHNA2	15	SPAI	7				
19)	161	*50*	**MAN038**	ATTO	28	DISPS2	25	SPAI	20	CHNA2	15	SALIX	4	GLLE3	2
20)	49	*13*	**TIN013**	ATTO	58	CHNA2	19	DISPS2	15	SPAI	5				
21)	146	*33*	**UNW057**	ATTO	50	DISPS2	32	SPAI	8	CHNA2	3	SALIX	2	GLLE3	1
22)	48	*36*	**UNW079**	ATTO	62	DISPS2	28	CHNA2	3	SPAI	2	SALIX	1	TARA	1