

Vegetation Sampling, Classification, and Mapping Report for the inner Central Coast Ranges of California, including the Ciervo-Panoche Natural Area and the Hubbard Hill Unit

Appendix D

Vegetation Descriptions

**Jennifer Buck-Diaz, Kendra Sikes, Savannah Vu,
Alexis LaFever-Jackson, and Julie Evens**
California Native Plant Society, Vegetation Program
2707 K Street, Suite 1
Sacramento, CA 95816

2023



CALIFORNIA
NATIVE PLANT SOCIETY

TREE-OVERSTORY VEGETATION	1
Juniperus californica Woodland Alliance	1
Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum Association	3
Juniperus californica / Ericameria linearifolia / annual – perennial herb Association	5
Juniperus californica / Eriogonum fasciculatum – Artemisia californica Association .	7
Juniperus californica / herbaceous Association	9
Juniperus californica / Salvia leucophylla Association	11
Populus fremontii – Fraxinus velutina – Salix gooddingii Forest & Woodland Alliance	13
Populus fremontii Association	15
Populus fremontii – Salix laevigata Association	17
Populus fremontii – Salix lasiolepis Association	18
Populus fremontii / Baccharis salicifolia Association.....	19
Populus fremontii / Salix exigua Association.....	20
Quercus agrifolia Forest & Woodland Alliance	22
Quercus douglasii Forest & Woodland Alliance	24
Quercus douglasii – Juniperus californica / Ceanothus cuneatus – Cercocarpus montanus Association	26
Quercus douglasii – Juniperus californica / Ericameria linearifolia Association	28
Quercus douglasii – Juniperus californica / Quercus john-tuckeri Association	30
Quercus douglasii – Quercus agrifolia Association	31
Quercus douglasii / Ericameria linearifolia Association	32
Quercus douglasii / Eriogonum fasciculatum / herbaceous Association	34
Quercus douglasii / Mixed herbaceous Association	36
Salix gooddingii – Salix laevigata Forest & Woodland Alliance	37
Salix laevigata Association	39
SHRUB-OVERSTORY VEGETATION	40
Adenostoma fasciculatum Shrubland Alliance	40
Adenostoma fasciculatum Association.....	42
Adenostoma fasciculatum – (Ceanothus cuneatus) Association	44
Adenostoma fasciculatum – Salvia spp. Shrubland Alliance	46
Adenostoma fasciculatum – Salvia leucophylla Association	48

Adenostoma fasciculatum – Salvia mellifera Association	50
Allenrolfea occidentalis Shrubland Alliance.....	52
Allenrolfea occidentalis Association	54
Allenrolfea occidentalis / Distichlis spicata Provisional Association	55
Allenrolfea occidentalis / Lasthenia gracilis Provisional Association	56
Ambrosia salsola – Bebbia juncea Shrubland Alliance	58
Arctostaphylos glauca Shrubland Alliance	60
Arctostaphylos glauca Association.....	62
Arctostaphylos glauca – Adenostoma fasciculatum Association	65
Arctostaphylos glauca – Quercus john-tuckeri Provisional Association	67
Artemisia californica – (Salvia leucophylla) Shrubland Alliance	69
(Artemisia californica) – Eriogonum fasciculatum – Salvia leucophylla Association	71
Artemisia californica Association.....	73
Artemisia californica – Eriogonum fasciculatum Association	75
Salvia leucophylla Association	77
Salvia leucophylla – Artemisia californica Association	79
Artemisia tridentata Shrubland Alliance	81
Atriplex canescens Shrubland Alliance	83
Atriplex confertifolia Shrubland Alliance	85
Atriplex lentiformis Shrubland Alliance	86
Atriplex polycarpa Shrubland Alliance	88
Atriplex polycarpa / Annual Herbaceous Association	90
Atriplex spinifera Shrubland Alliance	92
Baccharis salicifolia Shrubland Alliance	94
Baccharis salicifolia Association	96
Baccharis salicifolia – Pluchea sericea Association	99
Ceanothus cuneatus Shrubland Alliance	101
Ceanothus cuneatus – Adenostoma fasciculatum Association	103
Ephedra californica – Ephedra trifurca Shrubland Alliance	105
Ephedra californica – Ambrosia salsola Association	107
Ephedra californica – Gutierrezia californica / Eriastrum pluriflorum Association	109
Ephedra californica / annual – perennial herb Association	111

Ephedra nevadensis – Lycium andersonii – Grayia spinosa Shrubland Alliance	113
Ephedra nevadensis – Lycium andersonii Association	115
Lycium andersonii Provisional Association	117
Ephedra viridis Shrubland Alliance.....	119
Ericameria linearifolia – Cleome isomeris Shrubland Alliance	121
Cleome isomeris Association	124
Eastwoodia elegans Association.....	126
Eastwoodia elegans – Krascheninnikovia lanata Association.....	128
Ericameria linearifolia Association	130
Gutierrezia californica / Poa secunda Association	132
Ericameria nauseosa Shrubland Alliance.....	134
Eriogonum fasciculatum Shrubland Alliance	136
Eriogonum fasciculatum Association	138
Eriogonum fasciculatum – Ephedra californica Association.....	140
Eriogonum fasciculatum var. foliolosum – Hesperoyucca whipplei Association....	142
Eriogonum fasciculatum var. polifolium / Eriastrum pluriflorum Association.....	144
Krascheninnikovia lanata Shrubland Alliance.....	146
Lepidospartum squamatum Shrubland Alliance	148
Lepidospartum squamatum – Artemisia californica Association	150
Lepidospartum squamatum / ephemeral annuals Association.....	152
Lotus scoparius – Lupinus albifrons – Eriodictyon spp. Shrubland Alliance	154
Lupinus albifrons Association	156
Malacothamnus fasciculatus – Malacothamnus spp. Shrubland Alliance	158
Pluchea sericea Shrubland Alliance.....	160
Prunus fasciculata – Salazaria mexicana Shrubland Alliance	162
Quercus berberidifolia Shrubland Alliance	164
Quercus berberidifolia – Adenostoma fasciculatum Association.....	166
Quercus berberidifolia – Ceanothus cuneatus Association.....	168
Quercus berberidifolia – Cercocarpus montanus Association.....	169
Quercus john-tuckeri Shrubland Alliance	170
Quercus john-tuckeri Association.....	172
Quercus john-tuckeri – Adenostoma fasciculatum Association	175

Quercus john-tuckeri – Juniperus californica – Ericameria linearifolia Association	176
Rhus trilobata – Crataegus rivularis – Forestiera pubescens Shrubland Alliance	178
Ribes quercetorum – Rhus trilobata – Frangula californica Shrubland Alliance	179
Salix lasiolepis Shrubland Alliance	181
Salvia mellifera – (Artemisia californica) Shrubland Alliance	183
Salvia mellifera – Artemisia californica Association	185
Salvia mellifera – Eriogonum fasciculatum / Bromus rubens Association	187
Suaeda moquinii Shrubland Alliance	189
Isocoma acradenia Alkaline Wet Association	191
Suaeda moquinii / Lepidium dictyotum Association	192
Tamarix spp. Shrubland Semi-Natural Alliance	194
HERBACEOUS VEGETATION	196
Achnatherum hymenoides Herbaceous Alliance	196
Amsinckia (menziesii, tessellata) – Phacelia spp. Herbaceous Alliance	198
Amsinckia (furcata, vernicosa) Provisional Association	200
Amsinckia (intermedia, menziesii) Association	202
Amsinckia menziesii – Erodium spp. Association	203
Amsinckia tessellata – Erodium cicutarium Association	205
Astragalus didymocarpus – Lotus wrangelianus Association	207
Croton setigerus – (Trichostema lanceolatum) Provisional Association	209
Eriogonum (angulosum, gracillimum) – Amsinckia tessellata Provisional Association	211
Phacelia ciliata Association	213
Phacelia tanacetifolia Association	215
Salvia columbariae – Chaenactis (fremontii, stevioides) Provisional Association .	217
Aristida purpurea – Elymus elymoides – Poa secunda Herbaceous Alliance	219
Monolopia stricta – Poa secunda Association	221
Poa secunda – (Elymus sp.) – Clarkia cylindrica Association	223
Poa secunda – Bromus rubens Association	225
Artemisia dracunculus Herbaceous Alliance	226
Avena spp. – Bromus spp. Herbaceous Semi-Natural Alliance	227
Avena barbata – Avena fatua Semi-natural Association	229
Bromus diandrus – Mixed herbs Semi-natural Association	231

Bromus hordeaceus – Erodium botrys Semi-natural Association	232
Bromus hordeaceus – Hordeum spp. – Medicago polymorpha Semi-natural Association	233
Bidens cernua – Euthamia occidentalis – Ludwigia palustris Herbaceous Alliance .	235
Brassica nigra – Centaurea (solstitialis, melitensis) Herbaceous Semi-Natural Alliance	236
Centaurea melitensis Semi-natural Association.....	238
Brassica tournefortii – Malcolmia africana Provisional Herbaceous Semi-Natural Alliance	240
Bromus rubens – Schismus (arabicus, barbatus) Herbaceous Semi-Natural Alliance	241
Bromus (madritensis, rubens) – Erodium cicutarium Semi-natural Association....	243
Schismus (arabicus, barbatus) Provisional Semi-natural Association.....	244
Corethrogyne filaginifolia – Eriogonum (elongatum, nudum) Herbaceous Alliance..	246
Corethrogyne filaginifolia Association	248
Eriogonum elongatum Association.....	250
Eriogonum nudum Provisional Association.....	252
Eriogonum nudum var. indictum – Eriogonum vestitum Association.....	254
Eriophyllum confertiflorum Provisional Association.....	255
Dicoria canescens – Abronia villosa – Panicum urvilleanum Sparsely Vegetated Alliance	257
Abronia pogonantha – Oenothera deltoides Provisional Association.....	259
Rumex hymenosepalus Provisional Association.....	261
Distichlis spicata Interior Herbaceous Alliance.....	262
Distichlis spicata Interior Association	264
Distichlis spicata – Juncus arcticus var. balticus (J. mexicanus) Interior Association	265
Frankenia salina Interior Association	267
Eschscholzia (californica) – Lupinus (nanus) Herbaceous Alliance	269
Eschscholzia californica Association.....	271
Lupinus (microcarpus, succulentus) Provisional Association.....	273
Lupinus bicolor Association	275
Salvia carduacea Association	277
Juncus (effusus, patens) – Carex (pansa, praegracilis) Herbaceous Alliance.....	279

Juncus arcticus (var. balticus, mexicanus) Herbaceous Alliance	280
Lasthenia californica – Plantago erecta – Vulpia microstachys Herbaceous Alliance	282
Erodium cicutarium – Vulpia microstachys Association	285
Lasthenia (californica, gracilis) Association	287
Lasthenia gracilis – Plantago erecta – Plagiobothrys canescens Association	289
Lasthenia minor Provisional Association.....	291
Layia (platyglossa, munzii) Provisional Association	293
Lepidium jaredii ssp. album – Lepidium nitidum Provisional Association	295
Lepidium nitidum – Trifolium gracilentum – Vulpia microstachys Association	296
Pectocarya (linearis, penicillata) Association	298
Vulpia microstachys – Plantago erecta Association	300
Lasthenia fremontii – Distichlis spicata Herbaceous Alliance.....	302
Atriplex vallicola – Lasthenia ferrisiae – Lepidium jaredii Association.....	304
Frankenia salina – Psilocarphus brevissimus Provisional Association.....	305
Lasthenia fremontii – Downingia (bicornuta) Herbaceous Alliance	306
Leymus cinereus – Leymus triticoides Herbaceous Alliance.....	308
Leymus triticoides Association	310
Leymus triticoides – Bromus spp. – Avena spp. Association	312
Mimulus guttatus – Cirsium spp. – Stachys spp. Herbaceous Alliance	314
Monolopia (lanceolata) – Coreopsis (calliopsidea) Herbaceous Alliance	316
Coreopsis calliopsidea – Mentzelia pectinata Association	318
Eschscholzia hypocoides – Monolopia lanceolata Provisional Association	320
Monolopia lanceolata Association.....	321
Monolopia major Provisional Association.....	323
Monolopia stricta Association	324
Nassella spp. – Melica spp. Herbaceous Alliance.....	326
Plagiobothrys nothofulvus Herbaceous Alliance	328
Salsola tragus – Isatis tinctoria – Bassia spp. Herbaceous Semi-Natural Alliance...	330
Schoenoplectus americanus Herbaceous Alliance	331
Schoenoplectus americanus Association.....	333
Schoenoplectus pungens Provisional Association	334
Typha (angustifolia, domingensis, latifolia) Herbaceous Alliance	336

TREE-OVERSTORY VEGETATION

Juniperus californica Woodland Alliance

Common Name: California juniper woodland

NVC Alliance Code: A0502. *Juniperus californica* Mojave Scrub Alliance

Associations	Sample Size
<i>Juniperus californica</i> / <i>Adenostoma fasciculatum</i> – <i>Eriogonum fasciculatum</i>	14
<i>Juniperus californica</i> / <i>Ericameria linearifolia</i> / annual – perennial herb	48
<i>Juniperus californica</i> / <i>Eriogonum fasciculatum</i> – <i>Artemisia californica</i>	8
<i>Juniperus californica</i> / herbaceous	7
<i>Juniperus californica</i> / <i>Salvia leucophylla</i>	22
<i>Juniperus californica</i> alliance	4

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 859 m (554 – 1500 m)

Slope: 19° (0 – 42°)

Aspect: Variable

Tree Cover: 14.8% (4 – 58%)

Shrub Cover: 23.5% (0 – 86%)

Herb Cover: 31.0% (2 – 85%)

Surface Covers – Mean (Range):

Large Rock: 4.0% (0 – 28%)

Small Rock: 8.0% (0 – 67%)

Fines: 62.5% (0 – 96%)

Litter: 19.4% (0 – 68%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 103): A0430113, CARR0005, CARR0096, CARR0122, CARR0596, CARR0602, CARR0609, CARR0610, CARR0611, CARR0612, CARR0612B, CARR0624, CARR0625B, CARR0650, CARR0657, CARR0661, CARR0742, CARR0743B, CARR0755B, CARR0877, CARR0879, CARR0959B, CARR0965, CARR1229, CARR1505, CARR1508, CARR1514, CARR1628, CARR1666, CARR1742, CARR1743, CARR1745, CARR1752, CARR176B, chg014, chg032, chg036, chg037, chg057, chg059, chg061, chg062, chg063, chg064, chg068, chg069, chg070, chg071, chg072, chg073, chg074, chg075, chg076, chg077, chg078, chg079, chg132, chg133, CVPA0033, CVPA0053,

Juniperus californica Woodland Alliance

CVPA0071, CVPA0422, CVPA0597, CVPA0919, CVPA1177, CVPA3512, CVPA8052, CVPA8110, CVPA8220, CVPAA005, CVPAA028, CVPAA036, E0429111, E0501093, J0507111, K0429110, K0429130, PHER003, PHER008, PHER026, PHER028, PHER030, RIZO0007, RIZO0009, RIZO0011, RIZO0019, RIZO0020, RIZO0021, RIZO0023, RIZO0024, RIZO0025, RIZO0028, RIZO0030, RIZO0033, RIZO0034, RIZO0038, RIZO0040, RIZO0041, RIZO0044, RIZO0045, RIZO0046, RIZO0061, S16031800

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	98	14.1	0.2	55.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	79	3.8	0.1	25.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	61	3.2	0.2	20.0				Y
S	<i>Salvia leucophylla</i>	28	2.5	0.2	34.0				
S	<i>Gutierrezia californica</i>	28	0.2	0.2	3.0				
H	<i>Bromus rubens</i>	67	4.4	0.2	78.0				Y
H	<i>Erodium cicutarium</i>	65	1.5	0.2	10.0				Y
H	<i>Poa secunda</i>	51	1.8	0.2	17.0				Y
H	<i>Amsinckia tessellata</i>	32	0.8	0.2	15.0				
H	<i>Marah fabaceus</i>	26	0.1	0.2	3.0				
H	<i>Pholistoma membranaceum</i>	25	1.0	0.2	10.0				
H	<i>Bromus hordeaceus</i>	22	1.9	0.2	40.0				
H	<i>Microseris lindleyi</i>	21	0.1	0.2	2.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Juniperus californica* / *Adenostoma fasciculatum* – *Eriogonum fasciculatum*
Association**

Common Name: Juniper - Oak Cismontane Woodland Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 788 m (574 – 979 m)

Slope: 10° (3 – 20°)

Aspect: Variable

Tree Cover: 24.0% (8 – 58%)

Shrub Cover: 58.9% (40 – 86%)

Herb Cover: 62.0% (31 – 85%)

Surface Covers – Mean (Range):

Large Rock: 11.6% (1 – 27%)

Small Rock: 5.2% (2 – 10%)

Fines: 75.6% (62 – 89%)

Litter: 5.7% (2 – 10%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 14): RIZO0009, RIZO0011, RIZO0019, RIZO0023, RIZO0028, RIZO0030, RIZO0033, RIZO0034, RIZO0040, RIZO0041, RIZO0044, RIZO0045, RIZO0046, RIZO0061

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	22.3	7.0	55.0	Y	Y		Y
T	<i>Quercus douglasii</i>	64	1.4	0.2	5.0				
T	<i>Quercus agrifolia</i>	29	0.4	1.0	2.0				
S	<i>Adenostoma fasciculatum</i>	100	27.1	5.0	70.0	Y		Y	Y
S	<i>Quercus berberidifolia</i>	100	10.1	2.0	25.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	93	11.1	5.0	20.0	Y			Y
S	<i>Ericameria linearifolia</i>	93	5.5	2.0	15.0	Y			Y
S	<i>Salvia mellifera</i>	86	5.5	2.0	17.0	Y			Y
S	<i>Arctostaphylos glauca</i>	71	2.3	1.0	10.0				Y
S	<i>Artemisia californica</i>	36	2.4	2.0	20.0				
H	<i>Bromus</i> sp.	100	53.2	30.0	70.0	Y	Y		Y
H	<i>Lasthenia californica</i>	64	1.4	0.2	5.0				Y
H	<i>Amsinckia</i> sp.	50	0.2	0.2	1.0				Y
H	<i>Castilleja exserta</i>	36	1.9	1.0	15.0				
H	<i>Erodium cicutarium</i>	36	1.2	0.2	10.0				
H	<i>Claytonia perfoliata</i>	36	1.0	0.2	10.0				
H	<i>Dodecatheon clevelandii</i>	29	0.1	0.2	1.0				
H	<i>Dichelostemma capitatum</i>	29	0.1	0.2	0.2				
H	<i>Lotus strigosus</i>	21	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Juniperus californica* / *Ericameria linearifolia* / annual – perennial herb
Association**

Common Name: California Juniper - Narrowleaf Goldenbush / Annual - Perennial Herb
Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 915 m (587 – 1500 m)

Slope: 19° (1 – 42°)

Aspect: Variable

Tree Cover: 13.3% (4 – 40%)

Shrub Cover: 15.1% (0 – 39%)

Herb Cover: 26.5% (2 – 73%)

Surface Covers – Mean (Range):

Large Rock: 2.5% (0 – 28%)

Small Rock: 12.5% (0 – 75%)

Fines: 56.0% (0 – 92%)

Litter: 18.7% (0 – 58%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 48): A0430113, CARR0096, CARR0596, CARR0602, CARR0609, CARR0610, CARR0611, CARR0612, CARR0625B, CARR0650, CARR0661, CARR0742, CARR0743, CARR0755, CARR0879, CARR0965, CARR1229, CARR1505, CARR1508, CARR1514, CARR1666, CARR1742, CARR1743, CARR176B, chg014, chg032, chg036, chg037, chg063, chg064, chg068, chg074, CVPA0033, CVPA0053, CVPA0099, CVPA0422, CVPA0597, CVPA8220, CVPAA028, CVPAA036, E0429111, J0507111, K0429130, PHER003, PHER008, PHER026, PHER028, PHER030

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	13.0	0.2	40.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	92	6.3	0.1	25.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	54	1.6	0.2	10.0				Y
S	<i>Gutierrezia californica</i>	33	0.3	0.2	3.0				
S	<i>Ephedra californica</i>	27	0.9	0.2	8.0				
S	<i>Ephedra viridis</i>	23	0.6	0.2	11.0				
H	<i>Bromus rubens</i>	81	4.5	0.2	25.0	Y			Y
H	<i>Poa secunda</i>	71	3.3	0.2	27.0				Y
H	<i>Erodium cicutarium</i>	71	1.8	0.2	10.0				Y
H	<i>Amsinckia tessellata</i>	54	2.1	0.2	30.0				Y
H	<i>Pholistoma membranaceum</i>	42	2.1	0.2	20.0				
H	<i>Bromus hordeaceus</i>	35	3.3	0.2	40.0				
H	<i>Microseris lindleyi</i>	35	0.1	0.2	2.0				
H	<i>Marah fabaceus</i>	33	0.2	0.2	3.0				
H	<i>Amsinckia menziesii</i>	31	0.4	0.2	7.0				
H	<i>Vulpia myuros</i>	27	0.2	0.2	3.0				
H	<i>Monolopia lanceolata</i>	25	0.6	0.2	10.0				
H	<i>Lotus wrangelianus</i>	23	0.5	0.2	15.0				
N	Moss	21	1.1	0.2	20.0				

Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Juniperus californica / *Ericameria linearifolia* / annual – perennial herb Association
Juniperus californica Woodland Alliance

***Juniperus californica* / *Eriogonum fasciculatum* – *Artemisia californica*
Association**

Common Name: California Buckwheat Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 786 m (646 – 935 m)

Slope: 9° (3 – 14°)

Aspect: Variable

Tree Cover: 15.3% (8 – 27%)

Shrub Cover: 36.5% (7 – 55%)

Herb Cover: 51.0% (4 – 80%)

Surface Covers – Mean (Range):

Large Rock: 12.4% (6 – 27%)

Small Rock: 9.0% (3 – 31%)

Fines: 69.7% (26 – 82%)

Litter: 6.7% (4 – 15%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 8): CARR0657, RIZO0007, RIZO0020, RIZO0021, RIZO0024, RIZO0025, RIZO0038, S16031800

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	13.0	8.0	25.0	Y	Y		Y
T	<i>Quercus douglasii</i>	75	2.3	0.2	5.0	Y			Y
S	<i>Quercus berberidifolia</i>	75	11.3	10.0	25.0	Y		Y	Y
S	<i>Ericameria linearifolia</i>	75	3.1	2.0	5.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	75	2.6	2.0	5.0	Y			Y
S	<i>Arctostaphylos glauca</i>	63	3.9	2.0	15.0				Y
S	<i>Adenostoma fasciculatum</i>	38	3.8	10.0	10.0				
S	<i>Salvia mellifera</i>	38	2.3	3.0	10.0				
S	<i>Artemisia californica</i>	38	0.9	0.2	5.0				
H	<i>Bromus</i> sp.	75	35.6	10.0	70.0	Y	Y		Y
H	<i>Amsinckia</i> sp.	38	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	25	2.6	1.0	20.0				
H	<i>Erodium cicutarium</i>	25	0.9	2.0	5.0				
H	<i>Lasthenia californica</i>	25	0.4	1.0	2.0				
H	<i>Claytonia perfoliata</i>	25	0.2	0.2	1.0				
H	<i>Castilleja exserta</i>	25	0.1	0.2	0.2				
H	<i>Dodecatheon clevelandii</i>	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Juniperus californica / *Eriogonum fasciculatum* – *Artemisia californica* Association
Juniperus californica Woodland Alliance

***Juniperus californica* / herbaceous Association**

Common Name: California Juniper / herbaceous Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 711 m (554 – 954 m)

Slope: 18° (0 – 30°)

Aspect: Mostly north-facing

Tree Cover: 19.3% (10 – 25%)

Shrub Cover: 1.6% (1 – 2%)

Herb Cover: 28.5% (22 – 35%)

Surface Covers – Mean (Range):

Large Rock: 0.7% (0 – 2%)

Small Rock: 6.6% (0 – 34%)

Fines: 58.3% (25 – 89%)

Litter: 32.2% (8 – 68%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 7): CARR0005, CARR0612A, CARR0959, CARR1628, CVPA0071, CVPA3512, CVPA8110

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	19.3	10.0	25.0	Y	Y		Y
S	<i>Ephedra californica</i>	43	0.7	1.0	2.0				
S	<i>Ericameria linearifolia</i>	43	0.1	0.1	0.2				
S	<i>Salvia leucophylla</i>	29	0.1	0.2	0.2				
H	<i>Poa secunda</i>	86	5.1	0.2	19.0	Y			Y
H	<i>Bromus rubens</i>	71	8.1	2.0	25.0				Y
H	<i>Erodium cicutarium</i>	57	1.7	1.0	8.0				Y
H	<i>Pholistoma membranaceum</i>	57	1.3	0.2	5.0				Y
H	<i>Vulpia microstachys</i>	43	1.2	0.2	7.0				
H	<i>Bromus hordeaceus</i>	43	1.0	0.2	5.0				
H	<i>Lotus wrangelianus</i>	43	0.6	0.2	4.0				
H	<i>Claytonia parviflora</i>	43	0.6	0.2	4.0				
H	<i>Amsinckia menziesii</i>	43	0.2	0.2	1.0				
H	<i>Marah fabaceus</i>	43	0.1	0.2	0.2				
H	<i>Amsinckia tessellata</i>	29	3.1	1.0	21.0				
H	<i>Schismus</i> sp.	29	0.2	0.2	1.0				
H	<i>Guillenia lasiophylla</i>	29	0.1	0.2	0.2				
H	<i>Pectocarya penicillata</i>	29	0.1	0.2	0.2				
H	<i>Athysanus pusillus</i>	29	0.1	0.2	0.2				
H	<i>Astragalus didymocarpus</i>	29	0.1	0.2	0.2				
H	<i>Lasthenia gracilis</i>	29	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	29	0.1	0.2	0.2				
H	<i>Trifolium gracilentum</i>	29	0.1	0.2	0.2				
N	Moss	29	3.1	2.0	20.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Juniperus californica* / *Salvia leucophylla* Association**

Common Name: California Juniper / Purple Sage Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 880 m (661 – 1179 m)

Slope: 20° (9 – 30°)

Aspect: Variable

Tree Cover: 13.8% (4 – 33%)

Shrub Cover: 26.2% (4 – 43%)

Herb Cover: 10.9% (3 – 29%)

Surface Covers – Mean (Range):

Large Rock: 0.4% (0 – 5%)

Small Rock: 4.5% (0 – 40%)

Fines: 63.5% (37 – 82%)

Litter: 28.5% (1 – 60%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 22): CARR0122, CARR0624, CARR0877, CARR1745, chg057, chg059, chg061, chg062, chg069, chg070, chg071, chg072, chg073, chg075, chg076, chg077, chg078, chg079, chg132, chg133, E0501093, K0429110

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	91	13.3	4.0	33.0	Y	Y		Y
S	<i>Salvia leucophylla</i>	100	11.5	1.0	34.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	68	3.1	0.2	11.0				Y
S	<i>Ericameria linearifolia</i>	68	0.8	0.2	8.0				Y
S	<i>Gutierrezia californica</i>	41	0.2	0.2	2.0				
S	<i>Eriophyllum confertiflorum</i>	27	0.1	0.2	0.2				
S	<i>Ephedra viridis</i>	23	0.1	0.2	1.0				
H	<i>Bromus rubens</i>	100	3.3	0.2	13.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	91	1.7	0.2	7.0	Y			Y
H	<i>Poa secunda</i>	50	0.9	0.2	10.0				Y
H	<i>Schismus</i> sp.	41	0.4	0.2	3.0				
H	<i>Lotus wrangelianus</i>	27	0.4	1.0	3.0				
H	<i>Pectocarya setosa</i>	27	0.1	0.2	0.2				
H	<i>Ancistrocarphus filagineus</i>	23	0.5	0.2	8.0				
H	<i>Amsinckia tessellata</i>	23	0.2	0.2	2.0				
H	<i>Cryptantha nemaclada</i>	23	0.1	0.2	1.0				
H	<i>Salvia columbariae</i>	23	0.1	0.2	1.0				
H	<i>Pterostegia drymarioides</i>	23	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Populus fremontii* – *Fraxinus velutina* – *Salix gooddingii* Forest & Woodland Alliance**

Common Name: Fremont cottonwood forest and woodland

NVC Alliance Code: A3803. *Populus fremontii* - *Fraxinus velutina* - *Salix gooddingii*
Riparian Forest & Woodland Alliance

Associations	Sample Size
<i>Populus fremontii</i>	5
<i>Populus fremontii</i> – <i>Salix laevigata</i>	4
<i>Populus fremontii</i> – <i>Salix lasiolepis</i>	1
<i>Populus fremontii</i> / <i>Baccharis salicifolia</i>	1
<i>Populus fremontii</i> / <i>Salix exigua</i>	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 435 m (193 – 981 m)

Slope: 3° (0 – 11°)

Aspect: Variable

Tree Cover: 21.8% (8 – 45%)

Shrub Cover: 3.6% (0 – 11%)

Herb Cover: 27.7% (2 – 95%)

Surface Covers – Mean (Range):

Large Rock: 2.5% (0 – 19%)

Small Rock: 10.0% (0 – 24%)

Fines: 45.5% (2 – 85%)

Litter: 29.5% (1 – 95%)

Conservation Status Rank: Global: G4; **State (California):** S3

Surveys Used in Description (N = 12): CARR0074, CARR0137, CARR1609, CARR1747, CVPA0012, CVPA0014, CVPA0024, CVPA3246, CVPA3248, CVPA3491, CVPA8224, PAPR0017

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	100	16.2	4.0	45.0	Y	Y		Y
T	<i>Salix laevigata</i>	33	5.3	6.0	22.0				
S	<i>Isocoma acradenia</i>	42	0.4	0.2	2.0				
S	<i>Nicotiana glauca</i>	33	0.5	0.2	5.0				
S	<i>Baccharis salicifolia</i>	25	0.9	0.2	9.0				
H	<i>Bromus diandrus</i>	42	13.6	1.0	94.0				
H	<i>Distichlis spicata</i>	33	0.8	0.2	6.0				
H	<i>Bromus rubens</i>	33	0.3	0.2	2.0				
H	<i>Typha</i> sp.	25	0.8	0.2	5.0				
N	Moss	25	0.9	0.2	10.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Populus fremontii Association

Common Name: Fremont Cottonwood Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 524 m (193 – 981 m)

Slope: 4° (0 – 11°)

Aspect: Variable

Tree Cover: 24.6% (8 – 45%)

Shrub Cover: 0.5% (0 – 1%)

Herb Cover: 31.8% (7 – 95%)

Surface Covers – Mean (Range):

Large Rock: 0.1%

Small Rock: 6.0% (0 – 21%)

Fines: 43.6% (2 – 85%)

Litter: 32.0% (1 – 95%)

Global Rarity Rank: G2Q **State Rarity Rank:** SNR

State Rare: Y

Surveys Used in Description (N = 5): CARR0074, CARR1747, CVPA0012, CVPA0014, CVPA8224

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	100	24.4	8.0	45.0	Y	Y		Y
T	<i>Juniperus californica</i>	20	0.2	1.0	1.0				
S	<i>Isocoma acradenia</i>	20	0.2	1.0	1.0				
S	<i>Baccharis salicifolia</i>	20	0.0	0.2	0.2				
S	<i>Atriplex polycarpa</i>	20	0.0	0.2	0.2				
S	<i>Tamarix</i> sp.	20	0.0	0.2	0.2				
S	<i>Eriophyllum confertiflorum</i>	20	0.0	0.2	0.2				
S	<i>Arctostaphylos glauca</i>	20	0.0	0.2	0.2				
H	<i>Bromus diandrus</i>	80	21.6	1.0	94.0	Y		Y	Y
H	<i>Typha</i> sp.	60	1.8	0.2	5.0				Y
H	<i>Distichlis spicata</i>	40	1.8	3.0	6.0				
H	<i>Amsinckia tessellata</i>	40	0.1	0.2	0.2				
H	<i>Corethrogyne filaginifolia</i>	20	0.6	3.0	3.0				
H	unknown <i>Onagraceae</i>	20	0.6	3.0	3.0				
H	<i>Hordeum marinum</i>	20	0.4	2.0	2.0				
H	<i>Bromus rubens</i>	20	0.4	2.0	2.0				

Populus fremontii Association

Populus fremontii – *Fraxinus velutina* – *Salix gooddingii* Forest & Woodland Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Sinapis arvensis</i>	20	0.4	2.0	2.0				
H	<i>Pterostegia drymarioides</i>	20	0.2	1.0	1.0				
H	<i>Plagiobothrys</i>	20	0.2	1.0	1.0				
H	<i>Erodium cicutarium</i>	20	0.2	1.0	1.0				
H	<i>Malva parviflora</i>	20	0.2	1.0	1.0				
H	<i>Malva</i> sp.	20	0.2	1.0	1.0				
H	<i>Leymus triticoides</i>	20	0.2	1.0	1.0				
H	<i>Collinsia heterophylla</i>	20	0.0	0.2	0.2				
H	<i>Rafinesquia californica</i>	20	0.0	0.2	0.2				
H	<i>Amsinckia menziesii</i>	20	0.0	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	20	0.0	0.2	0.2				
H	<i>Elymus elymoides</i>	20	0.0	0.2	0.2				
H	<i>Guillenia lasiophylla</i>	20	0.0	0.2	0.2				
H	<i>Heliotropium curassavicum</i>	20	0.0	0.2	0.2				
H	<i>Juncus arcticus</i>	20	0.0	0.2	0.2				
H	<i>Muhlenbergia rigens</i>	20	0.0	0.2	0.2				
H	<i>Schoenoplectus</i>	20	0.0	0.2	0.2				
H	<i>Phacelia egea</i>	20	0.0	0.2	0.2				
H	<i>Phacelia tanacetifolia</i>	20	0.0	0.2	0.2				
H	<i>Pholistoma membranaceum</i>	20	0.0	0.2	0.2				
H	<i>Hordeum</i>	20	0.0	0.2	0.2				
H	<i>Penstemon centranthifolius</i>	20	0.0	0.2	0.2				
N	Moss	20	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Populus fremontii* – *Salix laevigata* Association**

Common Name: Fremont Cottonwood - Red Willow Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 266 m (240 – 304 m)

Slope: no data

Aspect: no data

Tree Cover: 22.5% (13 – 32%)

Shrub Cover: 4.2% (0 – 8%)

Herb Cover: 16.5% (2 – 51%)

Surface Covers – Mean (Range):

Large Rock: no data

Small Rock: no data

Fines: no data

Litter: no data

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 4): CVPA3246, CVPA3248, CVPA3491, PAPR0017

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Salix laevigata</i>	100	15.8	6.0	22.0	Y	Y		Y
T	<i>Populus fremontii</i>	100	6.8	4.0	10.0	Y		Y	Y
S	<i>Nicotiana glauca</i>	75	1.6	0.2	5.0	Y		Y	Y
S	<i>Isocoma acradenia</i>	50	0.3	0.2	1.0				Y
S	<i>Atriplex lentiformis</i>	25	2.0	8.0	8.0				
S	<i>Baccharis salicifolia</i>	25	0.3	1.0	1.0				
S	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	25	0.1	0.2	0.2				
H	<i>Schoenoplectus americanus</i>	25	12.3	49.0	49.0				
H	<i>Hordeum</i> sp.	25	2.5	10.0	10.0				
H	<i>Euthamia occidentalis</i>	25	0.5	2.0	2.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Populus fremontii* – *Salix lasiolepis* Association**

Common Name: Fremont Cottonwood – Arroyo Willow Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 445 m

Slope: 2°

Aspect: Mostly SW-facing

Tree Cover: 28.0%

Shrub Cover: 3.0%

Herb Cover: 63.0%

Surface Covers – Mean (Range):

Large Rock: 0.2%

Small Rock: 24.0%

Fines: 27.0%

Litter: 46.0%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 1): CARR0137

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	100	28.0	28.0	28.0	Y	Y		Y
S	<i>Salix lasiolepis</i>	100	3.0	3.0	3.0	Y	Y		Y
H	<i>Bromus diandrus</i>	100	55.0	55.0	55.0	Y	Y		Y
H	<i>Hordeum murinum</i>	100	6.0	6.0	6.0	Y			Y
H	<i>Amsinckia menziesii</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Capsella bursa-pastoris</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus rubens</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Avena</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Sisymbrium irio</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Malva parviflora</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Populus fremontii* / *Baccharis salicifolia* Association**

Common Name: Fremont Cottonwood / Mulefat Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 286 m

Slope: 1°

Aspect: Mostly NE-facing

Tree Cover: 10.0%

Shrub Cover: 9.8%

Herb Cover: 11.0%

Surface Covers – Mean (Range):

Large Rock: 0.2%

Small Rock: 12.0%

Fines: 76.0%

Litter: 10.0%

Global Rarity Rank: G2 **State Rarity Rank:** SNR

State Rare: Y

Surveys Used in Description (N = 1): CVPA0024

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	100	7.0	7.0	7.0	Y	Y		Y
T	<i>Salix gooddingii</i>	100	3.0	3.0	3.0	Y		Y	Y
S	<i>Baccharis salicifolia</i>	100	9.0	9.0	9.0	Y	Y		Y
S	<i>Isocoma acradenia</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Artemisia californica</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Nicotiana glauca</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Hordeum murinum</i>	100	10.0	10.0	10.0	Y	Y		Y
H	<i>Heliotropium curassavicum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Distichlis spicata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus rubens</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Centaurea melitensis</i>	100	0.2	0.2	0.2	Y			Y
N	Moss	100	0.2	0.2	0.2	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Populus fremontii / *Baccharis salicifolia* Association

Populus fremontii – *Fraxinus velutina* – *Salix gooddingii* Forest & Woodland Alliance

***Populus fremontii* / *Salix exigua* Association**

Common Name: Fremont Cottonwood / Sandbar Willow Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 904 m

Slope: 6°

Aspect: Mostly SW-facing

Tree Cover: 10.2%

Shrub Cover: 11.0%

Herb Cover: 32.8%

Surface Covers – Mean (Range):

Large Rock: 19.2%

Small Rock: 14.0%

Fines: 43.0%

Litter: 20.0%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 1): CARR1609

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	100	10.0	10.0	10.0	Y	Y		Y
T	<i>Juniperus californica</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Salix exigua</i>	100	8.0	8.0	8.0	Y	Y		Y
S	<i>Isocoma acradenia</i>	100	2.0	2.0	2.0	Y			Y
S	<i>Artemisia californica</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Gutierrezia californica</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Atriplex canescens</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Ericameria linearifolia</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Eriophyllum confertiflorum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Juncus arcticus</i>	100	19.0	19.0	19.0	Y	Y		Y
H	<i>Leymus triticoides</i>	100	9.0	9.0	9.0	Y			Y
H	<i>Bromus rubens</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Vulpia myuros</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Hordeum depressum</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Clarkia tembloriensis</i> ssp. <i>tembloriensis</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Delphinium gypsophilum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Distichlis spicata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lotus wrangelianus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Phacelia tanacetifolia</i>	100	0.2	0.2	0.2	Y			Y
N	Moss	100	10.0	10.0	10.0	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus agrifolia* Forest & Woodland Alliance**

Common Name: Coast live oak woodland and forest

NVC Alliance Code: A3346. *Quercus agrifolia* Woodland Alliance

Associations

**Sample
Size**

Quercus agrifolia / *Adenostoma fasciculatum* – (*Salvia mellifera*)

1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 732 m

Slope: 3°

Aspect: SW-facing

Tree Cover: 32.0%

Shrub Cover: 9.4%

Herb Cover: 16.6%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 1.0%

Fines: 13.0%

Litter: 83.0%

Conservation Status Rank: Global: G5; **State (California):** S4

Surveys Used in Description (N = 1): CARR0113

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus agrifolia</i>	100	32.0	32.0	32.0	Y	Y		Y
S	<i>Adenostoma fasciculatum</i>	100	6.0	6.0	6.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	100	1.0	1.0	1.0	Y			Y
S	<i>Ericameria linearifolia</i>	100	1.0	1.0	1.0	Y			Y
S	<i>Arctostaphylos glauca</i>	100	1.0	1.0	1.0	Y			Y
S	<i>Rhamnus ilicifolia</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Lonicera</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus diandrus</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Stellaria media</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Claytonia perfoliata</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Melica imperfecta</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Galium aparine</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Thysanocarpus laciniatus</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Sanicula bipinnata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Galium andrewsii</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus hordeaceus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia menziesii</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Dichelostemma capitatum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Melica californica</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Erodium cicutarium</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Marah fabaceus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Sanicula crassicaulis</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Vicia lathyroides</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Sanicula bipinnatifida</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Senecio vulgaris</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Phacelia distans</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Quercus douglasii Forest & Woodland Alliance

Common Name: Blue oak woodland and forest

NVC Alliance Code: A3348. *Quercus douglasii* - *Quercus wislizeni* - *Pinus sabiniana*
Woodland Alliance

Associations	Sample Size
<i>Quercus douglasii</i> – <i>Juniperus californica</i> / <i>Ceanothus cuneatus</i> – <i>Cercocarpus montanus</i>	2
<i>Quercus douglasii</i> – <i>Juniperus californica</i> / <i>Ericameria linearifolia</i>	8
<i>Quercus douglasii</i> – <i>Juniperus californica</i> / <i>Quercus john-tuckeri</i>	2
<i>Quercus douglasii</i> – <i>Quercus agrifolia</i>	1
<i>Quercus douglasii</i> / <i>Ericameria linearifolia</i>	20
<i>Quercus douglasii</i> / <i>Eriogonum fasciculatum</i> / herbaceous	7
<i>Quercus douglasii</i> / Mixed herbaceous	11
<i>Quercus douglasii</i> alliance	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 680 m (404 – 872 m)

Slope: 18° (1 – 50°)

Aspect: Variable

Tree Cover: 18.4% (3 – 50%)

Shrub Cover: 13.4% (0 – 55%)

Herb Cover: 22.0% (0 – 90%)

Surface Covers – Mean (Range):

Large Rock: 2.3% (0 – 31%)

Small Rock: 3.4% (0 – 30%)

Fines: 43.6% (9 – 89%)

Litter: 47.6% (2 – 90%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 52): CARR0051, CARR0114, CARR0124, CARR0149, CARR0150, CARR0152, CARR0160, CARR0165, CARR0567, CARR0651, CARR1077, chg053, chg055, chg080, chg081, chg082, chg083, chg085, chg087, chg093, chg095, chg096, chg097, chg098, chg099, chg100, chg101, chg102, chg103, chg104, chg105, chg106, chg107, chg108, chg109, chg110, chg111, chg112, chg113, chg114, chg145, CVPA0131, CVPA8203, CVPA8221, PAPR0050, RIZO0016, RIZO0031, RIZO0035, RIZO0042, RIZO0043, RIZO0051, RIZO0060

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus douglasii</i>	98	15.3	3.0	47.0	Y	Y		Y
T	<i>Juniperus californica</i>	38	1.8	0.2	20.0				
R	<i>Quercus douglasii</i> *	52	0.8	0.2	10.0				Y
S	<i>Ericameria linearifolia</i>	71	3.4	0.2	20.0				Y
S	<i>Eriogonum fasciculatum</i>	52	2.6	0.2	20.0				Y
S	<i>Lonicera</i> sp.	37	0.3	0.2	10.0				
S	<i>Arctostaphylos glauca</i>	29	1.1	0.2	20.0				
S	<i>Rhamnus ilicifolia</i>	25	0.4	0.2	13.0				
S	<i>Adenostoma fasciculatum</i>	23	2.0	0.2	35.0				
S	<i>Salvia leucophylla</i>	21	0.5	0.2	12.0				
H	<i>Erodium cicutarium</i>	60	1.3	0.2	10.0				Y
H	<i>Poa secunda</i>	46	1.6	0.2	30.0				
H	<i>Bromus rubens</i>	46	1.2	0.2	12.0				
H	<i>Bromus hordeaceus</i>	42	1.2	0.2	16.0				
H	<i>Bromus diandrus</i>	29	1.1	0.2	20.0				
H	<i>Dodecatheon clevelandii</i>	27	0.5	0.2	8.0				
H	<i>Amsinckia menziesii</i>	23	0.3	0.2	6.0				
H	<i>Nassella cernua</i>	21	0.1	0.2	2.0				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus douglasii* – *Juniperus californica* / *Ceanothus cuneatus* – *Cercocarpus montanus* Association**

Common Name: Blue Oak – California Juniper / Wedgeleaf Ceanothus – Birch Leaf Mountain Mahogany Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 713 m (663 – 763 m)

Slope: 17° (10 – 24°)

Aspect: Mostly NE-facing

Tree Cover: 14.1% (11 – 17%)

Shrub Cover: 19.0% (13 – 25%)

Herb Cover: 0.3%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 17.5% (15 – 20%)

Litter: 86.0% (84 – 88%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 2): chg083, chg087

Quercus douglasii – *Juniperus californica* / *Ceanothus cuneatus* – *Cercocarpus montanus* Association

Quercus douglasii Forest & Woodland Alliance

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus douglasii</i>	100	12.0	10.0	14.0	Y	Y		Y
T	<i>Juniperus californica</i>	100	1.0	1.0	1.0	Y			Y
R	<i>Quercus douglasii</i> *	50	1.1	2.2	2.2				Y
S	<i>Cercocarpus montanus</i>	100	5.0	1.0	9.0	Y			Y
S	<i>Arctostaphylos glauca</i>	100	2.5	1.0	4.0	Y			Y
S	<i>Rhamnus ilicifolia</i>	100	1.5	1.0	2.0	Y			Y
S	<i>Lonicera</i> sp.	100	0.6	0.2	1.0	Y			Y
S	<i>Quercus berberidifolia</i>	50	5.0	10.0	10.0				Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	50	1.0	2.0	2.0				Y
S	<i>Ericameria linearifolia</i>	50	0.5	1.0	1.0				Y
S	<i>Adenostoma fasciculatum</i>	50	0.5	1.0	1.0				Y
S	<i>Rosa californica</i>	50	0.1	0.2	0.2				Y
S	<i>Toxicodendron diversilobum</i>	50	0.1	0.2	0.2				Y
H	<i>Pentagramma triangularis</i>	50	0.1	0.2	0.2				Y
H	<i>Pellaea andromedifolia</i>	50	0.1	0.2	0.2				Y

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Quercus douglasii – *Juniperus californica* / *Ceanothus cuneatus* – *Cercocarpus montanus* Association
Quercus douglasii Forest & Woodland Alliance

***Quercus douglasii* – *Juniperus californica* / *Ericameria linearifolia* Association**

Common Name: Blue Oak – California Juniper / Narrowleaf Goldenbush Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 777 m (596 – 872 m)

Slope: 14° (1 – 45°)

Aspect: Variable

Tree Cover: 22.5% (6 – 50%)

Shrub Cover: 26.5% (7 – 55%)

Herb Cover: 47.0% (2 – 90%)

Surface Covers – Mean (Range):

Large Rock: 8.3% (0 – 31%)

Small Rock: 2.3% (0 – 10%)

Fines: 71.4% (60 – 84%)

Litter: 16.6% (5 – 39%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 8): CARR0567, CARR0651, chg097, chg100, PAPR0050, RIZO0016, RIZO0031, RIZO0042

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus douglasii</i>	100	13.9	4.0	40.0	Y	Y		Y
T	<i>Juniperus californica</i>	100	8.2	2.0	20.0	Y		Y	Y
R	<i>Quercus douglasii</i> *	25	0.1	0.2	0.4				
S	<i>Ericameria linearifolia</i>	88	5.0	1.0	20.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	63	4.8	1.0	20.0				Y
S	<i>Adenostoma fasciculatum</i>	50	6.5	1.0	35.0				Y
S	<i>Salvia leucophylla</i>	50	2.3	0.2	12.0				Y
S	<i>Arctostaphylos glauca</i>	50	1.0	1.0	4.0				Y
S	<i>Salvia mellifera</i>	38	4.6	2.0	30.0				
S	<i>Quercus berberidifolia</i>	25	1.4	5.0	6.0				
S	<i>Ribes quercetorum</i>	25	0.8	1.0	5.0				
S	<i>Artemisia californica</i>	25	0.6	2.0	3.0				
H	<i>Erodium cicutarium</i>	75	0.5	0.2	1.0	Y			Y
H	<i>Bromus hordeaceus</i>	63	2.4	0.2	8.0				Y
H	<i>Bromus rubens</i>	50	2.6	1.0	12.0				Y
H	<i>Poa secunda</i>	50	1.3	0.2	6.0				Y
H	<i>Dodecatheon clevelandii</i>	50	0.2	0.2	1.0				Y
H	<i>Trifolium willdenovii</i>	38	0.9	0.2	6.0				
H	<i>Dichelostemma capitatum</i>	38	0.1	0.2	0.2				
H	<i>Bromus</i> sp.	25	13.8	50.0	60.0				
H	<i>Pholistoma membranaceum</i>	25	2.9	3.0	20.0				
H	<i>Bromus diandrus</i>	25	2.6	1.0	20.0				
H	<i>Hordeum murinum</i>	25	1.6	1.0	12.0				
H	<i>Amsinckia menziesii</i>	25	0.9	1.0	6.0				
H	<i>Castilleja exserta</i>	25	0.8	1.0	5.0				
H	<i>Claytonia perfoliata</i>	25	0.8	1.0	5.0				
H	<i>Lasthenia californica</i>	25	0.4	1.0	2.0				
H	<i>Achyrrachaena mollis</i>	25	0.3	1.0	1.0				
H	<i>Lomatium utriculatum</i>	25	0.2	0.2	1.0				
H	<i>Vulpia microstachys</i>	25	0.2	0.2	1.0				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus douglasii* – *Juniperus californica* / *Quercus john-tuckeri* Association**

Common Name: Blue Oak – California Juniper / Tucker Oak Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 659 m (540 – 778 m)

Slope: no data

Aspect: Variable

Tree Cover: 22.0%

Shrub Cover: 35.0% (30 – 40%)

Herb Cover: 76.6% (71 – 83%)

Surface Covers – Mean (Range):

Large Rock: 9.0%

Small Rock: 9.0%

Fines: 75.0%

Litter: 3.5% (2 – 5%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 2): RIZO0035, RIZO0060

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	11.0	7.0	15.0	Y	Y		Y
T	<i>Quercus douglasii</i>	100	11.0	7.0	15.0	Y	Y		Y
S	<i>Adenostoma fasciculatum</i>	100	10.0	10.0	10.0	Y		Y	Y
S	<i>Ericameria linearifolia</i>	100	6.5	5.0	8.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	100	5.0	5.0	5.0	Y			Y
S	<i>Quercus berberidifolia</i>	100	4.0	3.0	5.0	Y			Y
S	<i>Arctostaphylos glauca</i>	50	1.0	2.0	2.0				Y
H	<i>Bromus</i> sp.	100	65.0	60.0	70.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	100	10.0	10.0	10.0	Y			Y
H	<i>Cryptantha</i> sp.	100	1.1	0.2	2.0	Y			Y
H	<i>Amsinckia</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Lotus strigosus</i>	50	0.1	0.2	0.2				Y
H	<i>Salvia columbariae</i>	50	0.1	0.2	0.2				Y
H	<i>Claytonia perfoliata</i>	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Quercus douglasii – *Juniperus californica* / *Quercus john-tuckeri* Association
Quercus douglasii Forest & Woodland Alliance

***Quercus douglasii* – *Quercus agrifolia* Association**

Common Name: Blue Oak - Coast Live Oak / Grass Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 734 m

Slope: no data

Aspect: Mostly NW-facing

Tree Cover: 17.0%

Shrub Cover: 52.0%

Herb Cover: 80.0%

Surface Covers – Mean (Range):

Large Rock: 23.0%

Small Rock: 2.0%

Fines: 69.0%

Litter: 3.0%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 1): RIZO0051

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus douglasii</i>	100	10.0	10.0	10.0	Y	Y		Y
T	<i>Quercus agrifolia</i>	100	5.0	5.0	5.0	Y			Y
T	<i>Juniperus californica</i>	100	2.0	2.0	2.0	Y			Y
S	<i>Adenostoma fasciculatum</i>	100	20.0	20.0	20.0	Y		Y	Y
S	<i>Arctostaphylos glauca</i>	100	20.0	20.0	20.0	Y		Y	Y
S	<i>Artemisia tridentata</i>	100	10.0	10.0	10.0	Y			Y
S	<i>Ribes quercetorum</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Bromus</i> sp.	100	70.0	70.0	70.0	Y	Y		Y
H	<i>Marah fabaceus</i>	100	5.0	5.0	5.0	Y			Y
H	<i>Claytonia perfoliata</i>	100	1.0	1.0	1.0	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus douglasii* / *Ericameria linearifolia* Association**

Common Name: Blue Oak / Narrowleaf Goldenbush Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 672 m (457 – 823 m)

Slope: 22° (3 – 50°)

Aspect: Mostly north-facing

Tree Cover: 16.5% (6 – 28%)

Shrub Cover: 10.6% (0 – 24%)

Herb Cover: 15.8% (0 – 75%)

Surface Covers – Mean (Range):

Large Rock: 1.1% (0 – 12%)

Small Rock: 6.1% (0 – 30%)

Fines: 38.7% (9 – 77%)

Litter: 51.5% (5 – 85%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 20): CARR0051, CARR0114, CARR0149, CARR0152, CARR0160, CARR0165, CARR1077, chg082, chg095, chg101, chg104, chg107, chg108, chg110, chg112, chg113, chg114, chg145, CVPA0131, RIZO0043

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus douglasii</i>	100	15.1	6.0	26.0	Y	Y		Y
T	<i>Juniperus californica</i>	25	0.1	0.2	0.2				
R	<i>Quercus douglasii</i> *	65	1.3	0.2	10.0				Y
S	<i>Ericameria linearifolia</i>	100	5.9	0.2	15.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	60	0.7	0.2	5.0				Y
S	<i>Lonicera</i> sp.	40	0.2	0.2	1.0				
S	<i>Rhamnus ilicifolia</i>	35	0.7	0.2	13.0				
S	<i>Phoradendron villosum</i>	25	0.1	0.2	0.2				
S	<i>Arctostaphylos glauca</i>	20	1.0	0.2	18.0				
S	<i>Cercocarpus montanus</i>	20	0.2	0.2	2.0				
S	<i>Eriophyllum confertiflorum</i>	20	0.0	0.2	0.2				
H	<i>Poa secunda</i>	70	2.7	0.2	30.0				Y
H	<i>Erodium cicutarium</i>	55	1.4	0.2	6.0				Y
H	<i>Bromus rubens</i>	45	1.0	0.2	9.0				
H	<i>Bromus diandrus</i>	35	0.4	0.2	2.0				
H	<i>Dodecatheon clevelandii</i>	30	0.8	0.2	8.0				
H	<i>Bromus hordeaceus</i>	30	0.7	0.2	5.0				
H	<i>Amsinckia menziesii</i>	25	0.3	0.2	2.0				
H	<i>Nassella cernua</i>	25	0.1	0.2	2.0				
H	<i>Clarkia cylindrica</i>	25	0.1	0.2	1.0				
H	<i>Sanicula bipinnata</i>	25	0.1	0.2	1.0				
H	<i>Navarretia jaredii</i>	20	0.1	0.2	1.0				
H	<i>Microseris lindleyi</i>	20	0.0	0.2	0.2				
H	<i>Vulpia microstachys</i>	20	0.0	0.2	0.2				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus douglasii* / *Eriogonum fasciculatum* / herbaceous Association**

Common Name: Blue Oak / California Buckwheat / Annual - Perennial Herb Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 705 m (439 – 856 m)

Slope: 21° (7 – 37°)

Aspect: Variable

Tree Cover: 15.9% (5 – 50%)

Shrub Cover: 14.9% (8 – 32%)

Herb Cover: 7.5% (0 – 34%)

Surface Covers – Mean (Range):

Large Rock: 0.3% (0 – 2%)

Small Rock: 1.0% (0 – 7%)

Fines: 37.9% (20 – 50%)

Litter: 57.4% (44 – 79%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 7): CARR0150, chg053, chg081, chg085, chg098, chg106, chg109

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus douglasii</i>	100	14.4	5.0	45.0	Y	Y		Y
T	<i>Juniperus californica</i>	29	0.1	0.2	0.2				
R	<i>Quercus douglasii</i> *	86	1.4	0.2	5.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	100	10.3	1.0	20.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	57	1.0	0.2	4.0				Y
S	<i>Salvia leucophylla</i>	43	1.0	0.2	5.0				
S	<i>Rhamnus ilicifolia</i>	43	0.5	1.0	1.2				
S	<i>Lonicera</i> sp.	43	0.1	0.2	0.2				
S	<i>Adenostoma fasciculatum</i>	29	0.4	1.0	2.0				
S	<i>Artemisia californica</i>	29	0.2	0.2	1.0				
S	<i>Hesperoyucca whipplei</i>	29	0.1	0.2	0.2				
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	29	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	57	1.6	0.2	7.0				Y
H	<i>Bromus rubens</i>	43	1.2	0.2	4.0				
H	<i>Bromus hordeaceus</i>	43	0.3	0.2	2.0				
H	<i>Dodecatheon clevelandii</i>	29	0.6	0.2	4.0				
H	<i>Vulpia myuros</i>	29	0.3	0.2	2.0				
H	<i>Cirsium occidentale</i>	29	0.1	0.2	0.2				
H	<i>Lomatium utriculatum</i>	29	0.1	0.2	0.2				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus douglasii* / Mixed herbaceous Association**

Common Name: Blue Oak / Mixed herbaceous Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 625 m (436 – 811 m)

Slope: 11° (2 – 25°)

Aspect: Variable

Tree Cover: 21.0% (3 – 48%)

Shrub Cover: 0.6% (0 – 2%)

Herb Cover: 14.7% (1 – 42%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.8% (0 – 9%)

Fines: 33.9% (10 – 81%)

Litter: 63.5% (8 – 90%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 11): CARR0124, chg055, chg080, chg093, chg096, chg099, chg102, chg103, chg105, chg111, CVPA8221

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus douglasii</i>	100	20.6	3.0	47.0	Y	Y		Y
R	<i>Quercus douglasii</i> *	45	0.3	0.2	1.2				
S	<i>Lonicera</i> sp.	45	0.1	0.2	0.2				
H	<i>Bromus hordeaceus</i>	64	2.2	0.2	16.0				Y
H	<i>Bromus rubens</i>	64	0.9	0.2	4.0				Y
H	<i>Erodium cicutarium</i>	64	0.5	0.2	2.0				Y
H	<i>Bromus diandrus</i>	55	2.7	0.2	19.0				Y
H	<i>Nassella cernua</i>	55	0.1	0.2	0.2				Y
H	<i>Poa secunda</i>	45	1.5	0.2	15.0				
H	<i>Hordeum murinum</i>	45	0.3	0.2	3.0				
H	<i>Amsinckia menziesii</i>	36	0.1	0.2	0.2				
H	<i>Hirschfeldia incana</i>	27	0.4	0.2	2.0				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salix gooddingii* – *Salix laevigata* Forest & Woodland Alliance**

Common Name: Goodding's willow – red willow riparian woodland and forest

NVC Alliance Code: A3752. *Salix gooddingii* - *Salix laevigata* Riparian Forest Alliance

Associations	Sample Size
<i>Salix gooddingii</i> – <i>Salix laevigata</i> alliance	1
<i>Salix laevigata</i>	9

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 350 m (200 – 716 m)

Slope: 2° (0 – 3°)

Aspect: Mostly flat

Tree Cover: 34.4% (4 – 80%)

Shrub Cover: 13.0% (0 – 57%)

Herb Cover: 26.8% (0 – 63%)

Surface Covers – Mean (Range):

Large Rock: 3.8% (0 – 15%)

Small Rock: 0.0% (0 – 0%)

Fines: 24.5% (4 – 79%)

Litter: 8.5% (3 – 16%)

Conservation Status Rank: Global: G4; **State (California):** S3

Surveys Used in Description (N = 10): CARR0686, CVPA0066, CVPA4302, CVPA4340, LPWA027, LPWA031, PAPR0010, PAPR0011, PAPR0018, PAPR0049

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Salix laevigata</i>	100	34.4	4.0	80.0	Y	Y		Y
S	<i>Atriplex lentiformis</i>	40	6.2	0.2	57.0				
S	<i>Atriplex polycarpa</i>	20	5.0	10.0	40.0				
S	<i>Salix lasiolepis</i>	20	0.7	2.0	5.0				
S	<i>Tamarix</i> sp.	20	0.1	0.2	1.0				
H	<i>Typha</i> sp.	40	3.3	0.2	24.0				
H	<i>Distichlis spicata</i>	40	1.4	0.2	9.0				
H	<i>Juncus arcticus</i>	30	4.3	6.0	26.0				
H	<i>Bromus diandrus</i>	30	2.9	4.0	20.0				
H	<i>Avena</i> sp.	30	1.0	1.0	7.0				
H	<i>Frankenia salina</i>	30	0.8	1.0	4.0				
H	<i>Melilotus indicus</i>	30	0.4	0.2	3.0				
H	<i>Heliotropium curassavicum</i>	30	0.3	0.2	2.0				
H	<i>Stachys albens</i>	20	0.9	1.0	8.0				
H	<i>Mimulus guttatus</i>	20	0.5	1.0	4.0				
H	<i>Euthamia occidentalis</i>	20	0.4	2.0	2.0				
H	<i>Bromus hordeaceus</i>	20	0.3	1.0	2.0				
H	<i>Hordeum marinum</i>	20	0.1	0.2	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salix laevigata* Association**

Common Name: Red Willow Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 366 m (200 – 716 m)

Slope: 1° (0 – 3°)

Aspect: Variable

Tree Cover: 33.8% (4 – 80%)

Shrub Cover: 13.3% (0 – 57%)

Herb Cover: 26.4% (0 – 63%)

Surface Covers – Mean (Range):

Large Rock: 5.0% (0 – 15%)

Small Rock: 0.0%

Fines: 29.3% (4 – 79%)

Litter: 8.0% (3 – 16%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 9): CARR0686, CVPA0066, CVPA4302, CVPA4340, LPWA027, PAPR0010, PAPR0011, PAPR0018, PAPR0049

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Of
T	<i>Salix laevigata</i>	100	33.8	4.0	80.0	Y	Y		Y
S	<i>Atriplex lentiformis</i>	44	6.9	0.2	57.0				
S	<i>Salix lasiolepis</i>	22	0.8	2.0	5.0				
S	<i>Tamarix</i> sp.	22	0.1	0.2	1.0				
H	<i>Typha</i> sp.	44	3.7	0.2	24.0				
H	<i>Juncus arcticus</i>	33	4.8	6.0	26.0				
H	<i>Distichlis spicata</i>	33	1.1	0.2	9.0				
H	<i>Bromus diandrus</i>	22	2.7	4.0	20.0				
H	<i>Stachys albens</i>	22	1.0	1.0	8.0				
H	<i>Mimulus guttatus</i>	22	0.6	1.0	4.0				
H	<i>Euthamia occidentalis</i>	22	0.4	2.0	2.0				
H	<i>Frankenia salina</i>	22	0.4	1.0	3.0				
H	<i>Avena</i> sp.	22	0.3	1.0	2.0				
H	<i>Heliotropium curassavicum</i>	22	0.2	0.2	2.0				
H	<i>Melilotus indicus</i>	22	0.1	0.2	1.0				
H	<i>Hordeum marinum</i>	22	0.1	0.2	1.0				

Salix laevigata Association

Salix gooddingii – *Salix laevigata* Forest & Woodland Alliance

SHRUB-OVERSTORY VEGETATION

Adenostoma fasciculatum Shrubland Alliance

Common Name: Chamise chaparral

NVC Alliance Code: A3868. *Adenostoma fasciculatum* Chaparral Alliance

Associations	Sample Size
<i>Adenostoma fasciculatum</i>	11
<i>Adenostoma fasciculatum</i> – (<i>Ceanothus cuneatus</i>)	2

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 690 m (564 – 814 m)

Slope: 14° (4 – 28°)

Aspect: Mostly SW-facing

Tree Cover: 1.5% (0 – 4%)

Shrub Cover: 57.0% (28 – 95%)

Herb Cover: 25.9% (0 – 71%)

Surface Covers – Mean (Range):

Large Rock: 7.6% (0 – 45%)

Small Rock: 13.4% (0 – 37%)

Fines: 56.2% (34 – 91%)

Litter: 20.7% (3 – 48%)

Conservation Status Rank: Global: G5; **State (California):** S5

Surveys Used in Description (N = 13): CARR0028, CARR0111, CARR0123, CARR0147, CARR0170, chg052, chg089, CVPA8210, RIZO0001, RIZO0002, RIZO0006, RIZO0053, RIZO0056

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	38	1.1	2.0	4.0				
T	<i>Quercus douglasii</i>	31	0.3	0.2	3.0				
S	<i>Adenostoma fasciculatum</i>	100	50.5	19.0	90.0	Y	Y		Y
S	<i>Salvia mellifera</i>	69	2.7	0.2	15.0				Y
S	<i>Arctostaphylos glauca</i>	62	0.9	0.2	3.0				Y
S	<i>Eriogonum fasciculatum</i>	54	2.9	0.2	15.0				Y
S	<i>Ericameria linearifolia</i>	54	1.1	0.2	5.0				Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	46	1.1	0.2	8.0				
S	<i>Salvia leucophylla</i>	38	0.9	0.2	4.0				
S	<i>Quercus berberidifolia</i>	31	0.9	0.2	6.0				
S	<i>Eriodictyon tomentosum</i>	23	0.2	0.2	2.0				
H	<i>Erodium cicutarium</i>	62	0.8	0.2	4.0				Y
H	<i>Bromus rubens</i>	46	1.4	0.2	6.0				
H	<i>Bromus hordeaceus</i>	38	0.3	0.2	2.0				
H	<i>Bromus</i> sp.	31	15.8	30.0	70.0				
H	<i>Vulpia myuros</i>	31	0.4	0.2	2.0				
H	<i>Lotus wrangelianus</i>	31	0.2	0.2	1.0				
H	<i>Marah fabaceus</i>	31	0.1	0.2	1.0				
H	<i>Salvia columbariae</i>	31	0.1	0.2	1.0				
H	<i>Lasthenia californica</i>	31	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	31	0.1	0.2	0.2				
H	<i>Logfia californica</i>	23	0.3	0.2	3.0				
H	<i>Poa secunda</i>	23	0.3	0.2	3.0				
H	<i>Eriophyllum multicaule</i>	23	0.3	0.2	3.0				
H	<i>Dichelostemma capitatum</i>	23	0.0	0.2	0.2				
H	<i>Chlorogalum pomeridianum</i>	23	0.0	0.2	0.2				
H	<i>Amsinckia menziesii</i>	23	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Adenostoma fasciculatum* Association**

Common Name: Chamise Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 680 m (564 – 767 m)

Slope: 14° (4 – 28°)

Aspect: Mostly south-facing

Tree Cover: 1.8% (0 – 4%)

Shrub Cover: 57.4% (28 – 95%)

Herb Cover: 29.4% (0 – 71%)

Surface Covers – Mean (Range):

Large Rock: 8.7% (0 – 45%)

Small Rock: 14.2% (0 – 37%)

Fines: 57.7% (34 – 91%)

Litter: 17.4% (3 – 35%)

Global Rarity Rank: G5 **State Rarity Rank:** S5

State Rare: N

Surveys Used in Description (N = 11): CARR0028, CARR0111, CARR0147, CARR0170, chg089, CVPA8210, RIZO0001, RIZO0002, RIZO0006, RIZO0053, RIZO0056

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	45	1.3	2.0	4.0				
T	<i>Quercus douglasii</i>	36	0.4	0.2	3.0				
S	<i>Adenostoma fasciculatum</i>	100	51.5	19.0	90.0	Y	Y		Y
S	<i>Salvia mellifera</i>	82	3.2	0.2	15.0	Y			Y
S	<i>Arctostaphylos glauca</i>	73	1.0	0.2	3.0				Y
S	<i>Eriogonum fasciculatum</i>	64	3.4	0.2	15.0				Y
S	<i>Ericameria linearifolia</i>	64	1.3	0.2	5.0				Y
S	<i>Quercus berberidifolia</i>	36	1.0	0.2	6.0				
S	<i>Salvia leucophylla</i>	36	0.8	0.2	4.0				
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	36	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	64	0.9	0.2	4.0				Y
H	<i>Bromus rubens</i>	45	1.5	0.2	6.0				
H	<i>Bromus</i> sp.	36	18.6	30.0	70.0				
H	<i>Bromus hordeaceus</i>	36	0.3	0.2	2.0				
H	<i>Marah fabaceus</i>	36	0.1	0.2	1.0				
H	<i>Lasthenia californica</i>	36	0.1	0.2	0.2				
H	<i>Eriophyllum multicaule</i>	27	0.3	0.2	3.0				
H	<i>Poa secunda</i>	27	0.3	0.2	3.0				
H	<i>Vulpia myuros</i>	27	0.3	0.2	2.0				
H	<i>Lotus wrangelianus</i>	27	0.2	0.2	1.0				
H	<i>Salvia columbariae</i>	27	0.1	0.2	1.0				
H	<i>Microseris lindleyi</i>	27	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Adenostoma fasciculatum* – (*Ceanothus cuneatus*) Association**

Common Name: Chamise - Wedgeleaf Ceanothus Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 746 m (678 – 814 m)

Slope: 14° (12 – 15°)

Aspect: Mostly SW-facing

Tree Cover: 0.0%

Shrub Cover: 55.0% (40 – 70%)

Herb Cover: 6.3% (0 – 12%)

Surface Covers – Mean (Range):

Large Rock: 1.1% (0 – 2%)

Small Rock: 9.1% (0 – 18%)

Fines: 47.5% (47 – 48%)

Litter: 39.0% (30 – 48%)

Global Rarity Rank: G4? **State Rarity Rank:** SNR **State Rare:** N

Surveys Used in Description (N = 2): CARR0123, chg052

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Adenostoma fasciculatum</i>	100	45.5	30.0	61.0	Y	Y		Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	100	7.0	6.0	8.0	Y			Y
S	<i>Eriodictyon tomentosum</i>	100	1.5	1.0	2.0	Y			Y
S	<i>Salvia leucophylla</i>	50	1.0	2.0	2.0				Y
H	<i>Logfia californica</i>	50	1.5	3.0	3.0				Y
H	<i>Lupinus bicolor</i>	50	1.0	2.0	2.0				Y
H	<i>Vulpia myuros</i>	50	1.0	2.0	2.0				Y
H	<i>Bromus rubens</i>	50	1.0	2.0	2.0				Y
H	<i>Lotus wrangelianus</i>	50	0.5	1.0	1.0				Y
H	<i>Daucus pusillus</i>	50	0.1	0.2	0.2				Y
H	<i>Salvia columbariae</i>	50	0.1	0.2	0.2				Y
H	<i>Gilia tenuiflora</i>	50	0.1	0.2	0.2				Y
H	<i>Nassella cernua</i>	50	0.1	0.2	0.2				Y
H	<i>Bromus hordeaceus</i>	50	0.1	0.2	0.2				Y
H	<i>Chlorogalum pomeridianum</i>	50	0.1	0.2	0.2				Y
H	<i>Clarkia purpurea</i>	50	0.1	0.2	0.2				Y
H	<i>Dodecatheon clevelandii</i>	50	0.1	0.2	0.2				Y
H	<i>Erodium cicutarium</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia menziesii</i>	50	0.1	0.2	0.2				Y
H	<i>Dichelostemma capitatum</i>	50	0.1	0.2	0.2				Y
H	<i>Microseris lindleyi</i>	50	0.1	0.2	0.2				Y
H	<i>Lotus humistratus</i>	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Adenostoma fasciculatum* – *Salvia* spp. Shrubland Alliance**

Common Name: Chamise – Sage chaparral

NVC Alliance Code: A3867. *Salvia apiana* - *Salvia mellifera* - *Adenostoma fasciculatum* Chaparral Alliance

Associations	Sample Size
<i>Adenostoma fasciculatum</i> – <i>Salvia leucophylla</i>	4
<i>Adenostoma fasciculatum</i> – <i>Salvia mellifera</i>	15

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 696 m (578 – 881 m)

Slope: 19° (2 – 45°)

Aspect: Variable

Tree Cover: 2.8% (0 – 11%)

Shrub Cover: 56.0% (12 – 85%)

Herb Cover: 36.6% (4 – 75%)

Surface Covers – Mean (Range):

Large Rock: 15.7% (0 – 53%)

Small Rock: 7.1% (0 – 32%)

Fines: 62.2% (23 – 91%)

Litter: 11.8% (2 – 40%)

Conservation Status Rank: Global: G4; State (California): S4

Surveys Used in Description (N = 19): CARR0027, CARR1080, chg058, chg134, RIZO0003, RIZO0004, RIZO0005, RIZO0013, RIZO0015, RIZO0017, RIZO0018, RIZO0037, RIZO0039, RIZO0047, RIZO0049, RIZO0050, RIZO0055, RIZO0059, RIZO0066

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	79	2.0	0.2	7.0	Y	Y		Y
T	<i>Quercus douglasii</i>	26	0.7	2.0	4.0				
S	<i>Adenostoma fasciculatum</i>	100	33.6	8.0	65.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	84	6.3	1.0	15.0	Y			Y
S	<i>Salvia mellifera</i>	79	12.7	5.0	30.0	Y			Y
S	<i>Ericameria linearifolia</i>	58	3.0	0.2	20.0				Y
S	<i>Arctostaphylos glauca</i>	53	0.6	0.2	3.0				Y
S	<i>Quercus berberidifolia</i>	47	2.5	1.0	10.0				
S	<i>Salvia leucophylla</i>	26	0.9	1.0	6.0				
S	<i>Artemisia californica</i>	21	1.8	1.0	15.0				
S	<i>Hesperoyucca whipplei</i>	21	0.2	0.2	3.0				
S	<i>Elaeagnus angustifolia</i>	21	0.2	0.2	2.0				
H	<i>Bromus</i> sp.	74	28.9	15.0	65.0				Y
H	<i>Erodium cicutarium</i>	47	1.5	1.0	10.0				
H	<i>Bromus rubens</i>	21	0.8	1.0	6.0				
H	<i>Amsinckia</i> sp.	21	0.3	0.2	4.0				
H	<i>Dichelostemma capitatum</i>	21	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Adenostoma fasciculatum* – *Salvia leucophylla* Association**

Common Name: Chamise - Purple Sage Association

Classification Comments: This association was previously placed in the *Adenostoma fasciculatum* Alliance but is now placed within the mixed chamise – sage chaparral Alliance due to the co-dominance of chamise relative to the sum of all coastal sage scrub species cover.

Plot/Sample Data Summary – Mean (Range):

Elevation: 722 m (677 – 831 m)

Slope: 18° (14 – 20°)

Aspect: Variable

Tree Cover: 1.1% (0 – 4%)

Shrub Cover: 33.2% (12 – 70%)

Herb Cover: 17.6% (4 – 40%)

Surface Covers – Mean (Range):

Large Rock: 3.9% (0 – 11%)

Small Rock: 6.3% (0 – 20%)

Fines: 76.5% (65 – 91%)

Litter: 10.5% (2 – 25%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 4): CARR1080, chg058, chg134, RIZO0004

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	50	0.8	0.2	3.0				Y
R	<i>Quercus douglasii</i>	25	0.3	1.0	1.0				
R	<i>Quercus agrifolia</i>	25	0.1	0.2	0.2				
S	<i>Adenostoma fasciculatum</i>	100	10.8	8.0	16.0	Y		Y	Y
S	<i>Salvia leucophylla</i>	100	3.3	1.0	6.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	75	4.1	2.0	9.2	Y			Y
S	<i>Hesperoyucca whipplei</i>	75	1.1	0.2	3.0	Y			Y
S	<i>Arctostaphylos glauca</i>	75	0.9	0.2	3.0	Y			Y
S	<i>Ephedra viridis</i>	75	0.2	0.2	0.2	Y			Y
S	<i>Ericameria linearifolia</i>	50	2.6	0.2	10.0				Y
S	<i>Artemisia californica</i>	25	0.3	1.0	1.0				
S	<i>Quercus john-tuckeri</i>	25	0.1	0.2	0.2				
S	<i>Elaeagnus angustifolia</i>	25	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	75	3.0	1.0	6.0	Y			Y
H	<i>Erodium cicutarium</i>	75	1.8	1.0	4.0	Y			Y
H	<i>Centaurea melitensis</i>	50	0.6	0.2	2.0				Y
H	<i>Lotus wrangelianus</i>	50	0.6	0.2	2.0				Y
H	<i>Salvia columbariae</i>	50	0.1	0.2	0.2				Y
H	<i>Bromus</i> sp.	25	10.0	40.0	40.0				
H	<i>Cryptantha intermedia</i>	25	0.5	2.0	2.0				
H	<i>Lotus salsuginosus</i>	25	0.3	1.0	1.0				
H	<i>Emmenanthe penduliflora</i>	25	0.1	0.2	0.2				
H	<i>Pellaea andromedifolia</i>	25	0.1	0.2	0.2				
H	<i>Calochortus</i> sp.	25	0.1	0.2	0.2				
H	<i>Calochortus splendens</i>	25	0.1	0.2	0.2				
H	<i>Vulpia microstachys</i>	25	0.1	0.2	0.2				
H	<i>Camissonia micrantha</i>	25	0.1	0.2	0.2				
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	25	0.1	0.2	0.2				
H	<i>Achnatherum speciosum</i>	25	0.1	0.2	0.2				
H	<i>Lupinus succulentus</i>	25	0.1	0.2	0.2				
H	<i>Poa secunda</i>	25	0.1	0.2	0.2				
H	<i>Schismus</i> sp.	25	0.1	0.2	0.2				
H	<i>Rafinesquia californica</i>	25	0.1	0.2	0.2				
H	<i>Loeseliastrum schottii</i>	25	0.1	0.2	0.2				

Adenostoma fasciculatum – *Salvia leucophylla* Association
Adenostoma fasciculatum – *Salvia* spp. Shrubland Alliance

***Adenostoma fasciculatum* – *Salvia mellifera* Association**

Common Name: Chamise - Black Sage / Herb Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 688 m (578 – 881 m)

Slope: 19° (2 – 45°)

Aspect: Mostly north-facing

Tree Cover: 3.2% (0 – 11%)

Shrub Cover: 62.1% (38 – 85%)

Herb Cover: 41.7% (9 – 75%)

Surface Covers – Mean (Range):

Large Rock: 19.0% (0 – 53%)

Small Rock: 7.4% (3 – 32%)

Fines: 58.1% (23 – 87%)

Litter: 12.2% (3 – 40%)

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 15): CARR0027, RIZO0003, RIZO0005, RIZO0013, RIZO0015, RIZO0017, RIZO0018, RIZO0037, RIZO0039, RIZO0047, RIZO0049, RIZO0050, RIZO0055, RIZO0059, RIZO0066

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	87	2.3	0.2	7.0	Y	Y		Y
T	<i>Quercus douglasii</i>	33	0.9	2.0	4.0				
S	<i>Adenostoma fasciculatum</i>	100	39.7	12.0	65.0	Y	Y		Y
S	<i>Salvia mellifera</i>	100	16.1	5.0	30.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	87	6.9	1.0	15.0	Y			Y
S	<i>Quercus berberidifolia</i>	60	3.1	1.0	10.0				Y
S	<i>Ericameria linearifolia</i>	60	3.1	2.0	20.0				Y
S	<i>Arctostaphylos glauca</i>	47	0.6	0.2	2.0				
S	<i>Artemisia californica</i>	20	2.2	8.0	15.0				
S	<i>Elaeagnus angustifolia</i>	20	0.2	0.2	2.0				
H	<i>Bromus</i> sp.	87	34.0	15.0	65.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	40	1.4	1.0	10.0				
H	<i>Amsinckia</i> sp.	27	0.4	0.2	4.0				
H	<i>Dichelostemma capitatum</i>	27	0.1	0.2	0.2				
H	<i>Lasthenia californica</i>	20	0.2	0.2	2.0				
H	<i>Lotus strigosus</i>	20	0.1	0.2	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Allenrolfea occidentalis* Shrubland Alliance**

Common Name: Iodine bush scrub

NVC Alliance Code: A0866. *Allenrolfea occidentalis* Wet Alkaline Scrub Alliance

Associations	Sample Size
<i>Allenrolfea occidentalis</i>	4
<i>Allenrolfea occidentalis</i> / <i>Distichlis spicata</i> Provisional	1
<i>Allenrolfea occidentalis</i> / <i>Lasthenia gracilis</i> Provisional	8

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 454 m (200 – 587 m)

Slope: 2° (0 – 10°)

Aspect: Variable

Tree Cover: 0.2% (0 – 3%)

Shrub Cover: 14.1% (3 – 40%)

Herb Cover: 18.2% (0 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 1.2% (0 – 12%)

Fines: 78.3% (5 – 100%)

Litter: 11.0% (0 – 30%)

Conservation Status Rank: Global: G4; **State (California):** S3

Surveys Used in Description (N = 13): CARR0019, CARR0560B, CARR0574, CARR0586, CARR0587, CARR1039, CARR1082, CVPA0108, CVPA0123, CVPA4356, LPWA001, PAPR0056, Z0409130

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Allenrolfea occidentalis</i>	100	12.9	3.0	40.0	Y	Y		Y
S	<i>Atriplex spinifera</i>	62	0.3	0.2	1.0				Y
S	<i>Atriplex polycarpa</i>	23	0.3	0.2	3.0				
S	<i>Atriplex lentiformis</i>	23	0.2	0.2	2.0				
H	<i>Erodium cicutarium</i>	77	1.6	0.2	8.0	Y			Y
H	<i>Bromus rubens</i>	69	3.5	2.0	10.0				Y
H	<i>Bromus hordeaceus</i>	46	0.5	0.2	3.0				
H	<i>Delphinium recurvatum</i>	46	0.1	0.2	0.2				
H	<i>Lasthenia gracilis</i>	38	0.6	0.2	4.0				
H	<i>Lepidium dictyotum</i>	38	0.4	0.2	4.0				
H	<i>Vulpia myuros</i>	38	0.3	0.2	2.0				
H	<i>Vulpia microstachys</i>	31	0.9	0.2	8.0				
H	<i>Astragalus didymocarpus</i>	31	0.6	0.2	6.0				
H	<i>Frankenia salina</i>	31	0.4	0.2	3.0				
H	<i>Hordeum murinum</i>	31	0.2	0.2	2.0				
H	<i>Amsinckia tessellata</i>	31	0.2	0.2	2.0				
H	<i>Microseris campestris</i>	31	0.1	0.2	0.2				
H	<i>Malacothrix coulteri</i>	31	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i>	31	0.1	0.2	0.2				
H	<i>Lasthenia ferrisiae</i>	23	2.3	5.0	20.0				
H	<i>Lasthenia californica</i>	23	1.1	0.2	10.0				
H	<i>Schismus</i> sp.	23	0.4	0.2	4.0				
H	<i>Castilleja exserta</i>	23	0.0	0.2	0.2				
H	<i>Matricaria discoidea</i>	23	0.0	0.2	0.2				
H	<i>Phacelia ciliata</i>	23	0.0	0.2	0.2				
H	<i>Eremalche parryi</i>	23	0.0	0.1	0.2				
N	Lichen	23	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Allenrolfea occidentalis Association

Common Name: Iodine Bush Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 255 m (200 – 357 m)

Slope: 2° (0 – 3°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 27.5% (7 – 40%)

Herb Cover: 15.2% (0 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.1%

Fines: 53.7% (5 – 91%)

Litter: 14.0% (4 – 30%)

Global Rarity Rank: G3 **State Rarity Rank:** SNR

State Rare: Y

Surveys Used in Description (N = 4): CVPA0108, CVPA0123, CVPA4356, LPWA001

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Allenrolfea occidentalis</i>	100	27.3	7.0	40.0	Y	Y		Y
S	<i>Atriplex lentiformis</i>	50	0.1	0.2	0.2				Y
S	<i>Atriplex polycarpa</i>	50	0.1	0.2	0.2				Y
S	<i>Isocoma acradenia</i>	25	0.1	0.2	0.2				
S	<i>Atriplex spinifera</i>	25	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	50	2.1	0.2	8.0				Y
H	<i>Frankenia salina</i>	50	0.3	0.2	1.0				Y
H	<i>Bromus madritensis</i>	25	3.8	15.0	15.0				
H	<i>Bromus rubens</i>	25	1.3	5.0	5.0				
H	<i>Vulpia myuros</i>	25	0.1	0.2	0.2				
H	<i>Vicia</i> sp.	25	0.1	0.2	0.2				
H	<i>Schismus</i> sp.	25	0.1	0.2	0.2				
H	<i>Matricaria discoidea</i>	25	0.1	0.2	0.2				
H	<i>Parvisedum pumilum</i>	25	0.1	0.2	0.2				
H	<i>Eremalche parryi</i>	25	0.0	0.1	0.1				
N	Lichen	25	0.1	0.2	0.2				

***Allenrolfea occidentalis* / *Distichlis spicata* Provisional Association**

Common Name: Iodine Bush / Saltgrass Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 200 m

Slope: no data

Aspect: no data

Tree Cover: 0.0%

Shrub Cover: 24.0%

Herb Cover: 38.0%

Surface Covers – Mean (Range):

Large Rock: no data

Small Rock: no data

Fines: no data

Litter: no data

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 1): LPWA024

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Allenrolfea occidentalis</i>	100	23.0	23.0	23.0	Y	Y		Y
S	<i>Atriplex lentiformis</i>	100	1.0	1.0	1.0	Y			Y
S	<i>Nicotiana glauca</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Tamarix</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Distichlis spicata</i>	100	23.0	23.0	23.0	Y	Y		Y
H	<i>Frankenia salina</i>	100	14.0	14.0	14.0	Y		Y	Y
H	<i>Schoenoplectus pungens</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Cyperus eragrostis</i>	100	1.0	1.0	1.0	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Allenrolfea occidentalis* / *Lasthenia gracilis* Provisional Association**

Common Name: Iodine bush / Needle Goldfields Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 585 m (583 – 587 m)

Slope: 3° (0 – 10°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 6.4% (3 – 10%)

Herb Cover: 19.2% (10 – 27%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 1.6% (0 – 12%)

Fines: 87.5% (73 – 100%)

Litter: 9.9% (0 – 25%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 8): CARR0019, CARR0560, CARR0574, CARR0586, CARR0587, CARR1039, CARR1082, Z0409130

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Allenrolfea occidentalis</i>	100	7.5	3.0	18.0	Y	Y		Y
S	<i>Atriplex spinifera</i>	75	0.5	0.2	1.0	Y			Y
H	<i>Bromus rubens</i>	100	5.0	2.0	9.0	Y			Y
H	<i>Erodium cicutarium</i>	100	1.5	0.2	4.0	Y			Y
H	<i>Bromus hordeaceus</i>	75	1.7	0.2	9.0	Y			Y
H	<i>Delphinium recurvatum</i>	75	0.2	0.2	0.2	Y			Y
H	<i>Lasthenia gracilis</i>	63	2.8	0.2	15.0				Y
H	<i>Hordeum murinum</i>	63	1.6	0.2	10.0				Y
H	<i>Lepidium dictyotum</i>	63	0.6	0.2	4.0				Y
H	<i>Malacothrix coulteri</i>	63	0.1	0.2	0.2				Y
H	<i>Vulpia myuros</i>	50	1.3	1.0	6.0				Y
H	<i>Astragalus didymocarpus</i>	50	1.1	0.2	6.0				Y
H	<i>Vulpia microstachys</i>	50	0.8	0.2	3.0				Y
H	<i>Amsinckia menziesii</i>	50	0.5	0.2	3.0				Y
H	<i>Amsinckia tessellata</i>	50	0.3	0.2	2.0				Y
H	<i>Castilleja exserta</i>	50	0.1	0.2	0.2				Y
H	<i>Lasthenia ferrisiae</i>	38	3.8	5.0	20.0				
H	<i>Lasthenia californica</i>	38	1.8	0.2	10.0				
H	<i>Microseris campestris</i>	38	0.1	0.2	0.2				
H	<i>Phacelia ciliata</i>	38	0.1	0.2	0.2				
H	<i>Lepidium nitidum</i>	25	1.4	1.0	10.0				
H	<i>Atriplex vallicola</i>	25	0.7	0.2	5.0				
H	<i>Schismus</i> sp.	25	0.6	1.0	4.0				
H	<i>Trifolium depauperatum</i>	25	0.4	0.2	3.0				
H	<i>Crassula connata</i>	25	0.2	0.2	1.0				
H	<i>Matricaria occidentalis</i>	25	0.1	0.2	0.2				
H	<i>Layia platyglossa</i>	25	0.1	0.2	0.2				
H	<i>Poa secunda</i>	25	0.1	0.2	0.2				
H	<i>Eremalche parryi</i>	25	0.1	0.2	0.2				
N	Lichen	25	3.2	0.2	25.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ambrosia salsola* – *Bebbia juncea* Shrubland Alliance**

Common Name: Cheesebush – sweetbush scrub

NVC Alliance Code: A4188. *Hymenoclea salsola* - *Bebbia juncea* Mojave-Sonoran
Desert Wash Scrub Alliance

Associations	Sample Size
<i>Ambrosia salsola</i>	12

Classification Comments: The association circumscription is the same as that of the alliance. *Hymenoclea salsola* var. *salsola* is a synonym of *Ambrosia salsola*.

Plot/Sample Data Summary – Mean (Range):

Elevation: 763 m (668 – 855 m)

Slope: 7° (1 – 21°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 19.7% (8 – 32%)

Herb Cover: 19.8% (6 – 40%)

Surface Covers – Mean (Range):

Large Rock: 0.1% (0 – 1%)

Small Rock: 47.7% (24 – 87%)

Fines: 38.8% (5 – 70%)

Litter: 12.3% (0 – 35%)

Conservation Status Rank: Global: G4; State (California): S4

Surveys Used in Description (N = 12): A0430160, A0501104, CARR0563, CARR0573, CARR0597, CARR0613, CARR0821, CARR0838, CARR0931, CARR1621, CARR1624, CARR1641

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ambrosia salsola</i>	100	19.0	7.0	35.0	Y	Y		Y
S	<i>Ephedra californica</i>	75	0.9	0.1	3.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	50	1.0	0.2	7.0				Y
S	<i>Eastwoodia elegans</i>	42	0.1	0.1	1.0				
S	<i>Ericameria linearifolia</i>	33	0.1	0.2	1.0				
H	<i>Bromus rubens</i>	100	5.8	1.0	25.0	Y			Y
H	<i>Erodium cicutarium</i>	100	2.9	0.2	7.0	Y			Y
H	<i>Amsinckia tessellata</i>	83	0.5	0.2	2.0	Y			Y
H	<i>Lasthenia gracilis</i>	75	0.7	0.1	3.0	Y			Y
H	<i>Camissonia campestris</i>	75	0.2	0.2	1.0	Y			Y
H	<i>Schismus</i> sp.	67	5.1	0.2	20.0				Y
H	<i>Salvia carduacea</i>	67	0.9	0.2	4.0				Y
H	<i>Pectocarya penicillata</i>	67	0.4	0.2	2.0				Y
H	<i>Vulpia myuros</i>	58	0.5	0.2	2.0				Y
H	<i>Leptosiphon liniflorus</i>	58	0.3	0.2	1.0				Y
H	<i>Microseris lindleyi</i>	58	0.1	0.2	0.2				Y
H	<i>Poa secunda</i>	50	0.3	0.1	1.0				Y
H	<i>Lastarriaea coriacea</i>	42	0.2	0.2	1.0				
H	<i>Lupinus microcarpus</i>	42	0.1	0.1	0.2				
H	<i>Malacothrix californica</i>	33	0.1	0.2	1.0				
H	<i>Phacelia distans</i>	25	0.1	0.2	1.0				
H	<i>Phacelia tanacetifolia</i>	25	0.1	0.2	1.0				
H	<i>Amsinckia menziesii</i>	25	0.1	0.2	0.2				
H	<i>Eriogonum gracillimum</i>	25	0.1	0.2	0.2				
H	<i>Hordeum murinum</i>	25	0.1	0.2	0.2				
H	<i>Malacothrix coulteri</i>	25	0.1	0.2	0.2				
H	<i>Marah fabaceus</i>	25	0.1	0.2	0.2				
H	<i>Vulpia microstachys</i>	25	0.0	0.1	0.2				
N	Lichen	25	1.3	0.2	15.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Arctostaphylos glauca* Shrubland Alliance**

Common Name: Bigberry manzanita chaparral

NVC Alliance Code: A3866. *Arctostaphylos glauca* Chaparral Alliance

Associations	Sample Size
<i>Arctostaphylos glauca</i>	5
<i>Arctostaphylos glauca</i> – <i>Adenostoma fasciculatum</i>	4
<i>Arctostaphylos glauca</i> – <i>Quercus john-tuckeri</i> Provisional	3

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 837 m (692 – 1187 m)

Slope: 27° (5 – 50°)

Aspect: Mostly north-facing

Tree Cover: 1.7% (0 – 6%)

Shrub Cover: 36.9% (15 – 72%)

Herb Cover: 11.7% (1 – 30%)

Surface Covers – Mean (Range):

Large Rock: 4.9% (0 – 15%)

Small Rock: 8.8% (0 – 29%)

Fines: 42.6% (0 – 78%)

Litter: 33.9% (0 – 71%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 12): A0513175, CARR0052, CARR0115, CARR0153, CARR0577, CARR0634, CARR0648, CARR0760, CARR1068, chg136, CVPA8103, J0508094

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	50	0.6	0.2	4.0				Y
T	<i>Quercus douglasii</i>	25	0.9	0.2	6.0				
R	<i>Juniperus californica</i> *	25	0.3	0.2	2.0				
S	<i>Arctostaphylos glauca</i>	100	24.5	10.0	55.0	Y	Y		Y
S	<i>Quercus john-tuckeri</i>	67	4.2	0.2	21.0				Y
S	<i>Eriogonum fasciculatum</i>	67	0.6	0.2	3.0				Y
S	<i>Salvia leucophylla</i>	58	0.5	0.2	2.0				Y
S	<i>Adenostoma fasciculatum</i>	42	7.2	10.0	23.0				
S	<i>Gutierrezia californica</i>	33	0.3	0.2	2.0				
S	<i>Lonicera</i> sp.	25	0.1	0.2	1.0				
S	<i>Eriophyllum confertiflorum</i>	25	0.1	0.2	0.2				
S	<i>Ephedra viridis</i>	25	0.1	0.2	0.2				
S	<i>Rhamnus ilicifolia</i>	25	0.1	0.2	0.2				
H	<i>Poa secunda</i>	83	1.3	0.2	7.0	Y			Y
H	<i>Bromus rubens</i>	75	3.1	0.2	8.0	Y			Y
H	<i>Pterostegia drymarioides</i>	50	0.6	0.2	3.0				Y
H	<i>Erodium cicutarium</i>	42	0.5	0.2	2.0				
H	<i>Melica imperfecta</i>	42	0.2	0.2	1.0				
H	<i>Marah fabaceus</i>	42	0.2	0.2	1.0				
H	<i>Claytonia perfoliata</i>	33	0.8	0.2	9.0				
H	<i>Microseris lindleyi</i>	33	0.1	0.2	1.0				
H	<i>Clarkia cylindrica</i>	33	0.1	0.2	0.2				
H	<i>Cryptantha nemaclada</i>	25	0.1	0.2	1.0				
H	<i>Amsinckia menziesii</i>	25	0.1	0.2	1.0				
H	<i>Eucrypta chrysanthemifolia</i>	25	0.1	0.2	1.0				
H	<i>Achnatherum speciosum</i>	25	0.1	0.2	0.2				
N	Moss	33	1.3	0.2	10.0				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Arctostaphylos glauca* Association**

Common Name: Bigberry Manzanita Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 823 m (773 – 864 m)

Slope: 28° (18 – 32°)

Aspect: Mostly west-facing

Tree Cover: 1.1% (0 – 2%)

Shrub Cover: 26.8% (15 – 43%)

Herb Cover: 12.6% (2 – 30%)

Surface Covers – Mean (Range):

Large Rock: 5.4% (1 – 15%)

Small Rock: 8.9% (1 – 20%)

Fines: 50.6% (24 – 75%)

Litter: 34.4% (20 – 60%)

Global Rarity Rank: G3G4

State Rarity Rank: S3S4

State Rare: Y

Surveys Used in Description (N = 5): A0513175, CARR0052, CARR0577, CARR0634, J0508094

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	40	0.4	0.2	2.0				
T	<i>Quercus douglasii</i>	20	0.0	0.2	0.2				
R	<i>Juniperus californica</i> *	40	0.6	1.0	2.0				
S	<i>Arctostaphylos glauca</i>	100	24.4	12.0	43.0	Y	Y		Y
S	<i>Salvia leucophylla</i>	60	0.6	0.2	2.0				Y
S	<i>Eriogonum fasciculatum</i>	60	0.6	0.2	2.0				Y
S	<i>Quercus john-tuckeri</i>	60	0.5	0.2	2.0				Y
S	<i>Gutierrezia californica</i>	60	0.3	0.2	1.0				Y
S	<i>Lonicera subspicata</i>	40	0.2	0.2	1.0				
S	<i>Rhamnus ilicifolia</i>	40	0.1	0.2	0.2				
S	<i>Ephedra viridis</i>	40	0.1	0.2	0.2				
S	<i>Hesperoyucca whipplei</i>	20	0.2	1.0	1.0				
S	<i>Eriophyllum confertiflorum</i>	20	0.0	0.2	0.2				
S	<i>Ephedra californica</i>	20	0.0	0.2	0.2				
S	<i>Lonicera</i> sp.	20	0.0	0.2	0.2				
S	<i>Rhamnus crocea</i>	20	0.0	0.2	0.2				
S	<i>Artemisia californica</i>	20	0.0	0.2	0.2				
S	<i>Symphoricarpos albus</i>	20	0.0	0.2	0.2				
H	<i>Bromus rubens</i>	80	3.0	0.2	8.0	Y			Y
H	<i>Pterostegia drymarioides</i>	80	1.2	0.2	3.0	Y			Y
H	<i>Poa secunda</i>	80	1.1	0.2	5.0	Y			Y
H	<i>Claytonia perfoliata</i>	60	1.9	0.2	9.0				Y
H	<i>Melica imperfecta</i>	40	0.2	0.2	1.0				
H	<i>Amsinckia menziesii</i>	40	0.2	0.2	1.0				
H	<i>Cryptantha nemaclada</i>	40	0.2	0.2	1.0				
H	<i>Lotus wrangelianus</i>	40	0.1	0.2	0.2				
H	<i>Clarkia cylindrica</i>	40	0.1	0.2	0.2				
H	<i>Schismus</i> sp.	40	0.1	0.2	0.2				
H	<i>Achnatherum speciosum</i>	40	0.1	0.2	0.2				
H	<i>Mucronea perfoliata</i>	40	0.1	0.2	0.2				
H	<i>Galium aparine</i>	20	1.0	5.0	5.0				
H	<i>Stellaria media</i>	20	0.8	4.0	4.0				
H	<i>Erodium cicutarium</i>	20	0.4	2.0	2.0				
H	<i>Galium andrewsii</i>	20	0.2	1.0	1.0				
H	<i>Guillenia lasiophylla</i>	20	0.2	1.0	1.0				

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Cryptantha intermedia</i>	20	0.0	0.2	0.2				
H	<i>Microseris lindleyi</i>	20	0.0	0.2	0.2				
H	<i>Melica californica</i>	20	0.0	0.2	0.2				
H	<i>Marah fabaceus</i>	20	0.0	0.2	0.2				
H	<i>Malacothrix floccifera</i>	20	0.0	0.2	0.2				
H	<i>Logfia californica</i>	20	0.0	0.2	0.2				
H	<i>Galium porrigens</i>	20	0.0	0.2	0.2				
H	<i>Emmenanthe penduliflora</i>	20	0.0	0.2	0.2				
H	<i>Eriastrum pluriflorum</i>	20	0.0	0.2	0.2				
H	<i>Eriophyllum lanatum</i>	20	0.0	0.2	0.2				
H	<i>Daucus pusillus</i>	20	0.0	0.2	0.2				
H	<i>Agoseris</i> sp.	20	0.0	0.2	0.2				
H	<i>Plagiobothrys nothofulvus</i>	20	0.0	0.2	0.2				
H	<i>Eucrypta chrysanthemifolia</i>	20	0.0	0.2	0.2				
H	<i>Vulpia microstachys</i>	20	0.0	0.2	0.2				
H	<i>Thysanocarpus curvipes</i>	20	0.0	0.2	0.2				
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	20	0.0	0.2	0.2				
H	<i>Psilocarphus brevissimus</i> var. <i>brevissimus</i>	20	0.0	0.2	0.2				
H	<i>Senecio vulgaris</i>	20	0.0	0.2	0.2				
H	<i>Phacelia douglasii</i>	20	0.0	0.2	0.2				
H	<i>Castilleja exserta</i>	20	0.0	0.2	0.2				
H	<i>Phacelia cicutaria</i>	20	0.0	0.2	0.2				
H	<i>Calochortus splendens</i>	20	0.0	0.2	0.2				
H	<i>Castilleja foliolosa</i>	20	0.0	0.2	0.2				
H	<i>Stephanomeria pauciflora</i>	20	0.0	0.2	0.2				
N	Moss	40	2.6	3.0	10.0				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Arctostaphylos glauca* – *Adenostoma fasciculatum* Association**

Common Name: Chamise - Bigberry Manzanita Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 786 m (692 – 940 m)

Slope: 21° (5 – 30°)

Aspect: Variable

Tree Cover: 2.1% (0 – 4%)

Shrub Cover: 35.5% (28 – 43%)

Herb Cover: 9.6% (1 – 16%)

Surface Covers – Mean (Range):

Large Rock: 1.4% (0 – 5%)

Small Rock: 7.8% (0 – 21%)

Fines: 36.0% (0 – 78%)

Litter: 27.5% (0 – 71%)

Global Rarity Rank: G5 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 4): CARR0115, CARR0154, CARR1068, CVPA8103

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	50	1.1	0.2	4.0				Y
T	<i>Quercus douglasii</i>	50	1.1	0.2	4.0				Y
R	<i>Juniperus californica</i> *	25	0.1	0.2	0.2				
S	<i>Adenostoma fasciculatum</i>	100	23.8	12.0	40.0	Y	Y		Y
S	<i>Arctostaphylos glauca</i>	100	13.8	8.0	19.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	75	0.9	0.2	3.0	Y			Y
S	<i>Ericameria linearifolia</i>	50	0.3	0.2	1.0				Y
S	<i>Salvia leucophylla</i>	50	0.3	0.2	1.0				Y
S	<i>Quercus john-tuckeri</i>	50	0.1	0.2	0.2				Y
S	<i>Gutierrezia californica</i>	25	0.5	2.0	2.0				
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	25	0.1	0.2	0.2				
S	<i>Lonicera</i> sp.	25	0.1	0.2	0.2				
S	<i>Hesperoyucca whipplei</i>	25	0.1	0.2	0.2				
S	<i>Salvia mellifera</i>	25	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	75	1.1	0.2	2.0	Y			Y
H	<i>Poa secunda</i>	75	0.2	0.2	0.2	Y			Y

Arctostaphylos glauca – *Adenostoma fasciculatum* Association

Arctostaphylos glauca Shrubland Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Bromus rubens</i>	50	2.3	4.0	5.0				Y
H	<i>Pterostegia drymarioides</i>	50	0.3	0.2	1.0				Y
H	<i>Microseris lindleyi</i>	50	0.3	0.2	1.0				Y
H	<i>Eucrypta chrysanthemifolia</i>	50	0.3	0.2	1.0				Y
H	<i>Marah fabaceus</i>	50	0.3	0.2	1.0				Y
H	<i>Melica imperfecta</i>	50	0.1	0.2	0.2				Y
H	<i>Claytonia parviflora</i>	25	0.8	3.0	3.0				
H	<i>Bromus diandrus</i>	25	0.3	1.0	1.0				
H	<i>Bromus hordeaceus</i>	25	0.3	1.0	1.0				
H	<i>Cryptantha nevadensis</i>	25	0.3	1.0	1.0				
H	<i>Eriophyllum multicaule</i>	25	0.3	1.0	1.0				
H	<i>Phacelia douglasii</i>	25	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i>	25	0.1	0.2	0.2				
H	<i>Galium aparine</i>	25	0.1	0.2	0.2				
H	<i>Galium andrewsii</i>	25	0.1	0.2	0.2				
H	<i>Nassella lepida</i>	25	0.1	0.2	0.2				
H	<i>Logfia gallica</i>	25	0.1	0.2	0.2				
H	<i>Claytonia perfoliata</i>	25	0.1	0.2	0.2				
H	<i>Clarkia purpurea</i>	25	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	25	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	25	0.1	0.2	0.2				
H	<i>Thysanocarpus curvipes</i>	25	0.1	0.2	0.2				
H	<i>Pellaea andromedifolia</i>	25	0.1	0.2	0.2				
H	<i>Salvia columbariae</i>	25	0.1	0.2	0.2				
H	<i>Castilleja exserta</i>	25	0.1	0.2	0.2				
N	Moss	50	0.6	0.2	2.0				Y
N	Lichen	25	0.1	0.2	0.2				
N	Cryptogammic crust	25	0.1	0.2	0.2				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Arctostaphylos glauca* – *Quercus john-tuckeri* Provisional Association**

Common Name: Bigberry Manzanita – Tucker Oak Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 930 m (722 – 1187 m)

Slope: 33° (14 – 50°)

Aspect: Mostly north-facing

Tree Cover: 0.4% (0 – 1%)

Shrub Cover: 57.2% (48 – 72%)

Herb Cover: 9.4% (4 – 17%)

Surface Covers – Mean (Range):

Large Rock: 8.8% (0 – 15%)

Small Rock: 9.9% (0 – 29%)

Fines: 38.0% (25 – 58%)

Litter: 41.7% (35 – 50%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 3): CARR0648, CARR0760, chg136

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	67	0.4	0.2	1.0				Y
S	<i>Arctostaphylos glauca</i>	100	38.3	18.0	55.0	Y	Y		Y
S	<i>Quercus john-tuckeri</i>	100	15.7	6.0	21.0	Y			Y
S	<i>Salvia leucophylla</i>	67	0.7	0.2	2.0				Y
S	<i>Eriophyllum confertiflorum</i>	67	0.1	0.2	0.2				Y
S	<i>Adenostoma fasciculatum</i>	33	3.3	10.0	10.0				
S	<i>Lonicera</i> sp.	33	0.3	1.0	1.0				
S	<i>Rhamnus ilicifolia</i>	33	0.1	0.2	0.2				
S	<i>Ephedra viridis</i>	33	0.1	0.2	0.2				
S	<i>Eriogonum fasciculatum</i>	33	0.1	0.2	0.2				
S	<i>Ephedra californica</i>	33	0.1	0.2	0.2				
S	<i>Ribes quercetorum</i>	33	0.1	0.2	0.2				
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	33	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	100	4.3	2.0	8.0	Y		Y	Y
H	<i>Poa secunda</i>	100	3.1	0.2	7.0	Y			Y
H	<i>Clarkia cylindrica</i>	67	0.1	0.2	0.2				Y

Arctostaphylos glauca – *Quercus john-tuckeri* Provisional Association

Arctostaphylos glauca Shrubland Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Pectocarya setosa</i>	67	0.1	0.2	0.2				Y
H	<i>Marah fabaceus</i>	67	0.1	0.2	0.2				Y
H	<i>Eriophyllum multicaule</i>	33	0.3	1.0	1.0				
H	<i>Clarkia unguiculata</i>	33	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	33	0.1	0.2	0.2				
H	<i>Cryptantha nemaclada</i>	33	0.1	0.2	0.2				
H	<i>Clarkia epilobioides</i>	33	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	33	0.1	0.2	0.2				
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	33	0.1	0.2	0.2				
H	<i>Gilia austro-occidentalis</i>	33	0.1	0.2	0.2				
H	<i>Castilleja subinclusa</i>	33	0.1	0.2	0.2				
H	<i>Lotus salsuginosus</i>	33	0.1	0.2	0.2				
H	<i>Delphinium umbraculorum</i>	33	0.1	0.2	0.2				
H	<i>Microsteris gracilis</i>	33	0.1	0.2	0.2				
H	<i>Packera breweri</i>	33	0.1	0.2	0.2				
H	<i>Eriastrum densifolium</i>	33	0.1	0.2	0.2				
H	<i>Astragalus lentiginosus</i>	33	0.1	0.2	0.2				
H	<i>Apiastrum angustifolium</i>	33	0.1	0.2	0.2				
H	<i>Acourtia microcephala</i>	33	0.1	0.2	0.2				
H	<i>Achnatherum speciosum</i>	33	0.1	0.2	0.2				
H	<i>Thysanocarpus laciniatus</i>	33	0.1	0.2	0.2				
H	<i>Melica imperfecta</i>	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Artemisia californica* – (*Salvia leucophylla*) Shrubland Alliance**

Common Name: California sagebrush – (purple sage) scrub

NVC Alliance Code: A3883. *Artemisia californica* - *Salvia leucophylla* Mesic Scrub Alliance

Associations	Sample Size
<i>(Artemisia californica)</i> – <i>Eriogonum fasciculatum</i> – <i>Salvia leucophylla</i>	13
<i>Artemisia californica</i>	23
<i>Artemisia californica</i> – (<i>Salvia leucophylla</i>) alliance	1
<i>Artemisia californica</i> – <i>Eriogonum fasciculatum</i>	26
<i>Salvia leucophylla</i>	11
<i>Salvia leucophylla</i> – <i>Artemisia californica</i>	6

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 658 m (374 – 1134 m)

Slope: 24° (2 – 45°)

Aspect: Variable

Tree Cover: 0.5% (0 – 6%)

Shrub Cover: 23.1% (2 – 66%)

Herb Cover: 16.9% (1 – 48%)

Surface Covers – Mean (Range):

Large Rock: 2.8% (0 – 45%)

Small Rock: 20.3% (0 – 63%)

Fines: 55.5% (0 – 98%)

Litter: 14.9% (0 – 55%)

Conservation Status Rank: Global: G5; State (California): S5

Surveys Used in Description (N = 80): CARR0004, CARR0010, CARR0029, CARR0031, CARR0088, CARR0092, CARR0093, CARR0102, CARR0106, CARR0112, CARR0127, CARR0130, CARR0131, CARR0142, CARR0146, CARR0151, CARR0158, CARR0159, CARR0161, CARR0164, CARR0169, CARR0171, CARR0617, CARR0618, CARR0622, CARR0626A, CARR0631, CARR0632, CARR0636, CARR0642, CARR0658B, CARR0688, CARR0757, CARR0935, CARR1071, CARR1087, CARR1518, CARR1653, CARR1751, chg033, chg051, chg060, chg067, chg084, chg115, chg135, chg141, chg144, CVPA0020, CVPA0030, CVPA0031, CVPA0032, CVPA0035, CVPA0036, CVPA0052, CVPA0073, , CVPA0090, CVPA0095, CVPA0100, CVPA0120, CVPA0271, CVPA0311, CVPA0914, CVPA0916, CVPA1189, CVPA2330a, CVPA2634, CVPA3365, CVPA3519b, CVPA3636, CVPA8007, CVPA8111, CVPA8206, CVPAA078, CVPAA088, CVPAA094, CVPAA117b, PAPR0053, PAPR0054, PHER029

Artemisia californica – (*Salvia leucophylla*) Shrubland Alliance

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	24	0.3	0.2	4.0				
S	<i>Eriogonum fasciculatum</i>	88	3.9	0.2	15.0	Y			Y
S	<i>Artemisia californica</i>	79	9.1	0.2	45.0	Y		Y	Y
S	<i>Salvia leucophylla</i>	48	6.0	0.2	35.0				
S	<i>Ericameria linearifolia</i>	41	0.4	0.2	6.0				
S	<i>Ephedra californica</i>	29	0.5	0.2	6.0				
S	<i>Gutierrezia californica</i>	29	0.4	0.2	4.0				
S	<i>Hesperoyucca whipplei</i>	20	1.0	0.2	23.0				
H	<i>Bromus rubens</i>	78	4.1	0.2	25.0	Y			Y
H	<i>Erodium cicutarium</i>	71	3.1	0.2	25.0				Y
H	<i>Poa secunda</i>	50	1.0	0.2	20.0				Y
H	<i>Lotus wrangelianus</i>	38	0.5	0.2	8.0				
H	<i>Avena</i>	35	0.5	0.2	9.0				
H	<i>Bromus hordeaceus</i>	33	0.7	0.2	13.0				
H	<i>Salvia columbariae</i>	25	0.1	0.2	2.0				
H	<i>Microseris lindleyi</i>	25	0.1	0.2	2.0				
H	<i>Amsinckia tessellata</i>	21	0.4	0.2	7.0				
H	<i>Dichelostemma capitatum</i>	21	0.1	0.2	2.0				
H	<i>Centaurea melitensis</i>	20	0.2	0.2	8.0				
N	Moss	24	0.7	0.2	24.0				
N	Lichen	24	0.4	0.2	10.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

**(*Artemisia californica*) – *Eriogonum fasciculatum* – *Salvia leucophylla*
Association**

Common Name: (California Sagebrush) – Purple Sage – California Buckwheat Association

Classification Comments: This association has been updated with parentheses around California sagebrush, in order to include stands co-dominated by purple sage and buckwheat, with or without California sagebrush present.

Plot/Sample Data Summary – Mean (Range):

Elevation: 722 m (452 – 976 m)

Slope: 24° (10 – 40°)

Aspect: Mostly south-facing

Tree Cover: 0.4% (0 – 4%)

Shrub Cover: 24.3% (9 – 66%)

Herb Cover: 15.1% (1 – 34%)

Surface Covers – Mean (Range):

Large Rock: 1.0% (0 – 7%)

Small Rock: 18.6% (0 – 55%)

Fines: 56.5% (19 – 98%)

Litter: 21.6% (1 – 55%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 13): CARR0004, CARR0029, CARR0031, CARR0093, CARR0146, CARR0618, CARR1071, CARR1087, chg051, chg067, chg084, chg141, chg144

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Salvia leucophylla</i>	100	11.2	4.0	30.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	100	6.6	0.2	15.0	Y		Y	Y
S	<i>Hesperoyucca whipplei</i>	46	3.6	0.2	23.0				
S	<i>Ephedra viridis</i>	38	0.1	0.2	0.2				
S	<i>Artemisia californica</i>	31	0.5	0.2	3.0				
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	23	0.1	0.2	1.0				
S	<i>Malacothamnus jonesii</i>	23	0.0	0.2	0.2				
S	<i>Ericameria linearifolia</i>	23	0.0	0.2	0.2				
H	<i>Bromus rubens</i>	85	3.6	1.0	11.0	Y			Y
H	<i>Erodium cicutarium</i>	77	2.4	0.2	8.0	Y			Y
H	<i>Poa secunda</i>	77	0.8	0.2	4.0	Y			Y
H	<i>Lotus wrangelianus</i>	54	1.2	0.2	8.0				Y
H	<i>Avena</i> sp.	46	0.7	0.2	6.0				
H	<i>Bromus hordeaceus</i>	38	0.8	0.2	9.0				
H	<i>Dichelostemma capitatum</i>	38	0.1	0.2	1.0				
H	<i>Salvia columbariae</i>	38	0.1	0.2	1.0				
H	<i>Amsinckia tessellata</i>	31	0.6	0.2	7.0				
H	<i>Lupinus succulentus</i>	31	0.1	0.2	1.0				
H	<i>Microseris lindleyi</i>	31	0.1	0.2	1.0				
H	<i>Phacelia tanacetifolia</i>	23	0.3	0.2	3.0				
H	<i>Monolopia lanceolata</i>	23	0.2	0.2	2.0				
H	<i>Vulpia myuros</i>	23	0.2	0.2	1.0				
H	<i>Nassella cernua</i>	23	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

(*Artemisia californica*) – *Eriogonum fasciculatum* – *Salvia leucophylla* Association
Artemisia californica – (*Salvia leucophylla*) Shrubland Alliance

***Artemisia californica* Association**

Common Name: California Sagebrush Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 604 m (374 – 931 m)

Slope: 23° (7 – 35°)

Aspect: Variable

Tree Cover: 0.8% (0 – 6%)

Shrub Cover: 25.8% (8 – 45%)

Herb Cover: 17.1% (1 – 35%)

Surface Covers – Mean (Range):

Large Rock: 4.6% (0 – 45%)

Small Rock: 20.3% (0 – 47%)

Fines: 58.6% (20 – 90%)

Litter: 10.8% (2 – 50%)

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 23): CARR0130, CARR0164, CARR0171, CARR0632, CARR0658B, CARR0688, CARR0935, CARR1751, chg033, CVPA0020, CVPA0030, CVPA0035, CVPA0090, CVPA0095, CVPA0120, CVPA0916, CVPA1189, CVPA3365, CVPA8007, CVPA8111, CVPA8206, PAPR0053, PHER029

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	39	0.5	0.2	3.0				
S	<i>Artemisia californica</i>	100	20.1	3.0	45.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	74	2.1	0.2	10.0				Y
S	<i>Gutierrezia californica</i>	35	0.3	0.2	2.0				
S	<i>Ephedra californica</i>	30	0.7	0.2	4.0				
S	<i>Ericameria linearifolia</i>	26	0.2	0.2	2.0				
H	<i>Bromus rubens</i>	74	3.8	1.0	18.0				Y
H	<i>Erodium cicutarium</i>	48	1.3	0.2	8.0				
H	<i>Poa secunda</i>	43	1.5	0.2	20.0				
H	<i>Avena</i> sp.	35	0.6	0.2	9.0				
H	<i>Bromus hordeaceus</i>	30	0.5	0.2	6.0				
H	<i>Schismus</i> sp.	26	0.6	0.2	8.0				
H	<i>Vulpia myuros</i>	26	0.3	0.2	2.0				
H	<i>Amsinckia menziesii</i>	22	0.1	0.2	1.0				
H	<i>Vulpia microstachys</i>	22	0.1	0.2	1.0				
H	<i>Centaurea melitensis</i>	22	0.1	0.2	1.0				
H	<i>Microseris lindleyi</i>	22	0.0	0.2	0.2				
N	Moss	43	1.1	0.2	5.0				
N	Lichen	39	0.8	0.2	10.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Artemisia californica* – *Eriogonum fasciculatum* Association**

Common Name: California Sagebrush - California Buckwheat / Annual Grass-Herb Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 614 m (387 – 875 m)

Slope: 27° (2 – 44°)

Aspect: Mostly south-facing

Tree Cover: 0.2% (0 – 4%)

Shrub Cover: 17.9% (12 – 35%)

Herb Cover: 13.6% (2 – 40%)

Surface Covers – Mean (Range):

Large Rock: 4.8% (0 – 26%)

Small Rock: 29.1% (0 – 63%)

Fines: 50.6% (24 – 90%)

Litter: 11.9% (1 – 42%)

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 26): CARR0092, CARR0106, CARR0127, CARR0158, CARR0159, CARR0169, CARR0631, CARR0636, chg115, CVPA0031, CVPA0032, CVPA0036, CVPA0052, CVPA0073, CVPA0100, CVPA0271, CVPA0311, CVPA0914, CVPA2330a, CVPA2634, CVPA3519b, CVPA3636, CVPAA088, CVPAA078, CVPAA094, CVPAA117b

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Artemisia californica</i>	100	7.6	0.2	16.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	100	5.7	0.2	12.0	Y		Y	Y
S	<i>Ephedra californica</i>	54	0.9	0.2	6.0				Y
S	<i>Ericameria linearifolia</i>	42	0.8	0.2	6.0				
S	<i>Gutierrezia californica</i>	27	0.7	0.2	4.0				
S	<i>Salvia leucophylla</i>	23	0.2	0.2	3.0				
H	<i>Erodium cicutarium</i>	81	3.4	0.2	17.0	Y			Y
H	<i>Bromus rubens</i>	73	2.8	0.2	12.0				Y
H	<i>Poa secunda</i>	38	0.8	0.2	8.0				
H	<i>Avena</i> sp.	38	0.4	0.2	4.0				
H	<i>Salvia columbariae</i>	31	0.2	0.2	2.0				
H	<i>Lotus wrangelianus</i>	27	0.4	0.2	5.0				
H	<i>Phacelia</i> sp.	23	0.4	0.2	3.0				
N	Lichen	31	0.3	0.2	5.0				
N	Moss	27	0.2	0.2	2.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salvia leucophylla* Association**

Common Name: Purple Sage Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 830 m (586 – 1134 m)

Slope: 22° (5 – 45°)

Aspect: Mostly north-facing

Tree Cover: 0.9% (0 – 4%)

Shrub Cover: 28.9% (7 – 39%)

Herb Cover: 23.1% (6 – 48%)

Surface Covers – Mean (Range):

Large Rock: 0.1%

Small Rock: 12.9% (0 – 33%)

Fines: 68.9% (41 – 88%)

Litter: 17.0% (1 – 30%)

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 11): CARR0102, CARR0112, CARR0161, CARR0617, CARR0626, CARR0642, CARR0757, CARR1518, CARR1653, chg060, chg135

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	45	0.9	0.2	4.0				
S	<i>Salvia leucophylla</i>	100	24.3	5.0	35.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	82	0.8	0.2	6.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	64	0.8	0.2	4.0				Y
S	<i>Gutierrezia californica</i>	55	0.3	0.2	2.0				Y
S	<i>Artemisia californica</i>	27	0.4	0.2	4.0				
S	<i>Quercus john-tuckeri</i>	27	0.4	0.2	2.0				
H	<i>Bromus rubens</i>	91	7.6	1.0	25.0	Y			Y
H	<i>Erodium cicutarium</i>	91	4.3	0.2	10.0	Y			Y
H	<i>Lotus wrangelianus</i>	82	1.0	0.2	5.0	Y			Y
H	<i>Bromus hordeaceus</i>	73	2.8	0.2	13.0				Y
H	<i>Poa secunda</i>	64	1.1	0.2	7.0				Y
H	<i>Amsinckia tessellata</i>	55	0.5	0.2	2.0				Y
H	<i>Pholistoma membranaceum</i>	36	1.5	1.0	10.0				
H	<i>Centaurea melitensis</i>	36	0.9	0.2	8.0				
H	<i>Vulpia microstachys</i>	36	0.4	0.2	2.0				
H	<i>Schismus</i> sp.	36	0.2	0.2	1.0				
H	<i>Microseris lindleyi</i>	36	0.1	0.2	0.2				
H	<i>Lupinus microcarpus</i>	36	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i>	27	0.4	0.2	4.0				
H	<i>Clarkia cylindrica</i>	27	0.4	0.2	2.0				
H	<i>Vulpia myuros</i>	27	0.3	0.2	2.0				
H	<i>Logfia californica</i>	27	0.2	0.2	2.0				
H	<i>Plantago erecta</i>	27	0.2	0.2	1.0				
H	<i>Castilleja exserta</i>	27	0.1	0.2	0.2				
H	<i>Calochortus</i>	27	0.1	0.2	0.2				
H	<i>Eriophyllum confertiflorum</i>	27	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	27	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salvia leucophylla* – *Artemisia californica* Association**

Common Name: Purple Sage - California Sagebrush Association

Classification Comments: This association includes stands that were previously classified as the *Artemisia californica* – *Salvia leucophylla* Association.

Plot/Sample Data Summary – Mean (Range):

Elevation: 615 m (496 – 795 m)

Slope: 27° (20 – 33°)

Aspect: Mostly north-facing

Tree Cover: 0.3% (0 – 1%)

Shrub Cover: 29.6% (20 – 38%)

Herb Cover: 19.4% (12 – 35%)

Surface Covers – Mean (Range):

Large Rock: 1.3% (0 – 3%)

Small Rock: 16.4% (0 – 33%)

Fines: 45.5% (0 – 75%)

Litter: 19.2% (0 – 40%)

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 6): CARR0010, CARR0088, CARR0131, CARR0142, CARR0151, CARR0622

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	33	0.2	0.2	1.0				
R	<i>Juniperus californica</i> *	33	0.1	0.2	0.2				
S	<i>Salvia leucophylla</i>	100	12.0	5.0	20.0	Y		Y	Y
S	<i>Artemisia californica</i>	100	9.8	7.0	17.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	100	2.9	0.2	6.0	Y			Y
S	<i>Ericameria linearifolia</i>	67	0.1	0.2	0.2				Y
S	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	50	0.1	0.2	0.2				Y
S	<i>Malacothamnus jonesii</i>	33	2.2	6.0	7.0				
S	<i>Ephedra viridis</i>	33	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	83	6.2	3.0	20.0	Y			Y
H	<i>Erodium cicutarium</i>	83	4.0	1.0	10.0	Y			Y
H	<i>Lotus wrangelianus</i>	67	0.9	0.2	2.0				Y
H	<i>Dichelostemma capitatum</i>	67	0.4	0.2	2.0				Y
H	<i>Bromus hordeaceus</i>	50	0.4	0.2	2.0				Y
H	<i>Poa secunda</i>	50	0.4	0.2	2.0				Y
H	<i>Microseris lindleyi</i>	50	0.4	0.2	2.0				Y
H	<i>Cryptantha intermedia</i>	33	0.7	1.0	3.0				
H	<i>Logfia californica</i>	33	0.3	1.0	1.0				
H	<i>Amsinckia menziesii</i>	33	0.3	1.0	1.0				
H	<i>Plantago erecta</i>	33	0.2	0.2	1.0				
H	<i>Salvia columbariae</i>	33	0.1	0.2	0.2				
H	<i>Castilleja exserta</i>	33	0.1	0.2	0.2				
N	Moss	33	4.0	0.2	24.0				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Artemisia tridentata* Shrubland Alliance**

Common Name: Big sagebrush

NVC Alliance Code: A3198. *Artemisia tridentata* - Mixed Desert Shrubland Alliance

Associations	Sample Size
<i>Artemisia tridentata</i> – <i>Eriogonum fasciculatum</i>	1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 878 m

Slope: 9°

Aspect: Mostly NE-facing

Tree Cover: 3.0%

Shrub Cover: 9.0%

Herb Cover: 4.8%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 2.0%

Fines: 93.0%

Litter: 4.0%

Conservation Status Rank: Global: G5; **State (California):** S5

Surveys Used in Description (N = 1): CVPA8211

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	3.0	3.0	3.0	Y	Y		Y
S	<i>Artemisia tridentata</i>	100	6.0	6.0	6.0	Y	Y		Y
S	<i>Quercus john-tuckeri</i>	100	1.0	1.0	1.0	Y			Y
S	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	100	1.0	1.0	1.0	Y			Y
S	<i>Eastwoodia elegans</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Gutierrezia californica</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Ericameria linearifolia</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Eriogonum fasciculatum</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Eriophyllum confertiflorum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Monardella villosa</i>	100	2.0	2.0	2.0	Y		Y	Y
H	<i>Bromus hordeaceus</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Lomatium utriculatum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lotus wrangelianus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Ancistrocarphus filagineus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Castilleja exserta</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Erodium cicutarium</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Marah fabaceus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Microsteris gracilis</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Dichelostemma capitatum</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Atriplex canescens* Shrubland Alliance**

Common Name: Fourwing saltbush scrub

NVC Alliance Code: A0869. *Atriplex canescens* Scrub Alliance

Associations	Sample Size
<i>Atriplex canescens</i> / herbaceous	10

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 873 m (564 – 1206 m)

Slope: 24° (3 – 40°)

Aspect: Mostly SW-facing

Tree Cover: 0.0%

Shrub Cover: 9.1% (3 – 15%)

Herb Cover: 21.1% (9 – 34%)

Surface Covers – Mean (Range):

Large Rock: 1.6% (0 – 12%)

Small Rock: 19.4% (0 – 51%)

Fines: 63.3% (33 – 93%)

Litter: 13.9% (4 – 38%)

Conservation Status Rank: Global: G5; **State (California):** S4

Surveys Used in Description (N = 10): CARR0057, CARR0062, CARR1022, CARR1141, CARR1506, CARR1617, CARR1657, CARR1744, CARR1750, CARR1754

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	20	0.0	0.2	0.2				
S	<i>Atriplex canescens</i>	90	7.3	3.0	14.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	50	0.3	0.2	1.0				Y
S	<i>Ericameria linearifolia</i>	50	0.1	0.2	0.2				Y
S	<i>Eastwoodia elegans</i>	40	0.1	0.2	0.2				
S	<i>Gutierrezia californica</i>	20	0.1	0.2	1.0				
S	<i>Ephedra viridis</i>	20	0.0	0.2	0.2				
H	<i>Erodium cicutarium</i>	100	5.5	0.2	11.0	Y			Y
H	<i>Bromus rubens</i>	90	3.2	0.2	9.0	Y			Y
H	<i>Monolopia lanceolata</i>	70	3.6	0.2	30.0				Y

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Amsinckia tessellata</i>	70	2.2	0.2	10.0				Y
H	<i>Poa secunda</i>	70	0.6	0.2	4.0				Y
H	<i>Malacothrix coulteri</i>	70	0.1	0.2	0.2				Y
H	<i>Schismus</i> sp.	50	1.5	0.2	8.0				Y
H	<i>Phacelia tanacetifolia</i>	50	0.5	0.2	3.0				Y
H	<i>Salvia columbariae</i>	40	0.6	0.2	3.0				
H	<i>Phacelia distans</i>	30	0.7	0.2	6.0				
H	<i>Astragalus didymocarpus</i>	30	0.2	0.2	2.0				
H	<i>Lotus wrangelianus</i>	30	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	30	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	30	0.1	0.1	0.2				
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	20	0.3	1.0	2.0				
H	<i>Mirabilis laevis</i>	20	0.1	0.2	1.0				
H	<i>Guillenia lasiophylla</i>	20	0.1	0.1	1.0				
H	<i>Achnatherum speciosum</i>	20	0.0	0.2	0.2				
H	<i>Eriogonum angulosum</i>	20	0.0	0.2	0.2				
H	<i>Hordeum murinum</i>	20	0.0	0.2	0.2				
H	<i>Bromus hordeaceus</i>	20	0.0	0.2	0.2				
H	<i>Lasthenia californica</i>	20	0.0	0.2	0.2				
H	<i>Delphinium gypsophilum</i>	20	0.0	0.2	0.2				
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	20	0.0	0.2	0.2				
H	<i>Eriogonum elongatum</i>	20	0.0	0.2	0.2				
H	<i>Vulpia myuros</i>	20	0.0	0.2	0.2				
H	<i>Avena</i> sp.	20	0.0	0.2	0.2				
H	<i>Caulanthus inflatus</i>	20	0.0	0.1	0.2				
N	Lichen	30	0.2	0.2	2.0				
N	Cryptogammic crust	30	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Atriplex confertifolia* Shrubland Alliance**

Common Name: Shadscale scrub

NVC Alliance Code: A0870. *Atriplex confertifolia* Scrub Alliance

Associations	Sample Size
<i>Atriplex confertifolia</i> alliance	1

Classification Comments: No association name was assigned to this survey.

Plot/Sample Data Summary – Mean (Range):

Elevation: 443 m

Slope: 22°

Aspect: Mostly NW-facing

Tree Cover: 0.0%

Shrub Cover: 13.0%

Herb Cover: 2.4%

Surface Covers – Mean (Range):

Large Rock: 6.0%

Small Rock: 6.0%

Fines: 83.0%

Litter: 3.0%

Conservation Status Rank: Global: G5; **State (California):** S4

Surveys Used in Description (N = 1): CVPA8057

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex confertifolia</i>	100	12.0	12.0	12.0	Y	Y		Y
S	<i>Isocoma acradenia</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Poa secunda</i>	100	2.0	2.0	2.0	Y	Y		Y
H	<i>Eriogonum nudum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Pholistoma auritum</i>	100	0.2	0.2	0.2	Y			Y
N	Moss	100	0.2	0.2	0.2	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Atriplex lentiformis* Shrubland Alliance**

Common Name: Quailbush scrub

NVC Alliance Code: A3173. *Atriplex lentiformis* Wet Shrubland Alliance

Associations	Sample Size
<i>Atriplex lentiformis</i>	7

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 234 m (152 – 460 m)

Slope: 3° (0 – 8°)

Aspect: Variable

Tree Cover: 0.7% (0 – 5%)

Shrub Cover: 23.3% (8 – 67%)

Herb Cover: 30.1% (3 – 74%)

Surface Covers – Mean (Range):

Large Rock: 0.3% (0 – 1%)

Small Rock: 0.1%

Fines: 28.0% (6 – 87%)

Litter: 10.0% (2 – 25%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 7): CVPA3744b, CVPA4368, CVPA8000, LPWA011, LPWA019, LPWA023, PAPR0016

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex lentiformis</i>	100	21.1	8.0	61.0	Y	Y		Y
S	<i>Tamarix</i>	43	0.5	0.2	2.0				
S	<i>Allenrolfea occidentalis</i>	43	0.1	0.2	0.2				
S	<i>Nicotiana glauca</i>	29	0.3	0.2	2.0				
S	<i>Isocoma acradenia</i>	29	0.1	0.2	0.2				
H	<i>Distichlis spicata</i>	71	3.5	0.2	10.0				Y
H	<i>Frankenia salina</i>	71	1.7	1.0	6.0				Y
H	<i>Bromus hordeaceus</i>	43	7.6	0.2	53.0				
H	<i>Bromus rubens</i>	43	1.9	2.0	9.0				
H	<i>Heliotropium curassavicum</i>	43	0.1	0.2	0.2				
H	<i>Conyza canadensis</i> var. <i>canadensis</i>	43	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	29	3.1	1.0	21.0				
H	<i>Typha</i>	29	2.9	1.0	19.0				
H	<i>Melilotus indicus</i>	29	0.9	0.2	6.0				
H	<i>Hordeum marinum</i>	29	0.7	0.2	5.0				
H	<i>Bromus madritensis</i>	29	0.6	0.2	4.0				
H	<i>Amsinckia menziesii</i>	29	0.1	0.2	0.2				
H	<i>Juncus</i>	29	0.1	0.2	0.2				
H	<i>Schismus</i>	29	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Atriplex polycarpa* Shrubland Alliance**

Common Name: Allscale scrub

NVC Alliance Code: A3174. *Atriplex polycarpa* Scrub Alliance

Associations	Sample Size
<i>Atriplex polycarpa</i> / Annual Herbaceous	90
<i>Atriplex polycarpa</i> alliance	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 549 m (150 – 1064 m)

Slope: 14° (0 – 52°)

Aspect: Variable

Tree Cover: 0.0% (0 – 0%)

Shrub Cover: 12.9% (1 – 45%)

Herb Cover: 23.2% (1 – 66%)

Surface Covers – Mean (Range):

Large Rock: 0.6% (0 – 6%)

Small Rock: 13.0% (0 – 66%)

Fines: 63.8% (2 – 99%)

Litter: 15.1% (0 – 93%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 91): A0430133, A0501134, CARR0042, CARR0060, CARR0066, CARR0104, CARR0143, CARR0144, CARR0557, CARR0562, CARR0581, CARR0591, CARR0592, CARR0601, CARR0603, CARR0627, CARR0656, CARR0671, CARR0746, CARR0825, CARR0844B, CARR0862B, CARR0900, CARR0907, CARR0909, CARR0938, CARR0943, CARR0972, CARR0993, CARR1000, CARR1020, CARR1034, CARR1074, CARR1089, CARR1123B, CARR1133, CARR1142, CARR1612, CARR1671, chg012, CVPA0004, CVPA0007, CVPA0008, CVPA0010, CVPA0016, CVPA0017, CVPA0026, CVPA0038, CVPA0043, CVPA0047, CVPA0062, CVPA0068, CVPA0087, CVPA0101, CVPA0111, CVPA0490, CVPA0552, CVPA0570, CVPA0583, CVPA1173, CVPA1211, CVPA1211a, CVPA1556, CVPA1604, CVPA2298, CVPA2330b, CVPA2399, CVPA2674, CVPA3287, CVPA3423, CVPA3578, CVPA3590, CVPA3710, CVPA3744, CVPA3744d, CVPA3966, CVPA4355, CVPA4371A, CVPA4378, CVPA8050, CVPA8102, E0410111, E0430125, E0430134, H0430100, LPWA005, LPWA007, LPWA020, LPWA021, LPWA026, Q042120210829

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex polycarpa</i>	100	11.5	1.0	45.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	23	0.3	0.2	3.0				
H	<i>Erodium cicutarium</i>	85	5.7	0.2	24.0	Y			Y
H	<i>Bromus rubens</i>	77	5.1	0.2	44.0	Y			Y
H	<i>Amsinckia tessellata</i>	42	1.6	0.2	20.0				
H	<i>Schismus</i> sp.	32	0.9	0.2	12.0				
H	<i>Hordeum murinum</i>	27	0.9	0.2	18.0				
H	<i>Poa secunda</i>	25	0.6	0.2	10.0				
H	<i>Monolopia lanceolata</i>	23	0.8	0.2	20.0				
H	<i>Vulpia myuros</i>	22	1.4	0.2	42.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Atriplex polycarpa* / Annual Herbaceous Association**

Common Name: Allscale / Annual Herbaceous Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 551 m (150 – 1064 m)

Slope: 14° (0 – 52°)

Aspect: Mostly SW-facing

Tree Cover: 0.0%

Shrub Cover: 13.0% (1 – 45%)

Herb Cover: 23.4% (1 – 66%)

Surface Covers – Mean (Range):

Large Rock: 0.6% (0 – 6%)

Small Rock: 13.0% (0 – 66%)

Fines: 63.8% (2 – 99%)

Litter: 15.1% (0 – 93%)

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 90): A0430133, A0501134, CARR0042, CARR0060, CARR0066, CARR0104, CARR0143, CARR0144, CARR0557, CARR0562, CARR0581, CARR0591, CARR0592, CARR0601, CARR0603, CARR0627, CARR0656, CARR0671, CARR0746, CARR0825, CARR0844B, CARR0862B, CARR0900, CARR0907, CARR0909, CARR0938, CARR0943, CARR0972, CARR0993, CARR1000, CARR1020, CARR1034, CARR1074, CARR1089, CARR1123B, CARR1133, CARR1142, CARR1612, CARR1671, chg012, CVPA0004, CVPA0007, CVPA0008, CVPA0010, CVPA0016, CVPA0017, CVPA0026, CVPA0038, CVPA0043, CVPA0047, CVPA0062, CVPA0068, CVPA0087, CVPA0101, CVPA0111, CVPA0490, CVPA0552, CVPA0570, CVPA0583, CVPA1173, CVPA1211, CVPA1211a, CVPA1556, CVPA1604, CVPA2298, CVPA2330b, CVPA2399, CVPA2674, CVPA3287, CVPA3423, CVPA3590, CVPA3710, CVPA3744, CVPA3744d, CVPA3966, CVPA4355, CVPA4371A, CVPA4378, CVPA8050, CVPA8102, E0410111, E0430125, E0430134, H0430100, LPWA005, LPWA007, LPWA020, LPWA021, LPWA026, Q042120210829

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex polycarpa</i>	100	11.6	1.0	45.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	23	0.3	0.2	3.0				
H	<i>Erodium cicutarium</i>	86	5.8	0.2	24.0	Y			Y
H	<i>Bromus rubens</i>	78	5.1	0.2	44.0	Y			Y
H	<i>Amsinckia tessellata</i>	42	1.7	0.2	20.0				
H	<i>Schismus</i> sp.	32	0.9	0.2	12.0				
H	<i>Hordeum murinum</i>	28	1.0	0.2	18.0				
H	<i>Poa secunda</i>	26	0.6	0.2	10.0				
H	<i>Monolopia lanceolata</i>	23	0.8	0.2	20.0				
H	<i>Vulpia myuros</i>	22	1.4	0.2	42.0				
H	<i>Bromus hordeaceus</i>	20	0.4	0.2	11.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Atriplex spinifera* Shrubland Alliance**

Common Name: Spinescale scrub

NVC Alliance Code: A0865. *Atriplex spinifera* Wet Shrubland Alliance

Associations	Sample Size
<i>Atriplex spinifera</i> / herbaceous	33

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 567 m (204 – 943 m)

Slope: 9° (0 – 40°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 14.2% (3 – 60%)

Herb Cover: 24.2% (3 – 60%)

Surface Covers – Mean (Range):

Large Rock: 0.0% (0 – 1%)

Small Rock: 7.7% (0 – 75%)

Fines: 67.0% (19 – 99%)

Litter: 17.2% (0 – 75%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 33): CARR0018, CARR0039, CARR0175, CARR0546, CARR0571, CARR0585, CARR0751, CARR0849B, CARR0921, CARR0925B, CARR0934, CARR0953, CARR0964, CARR1126, CARR1231, CARR1618, CARR1648, CCBLM473, CCBLM489, CCBLM492, CCBLM497, CVPA0044, CVPA0050, CVPA0064, CVPA0102, CVPA0103, CVPA0549, J0409131, K0409131, T0409132, T0409151, Z0408140, Z0409142

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex spinifera</i>	100	13.6	2.5	60.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	88	3.5	0.2	14.0	Y			Y
H	<i>Bromus rubens</i>	85	4.0	0.2	22.0	Y			Y
H	<i>Poa secunda</i>	61	1.0	0.1	15.0				Y
H	<i>Lepidium nitidum</i>	58	0.4	0.2	8.0				Y
H	<i>Bromus hordeaceus</i>	45	0.6	0.2	10.0				
H	<i>Delphinium recurvatum</i>	45	0.2	0.2	1.0				
H	<i>Amsinckia tessellata</i>	39	1.0	0.2	7.0				
H	<i>Lasthenia gracilis</i>	30	2.1	0.2	16.0				
H	<i>Vulpia microstachys</i>	30	0.2	0.2	3.0				
H	<i>Hordeum murinum</i>	27	0.9	0.2	15.0				
H	<i>Phacelia ciliata</i>	27	0.1	0.2	1.0				
H	<i>Castilleja exserta</i>	27	0.1	0.1	1.0				
H	<i>Schismus</i> sp.	24	1.7	0.2	36.0				
H	<i>Lasthenia californica</i>	24	1.3	0.2	15.0				
H	<i>Layia munzii</i>	24	0.9	0.2	15.0				
H	<i>Lepidium dictyotum</i>	24	0.5	0.2	10.0				
H	<i>Monolopia stricta</i>	24	0.4	0.2	4.0				
H	<i>Microseris campestris</i>	24	0.1	0.2	1.0				
H	<i>Vulpia myuros</i>	21	0.3	0.2	3.0				
H	<i>Lotus wrangelianus</i>	21	0.0	0.2	0.2				
H	<i>Microsteris gracilis</i>	21	0.0	0.2	0.2				
N	Moss	24	0.2	0.2	4.0				
N	Lichen	21	0.2	0.2	4.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Baccharis salicifolia* Shrubland Alliance**

Common Name: Mulefat thickets

NVC Alliance Code: A0933. *Baccharis salicifolia* Wet Shrubland Alliance

Associations	Sample Size
<i>Baccharis salicifolia</i>	5
<i>Baccharis salicifolia</i> – <i>Pluchea sericea</i>	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 492 m (289 – 620 m)

Slope: 1° (0 – 2°)

Aspect: Variable

Tree Cover: 0.7% (0 – 4%)

Shrub Cover: 13.6% (10 – 17%)

Herb Cover: 18.5% (12 – 24%)

Surface Covers – Mean (Range):

Large Rock: 4.7% (0 – 15%)

Small Rock: 31.5% (8 – 70%)

Fines: 44.8% (8 – 83%)

Litter: 12.9% (0 – 50%)

Conservation Status Rank: Global: G5; **State (California):** S4

Surveys Used in Description (N = 6): CARR0117, CARR0126, CARR0136, CARR0138, CARR1081, CVPA0074

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Baccharis salicifolia</i>	100	9.8	3.0	15.0	Y	Y		Y
S	<i>Artemisia californica</i>	50	1.0	0.2	5.0				Y
S	<i>Eriogonum fasciculatum</i>	50	0.5	0.2	2.0				Y
S	<i>Tamarix</i> sp.	33	0.7	0.2	4.0				
S	<i>Isocoma acradenia</i>	33	0.2	0.2	1.0				
S	<i>Ericameria linearifolia</i>	33	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	100	6.7	0.2	13.0	Y		Y	Y
H	<i>Centaurea melitensis</i>	83	0.4	0.2	1.0	Y			Y
H	<i>Erodium cicutarium</i>	67	1.5	0.2	5.0				Y
H	<i>Distichlis spicata</i>	67	0.3	0.2	1.0				Y
H	<i>Amsinckia menziesii</i>	67	0.1	0.2	0.2				Y
H	<i>Melilotus indicus</i>	50	2.2	1.0	9.0				Y
H	<i>Hordeum murinum</i>	50	0.4	0.2	1.0				Y
H	<i>Bromus hordeaceus</i>	50	0.1	0.2	0.2				Y
H	<i>Mimulus guttatus</i>	33	0.5	0.2	3.0				
H	<i>Schismus</i> sp.	33	0.5	0.2	3.0				
H	<i>Rumex salicifolius</i>	33	0.2	0.2	1.0				
H	<i>Vulpia myuros</i>	33	0.2	0.2	1.0				
H	<i>Juncus bufonius</i>	33	0.1	0.2	0.2				
H	<i>Senecio vulgaris</i>	33	0.1	0.2	0.2				
H	<i>Avena</i> sp.	33	0.1	0.2	0.2				
H	<i>Lupinus succulentus</i>	33	0.1	0.1	0.2				
N	Moss	67	0.7	0.2	2.0				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Baccharis salicifolia* Association**

Common Name: Mule Fat Riparian Shrubland Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 500 m (289 – 620 m)

Slope: 1° (0 – 2°)

Aspect: Variable

Tree Cover: 0.8% (0 – 4%)

Shrub Cover: 13.9% (10 – 17%)

Herb Cover: 19.6% (12 – 24%)

Surface Covers – Mean (Range):

Large Rock: 5.4% (0 – 15%)

Small Rock: 35.8% (8 – 70%)

Fines: 37.2% (8 – 72%)

Litter: 15.4% (1 – 50%)

Global Rarity Rank: G5 **State Rarity Rank:** S5

State Rare: N

Surveys Used in Description (N = 5): CARR0117, CARR0126, CARR0138, CARR1081, CVPA0074

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	20	0.6	3.0	3.0				
T	<i>Salix gooddingii</i>	20	0.2	1.0	1.0				
T	<i>Juniperus californica</i>	20	0.0	0.2	0.2				
S	<i>Baccharis salicifolia</i>	100	11.2	6.0	15.0	Y	Y		Y
S	<i>Artemisia californica</i>	60	1.2	0.2	5.0				Y
S	<i>Eriogonum fasciculatum</i>	60	0.6	0.2	2.0				Y
S	<i>Isocoma acradenia</i>	40	0.2	0.2	1.0				
S	<i>Ericameria linearifolia</i>	40	0.1	0.2	0.2				
S	<i>Ericameria nauseosa</i>	20	0.2	1.0	1.0				
S	<i>Lepidospartum squamatum</i>	20	0.0	0.2	0.2				
S	<i>Gutierrezia californica</i>	20	0.0	0.2	0.2				
S	<i>Rhamnus ilicifolia</i>	20	0.0	0.2	0.2				
S	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	20	0.0	0.2	0.2				
S	<i>Tamarix</i> sp.	20	0.0	0.2	0.2				
S	<i>Salvia mellifera</i>	20	0.0	0.2	0.2				
S	<i>Baccharis pilularis</i>	20	0.0	0.1	0.1				

Baccharis salicifolia Association
Baccharis salicifolia Shrubland Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Bromus rubens</i>	100	8.0	1.0	13.0	Y		Y	Y
H	<i>Centaurea melitensis</i>	100	0.5	0.2	1.0	Y			Y
H	<i>Erodium cicutarium</i>	80	1.8	0.2	5.0	Y			Y
H	<i>Melilotus indicus</i>	60	2.6	1.0	9.0				Y
H	<i>Distichlis spicata</i>	60	0.3	0.2	1.0				Y
H	<i>Amsinckia menziesii</i>	60	0.1	0.2	0.2				Y
H	<i>Bromus hordeaceus</i>	60	0.1	0.2	0.2				Y
H	<i>Hordeum murinum</i>	40	0.4	1.0	1.0				
H	<i>Rumex salicifolius</i>	40	0.2	0.2	1.0				
H	<i>Vulpia myuros</i>	40	0.2	0.2	1.0				
H	<i>Avena</i> sp.	40	0.1	0.2	0.2				
H	<i>Senecio vulgaris</i>	40	0.1	0.2	0.2				
H	<i>Lupinus succulentus</i>	40	0.1	0.1	0.2				
H	<i>Hordeum marinum</i>	20	0.8	4.0	4.0				
H	<i>Medicago sativa</i>	20	0.8	4.0	4.0				
H	<i>Schismus</i> sp.	20	0.6	3.0	3.0				
H	<i>Mimulus guttatus</i>	20	0.6	3.0	3.0				
H	<i>Polypogon monspeliensis</i>	20	0.6	3.0	3.0				
H	<i>Hazardia stenolepis</i>	20	0.4	2.0	2.0				
H	<i>Eleocharis</i> sp.	20	0.2	1.0	1.0				
H	<i>Hirschfeldia incana</i>	20	0.2	1.0	1.0				
H	<i>Epilobium canum</i>	20	0.0	0.2	0.2				
H	<i>Juncus bufonius</i>	20	0.0	0.2	0.2				
H	<i>Lotus unifoliolatus</i> var. <i>unifoliolatus</i>	20	0.0	0.2	0.2				
H	<i>Lotus wrangelianus</i>	20	0.0	0.2	0.2				
H	<i>Lupinus microcarpus</i>	20	0.0	0.2	0.2				
H	<i>Iva axillaris</i>	20	0.0	0.2	0.2				
H	<i>Pectocarya</i> sp.	20	0.0	0.2	0.2				
H	<i>Astragalus trichopodus</i> var. <i>phoxus</i>	20	0.0	0.2	0.2				
H	<i>Hordeum brachyantherum</i>	20	0.0	0.2	0.2				
H	<i>Eriogonum elongatum</i>	20	0.0	0.2	0.2				
H	<i>Asclepias fascicularis</i>	20	0.0	0.2	0.2				
H	<i>Amsinckia menziesii</i> var. <i>intermedia</i>	20	0.0	0.2	0.2				
H	<i>Plagiobothrys canescens</i>	20	0.0	0.2	0.2				

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Plagiobothrys fulvus</i>	20	0.0	0.2	0.2				
H	<i>Crassula connata</i>	20	0.0	0.2	0.2				
H	<i>Rumex crispus</i>	20	0.0	0.2	0.2				
H	<i>Xanthium strumarium</i>	20	0.0	0.2	0.2				
H	<i>Poa secunda</i>	20	0.0	0.2	0.2				
H	<i>Trifolium albopurpureum</i>	20	0.0	0.2	0.2				
H	<i>Stellaria media</i>	20	0.0	0.2	0.2				
H	<i>Corethrogyne filaginifolia</i>	20	0.0	0.2	0.2				
N	Moss	80	0.8	0.2	2.0	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Baccharis salicifolia* – *Pluchea sericea* Association**

Common Name: Mulefat – Arrow Weed Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 452 m

Slope: 1°

Aspect: Mostly SW-facing

Tree Cover: 0.0%

Shrub Cover: 12.0%

Herb Cover: 12.6%

Surface Covers – Mean (Range):

Large Rock: 1.0%

Small Rock: 10.0%

Fines: 83.0%

Litter: 0.2%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 1): CARR0136

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Tamarix</i>	100	4.0	4.0	4.0	Y		Y	Y
S	<i>Baccharis salicifolia</i>	100	3.0	3.0	3.0	Y			Y
S	<i>Salix exigua</i>	100	2.0	2.0	2.0	Y			Y
S	<i>Pluchea sericea</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Schoenoplectus pungens</i>	100	10.0	10.0	10.0	Y	Y		Y
H	<i>Distichlis spicata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Mimulus guttatus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Spergularia salina</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Schismus</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Veronica</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Matricaria discoidea</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Juncus bufonius</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Hordeum murinum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Herniaria hirsuta</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Gnaphalium palustre</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus rubens</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Atriplex</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia menziesii</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ceanothus cuneatus* Shrubland Alliance**

Common Name: Wedge leaf ceanothus chaparral, Buck brush chaparral

NVC Alliance Code: A3869. *Ceanothus cuneatus* Chaparral Alliance

Associations	Sample Size
<i>Ceanothus cuneatus</i> – <i>Adenostoma fasciculatum</i>	5
<i>Ceanothus cuneatus</i> alliance	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 659 m (607 – 689 m)

Slope: 18° (8 – 42°)

Aspect: Mostly west-facing

Tree Cover: 0.4% (0 – 2%)

Shrub Cover: 42.2% (18 – 60%)

Herb Cover: 6.6% (0 – 27%)

Surface Covers – Mean (Range):

Large Rock: 4.7% (0 – 26%)

Small Rock: 12.8% (0 – 51%)

Fines: 37.7% (5 – 64%)

Litter: 40.5% (5 – 65%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 6): CARR0155, CARR1083, chg054, chg086, chg091, chg092

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
R	<i>Quercus douglasii</i>	50	0.2	0.2	1.0				Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	100	17.8	6.0	27.0	Y		Y	Y
S	<i>Adenostoma fasciculatum</i>	83	17.2	5.0	34.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	67	0.8	0.2	3.0				Y
S	<i>Arctostaphylos glauca</i>	50	1.3	2.0	3.0				Y
S	<i>Lonicera</i> sp.	50	0.1	0.2	0.2				Y
S	<i>Salvia leucophylla</i>	33	0.2	0.2	1.0				
S	<i>Rhamnus ilicifolia</i>	33	0.1	0.2	0.4				
S	<i>Quercus john-tuckeri</i>	33	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	33	2.0	1.0	11.0				
H	<i>Bromus hordeaceus</i>	33	0.5	0.2	3.0				
H	<i>Claytonia perfoliata</i>	33	0.2	0.2	1.0				
H	<i>Avena</i> sp.	33	0.2	0.2	1.0				
H	<i>Acourtia microcephala</i>	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ceanothus cuneatus* – *Adenostoma fasciculatum* Association**

Common Name: Wedgeleaf Ceanothus – Chamise Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 669 m (654 – 689 m)

Slope: 13° (8 – 22°)

Aspect: Mostly west-facing

Tree Cover: 0.5% (0 – 2%)

Shrub Cover: 40.8% (18 – 60%)

Herb Cover: 5.6% (0 – 27%)

Surface Covers – Mean (Range):

Large Rock: 0.4% (0 – 2%)

Small Rock: 5.2% (0 – 26%)

Fines: 44.2% (32 – 64%)

Litter: 45.6% (5 – 65%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 5): CARR1083, chg054, chg086, chg091, chg092

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Quercus douglasii</i>	20	0.2	1.0	1.0				
R	<i>Quercus douglasii</i> *	60	0.3	0.2	1.0				Y
S	<i>Adenostoma fasciculatum</i>	100	20.6	5.0	34.0	Y		Y	Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	100	17.4	6.0	27.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	80	0.9	0.2	3.0	Y			Y
S	<i>Arctostaphylos glauca</i>	60	1.6	2.0	3.0				Y
S	<i>Lonicera</i> sp.	60	0.1	0.2	0.2				Y
S	<i>Rhamnus ilicifolia</i>	40	0.1	0.2	0.4				
S	<i>Quercus john-tuckeri</i>	40	0.1	0.2	0.2				
S	<i>Ericameria linearifolia</i>	20	0.4	2.0	2.0				
S	<i>Salvia leucophylla</i>	20	0.0	0.2	0.2				
S	<i>Eriodictyon tomentosum</i>	20	0.0	0.2	0.2				
H	<i>Acourtia microcephala</i>	40	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	20	2.2	11.0	11.0				
H	<i>Erodium cicutarium</i>	20	1.4	7.0	7.0				
H	<i>Bromus hordeaceus</i>	20	0.6	3.0	3.0				
H	<i>Poa secunda</i>	20	0.2	1.0	1.0				
H	<i>Lotus wrangelianus</i>	20	0.2	1.0	1.0				
H	<i>Claytonia perfoliata</i>	20	0.2	1.0	1.0				
H	<i>Avena</i> sp.	20	0.2	1.0	1.0				
H	<i>Amsinckia tessellata</i>	20	0.2	1.0	1.0				
H	<i>Dodecatheon clevelandii</i>	20	0.0	0.2	0.2				
H	<i>Linanthus dichotomus</i>	20	0.0	0.2	0.2				
H	<i>Castilleja exserta</i>	20	0.0	0.2	0.2				
H	<i>Salvia columbariae</i>	20	0.0	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	20	0.0	0.2	0.2				
H	<i>Pellaea andromedifolia</i>	20	0.0	0.2	0.2				
H	<i>Caulanthus lemmonii</i>	20	0.0	0.2	0.2				

*Taxon listed more than once, Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Ceanothus cuneatus – *Adenostoma fasciculatum* Association
Ceanothus cuneatus Shrubland Alliance

***Ephedra californica* – *Ephedra trifurca* Shrubland Alliance**

Common Name: California joint fir – longleaf joint-fir scrub

NVC Alliance Code: A2536. *Ephedra californica* - *Ephedra trifurca* Desert Wash Scrub Alliance

Associations	Sample Size
<i>Ephedra californica</i> – <i>Ambrosia salsola</i>	3
<i>Ephedra californica</i> – <i>Gutierrezia californica</i> / <i>Eriastrum pluriflorum</i>	21
<i>Ephedra californica</i> / annual – perennial herb	43

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 631 m (303 – 1143 m)

Slope: 12° (0 – 40°)

Aspect: Variable

Tree Cover: 0.1% (0 – 2%)

Shrub Cover: 11.4% (2 – 36%)

Herb Cover: 30.0% (3 – 80%)

Surface Covers – Mean (Range):

Large Rock: 1.1% (0 – 28%)

Small Rock: 15.1% (0 – 81%)

Fines: 54.7% (4 – 94%)

Litter: 14.0% (0 – 99%)

Conservation Status Rank: Global: G5; **State (California):** S4

Surveys Used in Description (N = 67): A0430170, CARR0012, CARR0013, CARR0020, CARR0518, CARR0530, CARR0605, CARR0621, CARR0875, CARR0930, CARR0931B, CARR0932, CARR0933, CARR0969B, CARR1002, CARR1128, CARR1605, CARR1639, CARR1668, CARR2000A, CCBLM472, CCBLM477, CCBLM480, CCBLM482, CCBLM485, CCBLM486, CCBLM500, chg125, CVPA0015, CVPA0018, CVPA0022, CVPA0051, CVPA0080, CVPA0081, CVPA0082, CVPA0084, CVPA0086, CVPA0106, CVPA0130, CVPA0244, CVPA0400, CVPA2646, CVPA3364, CVPA3374, CVPA3534, CVPA3577, CVPA3659, CVPA3917, CVPA4425, CVPA8004, CVPA8109, CVPAA092, E0506164, J0505165, PHER005, PHER006, PHER007, PHER015, PHER018, PHER021, PHER023, PHER032, PHER033, PHER035, PHER037, S17031000, S17031025

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ephedra californica</i>	100	6.7	2.0	20.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	45	0.6	0.2	7.0				
S	<i>Gutierrezia californica</i>	37	1.4	0.2	20.0				
S	<i>Eriogonum fasciculatum</i>	24	0.2	0.2	3.0				
S	<i>Eastwoodia elegans</i>	22	0.2	0.2	5.0				
H	<i>Erodium cicutarium</i>	69	3.8	0.2	20.0				Y
H	<i>Bromus rubens</i>	58	3.1	0.2	22.0				Y
H	<i>Poa secunda</i>	55	1.3	0.2	25.0				Y
H	<i>Schismus</i> sp.	34	1.9	0.2	37.0				
H	<i>Amsinckia tessellata</i>	33	0.6	0.2	10.0				
H	<i>Pholistoma membranaceum</i>	28	0.5	0.2	6.0				
H	<i>Bromus madritensis</i>	25	6.6	2.0	50.0				
H	<i>Bromus hordeaceus</i>	22	2.1	0.2	30.0				
H	<i>Amsinckia menziesii</i>	22	0.2	0.2	5.0				
H	<i>Vulpia microstachys</i>	21	0.1	0.2	1.0				
N	Moss	21	0.2	0.2	5.0				
N	Lichen	21	0.2	0.2	5.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ephedra californica* – *Ambrosia salsola* Association**

Common Name: California Ephedra - Cheesebush Association

Classification Comments: *Ambrosia salsola* and *Hymenoclea salsola* var. *salsola* are synonyms.

Plot/Sample Data Summary – Mean (Range):

Elevation: 724 m (664 – 766 m)

Slope: 13° (2 – 18°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 13.2% (9 – 17%)

Herb Cover: 17.8% (5 – 33%)

Surface Covers – Mean (Range):

Large Rock: 0.4% (0 – 1%)

Small Rock: 50.1% (20 – 72%)

Fines: 33.7% (10 – 70%)

Litter: 14.7% (4 – 30%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 3): CARR0012, CARR0530, CARR0931B

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ambrosia salsola</i>	100	5.3	4.0	8.0	Y		Y	Y
S	<i>Ephedra californica</i>	100	5.3	4.0	7.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	67	0.7	0.2	2.0				Y
S	<i>Gutierrezia californica</i>	33	0.7	2.0	2.0				
S	<i>Ericameria nauseosa</i>	33	0.7	2.0	2.0				
S	<i>Ephedra viridis</i>	33	0.3	1.0	1.0				
S	<i>Eriogonum</i> sp.	33	0.1	0.2	0.2				
S	<i>Krascheninnikovia lanata</i>	33	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	100	2.7	1.0	5.0	Y			Y
H	<i>Bromus rubens</i>	100	2.7	2.0	3.0	Y			Y
H	<i>Poa secunda</i>	67	9.7	4.0	25.0				Y
H	<i>Pholistoma membranaceum</i>	67	1.0	1.0	2.0				Y
H	<i>Microseris lindleyi</i>	67	0.4	0.2	1.0				Y
H	<i>Schismus</i> sp.	67	0.1	0.2	0.2				Y
H	<i>Phacelia tanacetifolia</i>	67	0.1	0.2	0.2				Y
H	<i>Malacothrix coulteri</i>	33	0.3	1.0	1.0				
H	<i>Lotus wrangelianus</i>	33	0.1	0.2	0.2				
H	<i>Camissonia contorta</i>	33	0.1	0.2	0.2				
H	<i>Amsinckia tessellata</i>	33	0.1	0.2	0.2				
H	<i>Cryptantha circumscissa</i>	33	0.1	0.2	0.2				
H	<i>Salvia carduacea</i>	33	0.1	0.2	0.2				
H	<i>Marah fabaceus</i>	33	0.1	0.2	0.2				
H	<i>Chaenactis glabriuscula</i>	33	0.1	0.2	0.2				
H	<i>Nemophila pedunculata</i>	33	0.1	0.2	0.2				
H	<i>Camissonia campestris</i>	33	0.1	0.2	0.2				
H	<i>Collinsia bartsiiifolia</i>	33	0.1	0.2	0.2				
H	<i>Lupinus nanus</i>	33	0.1	0.2	0.2				
N	Moss	67	0.4	0.2	1.0				Y
N	Cryptogammic crust	33	0.7	2.0	2.0				
N	Lichen	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Ephedra californica – *Ambrosia salsola* Association
Ephedra californica – *Ephedra trifurca* Shrubland Alliance

***Ephedra californica* – *Gutierrezia californica* / *Eriastrum pluriflorum* Association**

Common Name: California Ephedra - California Matchweed / Many-flowered Eriastrum Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 613 m (360 – 764 m)

Slope: 16° (0 – 40°)

Aspect: Mostly south-facing

Tree Cover: 0.2% (0 – 2%)

Shrub Cover: 18.2% (7 – 36%)

Herb Cover: 35.7% (3 – 70%)

Surface Covers – Mean (Range):

Large Rock: 0.3% (0 – 5%)

Small Rock: 1.4% (0 – 12%)

Fines: 48.2% (15 – 94%)

Litter: 12.2% (0 – 35%)

Global Rarity Rank: G2 **State Rarity Rank:** S2

State Rare: Y

Surveys Used in Description (N = 21): CCBLM472, CCBLM477, CCBLM480, CCBLM485, CCBLM500, CVPA0022, CVPA0084, CVPA0400, CVPA8004, CVPA8109, CVPAA092, PHER005, PHER007, PHER015, PHER018, PHER021, PHER032, PHER033, PHER035, PHER037, S17031000

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	24	0.2	0.2	2.0				
S	<i>Ephedra californica</i>	100	7.0	2.0	15.0	Y		Y	Y
S	<i>Ericameria linearifolia</i>	62	1.1	0.2	6.0				Y
S	<i>Gutierrezia californica</i>	57	4.0	1.0	20.0				Y
S	<i>Gutierrezia sarothrae</i>	43	4.0	2.0	20.0				
S	<i>Eastwoodia elegans</i>	38	0.4	0.2	5.0				
S	<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	33	0.4	0.2	5.0				
H	<i>Bromus madritensis</i>	67	18.5	2.0	50.0				Y
H	<i>Bromus hordeaceus</i>	52	3.4	0.2	15.0				Y
H	<i>Erodium</i> sp.	43	4.3	3.0	25.0				
H	<i>Erodium cicutarium</i>	43	1.8	0.2	19.0				
H	<i>Bromus diandrus</i>	38	0.8	0.2	7.0				
H	<i>Melica</i> sp.	38	0.2	0.2	2.0				
H	<i>Poa secunda</i>	33	0.6	0.2	5.0				
H	<i>Vulpia myuros</i>	29	0.7	0.2	5.0				
H	<i>Amsinckia menziesii</i>	29	0.1	0.2	0.2				
H	<i>Eriastrum pluriflorum</i>	24	1.9	0.2	38.0				
H	<i>Bromus rubens</i>	24	1.0	0.2	8.0				
H	<i>Avena</i> sp.	24	0.4	0.2	5.0				
H	<i>Lichen</i>	24	0.1	0.2	1.0				
H	<i>Marah fabaceus</i>	24	0.0	0.2	0.2				
H	<i>Trichostema lanceolatum</i>	24	0.0	0.2	0.2				
N	Moss	29	0.1	0.2	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ephedra californica* / annual – perennial herb Association**

Common Name: California Ephedra / Annual - Perennial Herb Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 633 m (303 – 1143 m)

Slope: 11° (0 – 36°)

Aspect: Mostly west-facing

Tree Cover: 0.1% (0 – 1%)

Shrub Cover: 7.8% (2 – 21%)

Herb Cover: 28.1% (7 – 80%)

Surface Covers – Mean (Range):

Large Rock: 1.6% (0 – 28%)

Small Rock: 19.4% (0 – 81%)

Fines: 60.2% (4 – 91%)

Litter: 14.9% (1 – 99%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 43): A0430170, CARR0013, CARR0020, CARR0518, CARR0605, CARR0621, CARR0875, CARR0930, CARR0932, CARR0933, CARR0969B, CARR1002, CARR1128, CARR1605, CARR1639, CARR1668, CARR2000A, CCBLM482, CCBLM486, chg125, CVPA0015, CVPA0018, CVPA0051, CVPA0080, CVPA0081, CVPA0082, CVPA0086, CVPA0106, CVPA0130, CVPA0244, CVPA2646, CVPA3364, CVPA3374, CVPA3534, CVPA3577, CVPA3659, CVPA3917, CVPA4425, E0506164, J0505165, PHER006, PHER023, S17031025

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ephedra californica</i>	100	6.6	2.0	20.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	40	0.4	0.2	7.0				
S	<i>Gutierrezia californica</i>	28	0.1	0.2	2.0				
S	<i>Eriogonum fasciculatum</i>	23	0.2	0.2	2.0				
H	<i>Erodium cicutarium</i>	79	4.8	1.0	20.0	Y			Y
H	<i>Bromus rubens</i>	72	4.2	0.2	22.0				Y
H	<i>Poa secunda</i>	65	1.1	0.2	12.0				Y
H	<i>Amsinckia tessellata</i>	47	0.9	0.2	10.0				
H	<i>Schismus</i> sp.	44	2.9	0.2	37.0				
H	<i>Pholistoma membranaceum</i>	37	0.7	0.2	6.0				
H	<i>Lasthenia gracilis</i>	26	0.5	0.2	9.0				
H	<i>Vulpia microstachys</i>	26	0.1	0.2	1.0				
H	<i>Amsinckia menziesii</i>	21	0.2	0.2	5.0				
H	<i>Leptosiphon liniflorus</i>	21	0.1	0.2	1.0				
H	<i>Microseris lindleyi</i>	21	0.0	0.2	0.2				
N	Lichen	23	0.2	0.2	5.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ephedra nevadensis* – *Lycium andersonii* – *Grayia spinosa* Shrubland Alliance**

Common Name: Nevada joint fir – Anderson's boxthorn – spiny hop sage scrub

NVC Alliance Code: A4245. *Ephedra nevadensis* - *Lycium andersonii* - *Grayia spinosa* Scrub Alliance

Associations	Sample Size
<i>Ephedra nevadensis</i> – <i>Lycium andersonii</i>	1
<i>Lycium andersonii</i> Provisional	2

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 786 m (745 – 808 m)

Slope: 18° (15 – 20°)

Aspect: Variable

Tree Cover: 0.0% (0 – 0%)

Shrub Cover: 16.5% (4 – 25%)

Herb Cover: 6.9% (4 – 12%)

Surface Covers – Mean (Range):

Large Rock: 1.7% (0 – 5%)

Small Rock: 35.4% (16 – 50%)

Fines: 60.0% (41 – 79%)

Litter: 2.4% (0 – 5%)

Conservation Status Rank: Global: G5; **State (California):** S3S4

Surveys Used in Description (N = 3): CARR0828, CARR0962B, J0508114

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Lycium andersonii</i>	100	9.7	2.0	22.0	Y	Y		Y
S	<i>Gutierrezia californica</i>	100	0.8	0.2	2.0	Y			Y
S	<i>Krascheninnikovia lanata</i>	100	0.5	0.2	1.0	Y			Y
S	<i>Ephedra nevadensis</i>	67	2.7	0.2	8.0				Y
S	<i>Eastwoodia elegans</i>	67	0.7	0.2	2.0				Y
S	<i>Atriplex polycarpa</i>	67	0.7	0.2	2.0				Y
S	<i>Eriogonum fasciculatum</i>	67	0.4	0.2	1.0				Y
S	<i>Ephedra californica</i>	33	0.3	1.0	1.0				
S	<i>Grayia spinosa</i>	33	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	100	1.1	0.2	2.0	Y			Y
H	<i>Erodium cicutarium</i>	100	0.7	0.2	1.0	Y			Y

Ephedra nevadensis – *Lycium andersonii* – *Grayia spinosa* Shrubland Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Schismus</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Vulpia microstachys</i>	67	0.1	0.2	0.2				Y
H	<i>Amsinckia tessellata</i>	67	0.1	0.2	0.2				Y
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	67	0.1	0.2	0.2				Y
H	<i>Microseris lindleyi</i>	67	0.1	0.1	0.2				Y
H	<i>Hollisteria lanata</i>	33	0.1	0.2	0.2				
H	<i>Bromus berterioanus</i>	33	0.1	0.2	0.2				
H	<i>Microseris</i> sp.	33	0.1	0.2	0.2				
H	<i>Calochortus</i> sp.	33	0.1	0.2	0.2				
H	<i>Camissonia campestris</i>	33	0.1	0.2	0.2				
H	<i>Delphinium gypsophilum</i>	33	0.1	0.2	0.2				
H	<i>Distichlis spicata</i>	33	0.1	0.2	0.2				
H	<i>Eriastrum densifolium</i>	33	0.1	0.2	0.2				
H	<i>Lotus wrangelianus</i>	33	0.1	0.2	0.2				
H	<i>Poa secunda</i>	33	0.1	0.2	0.2				
H	<i>Mirabilis laevis</i>	33	0.1	0.2	0.2				
H	<i>Pectocarya</i> sp.	33	0.1	0.2	0.2				
H	<i>Pectocarya linearis</i>	33	0.1	0.2	0.2				
H	<i>Phacelia tanacetifolia</i>	33	0.1	0.2	0.2				
H	<i>Plantago erecta</i>	33	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	33	0.1	0.2	0.2				
H	<i>Leptosiphon liniflorus</i>	33	0.1	0.2	0.2				
H	<i>Salvia</i> sp.	33	0.0	0.1	0.1				
N	Moss	67	0.1	0.2	0.2				Y
N	Lichen	67	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ephedra nevadensis* – *Lycium andersonii* Association**

Common Name: Nevada Ephedra Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 808 m

Slope: 20°

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 20.0%

Herb Cover: 4.8%

Surface Covers – Mean (Range):

Large Rock: 5.0%

Small Rock: 50.0%

Fines: 41.0%

Litter: 2.0%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 1): CARR0962B

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ephedra nevadensis</i>	100	8.0	8.0	8.0	Y		Y	Y
S	<i>Lycium andersonii</i>	100	5.0	5.0	5.0	Y			Y
S	<i>Eastwoodia elegans</i>	100	2.0	2.0	2.0	Y			Y
S	<i>Gutierrezia californica</i>	100	2.0	2.0	2.0	Y			Y
S	<i>Atriplex polycarpa</i>	100	2.0	2.0	2.0	Y			Y
S	<i>Krascheninnikovia lanata</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Bromus rubens</i>	100	2.0	2.0	2.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Plantago erecta</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Hollisteria lanata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Mirabilis laevis</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Schismus</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Vulpia microstachys</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus berteroanus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Pectocarya</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Microseris</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Microseris lindleyi</i>	100	0.1	0.1	0.1	Y			Y
H	<i>Salvia</i> sp.	100	0.1	0.1	0.1	Y			Y
N	Moss	100	0.2	0.2	0.2	Y	Y		Y
N	Lichen	100	0.2	0.2	0.2	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Lycium andersonii* Provisional Association**

Common Name: Anderson's Boxthorn Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 776 m (745 – 806 m)

Slope: 17° (15 – 18°)

Aspect: Mostly south-facing

Tree Cover: 0.0%

Shrub Cover: 14.7% (4 – 25%)

Herb Cover: 8.0% (4 – 12%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 28.1% (16 – 40%)

Fines: 69.5% (60 – 79%)

Litter: 2.6% (0 – 5%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 2): CARR0828, J0508114

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Lycium andersonii</i>	100	12.0	2.0	22.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	100	0.6	0.2	1.0	Y			Y
S	<i>Gutierrezia californica</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Krascheninnikovia lanata</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Ephedra californica</i>	50	0.5	1.0	1.0				Y
S	<i>Eastwoodia elegans</i>	50	0.1	0.2	0.2				Y
S	<i>Ephedra nevadensis</i>	50	0.1	0.2	0.2				Y
S	<i>Atriplex polycarpa</i>	50	0.1	0.2	0.2				Y
S	<i>Grayia spinosa</i>	50	0.1	0.2	0.2				Y
H	<i>Erodium cicutarium</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Bromus rubens</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Amsinckia tessellata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Schismus</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Distichlis spicata</i>	50	0.1	0.2	0.2				Y
H	<i>Delphinium gypsophilum</i>	50	0.1	0.2	0.2				Y
H	<i>Lotus wrangelianus</i>	50	0.1	0.2	0.2				Y
H	<i>Eriastrum densifolium</i>	50	0.1	0.2	0.2				Y
H	<i>Calochortus</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Poa secunda</i>	50	0.1	0.2	0.2				Y
H	<i>Leptosiphon liniflorus</i>	50	0.1	0.2	0.2				Y
H	<i>Vulpia myuros</i>	50	0.1	0.2	0.2				Y
H	<i>Vulpia microstachys</i>	50	0.1	0.2	0.2				Y
H	<i>Phacelia tanacetifolia</i>	50	0.1	0.2	0.2				Y
H	<i>Camissonia campestris</i>	50	0.1	0.2	0.2				Y
H	<i>Microseris lindleyi</i>	50	0.1	0.2	0.2				Y
H	<i>Pectocarya linearis</i>	50	0.1	0.2	0.2				Y
N	Lichen	50	0.1	0.2	0.2				Y
N	Moss	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ephedra viridis* Shrubland Alliance**

Common Name: Mormon tea scrub

NVC Alliance Code: A3201. *Ephedra viridis* Colorado Plateau Shrubland Alliance

Associations	Sample Size
---------------------	--------------------

<i>Ephedra viridis</i> – <i>Ericameria linearifolia</i> / (<i>Poa secunda</i>) Provisional	7
----------------------------------------------------------------------------------------------	---

Classification Comments: The association circumscription is the same as that of the alliance. This provisional association is newly described from Carrizo Plain National Monument in which *Ephedra viridis* is dominant to co-dominant with *Ericameria linearifolia* in the shrub layer, and the understory is usually well-developed with *Poa secunda* usually present and co-dominant with other herbs.

Plot/Sample Data Summary – Mean (Range):

Elevation: 861 m (620 – 1063 m)

Slope: 35° (24 – 48°)

Aspect: Mostly north-facing

Tree Cover: 0.1%

Shrub Cover: 22.4% (9 – 40%)

Herb Cover: 24.7% (7 – 40%)

Surface Covers – Mean (Range):

Large Rock: 0.1%

Small Rock: 24.8% (0 – 60%)

Fines: 69.4% (37 – 97%)

Litter: 5.2% (0 – 15%)

Conservation Status Rank: Global: G4; State (California): S4

Surveys Used in Description (N = 7): CARR0590, CARR0663, CARR0827, CARR0854, CARR0857, CARR1511, chg140

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	29	0.1	0.2	0.2				
S	<i>Ephedra viridis</i>	100	15.6	5.0	30.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	86	3.0	0.2	10.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	57	1.7	1.0	6.0				Y
S	<i>Eastwoodia elegans</i>	57	0.1	0.2	0.2				Y
S	<i>Eriophyllum confertiflorum</i>	43	0.1	0.2	0.2				
S	<i>Gutierrezia californica</i>	29	1.0	0.2	7.0				
S	<i>Krascheninnikovia lanata</i>	29	0.2	0.2	1.0				
H	<i>Poa secunda</i>	100	7.5	0.2	16.0	Y		Y	Y
H	<i>Bromus rubens</i>	100	3.3	0.2	14.0	Y			Y
H	<i>Monolopia lanceolata</i>	71	2.6	0.2	13.0				Y
H	<i>Amsinckia tessellata</i>	71	1.7	0.2	10.0				Y
H	<i>Erodium cicutarium</i>	71	0.8	0.2	2.0				Y
H	<i>Phacelia tanacetifolia</i>	43	0.3	0.2	2.0				
H	<i>Delphinium gypsophilum</i>	43	0.2	0.2	1.0				
H	<i>Pholistoma membranaceum</i>	29	0.5	0.2	3.0				
H	<i>Amsinckia menziesii</i>	29	0.3	0.2	2.0				
H	<i>Allium peninsulare</i>	29	0.3	1.0	1.0				
H	<i>Lupinus microcarpus</i>	29	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	29	0.1	0.2	0.2				
H	<i>Clarkia unguiculata</i>	29	0.1	0.2	0.2				
N	Moss	57	2.3	0.2	10.0				Y
N	Lichen	29	0.3	0.2	2.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ericameria linearifolia* – *Cleome isomeris* Shrubland Alliance**

Common Name: Narrowleaf goldenbush – bladderpod scrub

NVC Alliance Code: A4101. *Ericameria linearifolia* - *Cleome isomeris* Scrub Alliance

Associations	Sample Size
<i>Cleome isomeris</i>	26
<i>Eastwoodia elegans</i>	45
<i>Eastwoodia elegans</i> – <i>Krascheninnikovia lanata</i>	18
<i>Ericameria linearifolia</i>	81
<i>Ericameria linearifolia</i> – <i>Cleome isomeris</i> alliance	4
<i>Gutierrezia californica</i> / <i>Poa secunda</i>	40

Classification Comments: This alliance has been expanded to include stands of *Gutierrezia californica*.

Plot/Sample Data Summary – Mean (Range):

Elevation: 723 m (151 – 1515 m)

Slope: 22° (0 – 44°)

Aspect: Variable

Tree Cover: 0.2% (0 – 4%)

Shrub Cover: 17.9% (2 – 57%)

Herb Cover: 26.8% (2 – 90%)

Surface Covers – Mean (Range):

Large Rock: 0.7% (0 – 30%)

Small Rock: 14.6% (0 – 65%)

Fines: 63.3% (0 – 99%)

Litter: 13.9% (0 – 90%)

Conservation Status Rank: Global: G4; State (California): S4

Surveys Used in Description

(N = 214): A0513133, A0513163, CARR0024, CARR0041, CARR0056, CARR0059, CARR0090, CARR0094, CARR0095, CARR0097, CARR0098, CARR0107, CARR0109, CARR0128, CARR0129, CARR0163, CARR0172, CARR0529, CARR0561, CARR0564, CARR0565, CARR0578, CARR0579, CARR0584, CARR0593, CARR0594, CARR0604, CARR0607, CARR0614, CARR0620, CARR0643, CARR0647, CARR0652, CARR0653, CARR0660, CARR0662, CARR0664, CARR0669B, CARR0670, CARR0680, CARR0681, CARR0744, CARR0745, CARR0747, CARR0748, CARR0752, CARR0753, CARR0758, CARR0820, CARR0826, CARR0829, CARR0832, CARR0834, CARR0835, CARR0836, CARR0843, CARR0846, CARR0850, CARR0852, CARR0855, CARR0856, CARR0860, CARR0863, CARR0864, CARR0867, CARR0868, CARR0870, CARR0871, CARR0872, CARR0928B, CARR0956, CARR0962,

CARR0963, CARR0966, CARR0968, CARR0973, CARR0974, CARR0976, CARR0979, CARR1003, CARR1004, CARR1037, CARR1052, CARR1075, CARR1085, CARR1129, CARR1130, CARR1132, CARR1134, CARR1135, CARR1233, CARR1504, CARR1507, CARR1509, CARR1510, CARR1512, CARR1519, CARR1597, CARR1610, CARR1613, CARR1620, CARR1625, CARR1637, CARR1640, CARR1651, CARR1654, CARR1656, CARR1661, CARR1663, CARR1664, CARR1672, CARR1739, CARR1760, CARR5555, CCBLM479, CCBLM481, CCBLM488, CCBLM493, CCBLM495, chg003, chg031, chg035, chg066, chg126, chg127, CHG149, CVPA0001, CVPA0003, CVPA0011, CVPA0023, CVPA0025, CVPA0029, CVPA0045, CVPA0048, CVPA0049, CVPA0054, CVPA0060, CVPA0061, CVPA0067, CVPA0069, CVPA0070, CVPA0072, CVPA0083, CVPA0089, CVPA0093, CVPA0096, CVPA0097, CVPA0107, CVPA0109, CVPA0122, CVPA0126, CVPA0127, CVPA0129, CVPA0312, CVPA0315, CVPA0339, CVPA0473, CVPA0541, CVPA0680, CVPA0879, CVPA0893, CVPA1211b, CVPA1211c, CVPA1436a, CVPA1461, CVPA1552a, CVPA1565, CVPA2327, CVPA2633, CVPA2730, CVPA3080, CVPA3487, CVPA3585, CVPA3636b, CVPA3742, CVPA3807, CVPA3904, CVPA3916, CVPA4194, CVPA4199, CVPA4397, CVPA8003, CVPA8005, CVPA8006, CVPA8054, CVPA8056, CVPA8101, CVPA8106, CVPA8107, CVPA8108, CVPA8213, CVPA8219, CVPAA013a, E0428171, E0429143, E0430100, E0430113, E0506121, E0506153, E0507133, J0507153, J0507163, LPWA002, LPWA022, LPWA028, LPWA030, PHER001, PHER012, PHER014, PHER019, PHER020, PHER031, S17031126, S17031140

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	21	0.2	0.1	4.0				
S	<i>Ericameria linearifolia</i>	66	6.7	0.1	43.0				Y
S	<i>Gutierrezia californica</i>	49	2.4	0.2	33.0				
S	<i>Eriogonum fasciculatum</i>	41	0.9	0.2	22.0				
S	<i>Eastwoodia elegans</i>	41	4.1	0.2	50.0				
S	<i>Ephedra californica</i>	40	0.8	0.1	12.0				
S	<i>Krascheninnikovia lanata</i>	21	0.5	0.2	20.0				
H	<i>Bromus rubens</i>	84	6.0	0.2	60.0	Y			Y
H	<i>Erodium cicutarium</i>	84	3.5	0.2	40.0	Y			Y
H	<i>Poa secunda</i>	77	3.9	0.2	25.0	Y			Y
H	<i>Amsinckia tessellata</i>	57	2.1	0.2	30.0				Y
H	<i>Microseris lindleyi</i>	28	0.1	0.2	1.0				
H	<i>Bromus hordeaceus</i>	27	0.7	0.2	20.0				
H	<i>Schismus</i> sp.	23	0.8	0.2	22.0				
H	<i>Castilleja exserta</i>	23	0.2	0.1	11.0				
H	<i>Monolopia lanceolata</i>	21	0.7	0.2	20.0				
H	<i>Avena</i> sp.	21	0.5	0.1	30.0				
N	Moss	23	1.4	0.2	30.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Cleome isomeris* Association**

Common Name: Bladderpod Association

Classification Comments: *Cleome isomeris* is a synonym of *Isomeris arborea*.

Plot/Sample Data Summary – Mean (Range):

Elevation: 661 m (151 – 1203 m)

Slope: 23° (0 – 34°)

Aspect: Mostly north-facing

Tree Cover: 0.2% (0 – 3%)

Shrub Cover: 13.9% (3 – 30%)

Herb Cover: 39.7% (7 – 90%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 13.0% (0 – 61%)

Fines: 49.2% (2 – 97%)

Litter: 22.4% (0 – 90%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 26): CARR0024, CARR0056, CARR0095, CARR0643, CARR0744B, CARR0752, CARR0753, CARR0855, CARR0860, CARR0867, CARR1512, CARR1637, CARR1661, chg066, CHG149, CVPA0003, CVPA0029, CVPA0096, CVPA0109, CVPA3487, CVPA3742, CVPA4397, LPWA002, LPWA022, LPWA028, LPWA030

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	27	0.2	0.2	3.0				
S	<i>Cleome isomeris</i>	100	9.9	3.0	20.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	62	2.6	0.2	17.0				Y
S	<i>Gutierrezia californica</i>	23	0.1	0.2	1.0				
H	<i>Bromus rubens</i>	85	13.7	1.0	60.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	77	4.5	0.2	40.0	Y			Y
H	<i>Poa secunda</i>	54	1.6	0.2	10.0				Y
H	<i>Amsinckia tessellata</i>	50	4.4	0.2	30.0				Y
H	<i>Bromus hordeaceus</i>	46	1.8	0.2	20.0				
H	<i>Avena</i> sp.	46	1.7	0.2	13.0				
H	<i>Monolopia lanceolata</i>	31	1.8	0.2	15.0				
H	<i>Guillenia lasiophylla</i>	31	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	23	2.7	0.2	42.0				
H	<i>Bromus diandrus</i>	23	0.8	0.2	15.0				
H	<i>Lotus wrangelianus</i>	23	0.3	0.2	5.0				
H	<i>Clarkia cylindrica</i>	23	0.3	0.2	6.0				
H	<i>Delphinium gypsophilum</i>	23	0.2	0.2	3.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eastwoodia elegans* Association**

Common Name: Yellow mock-aster Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 811 m (392 – 1147 m)

Slope: 25° (0 – 44°)

Aspect: Mostly north-facing

Tree Cover: 0.1% (0 – 1%)

Shrub Cover: 22.7% (4 – 57%)

Herb Cover: 24.5% (3 – 52%)

Surface Covers – Mean (Range):

Large Rock: 0.2% (0 – 6%)

Small Rock: 15.2% (0 – 60%)

Fines: 74.6% (29 – 96%)

Litter: 8.7% (0 – 39%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 45): A0513163, CARR0059, CARR0098, CARR0129, CARR0529, CARR0564, CARR0565, CARR0593, CARR0604, CARR0607, CARR0647, CARR0660, CARR0662, CARR0664, CARR0669B, CARR0681, CARR0747, CARR0829, CARR0835, CARR0852, CARR0863, CARR0868, CARR0872, CARR0928B, CARR0956, CARR0963, CARR0968, CARR1004, CARR1037, CARR1129, CARR1134, CARR1135, CARR1507, CARR1509, CARR1640, CARR1651, CARR1656, chg031, CVPA8005, CVPA8106, CVPA8108, CVPA8213, E0428171, J0507163, S17031140

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	20	0.1	0.1	1.0				
S	<i>Eastwoodia elegans</i>	100	15.7	4.0	50.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	64	2.5	0.1	18.0				Y
S	<i>Eriogonum fasciculatum</i>	60	0.8	0.2	4.0				Y
S	<i>Ephedra californica</i>	53	1.1	0.2	12.0				Y
S	<i>Gutierrezia californica</i>	49	0.8	0.2	10.0				
S	<i>Krascheninnikovia lanata</i>	40	0.3	0.2	5.0				
H	<i>Erodium cicutarium</i>	98	3.5	0.2	18.0	Y			Y
H	<i>Bromus rubens</i>	91	4.6	0.2	20.0	Y			Y
H	<i>Poa secunda</i>	89	7.1	0.2	21.0	Y		Y	Y
H	<i>Amsinckia tessellata</i>	73	2.9	0.2	23.0				Y
H	<i>Monolopia lanceolata</i>	44	1.6	0.2	20.0				
H	<i>Microseris lindleyi</i>	40	0.1	0.2	1.0				
H	<i>Castilleja exserta</i>	38	0.1	0.2	2.0				
H	<i>Schismus</i> sp.	33	0.4	0.2	7.0				
H	<i>Delphinium gypsophilum</i>	33	0.2	0.2	2.0				
H	<i>Lupinus microcarpus</i>	33	0.1	0.2	2.0				
H	<i>Malacothrix coulteri</i>	33	0.1	0.2	0.2				
H	<i>Pholistoma membranaceum</i>	29	0.4	0.2	5.0				
H	<i>Vulpia microstachys</i>	27	0.1	0.2	1.0				
H	<i>Phacelia tanacetifolia</i>	24	0.6	0.2	12.0				
H	<i>Lotus wrangelianus</i>	22	0.2	0.2	4.0				
N	Moss	27	2.3	0.2	25.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eastwoodia elegans* – *Krascheninnikovia lanata* Association**

Common Name: Yellow mock-aster – Winterfat Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 876 m (642 – 1127 m)

Slope: 24° (6 – 41°)

Aspect: Mostly south-facing

Tree Cover: 0.0%

Shrub Cover: 20.1% (8 – 45%)

Herb Cover: 25.4% (5 – 50%)

Surface Covers – Mean (Range):

Large Rock: 0.9% (0 – 8%)

Small Rock: 23.2% (0 – 62%)

Fines: 68.4% (30 – 99%)

Litter: 6.6% (0 – 25%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 17): CARR0614, CARR0670, CARR0745, CARR0826, CARR0834, CARR0846, CARR0850, CARR0864, CARR0871, CARR1130, CARR1132, CARR1504, CARR1510, CARR1610, CARR1760, E0506121, E0506153

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Eastwoodia elegans</i>	100	7.3	2.0	15.0	Y		Y	Y
S	<i>Krascheninnikovia lanata</i>	94	5.4	0.2	20.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	94	4.3	0.2	10.0	Y			Y
S	<i>Ephedra californica</i>	35	0.6	0.2	4.0				
S	<i>Gutierrezia californica</i>	29	0.7	0.2	6.0				
S	<i>Hesperoyucca whipplei</i>	24	0.2	0.2	3.0				
H	<i>Bromus rubens</i>	100	5.5	0.2	20.0	Y			Y
H	<i>Erodium cicutarium</i>	100	5.0	0.2	25.0	Y			Y
H	<i>Amsinckia tessellata</i>	100	4.3	0.2	23.0	Y			Y
H	<i>Poa secunda</i>	82	1.6	0.2	12.0	Y			Y
H	<i>Schismus</i> sp.	76	5.2	0.2	22.0	Y			Y
H	<i>Eriogonum gracillimum</i>	41	0.1	0.2	1.0				
H	<i>Delphinium gypsophilum</i>	35	0.1	0.2	0.2				
H	<i>Astragalus didymocarpus</i>	29	0.2	0.2	2.0				
H	<i>Mucronea perfoliata</i>	29	0.1	0.2	1.0				
H	<i>Phacelia cicutaria</i>	24	0.9	0.2	10.0				
H	<i>Malacothrix coulteri</i>	24	0.1	0.2	1.0				
H	<i>Achnatherum speciosum</i>	24	0.0	0.2	0.2				
N	Lichen	35	0.6	0.2	5.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ericameria linearifolia* Association**

Common Name: Narrowleaf Goldenbush Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 700 m (242 – 1515 m)

Slope: 20° (1 – 40°)

Aspect: Mostly north-facing

Tree Cover: 0.4% (0 – 4%)

Shrub Cover: 18.5% (3 – 44%)

Herb Cover: 27.5% (3 – 76%)

Surface Covers – Mean (Range):

Large Rock: 0.4% (0 – 20%)

Small Rock: 11.2% (0 – 63%)

Fines: 61.4% (0 – 96%)

Litter: 17.6% (0 – 81%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 81): CARR0090, CARR0094, CARR0097, CARR0107, CARR0128, CARR0163, CARR0561B, CARR0594, CARR0652, CARR0653, CARR0748, CARR0758, CARR0820, CARR0832, CARR0843, CARR0856, CARR0966B, CARR0976, CARR0979, CARR1003, CARR1052, CARR1085, CARR1233, CARR1519, CARR1613, CARR1620, CARR1625, CARR1654, CARR1739, CARR5555, CCBLM495, chg003, chg035, chg126, chg127, CVPA0001, CVPA0011, CVPA0023, CVPA0025, CVPA0045, CVPA0048, CVPA0049, CVPA0061, CVPA0069, CVPA0072, CVPA0083, CVPA0089, CVPA0093, CVPA0129, CVPA0312, CVPA0315, CVPA0339, CVPA0473, CVPA0541, CVPA0879, CVPA0893, CVPA1436a, CVPA1461, CVPA1565, CVPA2633, CVPA2730, CVPA3080, CVPA3585, CVPA3636b, CVPA3807, CVPA3916, CVPA8003, CVPA8054, CVPA8056, CVPA8107, CVPA8219, CVPA013a, E0429143, J0507153, PHER001, PHER012, PHER014, PHER019, PHER020, PHER031, S17031126

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	31	0.4	0.2	4.0				
S	<i>Ericameria linearifolia</i>	100	14.5	2.0	43.0	Y	Y		Y
S	<i>Ephedra californica</i>	52	1.3	0.2	8.0				Y
S	<i>Eriogonum fasciculatum</i>	37	0.4	0.2	4.0				
S	<i>Gutierrezia californica</i>	36	0.5	0.2	5.0				
S	<i>Eastwoodia elegans</i>	21	0.4	0.2	5.0				
H	<i>Bromus rubens</i>	78	5.6	0.2	45.0	Y			Y
H	<i>Poa secunda</i>	78	4.5	0.2	25.0	Y			Y
H	<i>Erodium cicutarium</i>	72	3.2	0.2	30.0				Y
H	<i>Amsinckia tessellata</i>	47	1.1	0.1	13.0				
H	<i>Bromus hordeaceus</i>	36	1.2	0.2	16.0				
H	<i>Microseris lindleyi</i>	28	0.1	0.2	1.0				
H	<i>Castilleja exserta</i>	22	0.3	0.2	11.0				
H	<i>Pholistoma membranaceum</i>	21	0.6	0.2	20.0				
N	Moss	28	1.7	0.2	30.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Gutierrezia californica* / *Poa secunda* Association**

Common Name: California Match Weed / Curly Blue Grass Association

Classification Comments: This association previously was placed in its own *Gutierrezia californica* Alliance, which has now been lumped into the *Ericameria linearifolia* – *Cleome isomeris* Alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 635 m (282 – 1130 m)

Slope: 20° (1 – 38°)

Aspect: Mostly north-facing

Tree Cover: 0.0% (0 – 1%)

Shrub Cover: 12.1% (2 – 35%)

Herb Cover: 20.9% (2 – 85%)

Surface Covers – Mean (Range):

Large Rock: 1.9% (0 – 30%)

Small Rock: 13.3% (0 – 65%)

Fines: 60.3% (0 – 98%)

Litter: 12.9% (0 – 83%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 40): A0513133, CARR0041, CARR0172, CARR0584, CARR0620, CARR0680, CARR0836, CARR0870, CARR0973, CARR0974, CARR1075, CARR1597, CARR1663, CARR1664, CARR1672, CCBLM479, CCBLM481, CCBLM488, CCBLM493, CVPA0054, CVPA0060, CVPA0067, CVPA0070, CVPA0097, CVPA0107, CVPA0122, CVPA0126, CVPA0127, CVPA0680, CVPA1211b, CVPA1211c, CVPA1552a, CVPA2327, CVPA3904, CVPA4194, CVPA4199, CVPA8006, CVPA8101, E0430113, E0507133

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Gutierrezia californica</i>	100	10.3	2.0	33.0	Y	Y		Y
S	<i>Ephedra californica</i>	25	0.2	0.1	2.0				
S	<i>Ericameria linearifolia</i>	25	0.2	0.2	3.0				
H	<i>Erodium cicutarium</i>	88	3.2	0.2	15.0	Y			Y
H	<i>Bromus rubens</i>	75	4.4	0.2	56.0	Y			Y
H	<i>Poa secunda</i>	70	1.9	0.2	16.0				Y
H	<i>Amsinckia tessellata</i>	40	0.5	0.2	10.0				
H	<i>Schismus</i> sp.	35	1.1	0.2	15.0				
H	<i>Avena</i> sp.	33	0.9	0.1	30.0				
H	<i>Microseris lindleyi</i>	30	0.1	0.2	0.2				
H	<i>Bromus diandrus</i>	20	4.5	0.2	80.0				
H	<i>Bromus hordeaceus</i>	20	0.3	0.2	10.0				
H	<i>Astragalus lentiginosus</i>	20	0.1	0.2	1.0				
H	<i>Lotus wrangelianus</i>	20	0.1	0.2	2.0				
N	Moss	20	0.2	0.2	4.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ericameria nauseosa* Shrubland Alliance**

Common Name: Rubber rabbitbrush scrub

NVC Alliance Code: A3196. *Ericameria nauseosa* Steppe & Shrubland Alliance

Associations	Sample Size
<i>Ericameria nauseosa</i>	8

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 795 m (451 – 1416 m)

Slope: 11° (0 – 25°)

Aspect: Mostly north-facing

Tree Cover: 0.5% (0 – 3%)

Shrub Cover: 13.0% (5 – 32%)

Herb Cover: 19.8% (5 – 43%)

Surface Covers – Mean (Range):

Large Rock: 1.3% (0 – 10%)

Small Rock: 15.4% (0 – 47%)

Fines: 65.1% (35 – 98%)

Litter: 16.8% (2 – 60%)

Conservation Status Rank: Global: G5; **State (California):** S5

Surveys Used in Description (N = 8): CARR0134, CARR0568, CARR0575, CARR0837, CARR0874, CVPA8209, J0506175, PAPR0057

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	25	0.5	1.0	3.0				
S	<i>Ericameria nauseosa</i>	100	10.6	4.0	30.0	Y	Y		Y
S	<i>Gutierrezia californica</i>	50	0.1	0.2	0.2				Y
S	<i>Ericameria linearifolia</i>	38	1.9	0.2	15.0				
S	<i>Hymenoclea salsola</i>	25	0.1	0.2	0.2				
S	<i>Lupinus albifrons</i>	25	0.0	0.1	0.2				
H	<i>Erodium cicutarium</i>	88	1.2	0.2	6.0	Y			Y
H	<i>Bromus rubens</i>	75	4.4	1.0	11.0	Y			Y
H	<i>Poa secunda</i>	75	1.6	0.2	7.0	Y			Y
H	<i>Microseris lindleyi</i>	63	0.2	0.2	1.0				Y
H	<i>Claytonia parviflora</i>	50	3.4	0.2	13.0				Y
H	<i>Lomatium utriculatum</i>	50	0.2	0.2	1.0				Y
H	<i>Amsinckia tessellata</i>	38	2.0	0.2	15.0				
H	<i>Bromus hordeaceus</i>	38	1.6	1.0	10.0				
H	<i>Bromus diandrus</i>	38	0.9	1.0	4.0				
H	<i>Castilleja exserta</i>	38	0.2	0.2	1.0				
H	<i>Camissonia campestris</i>	38	0.2	0.1	1.0				
H	<i>Amsinckia menziesii</i>	38	0.1	0.2	0.2				
H	<i>Leymus triticoides</i>	25	0.3	0.2	2.0				
H	<i>Astragalus lentiginosus</i>	25	0.3	0.2	2.0				
H	<i>Leptosiphon bicolor</i>	25	0.3	0.2	2.0				
H	<i>Lotus wrangelianus</i>	25	0.2	0.2	1.0				
H	<i>Eriastrum densifolium</i>	25	0.2	0.2	1.0				
H	<i>Eriogonum trichopes</i> var. <i>hooveri</i>	25	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	25	0.1	0.2	0.2				
H	<i>Cryptantha nevadensis</i>	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eriogonum fasciculatum* Shrubland Alliance**

Common Name: California buckwheat scrub

NVC Alliance Code: A3884. *Eriogonum fasciculatum* - *Salvia apiana* Yeric Scrub Alliance

Associations	Sample Size
<i>Eriogonum fasciculatum</i>	50
<i>Eriogonum fasciculatum</i> – <i>Ephedra californica</i>	20
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i> – <i>Hesperoyucca whipplei</i>	44
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i> / <i>Eriastrum pluriflorum</i>	4

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 701 m (200 – 1267 m)

Slope: 23° (2 – 45°)

Aspect: Variable

Tree Cover: 0.2% (0 – 4%)

Shrub Cover: 16.3% (5 – 35%)

Herb Cover: 15.4% (0 – 80%)

Surface Covers – Mean (Range):

Large Rock: 5.3% (0 – 90%)

Small Rock: 24.6% (0 – 80%)

Fines: 57.0% (3 – 96%)

Litter: 8.2% (0 – 57%)

Conservation Status Rank: Global: G5; State (California): S5

Surveys Used in Description (N = 118): A0514171, CARR0006, CARR0007, CARR0014, CARR0025, CARR0030, CARR0049, CARR0053, CARR0063, CARR0069, CARR0100, CARR0101, CARR0105, CARR0108, CARR0119, CARR0132, CARR0141, CARR0167, CARR0528, CARR0537, CARR0553, CARR0595, CARR0623, CARR0665, CARR0740, CARR0750, CARR0752B, CARR0754, CARR0823, CARR0831, CARR0853, CARR0861, CARR0869, CARR0950, CARR0955, CARR0957, CARR0958, CARR0977, CARR1036, CARR1050, CARR1067, CARR1070, CARR1078, CARR1225, CARR1513, CARR1611, CARR1622, CARR1623, CARR1665, CARR1667, CARR1746, CARR1749, CCBLM483, CCBLM484, CCBLM487, CCBLM501, chg013, chg129, chg131, chg138, chg143, CVPA0002, CVPA0019, CVPA0021, CVPA0027, CVPA0037, CVPA0039, CVPA0040, CVPA0088, CVPA0094, CVPA0098, CVPA0105, CVPA0110, CVPA0125, CVPA0128, CVPA0132, CVPA0281, CVPA0328, CVPA0337, CVPA0391, CVPA0403, CVPA0472, CVPA0542, CVPA0569, CVPA0778, CVPA0866, CVPA0917, CVPA0939, CVPA0983, CVPA1181, CVPA1191, CVPA1360, CVPA1552, CVPA1564, CVPA1567, CVPA1725, CVPA2725, CVPA3080b, CVPA3381, CVPA3519, CVPA8001, *Eriogonum fasciculatum* Shrubland Alliance

CVPA8002, CVPA8051, CVPA8055, CVPA8104, CVPA8105, CVPA8201, CVPAA013, CVPAA096, E0506105, E0506141, H0410112, PAPR0047, PAPR0052, PHER002, PHER009, PHER010, PHER011

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Eriogonum fasciculatum</i>	92	8.0	0.2	25.0	Y	Y		Y
S	<i>Ephedra californica</i>	53	1.2	0.2	8.0				Y
S	<i>Hesperoyucca whipplei</i>	45	3.7	0.2	25.0				
S	<i>Gutierrezia californica</i>	40	0.7	0.2	6.0				
S	<i>Ericameria linearifolia</i>	31	0.4	0.2	10.0				
S	<i>Eastwoodia elegans</i>	21	0.2	0.2	5.0				
H	<i>Erodium cicutarium</i>	86	3.6	0.2	35.0	Y			Y
H	<i>Bromus rubens</i>	75	2.0	0.2	20.0				Y
H	<i>Schismus</i>	36	1.2	0.2	15.0				
H	<i>Amsinckia tessellata</i>	36	0.9	0.2	15.0				
H	<i>Poa secunda</i>	35	0.4	0.2	5.0				
H	<i>Salvia columbariae</i>	35	0.2	0.2	2.0				
H	<i>Avena</i> sp.	30	0.2	0.2	5.0				
H	<i>Dichelostemma capitatum</i>	26	0.1	0.2	1.0				
H	<i>Microseris lindleyi</i>	24	0.1	0.2	1.0				
N	Lichen	23	0.5	0.2	20.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eriogonum fasciculatum* Association**

Common Name: California Buckwheat Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 704 m (276 – 1267 m)

Slope: 23° (2 – 45°)

Aspect: Mostly south-facing

Tree Cover: 0.2% (0 – 3%)

Shrub Cover: 12.9% (5 – 33%)

Herb Cover: 15.6% (0 – 80%)

Surface Covers – Mean (Range):

Large Rock: 7.1% (0 – 53%)

Small Rock: 25.8% (0 – 70%)

Fines: 54.3% (7 – 93%)

Litter: 11.1% (0 – 57%)

Global Rarity Rank: G5 **State Rarity Rank:** S5

State Rare: N

Surveys Used in Description (N = 50): A0514171, CARR0007, CARR0014, CARR0049, CARR0053, CARR0063, CARR0069, CARR0101, CARR0105, CARR0108, CARR0141, CARR0167, CARR0553, CARR0595, CARR0623, CARR0665, CARR0752B, CARR0831, CARR0950, CARR1036, CARR1050, CARR1070, CARR1225, CARR1513, CARR1611, CARR1623, CARR1665, CARR1749, chg013, chg131, CVPA0002, CVPA0037, CVPA0088, CVPA0094, CVPA0098, CVPA0105, CVPA0110, CVPA0132, CVPA0328, CVPA0337, CVPA0391, CVPA0472, CVPA0569, CVPA0939, CVPA1552, CVPA1567, CVPA1725, CVPA3080b, CVPA8105, CVPA013

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	20	0.2	0.2	3.0				
S	<i>Eriogonum fasciculatum</i>	98	10.7	4.0	25.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	32	0.2	0.2	3.0				
S	<i>Gutierrezia californica</i>	28	0.5	0.2	6.0				
S	<i>Ephedra californica</i>	28	0.3	0.2	2.0				
H	<i>Erodium cicutarium</i>	88	3.9	0.2	15.0	Y			Y
H	<i>Bromus rubens</i>	84	2.2	0.2	20.0	Y			Y
H	<i>Poa secunda</i>	36	0.3	0.2	5.0				
H	<i>Avena</i> sp.	36	0.3	0.2	3.0				
H	<i>Plantago erecta</i>	32	0.6	0.2	7.0				
H	<i>Amsinckia tessellata</i>	32	0.5	0.2	5.0				
H	<i>Dichelostemma capitatum</i>	28	0.1	0.2	0.5				
H	<i>Schismus</i> sp.	22	0.4	0.2	3.0				
H	<i>Phacelia tanacetifolia</i>	22	0.4	0.2	15.0				
N	Lichen	22	0.8	0.2	20.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eriogonum fasciculatum* – *Ephedra californica* Association**

Common Name: California Buckwheat – California Joint Fir Association

Classification Comments: This association is no longer provisional due to increased sample size.

Plot/Sample Data Summary – Mean (Range):

Elevation: 646 m (200 – 1018 m)

Slope: 18° (5 – 36°)

Aspect: Mostly south-facing

Tree Cover: 0.1% (0 – 1%)

Shrub Cover: 14.8% (5 – 34%)

Herb Cover: 17.6% (2 – 59%)

Surface Covers – Mean (Range):

Large Rock: 10.5% (0 – 90%)

Small Rock: 20.8% (0 – 65%)

Fines: 54.4% (3 – 89%)

Litter: 3.4% (0 – 7%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 20): CARR0537, CARR0754, CARR0861, CARR0955, CVPA0019, CVPA0027, CVPA0403, CVPA0542, CVPA0983, CVPA1360, CVPA1564, CVPA3381, CVPA3519, CVPA8055, CVPA8201, E0506141, PAPR0047, PAPR0052, PHER010, PHER011

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ephedra californica</i>	100	3.9	1.0	8.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	80	6.2	2.0	22.0	Y		Y	Y
S	<i>Ericameria linearifolia</i>	55	0.9	0.2	6.0				Y
S	<i>Gutierrezia californica</i>	30	0.6	0.2	5.0				
S	<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	20	1.8	2.0	20.0				
S	<i>Atriplex polycarpa</i>	20	0.4	1.0	3.0				
S	<i>Eastwoodia elegans</i>	20	0.3	0.2	5.0				
H	<i>Erodium cicutarium</i>	70	3.3	0.2	35.0				Y
H	<i>Schismus</i> sp.	60	1.9	0.2	12.0				Y
H	<i>Bromus rubens</i>	50	1.3	0.2	9.0				Y
H	<i>Salvia columbariae</i>	35	0.1	0.2	1.0				
H	<i>Amsinckia tessellata</i>	30	1.3	0.2	10.0				
H	<i>Poa secunda</i>	30	0.8	0.2	5.0				
H	<i>Avena</i> sp.	30	0.2	0.2	1.0				
H	<i>Eriogonum angulosum</i>	25	0.2	0.2	2.0				
H	<i>Lotus wrangelianus</i>	25	0.1	0.2	2.0				
H	<i>Microseris lindleyi</i>	25	0.1	0.2	1.0				
H	<i>Bromus madritensis</i>	20	1.6	1.0	20.0				
H	<i>Lasthenia gracilis</i>	20	0.6	0.2	4.0				
H	<i>Phacelia tanacetifolia</i>	20	0.1	0.2	1.0				
H	<i>Dichelostemma capitatum</i>	20	0.1	0.2	1.0				
H	<i>Marah fabaceus</i>	20	0.1	0.2	1.0				
N	Lichen	30	0.6	0.2	10.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eriogonum fasciculatum* var. *foliolosum* – *Hesperoyucca whipplei* Association**

Common Name: California Buckwheat – Our Lord's Candle Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 745 m (440 – 1080 m)

Slope: 25° (3 – 40°)

Aspect: Mostly south-facing

Tree Cover: 0.3% (0 – 4%)

Shrub Cover: 20.8% (7 – 35%)

Herb Cover: 14.7% (1 – 47%)

Surface Covers – Mean (Range):

Large Rock: 2.3% (0 – 17%)

Small Rock: 27.2% (0 – 80%)

Fines: 59.7% (12 – 96%)

Litter: 6.9% (0 – 25%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 44): CARR0006, CARR0025, CARR0030, CARR0100, CARR0119, CARR0132, CARR0528, CARR0740, CARR0750, CARR0823, CARR0853, CARR0869, CARR0957, CARR0958, CARR0977, CARR1067, CARR1078, CARR1622, CARR1667, CARR1746, chg129, chg138, chg143, CVPA0021, CVPA0039, CVPA0040, CVPA0125, CVPA0128, CVPA0281, CVPA0778, CVPA0866, CVPA0917, CVPA1181, CVPA1191, CVPA2725, CVPA8001, CVPA8002, CVPA8051, CVPA8104, CVPAA096, E0506105, H0410112, PHER002, PHER009

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	23	0.3	0.2	3.0				
S	<i>Hesperoyucca whipplei</i>	100	9.9	1.0	25.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	98	6.4	0.2	19.0	Y		Y	Y
S	<i>Ephedra californica</i>	59	1.0	0.2	5.0				Y
S	<i>Gutierrezia californica</i>	55	1.1	0.2	5.0				Y
S	<i>Eastwoodia elegans</i>	25	0.3	0.2	3.0				
S	<i>Ericameria linearifolia</i>	23	0.4	0.2	10.0				
H	<i>Erodium cicutarium</i>	89	3.4	0.2	16.0	Y			Y
H	<i>Bromus rubens</i>	82	2.3	0.2	12.0	Y			Y
H	<i>Salvia columbariae</i>	50	0.3	0.2	2.0				Y
H	<i>Amsinckia tessellata</i>	48	1.3	0.2	15.0				
H	<i>Schismus</i> sp.	45	1.9	0.2	15.0				
H	<i>Poa secunda</i>	39	0.4	0.2	5.0				
H	<i>Microseris lindleyi</i>	34	0.1	0.2	1.0				
H	<i>Dichelostemma capitatum</i>	30	0.1	0.2	1.0				
H	<i>Avena</i> sp.	25	0.2	0.2	5.0				
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	23	0.1	0.2	1.0				
H	<i>Lotus wrangelianus</i>	20	0.1	0.2	1.0				
N	Lichen	23	0.2	0.2	2.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eriogonum fasciculatum* var. *polifolium* / *Eriastrum pluriflorum* Association**

Common Name: California Buckwheat / Many-flowered Eriastrum Association

Classification Comments: The characteristic species *Eriogonum fasciculatum* var. *polifolium* is found on sandy soils derived from sandstone.

Plot/Sample Data Summary – Mean (Range):

Elevation: 452 m (385 – 520 m)

Slope: 27° (19 – 35°)

Aspect: Mostly SE-facing

Tree Cover: 0.0%

Shrub Cover: 18.2% (12 – 23%)

Herb Cover: 11.1% (5 – 16%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 67.0% (60 – 73%)

Litter: 4.0% (1 – 5%)

Global Rarity Rank: G2 **State Rarity Rank:** S2 **State Rare:** Y

Surveys Used in Description (N = 4): CCBLM483, CCBLM484, CCBLM487, CCBLM501

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	100	14.3	7.0	20.0	Y	Y		Y
S	<i>Atriplex spinifera</i>	75	1.6	0.2	5.0	Y			Y
S	<i>Ephedra californica</i>	75	1.5	1.0	3.0	Y			Y
S	<i>Eastwoodia elegans</i>	75	0.6	0.2	1.0	Y			Y
S	<i>Gutierrezia californica</i>	75	0.4	0.2	1.0	Y			Y
H	<i>Bromus madritensis</i>	100	7.0	3.0	10.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	100	2.8	1.0	5.0	Y			Y
H	<i>Eriastrum pluriflorum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Micropus californicus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Chorizanthe perfoliata</i>	75	0.4	0.2	1.0	Y			Y
H	<i>Salvia columbariae</i>	75	0.2	0.2	0.2	Y			Y
H	<i>Chorizanthe membranacea</i>	75	0.2	0.2	0.2	Y			Y
H	<i>Poa annua</i>	50	0.1	0.2	0.2				Y
H	<i>Camissonia</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Oenothera deltoides</i>	25	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	25	0.1	0.2	0.2				
H	<i>Eriogonum</i> sp.	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Krascheninnikovia lanata* Shrubland Alliance**

Common Name: Winterfat scrubland

NVC Alliance Code: A3202. *Krascheninnikovia lanata* Steppe & Dwarf-shrubland Alliance

Associations	Sample Size
<i>Krascheninnikovia lanata</i>	7

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 918 m (660 – 1038 m)

Slope: 23° (10 – 29°)

Aspect: Mostly SE-facing

Tree Cover: 0.0%

Shrub Cover: 14.0% (7 – 25%)

Herb Cover: 22.2% (14 – 41%)

Surface Covers – Mean (Range):

Large Rock: 1.0% (0 – 4%)

Small Rock: 17.8% (6 – 27%)

Fines: 72.9% (60 – 89%)

Litter: 6.9% (0 – 15%)

Conservation Status Rank: Global: G4; State (California): S3

Surveys Used in Description (N = 7): CARR0043, CARR0848, CARR0859, CARR0866B, CARR1042, CARR1616, CARR1753

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Krascheninnikovia lanata</i>	100	10.1	3.0	20.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	71	2.7	1.0	11.0				Y
S	<i>Eastwoodia elegans</i>	57	0.1	0.2	0.2				Y
S	<i>Atriplex polycarpa</i>	29	0.5	0.2	3.0				
S	<i>Gutierrezia californica</i>	29	0.3	0.2	2.0				
H	<i>Erodium cicutarium</i>	100	6.3	2.0	15.0	Y			Y
H	<i>Schismus</i> sp.	86	4.2	0.2	11.0	Y			Y
H	<i>Amsinckia tessellata</i>	71	2.9	1.0	8.0				Y
H	<i>Bromus rubens</i>	71	0.6	0.2	2.0				Y
H	<i>Monolopia lanceolata</i>	43	0.8	0.2	5.0				
H	<i>Eriogonum angulosum</i>	43	0.6	0.2	3.0				
H	<i>Poa secunda</i>	43	0.3	0.2	2.0				
H	<i>Mentzelia pectinata</i>	43	0.3	0.2	2.0				
H	<i>Mucronea perfoliata</i>	43	0.1	0.2	0.2				
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	29	0.5	0.2	3.0				
H	<i>Avena</i> sp.	29	0.2	0.2	1.0				
H	<i>Astragalus didymocarpus</i>	29	0.2	0.2	1.0				
H	<i>Eriastrum pluriflorum</i>	29	0.1	0.2	0.2				
H	<i>Phacelia tanacetifolia</i>	29	0.1	0.2	0.2				
N	Lichen	57	0.5	0.2	3.0				Y
N	Cryptogammic crust	43	3.2	0.2	18.0				
N	Moss	29	0.3	0.2	2.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Lepidospartum squamatum* Shrubland Alliance**

Common Name: Scale broom scrub

NVC Alliance Code: A4188. *Hymenoclea salsola* - *Bebbia juncea* Mojave-Sonoran
Desert Wash Scrub Alliance

Associations	Sample Size
<i>Lepidospartum squamatum</i> – <i>Artemisia californica</i>	3
<i>Lepidospartum squamatum</i> / ephemeral annuals	4

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 507 m (288 – 756 m)

Slope: 2° (0 – 6°)

Aspect: Variable

Tree Cover: 0.6% (0 – 3%)

Shrub Cover: 19.2% (4 – 37%)

Herb Cover: 18.6% (11 – 29%)

Surface Covers – Mean (Range):

Large Rock: 6.3% (0 – 33%)

Small Rock: 30.2% (1 – 55%)

Fines: 48.3% (8 – 89%)

Litter: 13.7% (0 – 28%)

Conservation Status Rank: Global: G3; **State (California):** S3

Surveys Used in Description (N = 7): CARR0084, CARR0116, CARR0157,
CARR1127, CVPA8205, CVPA8223, Q042320210933

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Lepidospartum squamatum</i>	100	13.7	1.0	33.0	Y	Y		Y
S	<i>Artemisia californica</i>	57	2.9	0.2	17.0				Y
S	<i>Eriogonum fasciculatum</i>	57	0.4	0.2	2.0				Y
S	<i>Ericameria nauseosa</i>	29	1.0	2.0	5.0				
S	<i>Gutierrezia californica</i>	29	0.3	1.0	1.0				
S	<i>Salvia leucophylla</i>	29	0.2	0.2	1.0				
S	<i>Atriplex polycarpa</i>	29	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	86	4.9	1.0	18.0	Y			Y
H	<i>Bromus rubens</i>	86	4.0	2.0	7.0	Y			Y
H	<i>Bromus hordeaceus</i>	57	1.5	0.2	8.0				Y
H	<i>Lotus wrangelianus</i>	43	0.7	0.2	4.0				
H	<i>Distichlis spicata</i>	29	0.7	0.2	5.0				
H	<i>Bromus diandrus</i>	29	0.2	0.2	1.0				
H	<i>Melilotus indicus</i>	29	0.2	0.2	1.0				
H	<i>Camissonia contorta</i>	29	0.1	0.2	0.2				
H	<i>Avena</i> sp.	29	0.1	0.2	0.2				
H	<i>Amsinckia tessellata</i>	29	0.1	0.2	0.2				
H	<i>Lasthenia californica</i>	29	0.1	0.2	0.2				
H	<i>Poa secunda</i>	29	0.1	0.2	0.2				
N	Lichen	29	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Lepidospartum squamatum* – *Artemisia californica* Association**

Common Name: Scale Broom – California Sagebrush Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 498 m (451 – 565 m)

Slope: 5° (3 – 6°)

Aspect: Mostly SW-facing

Tree Cover: 0.5% (0 – 1%)

Shrub Cover: 19.7% (4 – 37%)

Herb Cover: 23.1% (18 – 29%)

Surface Covers – Mean (Range):

Large Rock: 17.1% (1 – 33%)

Small Rock: 40.5% (34 – 47%)

Fines: 24.0% (8 – 40%)

Litter: 16.0% (10 – 22%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 3): CARR0084, CARR0157, Q042320210933

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Platanus racemosa</i>	33	0.3	1.0	1.0				
T	<i>Juniperus californica</i>	33	0.1	0.2	0.2				
T	<i>Quercus douglasii</i>	33	0.1	0.2	0.2				
S	<i>Lepidospartum squamatum</i>	100	8.3	1.0	14.0	Y		Y	Y
S	<i>Artemisia californica</i>	100	6.7	1.0	17.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	67	0.7	0.2	2.0				Y
S	<i>Salvia leucophylla</i>	67	0.4	0.2	1.0				Y
S	<i>Ericameria nauseosa</i>	33	1.7	5.0	5.0				
S	<i>Lotus scoparius</i>	33	0.7	2.0	2.0				
S	<i>Gutierrezia californica</i>	33	0.3	1.0	1.0				
S	<i>Ericameria linearifolia</i>	33	0.3	1.0	1.0				
S	<i>Baccharis salicifolia</i>	33	0.3	1.0	1.0				
S	<i>Solanum umbelliferum</i>	33	0.1	0.2	0.2				
S	<i>Cleome isomeris</i>	33	0.1	0.2	0.2				
S	<i>Malacothamnus jonesii</i>	33	0.1	0.2	0.2				
S	<i>Rhamnus ilicifolia</i>	33	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	100	7.7	1.0	18.0	Y			Y
H	<i>Bromus hordeaceus</i>	67	3.3	2.0	8.0				Y
H	<i>Bromus rubens</i>	67	3.3	4.0	6.0				Y
H	<i>Lotus wrangelianus</i>	67	1.7	1.0	4.0				Y
H	<i>Epilobium canum</i>	33	2.7	8.0	8.0				
H	<i>Vulpia myuros</i>	33	1.3	4.0	4.0				
H	<i>Centaurea melitensis</i>	33	0.7	2.0	2.0				
H	<i>Plantago erecta</i>	33	0.7	2.0	2.0				
H	<i>Plagiobothrys canescens</i>	33	0.7	2.0	2.0				
H	<i>Melilotus indicus</i>	33	0.3	1.0	1.0				
H	<i>Pectocarya penicillata</i>	33	0.3	1.0	1.0				
H	<i>Micropus californicus</i>	33	0.1	0.4	0.4				
H	<i>Lasthenia californica</i>	33	0.1	0.2	0.2				
H	<i>Camissonia contorta</i>	33	0.1	0.2	0.2				
H	<i>Daucus pusillus</i>	33	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	33	0.1	0.2	0.2				
N	Lichen	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Lepidospartum squamatum – *Artemisia californica* Association
Lepidospartum squamatum Shrubland Alliance

***Lepidospartum squamatum* / ephemeral annuals Association**

Common Name: California Broomshrub / mixed ephemeral herbs Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 514 m (288 – 756 m)

Slope: 1° (0 – 3°)

Aspect: Variable

Tree Cover: 0.8% (0 – 3%)

Shrub Cover: 18.9% (12 – 37%)

Herb Cover: 15.2% (11 – 17%)

Surface Covers – Mean (Range):

Large Rock: 0.9% (0 – 2%)

Small Rock: 25.0% (1 – 55%)

Fines: 60.5% (30 – 89%)

Litter: 12.6% (0 – 28%)

Global Rarity Rank: G2 **State Rarity Rank:** S2

State Rare: Y

Surveys Used in Description (N = 4): CARR0116, CARR1127, CVPA8205, CVPA8223

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	25	0.8	3.0	3.0				
S	<i>Lepidospartum squamatum</i>	100	17.8	12.0	33.0	Y	Y		Y
S	<i>Atriplex polycarpa</i>	50	0.1	0.2	0.2				Y
S	<i>Eriogonum fasciculatum</i>	50	0.1	0.2	0.2				Y
S	<i>Ericameria nauseosa</i>	25	0.5	2.0	2.0				
S	<i>Gutierrezia californica</i>	25	0.3	1.0	1.0				
S	<i>Isocoma acradenia</i>	25	0.1	0.2	0.2				
S	<i>Hymenoclea salsola</i> var. <i>salsola</i>	25	0.1	0.2	0.2				
S	<i>Artemisia californica</i>	25	0.1	0.2	0.2				
S	<i>Ephedra viridis</i>	25	0.0	0.1	0.1				
H	<i>Bromus rubens</i>	100	4.5	2.0	7.0	Y			Y
H	<i>Erodium cicutarium</i>	75	2.8	2.0	7.0	Y			Y
H	<i>Distichlis spicata</i>	50	1.3	0.2	5.0				Y
H	<i>Bromus diandrus</i>	50	0.3	0.2	1.0				Y
H	<i>Amsinckia tessellata</i>	50	0.1	0.2	0.2				Y
H	<i>Bromus hordeaceus</i>	50	0.1	0.2	0.2				Y

Lepidospartum squamatum / ephemeral annuals Association

Lepidospartum squamatum Shrubland Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Poa secunda</i>	50	0.1	0.2	0.2				Y
H	<i>Avena</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Lepidium nitidum</i>	25	2.3	9.0	9.0				
H	<i>Hordeum marinum</i>	25	1.3	5.0	5.0				
H	<i>Lupinus microcarpus</i>	25	0.5	2.0	2.0				
H	<i>Lupinus bicolor</i>	25	0.3	1.0	1.0				
H	<i>Erodium brachycarpum</i>	25	0.3	1.0	1.0				
H	<i>Cryptantha intermedia</i>	25	0.3	1.0	1.0				
H	<i>Camissonia campestris</i>	25	0.3	1.0	1.0				
H	<i>Lotus wrangelianus</i>	25	0.1	0.2	0.2				
H	<i>Lasthenia californica</i>	25	0.1	0.2	0.2				
H	<i>Logfia californica</i>	25	0.1	0.2	0.2				
H	<i>Lasthenia</i> sp.	25	0.1	0.2	0.2				
H	<i>Gilia clivorum</i>	25	0.1	0.2	0.2				
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	25	0.1	0.2	0.2				
H	<i>Castilleja attenuata</i>	25	0.1	0.2	0.2				
H	<i>Camissonia contorta</i>	25	0.1	0.2	0.2				
H	<i>Phacelia tanacetifolia</i>	25	0.1	0.2	0.2				
H	<i>Mucronea perfoliata</i>	25	0.1	0.2	0.2				
H	<i>Ambrosia acanthicarpa</i>	25	0.1	0.2	0.2				
H	<i>Melilotus indicus</i>	25	0.1	0.2	0.2				
H	<i>Thysanocarpus curvipes</i>	25	0.1	0.2	0.2				
H	<i>Microsteris gracilis</i>	25	0.1	0.2	0.2				
H	<i>Mirabilis laevis</i>	25	0.1	0.2	0.2				
H	<i>Stephanomeria</i>	25	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i>	25	0.1	0.2	0.2				
H	<i>Athysanus pusillus</i>	25	0.1	0.2	0.2				
H	<i>Leptosiphon liniflorus</i>	25	0.1	0.2	0.2				
H	<i>Capsella bursa-pastoris</i>	25	0.1	0.2	0.2				
N	Moss	25	2.5	10.0	10.0				
N	Lichen	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Lepidospartum squamatum / ephemeral annuals Association
Lepidospartum squamatum Shrubland Alliance

***Lotus scoparius* – *Lupinus albifrons* – *Eriodictyon* spp. Shrubland Alliance**

Common Name: Deerweed – silver lupine – yerba santa scrub

NVC Alliance Code: A3886. *Lotus scoparius* - *Lupinus albifrons* Scrub Alliance

Associations	Sample Size
<i>Lotus scoparius</i> – <i>Lupinus albifrons</i> – <i>Eriodictyon</i> spp. alliance	1
<i>Lupinus albifrons</i>	12

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 714 m (461 – 1221 m)

Slope: 19° (2 – 32°)

Aspect: Mostly north-facing

Tree Cover: 0.3% (0 – 2%)

Shrub Cover: 10.9% (1 – 27%)

Herb Cover: 21.0% (0 – 52%)

Surface Covers – Mean (Range):

Large Rock: 0.1% (0 – 0%)

Small Rock: 10.8% (0 – 35%)

Fines: 56.5% (14 – 90%)

Litter: 31.1% (2 – 70%)

Conservation Status Rank: Global: G5; **State (California):** S5

Surveys Used in Description (N = 13): CARR0033, CARR0046, CARR0070, CARR0075, CARR0087, CARR0162, CARR0570, CARR0876, CARR1064, CARR1140, CVPA0092, CVPA3184, Q042120211142

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
R	<i>Juniperus californica</i>	23	0.0	0.2	0.2				
S	<i>Lupinus albifrons</i>	92	8.5	1.0	25.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	46	1.4	0.2	9.0				
H	<i>Bromus rubens</i>	85	6.3	3.0	21.0	Y			Y
H	<i>Erodium cicutarium</i>	85	4.2	0.2	17.0	Y			Y
H	<i>Bromus hordeaceus</i>	46	1.3	0.2	8.0				
H	<i>Poa secunda</i>	46	0.8	0.2	4.0				
H	<i>Castilleja exserta</i>	46	0.6	0.2	6.0				
H	<i>Nassella cernua</i>	38	0.9	0.2	11.0				
H	<i>Eriogonum elongatum</i>	38	0.2	0.2	1.0				
H	<i>Amsinckia tessellata</i>	31	2.3	1.0	18.0				
H	<i>Avena</i> sp.	31	0.6	0.2	5.0				
H	<i>Lupinus microcarpus</i>	31	0.3	0.2	2.0				
H	<i>Hirschfeldia incana</i>	31	0.2	0.2	1.0				
H	<i>Marah fabaceus</i>	31	0.1	0.2	1.0				
H	<i>Microseris lindleyi</i>	31	0.1	0.2	0.2				
H	<i>Lomatium utriculatum</i>	31	0.1	0.2	0.2				
H	<i>Eschscholzia californica</i>	23	0.2	0.2	2.0				
H	<i>Lotus wrangelianus</i>	23	0.1	0.2	1.0				
H	<i>Vulpia myuros</i>	23	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Lupinus albifrons* Association**

Common Name: Silver Bush Lupine Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 735 m (485 – 1221 m)

Slope: 19° (2 – 32°)

Aspect: Mostly north-facing

Tree Cover: 0.2% (0 – 2%)

Shrub Cover: 11.6% (1 – 27%)

Herb Cover: 22.5% (0 – 52%)

Surface Covers – Mean (Range):

Large Rock: 0.1%

Small Rock: 10.8% (0 – 35%)

Fines: 56.5% (14 – 90%)

Litter: 31.1% (2 – 70%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 12): CARR0033, CARR0046, CARR0070, CARR0075, CARR0087, CARR0162, CARR0570, CARR0876, CARR1064, CARR1140, CVPA0092, Q042120211142

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
R	<i>Juniperus californica</i>	25	0.1	0.2	0.2				
S	<i>Lupinus albifrons</i>	100	9.2	1.0	25.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	50	1.5	0.2	9.0				Y
H	<i>Bromus rubens</i>	92	6.8	3.0	21.0	Y			Y
H	<i>Erodium cicutarium</i>	92	4.6	0.2	17.0	Y			Y
H	<i>Bromus hordeaceus</i>	50	1.4	0.2	8.0				Y
H	<i>Poa secunda</i>	50	0.9	0.2	4.0				Y
H	<i>Castilleja exserta</i>	50	0.7	0.2	6.0				Y
H	<i>Nassella cernua</i>	42	1.0	0.2	11.0				
H	<i>Eriogonum elongatum</i>	42	0.2	0.2	1.0				
H	<i>Amsinckia tessellata</i>	33	2.5	1.0	18.0				
H	<i>Avena</i> sp.	33	0.6	0.2	5.0				
H	<i>Lupinus microcarpus</i>	33	0.3	0.2	2.0				
H	<i>Hirschfeldia incana</i>	33	0.2	0.2	1.0				
H	<i>Marah fabaceus</i>	33	0.1	0.2	1.0				
H	<i>Microseris lindleyi</i>	33	0.1	0.2	0.2				
H	<i>Lomatium utriculatum</i>	33	0.1	0.2	0.2				
H	<i>Eschscholzia californica</i>	25	0.2	0.2	2.0				
H	<i>Lotus wrangelianus</i>	25	0.1	0.2	1.0				
H	<i>Vulpia myuros</i>	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Malacothamnus fasciculatus* – *Malacothamnus* spp. Shrubland Alliance**

Common Name: Bush mallow scrub

NVC Alliance Code: A2671. *Malacothamnus fasciculatus* - *Malacothamnus* spp.
Scrub Alliance

Associations	Sample Size
<i>Malacothamnus fasciculatus</i> – <i>Malacothamnus</i> spp. alliance	1

Classification Comments: The single survey was not assigned to an association.

Plot/Sample Data Summary – Mean (Range):

Elevation: 617 m

Slope: 30°

Aspect: Mostly NE-facing

Tree Cover: 0.0%

Shrub Cover: 26.6%

Herb Cover: 9.2%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.4%

Fines: 79.0%

Litter: 20.0%

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 1): chg139

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Malacothamnus jonesii</i>	100	19.0	19.0	19.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	100	5.0	5.0	5.0	Y			Y
S	<i>Salvia leucophylla</i>	100	2.0	2.0	2.0	Y			Y
S	<i>Ericameria linearifolia</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Eriophyllum confertiflorum</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Ephedra viridis</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus rubens</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Bromus hordeaceus</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Vulpia myuros</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Clarkia cylindrica</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Lupinus succulentus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Delphinium umbraculorum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Avena</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Dodecatheon clevelandii</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Calochortus clavatus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Castilleja subinclusa</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Galium angustifolium</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia tessellata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Dichelostemma capitatum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Phacelia tanacetifolia</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Poa secunda</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Pluchea sericea* Shrubland Alliance**

Common Name: Arrow weed thickets

NVC Alliance Code: A0798. *Pluchea sericea* Wet Shrubland Alliance

Associations	Sample Size
<i>Pluchea sericea</i> Seasonally Flooded	3

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 353 m (180 – 450 m)

Slope: 0°

Aspect: Mostly flat

Tree Cover: 0.1%

Shrub Cover: 34.4% (20 – 50%)

Herb Cover: 24.0% (2 – 58%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 2.1% (0 – 5%)

Fines: 47.3% (26 – 79%)

Litter: 48.3% (20 – 70%)

Conservation Status Rank: Global: G4; **State (California):** S3

Surveys Used in Description (N = 3): CARR0135, chg042, CVPA0055

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	33	0.1	0.2	0.2				
S	<i>Pluchea sericea</i>	100	32.3	19.0	52.0	Y	Y		Y
S	<i>Baccharis salicifolia</i>	67	1.4	0.2	4.0				Y
S	<i>Tamarix</i> sp.	67	1.0	1.0	2.0				Y
S	<i>Ericameria nauseosa</i>	67	0.4	0.2	1.0				Y
S	<i>Atriplex canescens</i>	67	0.1	0.2	0.2				Y
S	<i>Artemisia tridentata</i>	33	0.1	0.2	0.2				
S	<i>Eriogonum fasciculatum</i>	33	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	67	3.3	1.0	9.0				Y
H	<i>Vulpia myuros</i>	67	0.7	1.0	1.0				Y
H	<i>Hordeum murinum</i>	33	5.3	16.0	16.0				
H	<i>Bromus diandrus</i>	33	5.0	15.0	15.0				
H	<i>Erodium cicutarium</i>	33	4.0	12.0	12.0				
H	<i>Melilotus indicus</i>	33	3.3	10.0	10.0				
H	<i>Bromus hordeaceus</i>	33	0.7	2.0	2.0				
H	<i>Medicago polymorpha</i>	33	0.7	2.0	2.0				
H	<i>Frankenia salina</i>	33	0.7	2.0	2.0				
H	<i>Distichlis spicata</i>	33	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i>	33	0.1	0.2	0.2				
H	<i>Plagiobothrys canescens</i>	33	0.1	0.2	0.2				
H	<i>Capsella bursa-pastoris</i>	33	0.1	0.2	0.2				
H	<i>Eriastrum densifolium</i>	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Prunus fasciculata* – *Salazaria mexicana* Shrubland Alliance**

Common Name: Desert almond – Mexican bladdersage scrub

NVC Alliance Code: A4185. *Prunus fasciculata* - *Salazaria mexicana* Northern
Mojave Desert Wash Scrub Alliance

Associations	Sample Size
<i>Prunus fasciculata</i>	1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 667 m

Slope: 30°

Aspect: Mostly NW-facing

Tree Cover: 1.0%

Shrub Cover: 30.2%

Herb Cover: 27.6%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 1.0%

Fines: 91.0%

Litter: 7.0%

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 1): CARR0673

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	1.0	1.0	1.0	Y	Y		Y
S	<i>Prunus fasciculata</i>	100	20.0	20.0	20.0	Y	Y		Y
S	<i>Ribes quercetorum</i>	100	6.0	6.0	6.0	Y			Y
S	<i>Ericameria linearifolia</i>	100	3.0	3.0	3.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	100	1.0	1.0	1.0	Y			Y
S	<i>Gutierrezia californica</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus rubens</i>	100	20.0	20.0	20.0	Y	Y		Y
H	<i>Poa secunda</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Bromus hordeaceus</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Iva axillaris</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Leymus triticoides</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Bromus diandrus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Achillea millefolium</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Achnatherum speciosum</i>	100	0.2	0.2	0.2	Y			Y
N	Moss	100	10.0	10.0	10.0	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus berberidifolia* Shrubland Alliance**

Common Name: Scrub oak chaparral

NVC Alliance Code: A2673. *Quercus berberidifolia* - *Adenostoma fasciculatum* Mesic Chaparral Alliance

Associations	Sample Size
<i>Quercus berberidifolia</i> – <i>Adenostoma fasciculatum</i>	4
<i>Quercus berberidifolia</i> – <i>Ceanothus cuneatus</i>	1
<i>Quercus berberidifolia</i> – <i>Cercocarpus montanus</i>	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 621 m (543 – 734 m)

Slope: 15° (8 – 24°)

Aspect: Variable

Tree Cover: 3.7% (0 – 7%)

Shrub Cover: 63.8% (48 – 80%)

Herb Cover: 39.5% (0 – 70%)

Surface Covers – Mean (Range):

Large Rock: 16.5% (0 – 45%)

Small Rock: 3.3% (0 – 7%)

Fines: 58.7% (37 – 74%)

Litter: 18.3% (2 – 60%)

Conservation Status Rank: Global: G4; State (California): S4

Surveys Used in Description (N = 6): chg088, chg094, RIZO0054, RIZO0057, RIZO0063, RIZO0064

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	67	3.3	5.0	5.0				Y
S	<i>Quercus berberidifolia</i>	100	31.7	20.0	50.0	Y		Y	Y
S	<i>Adenostoma fasciculatum</i>	83	26.7	10.0	60.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	67	8.3	10.0	15.0				Y
S	<i>Salvia mellifera</i>	67	4.5	2.0	10.0				Y
S	<i>Ericameria linearifolia</i>	50	1.8	3.0	4.0				Y
S	<i>Arctostaphylos glauca</i>	50	1.5	1.0	5.0				Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	33	2.3	4.0	10.0				
H	<i>Bromus</i> sp.	67	36.7	35.0	65.0				Y
H	<i>Amsinckia</i> sp.	67	0.4	0.2	1.0				Y
H	<i>Erodium cicutarium</i>	33	0.2	0.2	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus berberidifolia* – *Adenostoma fasciculatum* Association**

Common Name: Scrub Oak – Chamise Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 605 m (543 – 734 m)

Slope: 12° (8 – 20°)

Aspect: Variable

Tree Cover: 5.5% (5 – 7%)

Shrub Cover: 67.5% (60 – 80%)

Herb Cover: 59.1% (40 – 70%)

Surface Covers – Mean (Range):

Large Rock: 24.8% (13 – 45%)

Small Rock: 5.0% (3 – 7%)

Fines: 63.3% (42 – 74%)

Litter: 3.8% (2 – 5%)

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 4): RIZO0054, RIZO0057, RIZO0063, RIZO0064

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	5.0	5.0	5.0	Y	Y		Y
T	<i>Quercus douglasii</i>	25	0.5	2.0	2.0				
S	<i>Adenostoma fasciculatum</i>	100	37.5	20.0	60.0	Y		Y	Y
S	<i>Quercus berberidifolia</i>	100	30.0	20.0	50.0	Y		Y	Y
S	<i>Eriogonum fasciculatum</i>	100	12.5	10.0	15.0	Y			Y
S	<i>Salvia mellifera</i>	100	6.8	2.0	10.0	Y			Y
S	<i>Ericameria linearifolia</i>	75	2.8	3.0	4.0	Y			Y
S	<i>Arctostaphylos glauca</i>	75	2.3	1.0	5.0	Y			Y
S	<i>Artemisia californica</i>	25	0.5	2.0	2.0				
S	<i>Ribes</i> sp.	25	0.1	0.2	0.2				
H	<i>Bromus</i> sp.	100	55.0	35.0	65.0	Y	Y		Y
H	<i>Amsinckia</i> sp.	100	0.6	0.2	1.0	Y			Y
H	<i>Erodium cicutarium</i>	50	0.3	0.2	1.0				Y
H	<i>Lasthenia californica</i>	25	0.3	1.0	1.0				
H	<i>Dichelostemma capitatum</i>	25	0.1	0.2	0.2				
H	<i>Marah fabaceus</i>	25	0.1	0.2	0.2				
H	<i>Claytonia perfoliata</i>	25	0.1	0.2	0.2				
H	<i>Castilleja foliolosa</i>	25	0.1	0.2	0.2				
H	<i>Salvia columbariae</i>	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus berberidifolia* – *Ceanothus cuneatus* Association**

Common Name: Scrub Oak - Wedgeleaf Ceanothus Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 652 m

Slope: 15°

Aspect: Mostly NE-facing

Tree Cover: 0.0%

Shrub Cover: 65.0%

Herb Cover: 0.2%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 37.0%

Litter: 60.0%

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 1): chg094

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Quercus berberidifolia</i>	100	45.0	45.0	45.0	Y	Y		Y
S	<i>Adenostoma fasciculatum</i>	100	10.0	10.0	10.0	Y			Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	100	10.0	10.0	10.0	Y			Y
H	<i>Cirsium occidentale</i>	100	0.2	0.2	0.2	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus berberidifolia* – *Cercocarpus montanus* Association**

Common Name: Scrub Oak - (Birchleaf Mountain-mahogany) Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 658 m

Slope: 24°

Aspect: Mostly NE-facing

Tree Cover: 0.0%

Shrub Cover: 48.0%

Herb Cover: 0.2%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 62.0%

Litter: 35.0%

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 1): chg088

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Quercus berberidifolia</i>	100	25.0	25.0	25.0	Y		Y	Y
S	<i>Cercocarpus montanus</i>	100	21.0	21.0	21.0	Y		Y	Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	100	4.0	4.0	4.0	Y			Y
S	<i>Rhamnus ilicifolia</i>	100	2.0	2.0	2.0	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus john-tuckeri* Shrubland Alliance**

Common Name: Tucker oak chaparral

NVC Alliance Code: A2160. *Quercus john-tuckeri* Chaparral Alliance

Associations	Sample Size
<i>Quercus john-tuckeri</i>	5
<i>Quercus john-tuckeri</i> – <i>Adenostoma fasciculatum</i>	2
<i>Quercus john-tuckeri</i> – <i>Juniperus californica</i> – <i>Ericameria linearifolia</i>	28

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 888 m (545 – 1525 m)

Slope: 24° (8 – 45°)

Aspect: Mostly north-facing

Tree Cover: 6.3% (0 – 30%)

Shrub Cover: 34.4% (11 – 74%)

Herb Cover: 32.5% (4 – 78%)

Surface Covers – Mean (Range):

Large Rock: 2.8% (0 – 24%)

Small Rock: 13.7% (0 – 90%)

Fines: 52.4% (0 – 92%)

Litter: 26.7% (0 – 80%)

Conservation Status Rank: Global: G4; State (California): S4

Surveys Used in Description (N = 35): CARR0120, CARR0121, CARR0148, CARR0566, CARR0619, CARR0628, CARR0629, CARR0646B, CARR0667, CARR0685, CARR0741, CARR0756B, CARR0830, CARR0858B, CARR0873B, CARR0878, CARR0937, CARR0961A, CARR1072, CARR1076, CARR1086, CARR1516, CARR1642, CARR1655, chg056, chg128, chg130, chg142, chg146, CVPA8053, RIZO0008, RIZO0022, RIZO0036, RIZO0048, RIZO0065

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	86	5.6	0.2	30.0	Y	Y		Y
T	<i>Quercus douglasii</i>	23	0.3	0.2	4.0				
S	<i>Quercus john-tuckeri</i>	97	21.5	5.0	50.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	89	3.6	0.2	20.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	51	1.2	0.2	8.0				Y
S	<i>Salvia leucophylla</i>	34	0.7	0.2	8.0				
S	<i>Ephedra viridis</i>	26	0.1	0.1	1.0				
S	<i>Arctostaphylos glauca</i>	20	0.5	0.2	10.0				
H	<i>Bromus rubens</i>	69	5.2	0.2	38.0				Y
H	<i>Poa secunda</i>	69	1.9	0.2	15.0				Y
H	<i>Pholistoma membranaceum</i>	37	1.4	0.2	10.0				
H	<i>Amsinckia tessellata</i>	37	0.8	0.2	20.0				
H	<i>Erodium cicutarium</i>	37	0.7	0.1	8.0				
H	<i>Eriophyllum confertiflorum</i>	37	0.1	0.2	1.0				
H	<i>Claytonia parviflora</i>	34	3.9	0.2	40.0				
H	<i>Claytonia perfoliata</i>	26	3.2	5.0	46.0				
H	<i>Marah fabaceus</i>	26	0.2	0.2	4.0				
H	<i>Microseris lindleyi</i>	26	0.1	0.2	1.0				
H	<i>Dichelostemma capitatum</i>	26	0.1	0.2	1.0				
H	<i>Pterostegia drymarioides</i>	23	0.4	0.2	10.0				
H	<i>Bromus hordeaceus</i>	23	0.2	0.2	2.0				
H	<i>Bromus diandrus</i>	23	0.1	0.2	2.0				
H	<i>Vulpia microstachys</i>	23	0.1	0.2	2.0				
H	<i>Vulpia myuros</i>	23	0.1	0.2	1.0				
N	Moss	20	0.6	0.2	5.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus john-tuckeri* Association**

Common Name: Tucker Oak Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 697 m (649 – 792 m)

Slope: 26° (13 – 39°)

Aspect: Mostly north-facing

Tree Cover: 0.1%

Shrub Cover: 30.5% (20 – 38%)

Herb Cover: 36.8% (10 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.3% (0 – 1%)

Small Rock: 10.3% (0 – 37%)

Fines: 50.6% (29 – 84%)

Litter: 35.6% (15 – 66%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 5): CARR0148, CARR0961A, CARR1072, CARR1086, chg128

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	20	0.0	0.2	0.2				
T	<i>Quercus douglasii</i>	20	0.0	0.2	0.2				
S	<i>Quercus john-tuckeri</i>	100	26.4	16.0	32.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	80	0.7	0.2	2.0	Y			Y
S	<i>Salvia leucophylla</i>	80	0.3	0.2	1.0	Y			Y
S	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	60	1.6	2.0	4.0				Y
S	<i>Ericameria linearifolia</i>	60	0.1	0.2	0.2				Y
S	<i>Adenostoma fasciculatum</i>	40	0.8	0.2	4.0				
S	<i>Cercocarpus montanus</i>	20	0.2	1.0	1.0				
S	<i>Ribes quercetorum</i>	20	0.2	1.0	1.0				
S	<i>Lonicera interrupta</i>	20	0.0	0.2	0.2				
S	<i>Hesperoyucca whipplei</i>	20	0.0	0.2	0.2				
S	<i>Gutierrezia californica</i>	20	0.0	0.2	0.2				
S	<i>Ephedra viridis</i>	20	0.0	0.1	0.1				
H	<i>Bromus rubens</i>	100	8.8	1.0	25.0	Y			Y
H	<i>Claytonia perfoliata</i>	80	13.2	6.0	46.0	Y			Y
H	<i>Poa secunda</i>	80	1.3	0.2	5.0	Y			Y
H	<i>Amsinckia tessellata</i>	60	0.5	0.2	2.0				Y
H	<i>Dichelostemma capitatum</i>	60	0.4	0.2	1.0				Y
H	<i>Marah fabaceus</i>	60	0.1	0.2	0.2				Y
H	<i>Erodium cicutarium</i>	40	2.2	3.0	8.0				
H	<i>Thysanocarpus curvipes</i>	40	2.0	5.0	5.0				
H	<i>Bromus hordeaceus</i>	40	0.6	1.0	2.0				
H	<i>Collinsia heterophylla</i>	20	2.0	10.0	10.0				
H	<i>Navarretia jaredii</i>	20	1.2	6.0	6.0				
H	<i>Lotus wrangelianus</i>	20	0.6	3.0	3.0				
H	<i>Chenopodium californicum</i>	20	0.4	2.0	2.0				
H	<i>Centaurea melitensis</i>	20	0.4	2.0	2.0				
H	<i>Galium aparine</i>	20	0.4	2.0	2.0				
H	<i>Pholistoma membranaceum</i>	20	0.4	2.0	2.0				
H	<i>Delphinium umbraculorum</i>	20	0.2	1.0	1.0				
H	<i>Phacelia distans</i>	20	0.2	1.0	1.0				
H	<i>Galium angustifolium</i>	20	0.2	1.0	1.0				
H	<i>Bowlesia incana</i>	20	0.2	1.0	1.0				
H	<i>Ranunculus hebecarpus</i>	20	0.2	1.0	1.0				

Quercus john-tuckeri Association
Quercus john-tuckeri Shrubland Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Dodecatheon clevelandii</i>	20	0.0	0.2	0.2				
H	<i>Vulpia microstachys</i>	20	0.0	0.2	0.2				
H	<i>Melica imperfecta</i>	20	0.0	0.2	0.2				
H	<i>Lithophragma parviflorum</i>	20	0.0	0.2	0.2				
H	<i>Stylomecon heterophylla</i>	20	0.0	0.2	0.2				
H	<i>Microseris lindleyi</i>	20	0.0	0.2	0.2				
H	<i>Plagiobothrys canescens</i>	20	0.0	0.2	0.2				
H	<i>Lepidium nitidum</i>	20	0.0	0.2	0.2				
H	<i>Tropidocarpum gracile</i>	20	0.0	0.2	0.2				
H	<i>Lasthenia gracilis</i>	20	0.0	0.2	0.2				
H	<i>Saxifraga californica</i>	20	0.0	0.2	0.2				
H	<i>Eschscholzia caespitosa</i>	20	0.0	0.2	0.2				
H	<i>Bromus diandrus</i>	20	0.0	0.2	0.2				
H	<i>Castilleja exserta</i>	20	0.0	0.2	0.2				
H	<i>Clarkia purpurea</i>	20	0.0	0.2	0.2				
H	<i>Phacelia cicutaria</i>	20	0.0	0.2	0.2				
H	<i>Athysanus pusillus</i>	20	0.0	0.2	0.2				
N	Moss	20	0.2	1.0	1.0				
N	Lichen	20	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Quercus john-tuckeri* – *Adenostoma fasciculatum* Association**

Common Name: Tucker Oak – Chamise Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 559 m (545 – 772 m)

Slope: 30° (30 – 30°)

Aspect: Variable

Tree Cover: 4.0% (1 – 7%)

Shrub Cover: 69.5% (65 – 74%)

Herb Cover: 65.4% (60 – 71%)

Surface Covers – Mean (Range):

Large Rock: 20.5% (17 – 24%)

Small Rock: 2.5% (2 – 3%)

Fines: 70.0% (69 – 71%)

Litter: 10.0% (10 – 10%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 2): RIZO0048. RIZO0065

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	100	4.0	1.0	7.0	Y	Y		Y
S	<i>Quercus john-tuckeri</i>	100	42.5	35.0	50.0	Y	Y		Y
S	<i>Adenostoma fasciculatum</i>	100	17.5	15.0	20.0	Y			Y
S	<i>Ericameria linearifolia</i>	100	2.5	2.0	3.0	Y			Y
S	<i>Arctostaphylos glauca</i>	100	2.0	2.0	2.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	50	4.0	8.0	8.0				Y
S	<i>Salvia mellifera</i>	50	2.5	5.0	5.0				Y
S	<i>Artemisia californica</i>	50	2.5	5.0	5.0				Y
H	<i>Amsinckia</i> sp.	100	0.6	0.2	1.0	Y			Y
H	<i>Bromus</i> sp.	50	35.0	70.0	70.0				Y
H	<i>Erodium cicutarium</i>	50	0.5	1.0	1.0				Y
H	<i>Pellaea mucronata</i>	50	0.1	0.2	0.2				Y
H	<i>Sonchus</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Cryptantha</i> sp.	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Quercus john-tuckeri – *Adenostoma fasciculatum* Association
Quercus john-tuckeri Shrubland Alliance

***Quercus john-tuckeri* – *Juniperus californica* – *Ericameria linearifolia* Association**

Common Name: Tucker Oak – California Juniper – Narrowleaf Goldenbush
Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 948 m (622 – 1525 m)

Slope: 23° (8 – 45°)

Aspect: Mostly north-facing

Tree Cover: 7.6% (0 – 30%)

Shrub Cover: 32.5% (11 – 68%)

Herb Cover: 29.2% (4 – 78%)

Surface Covers – Mean (Range):

Large Rock: 2.0% (0 – 14%)

Small Rock: 15.2% (0 – 90%)

Fines: 51.5% (0 – 92%)

Litter: 25.7% (0 – 80%)

Global Rarity Rank: G3 **State Rarity Rank:** S3 **State Rare:** Y

Surveys Used in Description (N = 28): CARR0120, CARR0121, CARR0566, CARR0619, CARR0628, CARR0629, CARR0646B, CARR0667, CARR0685, CARR0741, CARR0756B, CARR0830, CARR0858B, CARR0873B, CARR0878, CARR0937, CARR1076, CARR1516, CARR1642, CARR1655, chg056, chg130, chg142, chg146, CVPA8053, RIZO0008, RIZO0022, RIZO0036

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	96	6.8	0.2	30.0	Y	Y		Y
T	<i>Quercus douglasii</i>	25	0.4	0.2	4.0				
S	<i>Quercus john-tuckeri</i>	96	19.2	5.0	45.0	Y	Y		Y
S	<i>Ericameria linearifolia</i>	93	4.4	0.2	20.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	46	1.1	0.2	8.0				
S	<i>Salvia leucophylla</i>	29	0.8	0.2	8.0				
S	<i>Ephedra viridis</i>	29	0.1	0.2	1.0				
S	<i>Lonicera subspicata</i>	21	0.1	0.2	2.0				
H	<i>Poa secunda</i>	71	2.2	0.2	15.0				Y
H	<i>Bromus rubens</i>	68	5.0	0.2	38.0				Y
H	<i>Eriophyllum confertiflorum</i>	46	0.1	0.2	1.0				
H	<i>Claytonia parviflora</i>	43	4.9	0.2	40.0				
H	<i>Pholistoma membranaceum</i>	43	1.6	0.2	10.0				
H	<i>Amsinckia tessellata</i>	36	0.9	0.2	20.0				
H	<i>Erodium cicutarium</i>	36	0.5	0.1	4.0				
H	<i>Pterostegia drymarioides</i>	29	0.5	0.2	10.0				
H	<i>Microseris lindleyi</i>	29	0.1	0.2	1.0				
H	<i>Vulpia myuros</i>	29	0.1	0.2	1.0				
H	<i>Bromus diandrus</i>	25	0.2	0.2	2.0				
H	<i>Vulpia microstachys</i>	25	0.1	0.2	2.0				
H	<i>Leptosiphon parviflorus</i>	21	0.2	0.2	5.0				
H	<i>Marah fabaceus</i>	21	0.2	0.2	4.0				
H	<i>Amsinckia menziesii</i>	21	0.2	0.2	2.0				
H	<i>Clarkia cylindrica</i>	21	0.2	0.2	2.0				
H	<i>Bromus hordeaceus</i>	21	0.1	0.2	2.0				
H	<i>Minuartia douglasii</i>	21	0.1	0.2	1.0				
H	<i>Dichelostemma capitatum</i>	21	0.0	0.2	0.2				
N	Moss	21	0.7	0.2	5.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Quercus john-tuckeri – *Juniperus californica* – *Ericameria linearifolia* Association
Quercus john-tuckeri Shrubland Alliance

***Rhus trilobata* – *Crataegus rivularis* – *Forestiera pubescens* Shrubland Alliance**

Common Name: Basket bush – river hawthorn – desert olive patches

NVC Alliance Code: A3799. *Rhus trilobata* - *Crataegus rivularis* - *Forestiera pubescens* Shrubland Alliance

Associations	Sample Size
<i>Forestiera pubescens</i> – <i>Sambucus nigra</i>	1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 766 m

Slope: 24°

Aspect: Mostly SW-facing

Tree Cover: 0.0%

Shrub Cover: 80.0%

Herb Cover: 0.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 60.0%

Fines: 31.0%

Litter: 10.0%

Conservation Status Rank: Global: G4; **State (California):** S3?

Surveys Used in Description (N = 1): CARR0645

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Forestiera pubescens</i>	100	80.0	80.0	80.0	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Ribes quercetorum* – *Rhus trilobata* – *Frangula californica* Shrubland Alliance**

Common Name: Oak gooseberry – basket bush – coffeeberry thickets

NVC Alliance Code: A3736. *Fraxinus anomala* - *Rhus trilobata* - *Fendlera rupicola*
Talus & Rock Outcrop Shrubland Alliance

Associations	Sample Size
<i>Ribes quercetorum</i>	9

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 733 m (646 – 829 m)

Slope: 29° (15 – 42°)

Aspect: Mostly north-facing

Tree Cover: 0.0%

Shrub Cover: 40.9% (7 – 75%)

Herb Cover: 6.2% (0 – 14%)

Surface Covers – Mean (Range):

Large Rock: 15.8% (0 – 66%)

Small Rock: 13.9% (0 – 45%)

Fines: 59.6% (8 – 86%)

Litter: 9.7% (0 – 20%)

Conservation Status Rank: Global: GNR; **State (California):** SNR

Surveys Used in Description (N = 9): A0513110, A0515120, CARR0110, CARR0589, CARR0630, CARR0672, CARR0687, CVPA8113, CVPA8216

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ribes quercetorum</i>	100	37.6	7.0	70.0	Y	Y		Y
S	<i>Artemisia californica</i>	44	0.4	0.2	1.0				
S	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	33	1.1	1.0	5.0				
S	<i>Eriogonum fasciculatum</i>	33	0.4	1.0	2.0				
H	<i>Bromus rubens</i>	78	3.3	1.0	12.0	Y		Y	Y
H	<i>Poa secunda</i>	67	1.1	0.2	3.0				Y
H	<i>Corethrogyne filaginifolia</i>	33	0.3	0.2	2.0				
H	<i>Amsinckia menziesii</i>	33	0.2	0.2	1.0				
H	<i>Bromus hordeaceus</i>	33	0.2	0.2	1.0				
H	<i>Brassica nigra</i>	33	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	33	0.1	0.2	0.2				
H	<i>Eucrypta chrysanthemifolia</i>	22	0.2	1.0	1.0				
H	<i>Phacelia imbricata</i>	22	0.0	0.2	0.2				
H	<i>Pholistoma membranaceum</i>	22	0.0	0.2	0.2				
N	Lichen	33	1.0	0.2	8.0				
N	Moss	33	0.7	1.0	4.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salix lasiolepis* Shrubland Alliance**

Common Name: Arroyo willow thickets

NVC Alliance Code: A3878. *Salix lasiolepis* Warm Desert Wet Shrubland Alliance

Associations	Sample Size
---------------------	--------------------

Salix lasiolepis

3

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 200 m

Slope: 0°

Aspect: Variable

Tree Cover: 3.0% (0 – 7%)

Shrub Cover: 35.3% (28 – 46%)

Herb Cover: 17.7% (1 – 32%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 2.0%

Litter: 25.0%

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 3): CVPA4340b, CVPA4346, LPWA006

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Salix laevigata</i>	67	3.0	2.0	7.0				Y
S	<i>Salix lasiolepis</i>	100	32.0	21.0	45.0	Y	Y		Y
S	<i>Atriplex lentiformis</i>	100	1.7	1.0	2.0	Y			Y
S	<i>Tamarix</i> sp.	33	1.3	4.0	4.0				
S	<i>Isocoma acradenia</i>	33	0.1	0.2	0.2				
S	<i>Atriplex polycarpa</i>	33	0.1	0.2	0.2				
S	<i>Allenrolfea occidentalis</i>	33	0.1	0.2	0.2				
S	<i>Cleome isomeris</i>	33	0.1	0.2	0.2				
H	<i>Schoenoplectus</i>	33	6.7	20.0	20.0				
H	<i>Juncus</i> sp.	33	2.7	8.0	8.0				
H	<i>Schoenoplectus pungens</i>	33	1.7	5.0	5.0				
H	<i>Frankenia salina</i>	33	0.7	2.0	2.0				
H	<i>Silybum marianum</i>	33	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	33	0.1	0.2	0.2				
H	<i>Typha</i> sp.	33	0.1	0.2	0.2				
H	<i>Melilotus indicus</i>	33	0.1	0.2	0.2				
H	<i>Bromus hordeaceus</i>	33	0.1	0.2	0.2				
H	<i>Bromus madritensis</i>	33	0.1	0.2	0.2				
H	<i>Lactuca serriola</i>	33	0.1	0.2	0.2				
H	<i>Artemisia douglasiana</i>	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salvia mellifera* – (*Artemisia californica*) Shrubland Alliance**

Common Name: Black sage – California sagebrush scrub

NVC Alliance Code: N/A.

Associations	Sample Size
<i>Salvia mellifera</i> – <i>Artemisia californica</i>	2
<i>Salvia mellifera</i> – <i>Eriogonum fasciculatum</i> / <i>Bromus rubens</i>	4

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 639 m (564 – 720 m)

Slope: 22° (8 – 40°)

Aspect: Mostly south-facing

Tree Cover: 1.0% (0 – 2%)

Shrub Cover: 28.8% (22 – 40%)

Herb Cover: 13.4% (4 – 33%)

Surface Covers – Mean (Range):

Large Rock: 7.2% (0 – 30%)

Small Rock: 27.8% (3 – 50%)

Fines: 55.3% (20 – 89%)

Litter: 8.5% (1 – 25%)

Conservation Status Rank: Global: GNR; **State (California):** SNR

Surveys Used in Description (N = 6): CARR0156, CARR0168, CARR0633, CARR0658, CVPA8200, CVPA8208

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	50	1.0	2.0	2.0				Y
S	<i>Salvia mellifera</i>	100	15.5	9.0	32.0	Y	Y		Y
S	<i>Artemisia californica</i>	100	5.7	1.0	12.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	100	5.5	1.0	12.0	Y			Y
S	<i>Gutierrezia californica</i>	50	0.6	0.2	3.0				Y
S	<i>Hesperoyucca whipplei</i>	50	0.1	0.2	0.2				Y
S	<i>Eriodictyon californicum</i>	33	1.3	4.0	4.0				
S	<i>Malacothamnus jonesii</i>	33	0.5	0.2	3.0				
S	<i>Ericameria linearifolia</i>	33	0.2	0.2	1.0				
H	<i>Bromus rubens</i>	100	4.5	0.2	14.0	Y			Y
H	<i>Erodium cicutarium</i>	100	2.0	0.2	4.0	Y			Y
H	<i>Salvia columbariae</i>	50	1.2	0.2	6.0				Y
H	<i>Daucus pusillus</i>	50	0.4	0.2	2.0				Y
H	<i>Schismus</i> sp.	50	0.4	0.2	2.0				Y
H	<i>Vulpia myuros</i>	50	0.2	0.2	1.0				Y
H	<i>Emmenanthe penduliflora</i>	50	0.2	0.1	1.0				Y
H	<i>Centaurea melitensis</i>	50	0.1	0.2	0.2				Y
H	<i>Bromus hordeaceus</i>	50	0.1	0.2	0.2				Y
H	<i>Cryptantha muricata</i>	33	0.2	0.2	1.0				
H	<i>Deinandra pallida</i>	33	0.2	0.2	1.0				
H	<i>Calochortus venustus</i>	33	0.1	0.2	0.2				
H	<i>Lotus wrangelianus</i>	33	0.1	0.2	0.2				
H	<i>Avena</i> sp.	33	0.1	0.2	0.2				
H	<i>Stephanomeria pauciflora</i>	33	0.1	0.2	0.2				
H	<i>Logfia californica</i>	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salvia mellifera* – *Artemisia californica* Association**

Common Name: California Sagebrush - Black Sage Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 580 m (564 – 596 m)

Slope: 13° (8 – 18°)

Aspect: Variable

Tree Cover: 1.0% (0 – 2%)

Shrub Cover: 28.4% (24 – 33%)

Herb Cover: 7.0% (4 – 10%)

Surface Covers – Mean (Range):

Large Rock: 3.0% (1 – 5%)

Small Rock: 4.0% (3 – 5%)

Fines: 88.5% (88 – 89%)

Litter: 3.5% (1 – 6%)

Global Rarity Rank: G4 **State Rarity Rank:** S4 **State Rare:** N

Surveys Used in Description (N = 2): CVPA8200, CVPA8208

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	50	1.0	2.0	2.0				Y
S	<i>Salvia mellifera</i>	100	13.0	12.0	14.0	Y		Y	Y
S	<i>Artemisia californica</i>	100	9.5	7.0	12.0	Y		Y	Y
S	<i>Eriodictyon californicum</i>	100	4.0	4.0	4.0	Y			Y
S	<i>Eriogonum fasciculatum</i>	100	1.5	1.0	2.0	Y			Y
S	<i>Gutierrezia californica</i>	50	0.1	0.2	0.2				Y
S	<i>Ericameria linearifolia</i>	50	0.1	0.2	0.2				Y
S	<i>Hesperoyucca whipplei</i>	50	0.1	0.2	0.2				Y
S	<i>Ephedra californica</i>	50	0.1	0.2	0.2				Y
H	<i>Erodium cicutarium</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Bromus rubens</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Schismus</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Lasthenia gracilis</i>	50	1.0	2.0	2.0				Y
H	<i>Bromus hordeaceus</i>	50	0.1	0.2	0.2				Y
H	<i>Microseris lindleyi</i>	50	0.1	0.2	0.2				Y
H	<i>Pectocarya linearis</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia menziesii</i>	50	0.1	0.2	0.2				Y
H	<i>Brachypodium distachyon</i>	50	0.1	0.2	0.2				Y
H	<i>Avena</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Poa secunda</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia tessellata</i>	50	0.1	0.2	0.2				Y
H	<i>Camissonia</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Guillenia lasiophylla</i>	50	0.1	0.2	0.2				Y
H	<i>Clarkia</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Logfia gallica</i>	50	0.1	0.2	0.2				Y
H	<i>Phacelia distans</i>	50	0.1	0.2	0.2				Y
N	Lichen	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salvia mellifera* – *Eriogonum fasciculatum* / *Bromus rubens* Association**

Common Name: Black sage – California Buckwheat / Red Brome Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 668 m (619 – 720 m)

Slope: 27° (10 – 40°)

Aspect: Mostly south-facing

Tree Cover: 1.0% (0 – 2%)

Shrub Cover: 29.0% (22 – 40%)

Herb Cover: 16.5% (9 – 33%)

Surface Covers – Mean (Range):

Large Rock: 9.4% (0 – 30%)

Small Rock: 39.8% (30 – 50%)

Fines: 38.8% (20 – 50%)

Litter: 11.0% (5 – 25%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 4): CARR0156, CARR0168, CARR0633, CARR0658

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	50	1.0	2.0	2.0				Y
S	<i>Salvia mellifera</i>	100	16.8	9.0	32.0	Y	Y		Y
S	<i>Eriogonum fasciculatum</i>	100	7.5	4.0	12.0	Y			Y
S	<i>Artemisia californica</i>	100	3.8	1.0	7.0	Y			Y
S	<i>Gutierrezia californica</i>	50	0.8	0.2	3.0				Y
S	<i>Malacothamnus jonesii</i>	50	0.8	0.2	3.0				Y
S	<i>Hesperoyucca whipplei</i>	50	0.1	0.2	0.2				Y
S	<i>Ericameria linearifolia</i>	25	0.3	1.0	1.0				
S	<i>Salvia leucophylla</i>	25	0.1	0.2	0.2				
S	<i>Eriophyllum confertiflorum</i>	25	0.1	0.2	0.2				
S	<i>Ephedra viridis</i>	25	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	100	6.5	2.0	14.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	100	2.6	0.2	4.0	Y			Y
H	<i>Salvia columbariae</i>	75	1.8	0.2	6.0	Y			Y
H	<i>Daucus pusillus</i>	75	0.6	0.2	2.0	Y			Y
H	<i>Vulpia myuros</i>	75	0.4	0.2	1.0	Y			Y

Salvia mellifera – *Eriogonum fasciculatum* / *Bromus rubens* Association

Salvia mellifera – (*Artemisia californica*) Shrubland Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Emmenanthe penduliflora</i>	75	0.3	0.1	1.0	Y			Y
H	<i>Centaurea melitensis</i>	75	0.2	0.2	0.2	Y			Y
H	<i>Cryptantha muricata</i>	50	0.3	0.2	1.0				Y
H	<i>Deinandra pallida</i>	50	0.3	0.2	1.0				Y
H	<i>Lotus wrangelianus</i>	50	0.1	0.2	0.2				Y
H	<i>Calochortus venustus</i>	50	0.1	0.2	0.2				Y
H	<i>Stephanomeria pauciflora</i>	50	0.1	0.2	0.2				Y
H	<i>Logfia californica</i>	50	0.1	0.2	0.2				Y
H	<i>Bromus hordeaceus</i>	50	0.1	0.2	0.2				Y
H	<i>Selaginella bigelovii</i>	25	0.8	3.0	3.0				
H	<i>Lotus salsuginosus</i>	25	0.5	2.0	2.0				
H	<i>Schismus</i> sp.	25	0.5	2.0	2.0				
H	<i>Psilocarphus tenellus</i>	25	0.5	2.0	2.0				
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	25	0.3	1.0	1.0				
H	<i>Mucronea perfoliata</i>	25	0.3	1.0	1.0				
H	<i>Herniaria hirsuta</i>	25	0.1	0.2	0.2				
H	<i>Caulanthus lemmonii</i>	25	0.1	0.2	0.2				
H	<i>Marah fabaceus</i>	25	0.1	0.2	0.2				
H	<i>Pterostegia drymarioides</i>	25	0.1	0.2	0.2				
H	<i>Cuscuta californica</i>	25	0.1	0.2	0.2				
H	<i>Avena</i> sp.	25	0.1	0.2	0.2				
H	<i>Achnatherum speciosum</i>	25	0.1	0.2	0.2				
H	<i>Mirabilis laevis</i>	25	0.1	0.2	0.2				
N	Moss	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Suaeda moquinii* Shrubland Alliance**

Common Name: Bush seepweed scrub

NVC Alliance Code: A3880. *Suaeda moquinii* - *Salicornia rubra* - *Isocoma acradenia*
Alkaline Wet Scrub Alliance

Associations	Sample Size
<i>Isocoma acradenia</i> Alkaline Wet	17
<i>Suaeda moquinii</i> / <i>Lepidium dictyotum</i>	7

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 530 m (175 – 814 m)

Slope: 5° (0 – 24°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 11.2% (2 – 35%)

Herb Cover: 25.9% (2 – 60%)

Surface Covers – Mean (Range):

Large Rock: 0.2% (0 – 3%)

Small Rock: 11.6% (0 – 83%)

Fines: 67.7% (17 – 98%)

Litter: 15.4% (0 – 51%)

Conservation Status Rank: Global: G4; State (California): S3

Surveys Used in Description (N = 24): A0428153, CARR0572, CARR0588, CARR0600, CARR0684, CARR0689, CARR0840, CARR0845, CARR0847, CARR0971, CARR0998, CARR1647, CVPA0006, CVPA0013, CVPA0104, CVPA1159, CVPA3229, CVPA4200, CVPA4377, CVPA8059, CVPA8114, LPWA032, PAPR0038, Q042020211508

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Isocoma acradenia</i>	71	7.2	2.0	33.0				Y
S	<i>Suaeda moquinii</i>	33	2.4	0.2	20.0				
S	<i>Atriplex lentiformis</i>	33	0.3	0.2	2.0				
S	<i>Atriplex polycarpa</i>	25	0.3	0.2	3.0				
H	<i>Bromus rubens</i>	71	4.6	0.2	20.0				Y
H	<i>Erodium cicutarium</i>	67	4.5	0.2	23.0				Y
H	<i>Distichlis spicata</i>	38	3.3	0.2	30.0				
H	<i>Frankenia salina</i>	33	1.6	0.2	16.0				
H	<i>Vulpia myuros</i>	33	0.6	0.2	6.0				
H	<i>Hordeum murinum</i>	29	2.9	0.2	55.0				
H	<i>Schismus</i>	29	0.7	0.2	5.0				
H	<i>Lasthenia gracilis</i>	29	0.5	0.2	8.0				
H	<i>Bromus hordeaceus</i>	25	1.0	0.2	12.0				
H	<i>Avena</i> sp.	25	0.2	0.2	1.0				
H	<i>Amsinckia tessellata</i>	21	0.6	0.2	7.0				
H	<i>Lepidium dictyotum</i>	21	0.5	0.2	8.0				
H	<i>Poa secunda</i>	21	0.4	0.2	8.0				
H	<i>Croton setigerus</i>	21	0.2	0.2	2.0				
H	<i>Amsinckia menziesii</i>	21	0.2	0.2	2.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Isocoma acradenia* Alkaline Wet Association**

Common Name: Alkali Goldenbush Alkaline Wet Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 473 m (180 – 755 m)

Slope: 7° (0 – 24°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 12.4% (2 – 35%)

Herb Cover: 28.1% (8 – 43%)

Surface Covers – Mean (Range):

Large Rock: 0.3% (0 – 3%)

Small Rock: 15.5% (0 – 83%)

Fines: 60.9% (17 – 98%)

Litter: 15.9% (0 – 50%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 17): CARR0572, CARR0588, CARR0684, CARR0845, CARR0847, CARR0998, CARR1647, CVPA0006, CVPA0013, CVPA1159, CVPA3229, CVPA4200, CVPA4377, CVPA8059, CVPA8114, LPWA032, PAPR0038,

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Isocoma acradenia</i>	100	10.2	2.0	33.0	Y	Y		Y
S	<i>Atriplex lentiformis</i>	35	0.4	0.2	2.0				
H	<i>Erodium cicutarium</i>	65	5.8	2.0	23.0				Y
H	<i>Bromus rubens</i>	65	5.5	1.0	20.0				Y
H	<i>Distichlis spicata</i>	41	4.0	1.0	30.0				
H	<i>Avena</i> sp.	41	0.3	0.2	2.0				
H	<i>Frankenia salina</i>	29	2.1	1.0	16.0				
H	<i>Vulpia myuros</i>	29	0.8	0.2	6.0				
H	<i>Castilleja exserta</i>	29	0.3	0.2	4.0				
H	<i>Lasthenia gracilis</i>	29	0.3	0.2	2.0				
H	<i>Croton setigerus</i>	29	0.2	0.2	2.0				
H	<i>Amsinckia menziesii</i>	29	0.2	0.2	2.0				
H	<i>Bromus hordeaceus</i>	24	1.4	0.2	12.0				
H	<i>Amsinckia tessellata</i>	24	0.8	0.2	7.0				
H	<i>Lepidium nitidum</i>	24	0.0	0.2	0.2				

Isocoma acradenia Alkaline Wet Association
Suaeda moquinii Shrubland Alliance

***Suaeda moquinii* / *Lepidium dictyotum* Association**

Common Name: Bush Seepweed / Alkali Pepperweed Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 669 m (175 – 814 m)

Slope: 3° (0 – 10°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 6.9% (0 – 20%)

Herb Cover: 21.7% (2 – 60%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 3.7% (0 – 10%)

Fines: 81.2% (46 – 98%)

Litter: 14.5% (0 – 51%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 7): A0428153, CARR0600, CARR0689, CARR0840, CARR0971, CVPA0104, Q042020211508

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Suaeda moquinii</i>	100	8.1	2.0	20.0	Y	Y		Y
S	<i>Atriplex polycarpa</i>	43	0.2	0.2	1.0				
S	<i>Atriplex lentiformis</i>	29	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	86	2.5	0.2	7.0	Y			Y
H	<i>Hordeum murinum</i>	71	9.1	0.2	55.0				Y
H	<i>Erodium cicutarium</i>	71	1.7	1.0	4.0				Y
H	<i>Lepidium dictyotum</i>	57	1.6	0.2	8.0				Y
H	<i>Schismus</i> sp.	57	1.2	0.2	4.0				Y
H	<i>Descurainia sophia</i>	43	0.3	0.2	2.0				
H	<i>Bromus hordeaceus</i>	43	0.2	0.2	1.0				
H	<i>Frankenia salina</i>	43	0.2	0.2	1.0				
H	<i>Vulpia myuros</i>	43	0.1	0.2	0.2				
H	<i>Lasthenia gracilis</i>	29	1.2	0.2	8.0				
H	<i>Poa secunda</i>	29	0.2	0.2	1.0				
H	<i>Distichlis spicata</i>	29	0.2	0.2	1.0				
H	<i>Hornungia procumbens</i>	29	0.2	0.2	1.0				
H	<i>Hordeum depressum</i>	29	0.2	0.2	1.0				
H	<i>Atriplex</i> sp.	29	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	29	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Tamarix* spp. Shrubland Semi-Natural Alliance**

Common Name: Tamarisk thickets

NVC Alliance Code: A0842. *Tamarix* spp. Ruderal Riparian Scrub Alliance

Associations	Sample Size
<i>Tamarix</i> spp.	5

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 245 m (200 – 351 m)

Slope: 0° (0 – 1°)

Aspect: Mostly flat

Tree Cover: 1.2% (0 – 6%)

Shrub Cover: 29.3% (10 – 37%)

Herb Cover: 5.5% (0 – 21%)

Surface Covers – Mean (Range):

Large Rock: 2.0% (0 – 8%)

Small Rock: 13.3% (0 – 24%)

Fines: 49.5% (20 – 65%)

Litter: 18.0% (10 – 22%)

Conservation Status Rank: Global: GNA; **State (California):** SNA

Surveys Used in Description (N = 5): CVPA0042, CVPA0059, CVPA0063, CVPA3601, LPWA025

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Pinus</i> sp.	20	1.2	6.0	6.0				
S	<i>Tamarix</i> sp.	100	28.0	10.0	36.0	Y	Y		Y
S	<i>Atriplex polycarpa</i>	60	0.1	0.2	0.2				Y
S	<i>Atriplex lentiformis</i>	20	0.6	3.0	3.0				
S	<i>Allenrolfea occidentalis</i>	20	0.4	2.0	2.0				
S	<i>Gutierrezia californica</i>	20	0.0	0.2	0.2				
S	<i>Isocoma acradenia</i>	20	0.0	0.2	0.2				
H	<i>Distichlis spicata</i>	40	0.6	1.0	2.0				
H	<i>Frankenia salina</i>	40	0.4	0.2	2.0				
H	<i>Schoenoplectus pungens</i>	20	3.4	17.0	17.0				
H	<i>Heliotropium curassavicum</i>	20	0.2	1.0	1.0				
H	<i>Polypogon monspeliensis</i>	20	0.0	0.2	0.2				
H	<i>Schismus</i> sp.	20	0.0	0.2	0.2				
H	<i>Xanthium strumarium</i>	20	0.0	0.2	0.2				
H	<i>Trifolium</i> sp.	20	0.0	0.2	0.2				
N	Algae	20	0.2	1.0	1.0				
N	Moss	20	0.0	0.2	0.2				
N	Lichen	20	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

HERBACEOUS VEGETATION

Achnatherum hymenoides Herbaceous Alliance

Common Name: Indian rice grass grassland

NVC Alliance Code: A1262. *Achnatherum hymenoides* - *Pseudoroegneria spicata* - *Muhlenbergia pungens* Grassland Alliance

Associations	Sample Size
<i>Achnatherum hymenoides</i> – <i>Oenothera deltoides</i>	1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 467 m

Slope: 23°

Aspect: Mostly SE-facing

Tree Cover: 0.0%

Shrub Cover: 0.2%

Herb Cover: 68.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 70.0%

Litter: 0.2%

Conservation Status Rank: Global: G4; **State (California):** S1

Surveys Used in Description (N = 1): CCBLM475

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex spinifera</i>	100	0.2	0.2	0.2	Y	Y		Y
H	<i>Erodium cicutarium</i>	100	40.0	40.0	40.0	Y	Y		Y
H	<i>Achnatherum hymenoides</i>	100	12.0	12.0	12.0	Y			Y
H	<i>Bromus diandrus</i>	100	5.0	5.0	5.0	Y			Y
H	<i>Lessingia glandulifera</i> var. <i>glandulifera</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Bromus madritensis</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Vulpia myuros</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia menziesii</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Eriogonum angulosum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lotus wrangelianus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Madia</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Microseris lindleyi</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Oenothera deltoides</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Rumex hymenosepalus</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Amsinckia (menziesii, tessellata) – Phacelia* spp. Herbaceous Alliance**

Common Name: Fiddleneck - Phacelia Fields

NVC Alliance Code: A4182. *Amsinckia menziesii* - *Amsinckia tessellata* - *Phacelia* spp. Meadow Alliance

Associations	Sample Size
<i>Amsinckia (furcata, vernicosa)</i> Provisional	5
<i>Amsinckia (intermedia, menziesii)</i>	1
<i>Amsinckia (menziesii, tessellata) – Phacelia</i> spp. alliance	4
<i>Amsinckia menziesii – Erodium</i> spp.	5
<i>Amsinckia tessellata – Erodium cicutarium</i>	44
<i>Astragalus didymocarpus – Lotus wrangelianus</i>	37
<i>Croton setigerus – (Trichostema lanceolatum)</i> Provisional	2
<i>Eriogonum (angulosum, gracillimum) – Amsinckia tessellata</i> Provisional	7
<i>Phacelia ciliata</i>	9
<i>Phacelia tanacetifolia</i>	14
<i>Salvia columbariae – Chaenactis (fremontii, stevioides)</i> Provisional	10

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 717 m (226 – 1280 m)

Slope: 13° (0 – 48°)

Aspect: Variable

Tree Cover: 0.0% (0 – 1%)

Shrub Cover: 0.4% (0 – 5%)

Herb Cover: 38.1% (5 – 80%)

Surface Covers – Mean (Range):

Large Rock: 0.2% (0 – 8%)

Small Rock: 12.9% (0 – 99%)

Fines: 60.6% (0 – 100%)

Litter: 25.1% (0 – 98%)

Conservation Status Rank: Global: G5; **State (California):** S5

Surveys Used in Description (N = 138): CARR0001, CARR0021, CARR0026, CARR0035, CARR0036, CARR0044, CARR0048, CARR0055, CARR0058, CARR0067, CARR0076, CARR0077, CARR0078, CARR0081, CARR0083, CARR0086, CARR0140, CARR0504, CARR0513B, CARR0514, CARR0519, CARR0520E, CARR0531, CARR0532, CARR0534, CARR0548, CARR0550, CARR0582, CARR0583, CARR0616, CARR0635, CARR0666, CARR0668, CARR0690, CARR0822, CARR0862A, CARR0901B, CARR0940, CARR0941,

Amsinckia (menziesii, tessellata) – Phacelia spp. Herbaceous Alliance

CARR0942, CARR0949, CARR0960, CARR0978, CARR1018, CARR1021, CARR1031, CARR1035, CARR1044, CARR1051, CARR1062, CARR1063, CARR1065, CARR1066, CARR1073, CARR1079, CARR1102, CARR1103, CARR1104, CARR1107, CARR1108, CARR1147, CARR1220, CARR1223, CARR1224, CARR1226, CARR1501, CARR1591, CARR1594, CARR1598, CARR1600, CARR1603, CARR1615, CARR2131, CARR6667, CARR6670, CARR6671, CARR6671A, CARR6702, CARR6711, CARR6723, CARR6724, CARR6726, chg004, chg005, chg006, chg007, chg008, chg009, chg010, chg017, chg019, chg021, chg022, chg023, chg024, chg025, chg026, chg027, chg038, chg039, chg040, chg043, chg044, chg045, chg046, chg047, chg048, chg049, chg050, chg065, CVPA0855, CVPA3868, CVPA3898, CVPA8010, CVPA8061, CVPA8062, CVPA8063, CVPA8066, CVPA8070, CVPA8202, CVPA8217, CVPAA014, E0505164, J0507140, KTHL0006, KTHL0008, KTHL0010, KTHL0014, KTHL0018, KTHL0023, KTHL0027, KTHL0029, MORI0051, MORI0052, MORI0053, MORI0057, MORI0059, Z04091545

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	95	10.3	0.2	65.0	Y			Y
H	<i>Bromus rubens</i>	86	5.9	0.2	40.0	Y			Y
H	<i>Amsinckia tessellata</i>	71	3.8	0.1	30.0				Y
H	<i>Lotus wrangelianus</i>	50	2.7	0.2	50.0				Y
H	<i>Astragalus didymocarpus</i>	47	1.0	0.1	20.0				
H	<i>Avena</i> sp.	39	2.5	0.2	31.0				
H	<i>Castilleja exserta</i>	32	0.6	0.1	20.0				
H	<i>Guillenia lasiophylla</i>	31	0.3	0.1	10.0				
H	<i>Schismus</i> sp.	25	0.8	0.2	22.0				
H	<i>Monolopia lanceolata</i>	24	0.2	0.1	5.0				
H	<i>Hordeum murinum</i>	23	0.4	0.2	20.0				
H	<i>Malacothrix coulteri</i>	23	0.1	0.1	1.0				
H	<i>Phacelia tanacetifolia</i>	21	1.1	0.2	24.0				
H	<i>Lupinus microcarpus</i>	21	0.1	0.2	2.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Amsinckia (menziesii, tessellata) – *Phacelia* spp. Herbaceous Alliance

Amsinckia (furcata, vernicosa) Provisional Association

Common Name: Forked or Waxy Fiddleneck Provisional Association

Classification Comments: The association is newly described here in which characteristic species (*Amsinckia furcata* or *Amsinckia vernicosa*) are dominant alone or co-dominant with other species usually on neutral sandy slopes that have had a history of grazing. *A. furcata* has a limited distribution with a CA Rare Plant Rank of 4.2. More data collection will help in determining if these two character species should remain in this Provisional Association together or be separated (e.g., if further distinction in floristic assemblages and ecological settings are found).

Plot/Sample Data Summary – Mean (Range):

Elevation: 624 m (226 – 985 m)

Slope: 16° (7 – 23°)

Aspect: Mostly SE-facing

Tree Cover: 0.0%

Shrub Cover: 0.1%

Herb Cover: 7.7% (5 – 12%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 34.3% (1 – 71%)

Fines: 63.0% (20 – 99%)

Litter: 2.1% (0 – 7%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 5): CARR1107, CARR1108, CVPA8070, CVPA8217, MORI0057

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Eriogonum fasciculatum</i>	20	0.0	0.2	0.2				
H	<i>Erodium cicutarium</i>	80	0.2	0.2	0.2	Y			Y
H	<i>Bromus rubens</i>	60	0.8	0.2	3.0				Y
H	<i>Amsinckia furcata</i>	60	4.6	3.0	7.0				Y
H	<i>Amsinckia vernicosa</i>	40	4.5	4.0	5.0				Y
H	<i>Schismus</i> sp.	40	0.4	1.0	1.0				
H	<i>Eriogonum nudum</i> var. <i>indictum</i>	40	0.2	0.2	1.0				
H	<i>Lepidium nitidum</i>	40	0.1	0.2	0.2				
H	<i>Hordeum murinum</i>	40	0.1	0.2	0.2				
H	<i>Eriogonum trichopes</i> var. <i>hooveri</i>	40	0.1	0.2	0.2				

Amsinckia (furcata, vernicosa) Provisional Association
Amsinckia (menziesii, tessellata) – Phacelia spp. Herbaceous Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Tropidocarpum gracile</i>	20	0.4	2.0	2.0				
H	<i>Eriogonum gracillimum</i>	20	0.2	1.0	1.0				
H	<i>Guillenia lasiophylla</i>	20	0.0	0.2	0.2				
H	<i>Bromus</i> sp.	20	0.0	0.2	0.2				
H	<i>Calandrinia ciliata</i>	20	0.0	0.2	0.2				
H	<i>Amsinckia tessellata</i>	20	0.0	0.2	0.2				
H	<i>Coreopsis calliopsidea</i>	20	0.0	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	20	0.0	0.2	0.2				
H	<i>Eriogonum angulosum</i>	20	0.0	0.2	0.2				
H	<i>Avena</i> sp.	20	0.0	0.2	0.2				
H	<i>Microseris lindleyi</i>	20	0.0	0.2	0.2				
H	<i>Astragalus didymocarpus</i>	20	0.0	0.2	0.2				
H	<i>Eriogonum vestitum</i>	20	0.0	0.2	0.2				
H	<i>Malacothrix coulteri</i>	20	0.0	0.2	0.2				
H	<i>Lomatium utriculatum</i>	20	0.0	0.2	0.2				
H	<i>Phacelia</i> sp.	20	0.0	0.2	0.2				
H	<i>Malacothrix</i> sp.	20	0.0	0.2	0.2				
H	<i>Lasthenia gracilis</i>	20	0.0	0.2	0.2				
H	<i>Monolopia lanceolata</i>	20	0.0	0.2	0.2				
H	<i>Poa secunda</i>	20	0.0	0.2	0.2				
H	<i>Vulpia bromoides</i>	20	0.0	0.2	0.2				
H	<i>Vulpia microstachys</i>	20	0.0	0.2	0.2				
H	<i>Trifolium gracilentum</i>	20	0.0	0.2	0.2				
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	20	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Amsinckia (furcata, vernicosa) Provisional Association
Amsinckia (menziesii, tessellata) – *Phacelia* spp. Herbaceous Alliance

Amsinckia (intermedia, menziesii) Association

Common Name: Fiddleneck Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 360 m

Slope: 17°

Aspect: Mostly NE-facing

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 45.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.2%

Fines: 67.0%

Litter: 30.0%

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 1): KTHL0023

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Bromus diandrus</i>	100	25.0	25.0	25.0	Y	Y		Y
H	<i>Amsinckia intermedia</i>	100	12.0	12.0	12.0	Y			Y
H	<i>Erodium cicutarium</i>	100	5.0	5.0	5.0	Y			Y
H	<i>Claytonia perfoliata</i>	100	4.0	4.0	4.0	Y			Y
H	<i>Bromus rubens</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Dichelostemma capitatum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Poa secunda</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Guillenia lasiophylla</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lepidium nitidum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Vulpia microstachys</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Tropidocarpum gracile</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Calandrinia ciliata</i>	100	0.2	0.2	0.2	Y			Y
N	Moss	100	5.0	5.0	5.0	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Amsinckia menziesii* – *Erodium* spp. Association**

Common Name: Menzie's Fiddleneck – Filaree Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 816 m (699 – 1016 m)

Slope: 13° (8 – 18°)

Aspect: Variable

Tree Cover: 0.3% (0 – 1%)

Shrub Cover: 0.2% (0 – 1%)

Herb Cover: 33.7% (26 – 40%)

Surface Covers – Mean (Range):

Large Rock: 0.1% (0 – 0.2%)

Small Rock: 20.1% (0 – 30%)

Fines: 66.0% (60 – 70%)

Litter: 13.4% (0 – 38%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 3): CARR0076, CARR0504, CARR0668

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	33	0.3	1.0	1.0				
S	<i>Eastwoodia elegans</i>	33	0.1	0.2	0.2				
S	<i>Gutierrezia californica</i>	33	0.1	0.2	0.2				
S	<i>Ericameria linearifolia</i>	33	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	100	10.0	5.0	15.0	Y			Y
H	<i>Amsinckia menziesii</i>	100	9.3	5.0	15.0	Y			Y
H	<i>Bromus rubens</i>	100	3.7	2.0	5.0	Y			Y
H	<i>Astragalus didymocarpus</i>	100	0.5	0.2	1.0	Y			Y
H	<i>Caulanthus inflatus</i>	67	4.1	0.2	12.0				Y
H	<i>Monolopia lanceolata</i>	67	0.7	0.2	2.0				Y
H	<i>Guillenia lasiophylla</i>	67	0.1	0.1	0.2				Y
H	<i>Avena</i> sp.	33	3.3	10.0	10.0				
H	<i>Sinapis arvensis</i>	33	1.7	5.0	5.0				
H	<i>Amsinckia tessellata</i>	33	1.0	3.0	3.0				
H	<i>Poa secunda</i>	33	1.0	3.0	3.0				
H	<i>Eriogonum gracillimum</i>	33	0.3	1.0	1.0				
H	<i>Lotus wrangelianus</i>	33	0.3	1.0	1.0				
H	<i>Poa bulbosa</i>	33	0.1	0.2	0.2				
H	<i>Phacelia fremontii</i>	33	0.1	0.2	0.2				
H	<i>Phacelia tanacetifolia</i>	33	0.1	0.2	0.2				
H	<i>Achyrrachaena mollis</i>	33	0.1	0.2	0.2				
H	<i>Gilia minor</i>	33	0.1	0.2	0.2				
H	<i>California macrophylla</i>	33	0.1	0.2	0.2				
H	<i>Phacelia cicutaria</i>	33	0.1	0.2	0.2				
H	<i>Lasthenia gracilis</i>	33	0.0	0.1	0.1				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Amsinckia menziesii – *Erodium* spp. Association
Amsinckia (*menziesii*, *tessellata*) – *Phacelia* spp. Herbaceous Alliance

***Amsinckia tessellata* – *Erodium cicutarium* Association**

Common Name: Bristly Fiddleneck – Red Stemmed Filaree Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 723 m (260 – 1182 m)

Slope: 11° (0 – 48°)

Aspect: Variable

Tree Cover: 0.1% (0 – 1%)

Shrub Cover: 0.6% (0 – 5%)

Herb Cover: 40.5% (14 – 70%)

Surface Covers – Mean (Range):

Large Rock: 0.1% (0 – 2%)

Small Rock: 12.9% (0 – 75%)

Fines: 57.8% (1 – 100%)

Litter: 28.0% (0 – 98%)

Global Rarity Rank: G4 **State Rarity Rank:** S4

State Rare: N

Surveys Used in Description (N = 44): CARR0001, CARR0021, CARR0026, CARR0055, CARR0067, CARR0078, CARR0083, CARR0086, CARR0140, CARR0520E, CARR0534, CARR0548, CARR0550, CARR0582, CARR0690, CARR0822, CARR0862A, CARR0901B, CARR0940, CARR0941, CARR0942, CARR0949, CARR0960, CARR1021, CARR1035, CARR1063, CARR1066, CARR1102, CARR1220, CARR1226, CARR1598, CARR1603, CARR1615, CARR2131, CARR6726, chg005, chg006, chg009, CVPA8010, CVPA8066, E0505164, KTHL0014, MORI0053, Z04091545

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	100	16.5	2.0	65.0	Y		Y	Y
H	<i>Amsinckia tessellata</i>	100	10.0	1.0	30.0	Y			Y
H	<i>Bromus rubens</i>	89	7.3	0.2	29.0	Y			Y
H	<i>Guillenia lasiophylla</i>	52	0.8	0.2	10.0				Y
H	<i>Astragalus didymocarpus</i>	52	0.3	0.1	4.0				Y
H	<i>Hordeum murinum</i>	34	0.4	0.2	5.0				
H	<i>Lotus wrangelianus</i>	34	0.3	0.2	5.0				
H	<i>Schismus</i> sp.	32	1.0	0.2	10.0				
H	<i>Vulpia microstachys</i>	30	0.4	0.2	8.0				
H	<i>Avena</i> sp.	27	1.4	0.2	20.0				
H	<i>Monolopia lanceolata</i>	27	0.2	0.1	3.0				
H	<i>Malacothrix coulteri</i>	27	0.1	0.1	0.2				
H	<i>Poa secunda</i>	25	0.3	0.2	5.0				
H	<i>Castilleja exserta</i>	25	0.1	0.1	1.0				
H	<i>Dichelostemma capitatum</i>	25	0.1	0.2	0.2				
H	<i>Lupinus microcarpus</i>	23	0.1	0.2	1.0				
H	<i>Vulpia myuros</i>	20	0.3	0.2	5.0				
H	<i>Lepidium nitidum</i>	20	0.2	0.2	4.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Astragalus didymocarpus* – *Lotus wrangelianus* Association**

Common Name: Dwarf White Milkvetch – Wrangel's Lotus Association

Classification Comments: Placed under the *Amsinckia* (*menziesii*, *tessellata*) – *Phacelia* spp. Alliance due to similarities in species composition to related associations of the alliance. Stands often include the presence of an indicator species of the alliance, *Amsinckia tessellata*, but this species is not always present.

Plot/Sample Data Summary – Mean (Range):

Elevation: 787 m (599 – 1280 m)

Slope: 6° (0 – 28°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.2% (0 – 2%)

Herb Cover: 48.6% (10 – 80%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 1.0% (0 – 13%)

Fines: 60.8% (10 – 99%)

Litter: 36.7% (0 – 87%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 37): CARR0048, CARR0077, CARR0081, CARR0635, CARR1103, CARR1224, CARR1594, CARR6671A, CARR6702, CARR6711, CARR6723, CARR6724, chg004, chg007, chg008, chg010, chg017, chg019, chg021, chg022, chg023, chg024, chg025, chg026, chg027, chg038, chg039, chg040, chg043, chg044, chg045, chg046, chg047, chg048, chg049, chg050, J0507140

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Lotus wrangelianus</i>	97	9.4	0.2	50.0	Y			Y
H	<i>Bromus rubens</i>	89	7.0	0.2	30.0	Y			Y
H	<i>Erodium cicutarium</i>	86	8.4	2.0	30.0	Y			Y
H	<i>Avena</i> sp.	86	6.8	0.2	31.0	Y			Y
H	<i>Castilleja exserta</i>	81	1.9	0.2	20.0	Y			Y
H	<i>Astragalus didymocarpus</i>	73	3.2	0.2	20.0				Y
H	<i>Hirschfeldia incana</i>	65	1.1	0.2	4.0				Y
H	<i>Amsinckia tessellata</i>	62	0.8	0.1	5.0				Y
H	<i>Lupinus microcarpus</i>	41	0.2	0.2	2.0				
H	<i>Bromus diandrus</i>	38	1.7	0.2	22.0				
H	<i>Bromus hordeaceus</i>	27	0.6	0.2	10.0				
H	<i>Trifolium albopurpureum</i>	27	0.6	0.2	4.0				
H	<i>Medicago polymorpha</i>	24	0.6	0.2	8.0				
H	<i>Vulpia myuros</i>	22	2.6	0.2	55.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Croton setigerus* – (*Trichostema lanceolatum*) Provisional Association**

Common Name: Doveweed – (Vinegar Weed) Provisional Association

Classification Comments: The association is newly described here where common, disturbance-adapted, native annual plants (*Croton setigerus* and *Trichostema lanceolatum*) are dominant alone or co-dominant with other herbs.

Plot/Sample Data Summary – Mean (Range):

Elevation: 627 m (624 – 630 m)

Slope: 2°

Aspect: Mostly north-facing

Tree Cover: 0.0%

Shrub Cover: 0.1%

Herb Cover: 66.0% (55 – 77%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 2.6% (0 – 5%)

Fines: 45.5% (23 – 68%)

Litter: 50.0% (30 – 70%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 2): CARR6670, CARR6671

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Gutierrezia californica</i>	50	0.1	0.2	0.2				Y
H	<i>Bromus rubens</i>	100	32.0	24.0	40.0	Y		Y	Y
H	<i>Trichostema lanceolatum</i>	100	10.5	6.0	15.0	Y			Y
H	<i>Lagophylla ramosissima</i>	100	6.1	0.2	12.0	Y			Y
H	<i>Croton setigerus</i>	100	6.0	2.0	10.0	Y			Y
H	<i>Vulpia myuros</i>	100	2.5	1.0	4.0	Y			Y
H	<i>Erodium cicutarium</i>	100	0.6	0.2	1.0	Y			Y
H	unknown <i>Asteraceae</i>	100	0.3	0.2	0.4	Y			Y
H	<i>Lactuca serriola</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus hordeaceus</i>	50	2.5	5.0	5.0				Y
H	<i>Daucus pusillus</i>	50	1.0	2.0	2.0				Y
H	<i>Centaurea melitensis</i>	50	1.0	2.0	2.0				Y
H	unknown <i>Brassicaceae</i>	50	1.0	2.0	2.0				Y
H	<i>Clarkia purpurea</i>	50	0.5	1.0	1.0				Y
H	<i>Plantago erecta</i>	50	0.1	0.2	0.2				Y
H	<i>Castilleja</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Clarkia</i> sp.	50	0.1	0.2	0.2				Y
H	unknown <i>Poaceae</i>	50	0.1	0.2	0.2				Y
H	<i>Lotus wrangelianus</i>	50	0.1	0.2	0.2				Y
H	<i>Lotus strigosus</i>	50	0.1	0.2	0.2				Y
H	<i>Herniaria hirsuta</i>	50	0.1	0.2	0.2				Y
H	<i>Trifolium</i> sp.	50	0.1	0.2	0.2				Y
N	Moss	100	0.6	0.2	1.0	Y	Y		Y
N	Cryptogammic crust	50	0.5	1.0	1.0				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Croton setigerus – (*Trichostema lanceolatum*) Provisional Association
Amsinckia (menziesii, tessellata) – *Phacelia* spp. Herbaceous Alliance

***Eriogonum (angulosum, gracillimum) – Amsinckia tessellata* Provisional Association**

Common Name: Annual Buckwheat – Bristly Fiddleneck Provisional Association

Classification Comments: The association is newly described here in which an annual buckwheat species (e.g., *Eriogonum angulosum*, *Eriogonum gracillimum*, or *Eriogonum clavatum*) dominates alone or as a co-dominate with other herbs including a variety of native and non-native species. *Eriogonum trichopes* var. *hooveri* is a synonym for *E. clavatum*. Provisionally placed under the *Amsinckia (menziesii, tessellata) – Phacelia* spp. Alliance. Stands often include the presence of an indicator species of the alliance, *Amsinckia tessellata*, but this species is not always present.

Plot/Sample Data Summary – Mean (Range):

Elevation: 829 m (328 – 1083 m)

Slope: 15° (0 – 28°)

Aspect: Mostly south-facing

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 24.1% (9 – 45%)

Surface Covers – Mean (Range):

Large Rock: 1.2% (0 – 8%)

Small Rock: 22.3% (0 – 99%)

Fines: 72.9% (1 – 99%)

Litter: 2.9% (0 – 15%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 7): CARR0531, CARR0978, CARR1018, CARR1600, CARR6667, CVPA8202, KTHL0006

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	100	5.1	0.2	15.0	Y			Y
H	<i>Bromus rubens</i>	100	0.4	0.2	1.0	Y			Y
H	<i>Amsinckia tessellata</i>	71	0.5	0.1	2.0				Y
H	<i>Schismus</i> sp.	57	6.4	1.0	22.0				Y
H	<i>Eriogonum angulosum</i>	43	2.3	1.0	9.0				
H	<i>Lotus wrangelianus</i>	43	0.1	0.2	0.2				
H	<i>Eriogonum gracillimum</i>	29	2.9	0.2	20.0				
H	<i>Eriogonum clavatum</i>	29	1.4	3.0	7.0				
H	<i>Plantago erecta</i>	29	0.2	0.2	1.0				
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	29	0.1	0.2	0.5				
H	<i>Chaenactis fremontii</i>	29	0.1	0.2	0.5				
H	<i>Monolopia lanceolata</i>	29	0.1	0.2	0.2				
H	<i>Microsteris gracilis</i>	29	0.1	0.2	0.2				
H	<i>Guillenia lasiophylla</i>	29	0.1	0.2	0.2				
H	<i>Salvia columbariae</i>	29	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	29	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	29	0.0	0.1	0.2				
H	<i>Malacothrix coulteri</i>	29	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Eriogonum (angulosum, gracillimum) – *Amsinckia tessellata* Provisional Association
Amsinckia (menziesii, tessellata) – *Phacelia* spp. Herbaceous Alliance

***Phacelia ciliata* Association**

Common Name: Great Valley Phacelia Association

Classification Comments: No longer provisional due to increased sample size for this association.

Plot/Sample Data Summary – Mean (Range):

Elevation: 683 m (386 – 934 m)

Slope: 5° (0 – 23°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 45.8% (30 – 81%)

Surface Covers – Mean (Range):

Large Rock: 0.4% (0 – 4%)

Small Rock: 7.2% (0 – 60%)

Fines: 48.0% (3 – 92%)

Litter: 43.5% (0 – 95%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 9): CARR0035, CARR0036, CARR0513, CARR0514, CARR0519, CARR1062, CARR1147, CARR1591, CVPA8063

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	100	17.9	4.0	45.0	Y		Y	Y
H	<i>Phacelia ciliata</i>	100	13.6	4.0	48.0	Y			Y
H	<i>Bromus rubens</i>	67	5.9	0.2	27.0				Y
H	<i>Hordeum murinum</i>	67	4.2	0.2	20.0				Y
H	<i>Guillenia lasiophylla</i>	67	0.3	0.1	1.0				Y
H	<i>Descurainia sophia</i>	44	1.4	0.2	9.0				
H	<i>Amsinckia menziesii</i>	33	1.0	0.2	7.0				
H	<i>Amsinckia tessellata</i>	33	0.5	0.2	4.0				
H	<i>Lepidium nitidum</i>	33	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	33	0.1	0.2	0.2				
H	<i>Avena</i> sp.	22	1.1	0.2	10.0				
H	<i>Lasthenia gracilis</i>	22	0.1	0.2	1.0				
H	<i>Microsteris gracilis</i>	22	0.1	0.2	1.0				
H	<i>Trifolium gracilentum</i>	22	0.0	0.2	0.2				
H	<i>Microseris douglasii</i>	22	0.0	0.2	0.2				
H	<i>Schismus</i> sp.	22	0.0	0.2	0.2				
H	<i>Lotus wrangelianus</i>	22	0.0	0.2	0.2				
H	<i>Heterodraba unilateralis</i>	22	0.0	0.2	0.2				
H	<i>Malacothrix coulteri</i>	22	0.0	0.2	0.2				
H	<i>Atriplex</i> sp.	22	0.0	0.1	0.2				
H	<i>Astragalus didymocarpus</i>	22	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Phacelia tanacetifolia* Association**

Common Name: Lacy Phacelia Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 629 m (262 – 1186 m)

Slope: 27° (2 – 43°)

Aspect: Mostly south-facing

Tree Cover: 0.0%

Shrub Cover: 0.7% (0 – 3%)

Herb Cover: 31.4% (12 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.3% (0 – 3%)

Small Rock: 30.3% (0 – 82%)

Fines: 59.8% (16 – 96%)

Litter: 8.2% (0 – 25%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 14): CARR0044, CARR0058, CARR0583, CARR0616, CARR0666, CARR1044, CARR1065, CARR1079, CARR1501, KTHL0008, KTHL0018, KTHL0027, MORI0052, MORI0059

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Eriogonum fasciculatum</i>	29	0.2	0.2	2.0				
S	<i>Salvia leucophylla</i>	21	0.0	0.1	0.2				
H	<i>Phacelia tanacetifolia</i>	100	10.7	1.0	24.0	Y		Y	Y
H	<i>Bromus rubens</i>	100	6.3	0.2	20.0	Y			Y
H	<i>Erodium cicutarium</i>	100	5.1	0.2	20.0	Y			Y
H	<i>Amsinckia tessellata</i>	79	1.8	0.2	10.0	Y			Y
H	<i>Malacothrix coulteri</i>	64	0.2	0.1	1.0				Y
H	<i>Monolopia lanceolata</i>	50	0.5	0.2	3.0				Y
H	<i>Astragalus didymocarpus</i>	43	0.3	0.2	3.0				
H	<i>Avena</i> sp.	36	1.3	0.2	15.0				
H	<i>Schismus</i> sp.	36	0.3	0.2	2.0				
H	<i>Lotus wrangelianus</i>	36	0.2	0.2	1.0				
H	<i>Eriogonum elongatum</i>	29	0.5	0.2	4.0				
H	<i>Eriogonum gracillimum</i>	29	0.5	0.2	6.0				
H	<i>Guillenia lasiophylla</i>	29	0.3	0.2	3.0				
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	29	0.2	0.2	2.0				
H	<i>Salvia columbariae</i>	21	0.8	1.0	9.0				
H	<i>Lupinus succulentus</i>	21	0.6	2.0	3.0				
H	<i>Chaenactis stevioides</i>	21	0.1	0.2	1.0				
H	<i>Mentzelia affinis</i>	21	0.0	0.2	0.2				
H	<i>Pectocarya penicillata</i>	21	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salvia columbariae* – *Chaenactis (fremontii, stevioides)* Provisional Association**

Common Name: Chia – Pincushion Provisional Association

Classification Comments: The association is newly described here in which characteristic species (*Salvia columbariae*, *Chaenactis fremontii*, or *Chaenactis stevioides*) occur as dominants alone or co-dominants with other herbs including native and non-native species. Provisionally placed under the *Amsinckia (menziesii, tessellata)* – *Phacelia* spp. Alliance. Stands often include the presence of an indicator species of the alliance, such as *Phacelia tanacetifolia* or *Amsinckia tessellata*, but one of these species is not always present.

Plot/Sample Data Summary – Mean (Range):

Elevation: 612 m (258 – 959 m)

Slope: 30° (15 – 43°)

Aspect: Mostly south-facing

Tree Cover: 0.0%

Shrub Cover: 0.5% (0 – 3%)

Herb Cover: 19.1% (7 – 42%)

Surface Covers – Mean (Range):

Large Rock: 1.0% (0 – 5%)

Small Rock: 24.1% (0 – 98%)

Fines: 70.6% (0 – 97%)

Litter: 3.7% (0 – 15%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 10): CARR0532, CARR1051, CARR1073, CARR1223, chg065, CVPA8062, CVPAA014, KTHL0010, KTHL0029, MORI0051

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Eriogonum fasciculatum</i>	30	0.2	0.2	1.0				
S	<i>Atriplex polycarpa</i>	20	0.0	0.2	0.2				
H	<i>Erodium cicutarium</i>	100	4.4	0.2	13.0	Y			Y
H	<i>Salvia columbariae</i>	80	3.3	0.2	14.0	Y			Y
H	<i>Phacelia tanacetifolia</i>	70	0.2	0.2	1.0				Y
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	60	0.6	0.2	3.0				Y
H	<i>Amsinckia tessellata</i>	60	0.2	0.2	1.0				Y
H	<i>Schismus</i> sp.	50	1.8	0.2	8.0				Y
H	<i>Monolopia lanceolata</i>	50	0.8	0.1	5.0				Y
H	<i>Bromus rubens</i>	50	0.4	0.2	2.0				Y
H	<i>Lotus wrangelianus</i>	50	0.2	0.2	1.0				Y
H	<i>Malacothrix coulteri</i>	50	0.1	0.2	0.2				Y
H	<i>Chaenactis fremontii</i>	40	2.1	0.2	14.0				
H	<i>Chaenactis stevioides</i>	30	3.4	3.0	18.0				
H	<i>Mentzelia affinis</i>	30	0.4	0.2	3.0				
H	<i>Eremalche parryi</i>	30	0.2	0.2	1.0				
H	<i>Hemizonia kelloggii</i>	20	0.3	0.5	2.0				
H	<i>Amsinckia</i> sp.	20	0.2	0.5	1.0				
H	<i>Malacothrix californica</i>	20	0.1	0.2	1.0				
H	<i>Lupinus succulentus</i>	20	0.1	0.2	1.0				
H	<i>Plantago erecta</i>	20	0.1	0.2	0.5				
H	<i>Lupinus microcarpus</i>	20	0.1	0.2	0.5				
H	<i>Astragalus didymocarpus</i>	20	0.0	0.2	0.2				
H	<i>Poa secunda</i>	20	0.0	0.2	0.2				
H	<i>Guillenia lasiophylla</i>	20	0.0	0.2	0.2				
H	<i>Camissonia campestris</i>	20	0.0	0.2	0.2				
H	<i>Microseris lindleyi</i>	20	0.0	0.2	0.2				
H	<i>Oenothera deltoides</i>	20	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Salvia columbariae – *Chaenactis* (*fremontii*, *steviodes*) Provisional Association
Amsinckia (*menziesii*, *tessellata*) – *Phacelia* spp. Herbaceous Alliance

***Aristida purpurea* – *Elymus elymoides* – *Poa secunda* Herbaceous Alliance**

Common Name: Purple three-awn – squirreltail – curly blue grass patches

NVC Alliance Code: A3977. *Sporobolus cryptandrus* - *Aristida purpurea* var. *longiseta*
- *Poa secunda* Sandy Stream Terrace Grassland Alliance

Associations	Sample Size
<i>Aristida purpurea</i> – <i>Elymus elymoides</i> – <i>Poa secunda</i> alliance	14
<i>Monolopia stricta</i> – <i>Poa secunda</i>	12
<i>Poa secunda</i> – (<i>Elymus</i> sp.) – <i>Clarkia cylindrica</i>	2
<i>Poa secunda</i> – <i>Bromus rubens</i>	21

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 705 m (284 – 1102 m)

Slope: 12° (0 – 48°)

Aspect: Mostly north-facing

Tree Cover: 0.0%

Shrub Cover: 0.1% (0 – 2%)

Herb Cover: 31.1% (2 – 72%)

Surface Covers – Mean (Range):

Large Rock: 0.0% (0 – 1%)

Small Rock: 6.5% (0 – 81%)

Fines: 68.2% (1 – 100%)

Litter: 23.9% (0 – 98%)

Conservation Status Rank: Global: G4; **State (California):** S4?

Surveys Used in Description (N = 55): A0430144, A0514162, CARR0017, CARR0501, CARR0501A, CARR0502, CARR0503, CARR0509B, CARR0511, CARR0512, CARR0516, CARR0516A, CARR0520A, CARR0536, CARR0549, CARR0559C, CARR0749, CARR0824, CARR0902, CARR0904, CARR0915, CARR0970, CARR0990, CARR0999, CARR1015, CARR1025, CARR1030, CARR1032, CARR1045, CARR1069, CARR1091, CARR1095, CARR1101, CARR1105, CARR1113, CARR1117, CARR1122, CARR1146, CARR1228, CARR1581, CARR1584, CARR1619, CARR6672A, CARR6673A, CVPA1436b, CVPA8006, E04081333B, E0429132, H0409122, H0409202, H0409212, KTHL0005, KTHL0013, KTHL0019, LIPA0004

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Poa secunda</i>	100	9.7	0.2	30.0	Y			Y
H	<i>Erodium cicutarium</i>	96	5.4	0.2	35.0	Y			Y
H	<i>Bromus rubens</i>	92	6.4	0.2	45.0	Y			Y
H	<i>Amsinckia tessellata</i>	57	0.7	0.1	11.0				Y
H	<i>Lepidium nitidum</i>	45	2.5	0.1	30.0				
H	<i>Dichelostemma capitatum</i>	43	0.1	0.1	1.0				
H	<i>Vulpia microstachys</i>	37	0.7	0.2	10.0				
H	<i>Lasthenia gracilis</i>	29	0.4	0.2	12.0				
H	<i>Hordeum murinum</i>	29	0.1	0.1	3.0				
H	<i>Microsteris gracilis</i>	29	0.1	0.1	1.0				
H	<i>Astragalus didymocarpus</i>	27	0.1	0.1	2.0				
H	<i>Monolopia stricta</i>	22	0.5	0.2	7.0				
H	<i>Bromus hordeaceus</i>	22	0.5	0.1	15.0				
H	<i>Trifolium gracilentum</i>	22	0.2	0.1	4.0				
H	<i>Lotus wrangelianus</i>	22	0.1	0.2	2.0				
H	<i>Microseris lindleyi</i>	22	0.1	0.2	1.0				
H	<i>Lupinus microcarpus</i>	20	0.0	0.1	0.2				
N	Moss	22	2.7	0.2	40.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Monolopia stricta* – *Poa secunda* Association**

Common Name: Crum's Monolopia – Curly Blue Grass Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 658 m (588 – 898 m)

Slope: 11° (0 – 48°)

Aspect: Mostly north-facing

Tree Cover: 0.0%

Shrub Cover: 0.2% (0 – 2%)

Herb Cover: 34.4% (15 – 71%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 2.5% (0 – 15%)

Fines: 88.8% (67 – 100%)

Litter: 7.6% (0 – 31%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 12): CARR0017, CARR0501, CARR0511, CARR0512, CARR0516, CARR0902, CARR0999, CARR1117, CARR1122, CARR1228, E04081333A, H0409212

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Poa secunda</i>	100	8.9	2.0	21.0	Y			Y
H	<i>Erodium cicutarium</i>	100	8.1	0.2	35.0	Y			Y
H	<i>Monolopia stricta</i>	75	2.0	0.2	7.0	Y			Y
H	<i>Bromus rubens</i>	75	1.6	0.2	14.0	Y			Y
H	<i>Astragalus didymocarpus</i>	58	0.2	0.2	1.0				Y
H	<i>Microsteris gracilis</i>	50	0.1	0.2	0.2				Y
H	<i>Lepidium nitidum</i>	42	1.4	0.2	15.0				
H	<i>Amsinckia tessellata</i>	42	0.6	0.2	6.0				
H	<i>Layia munzii</i>	33	4.8	0.2	55.0				
H	<i>Phacelia ciliata</i>	33	0.4	0.2	2.0				
H	<i>Lasthenia gracilis</i>	33	0.3	0.2	2.0				
H	<i>Hordeum murinum</i>	33	0.1	0.2	0.2				
H	<i>Coreopsis calliopsidea</i>	25	3.0	0.2	35.0				
H	<i>Monolopia lanceolata</i>	25	1.9	0.2	15.0				
H	<i>Caulanthus anceps</i>	25	0.3	0.2	3.0				
H	<i>Dichelostemma capitatum</i>	25	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Poa secunda* – (*Elymus* sp.) – *Clarkia cylindrica* Association**

Common Name: *Poa secunda* – (Wildrye) – Speckled *Clarkia* Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 861 m (620 – 1102 m)

Slope: 23° (17 – 28°)

Aspect: Mostly north-facing

Tree Cover: 0.0%

Shrub Cover: 0.6% (0 – 1%)

Herb Cover: 53.5% (32 – 75%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 6.0% (2 – 10%)

Fines: 42.5% (2 – 83%)

Litter: 49.0% (3 – 95%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 2): A0514162, CARR6672

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Poa secunda</i>	100	15.5	1.0	30.0	Y			Y
H	<i>Clarkia cylindrica</i>	100	6.6	0.2	13.0	Y			Y
H	<i>Bromus rubens</i>	100	1.6	0.2	3.0	Y			Y
H	<i>Bromus hordeaceus</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Amsinckia tessellata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Eriogonum cithariforme</i>	50	20.0	40.0	40.0				Y
H	<i>Avena</i> sp.	50	5.0	10.0	10.0				Y
H	<i>Vulpia microstachys</i>	50	5.0	10.0	10.0				Y
H	<i>Conyza canadensis</i> var. <i>canadensis</i>	50	1.0	2.0	2.0				Y
H	<i>Allium peninsulare</i>	50	0.5	1.0	1.0				Y
H	<i>Erodium cicutarium</i>	50	0.5	1.0	1.0				Y
H	<i>Corethrogyne filaginifolia</i>	50	0.5	1.0	1.0				Y
H	<i>Microseris lindleyi</i>	50	0.5	1.0	1.0				Y
H	<i>Thysanocarpus curvipes</i>	50	0.5	1.0	1.0				Y
H	<i>Elymus elymoides</i>	50	0.5	1.0	1.0				Y
H	<i>Delphinium parryi</i>	50	0.1	0.2	0.2				Y
H	<i>Lomatium utriculatum</i>	50	0.1	0.2	0.2				Y
H	<i>Eschscholzia californica</i>	50	0.1	0.2	0.2				Y
H	<i>Lactuca serriola</i>	50	0.1	0.2	0.2				Y
H	<i>Layia glandulosa</i>	50	0.1	0.2	0.2				Y
H	<i>Stephanomeria exigua</i>	50	0.1	0.2	0.2				Y
H	<i>Delphinium gypsophilum</i>	50	0.1	0.2	0.2				Y
H	<i>Cryptantha microstachys</i>	50	0.1	0.2	0.2				Y
H	unknown <i>Liliaceae</i>	50	0.1	0.2	0.2				Y
H	<i>Daucus pusillus</i>	50	0.1	0.2	0.2				Y
H	<i>Clarkia tembloriensis</i> ssp. <i>tembloriensis</i>	50	0.1	0.2	0.2				Y
H	<i>Microseris douglasii</i>	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Poa secunda – (*Elymus* sp.) – *Clarkia cylindrica* Association
Aristida purpurea – *Elymus elymoides* – *Poa secunda* Herbaceous Alliance

***Poa secunda* – *Bromus rubens* Association**

Common Name: Curly Bluegrass – Red Brome Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 748 m (328 – 997 m)

Slope: 16° (1 – 39°)

Aspect: Mostly north-facing

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 33.4% (2 – 72%)

Surface Covers – Mean (Range):

Large Rock: 0.1% (0 – 1%)

Small Rock: 8.0% (0 – 51%)

Fines: 53.5% (1 – 100%)

Litter: 37.0% (0 – 98%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 21): A0430144, CARR0509B, CARR0516A, CARR0520A, CARR0559, CARR0824, CARR0904, CARR0915, CARR1015, CARR1025, CARR1030, CARR1045, CARR1091, CARR1101, CARR1105, CARR1581, CARR1670, CARR6673, CVPA1436b, E0429132, LIPA0004

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Of
H	<i>Bromus rubens</i>	100	12.9	0.2	45.0	Y		Y	Y
H	<i>Poa secunda</i>	100	9.1	0.2	26.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	95	3.7	0.2	17.0	Y			Y
H	<i>Amsinckia tessellata</i>	52	0.6	0.2	7.0				Y
H	<i>Dichelostemma capitatum</i>	48	0.1	0.1	1.0				
H	<i>Lotus wrangelianus</i>	29	0.1	0.2	0.2				
H	<i>Bromus hordeaceus</i>	24	1.0	0.2	15.0				
H	<i>Hordeum murinum</i>	24	0.3	0.2	3.0				
H	<i>Monolopia lanceolata</i>	24	0.2	0.1	3.0				
H	<i>Astragalus didymocarpus</i>	24	0.1	0.1	2.0				
H	<i>Microseris lindleyi</i>	24	0.0	0.2	0.2				
H	<i>Lepidium nitidum</i>	24	0.0	0.1	0.2				
N	Moss	24	1.0	0.2	12.0				

Artemisia dracunculus Herbaceous Alliance

Common Name: Wild tarragon patches

NVC Alliance Code: N/A.

Associations	Sample Size
<i>Nicotiana quadrivalvis</i> Provisional	1

Classification Comments: The association circumscription is the same as that of the alliance. This provisional association is newly described here in which this native herb, (*Nicotiana quadrivalvis*), occurs in similar habitats to *Artemisia dracunculus* in intermittently flooded rocky steam beds or draws.

Plot/Sample Data Summary – Mean (Range):

Elevation: 705 m

Slope: 0°

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 35.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 20.0%

Litter: 80.0%

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 1): CARR0975

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Nicotiana quadrivalvis</i>	100	32.0	32.0	32.0	Y	Y		Y
H	<i>Atriplex argentea</i> ssp. <i>expansa</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Croton setigerus</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Schismus</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Erodium cicutarium</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Hordeum murinum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Microsteris gracilis</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Salsola tragus</i>	100	0.1	0.1	0.1	Y			Y

***Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance**

Common Name: Wild oats and annual brome grasslands

NVC Alliance Code: A3870. *Avena fatua* - *Bromus* spp. Ruderal Annual Grassland Alliance

Associations	Sample Size
<i>Avena barbata</i> – <i>Avena fatua</i>	4
<i>Bromus diandrus</i> – Mixed herbs	6
<i>Bromus hordeaceus</i> – <i>Erodium botrys</i>	1
<i>Bromus hordeaceus</i> – <i>Hordeum</i> spp. – <i>Medicago polymorpha</i>	2

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 521 m (162 – 811 m)

Slope: 2° (0 – 6°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.3% (0 – 3%)

Herb Cover: 64.5% (14 – 95%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.2% (0 – 1%)

Fines: 19.6% (1 – 58%)

Litter: 53.8% (4 – 99%)

Conservation Status Rank: Global: GNA; State (California): SNA

Surveys Used in Description (N = 13): CARR0085, CARR0091, CARR6704, CARR6705, CARR6729, chg016, chg028, chg030, chg041, LPWA008, LPWA010, LPWA012, LPWA017

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Avena</i> sp.	85	13.2	0.2	86.0	Y			Y
H	<i>Bromus diandrus</i>	77	9.3	0.2	51.0	Y			Y
H	<i>Erodium cicutarium</i>	77	6.6	0.2	35.0	Y			Y
H	<i>Bromus hordeaceus</i>	62	3.6	0.2	10.0				Y
H	<i>Bromus rubens</i>	62	1.8	0.2	6.0				Y
H	<i>Hordeum murinum</i>	54	3.3	0.2	20.0				Y
H	<i>Castilleja exserta</i>	46	0.2	0.2	1.0				
H	<i>Medicago polymorpha</i>	38	9.8	0.2	65.0				
H	<i>Vulpia myuros</i>	38	7.7	0.2	35.0				
H	<i>Vicia benghalensis</i>	31	2.5	5.0	13.0				
H	<i>Melilotus indicus</i>	31	2.2	2.0	12.0				
H	<i>Amsinckia menziesii</i>	31	0.4	0.2	3.0				
H	<i>Lotus wrangelianus</i>	31	0.1	0.2	1.0				
H	<i>Bromus madritensis</i>	23	1.5	0.2	15.0				
H	<i>Hirschfeldia incana</i>	23	0.3	1.0	2.0				
H	<i>Lepidium dictyotum</i>	23	0.2	0.2	2.0				
H	<i>Lactuca serriola</i>	23	0.2	0.2	2.0				
H	<i>Madia</i> sp.	23	0.1	0.2	1.0				
H	<i>Amsinckia tessellata</i>	23	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Avena barbata* – *Avena fatua* Semi-natural Association**

Common Name: Wild Oat Ruderal Grassland Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 414 m (162 – 638 m)

Slope: 2° (2 – 3°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.2% (0 – 1%)

Herb Cover: 61.3% (33 – 92%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.3% (0 – 1%)

Fines: 5.3% (1 – 15%)

Litter: 50.8% (4 – 97%)

Global Rarity Rank: GNA

State Rarity Rank: SNA

State Rare: N

Surveys Used in Description (N = 4): CARR6705, CARR6729, LPWA008, LPWA017

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Isocoma acradenia</i>	25	0.1	0.2	0.2				
S	<i>Atriplex lentiformis</i>	25	0.1	0.2	0.2				
S	<i>Cleome isomeris</i>	25	0.1	0.2	0.2				
H	<i>Avena</i> sp.	100	35.8	17.0	86.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	75	9.0	4.0	20.0	Y			Y
H	<i>Hordeum murinum</i>	75	0.9	0.2	3.0	Y			Y
H	<i>Vulpia myuros</i>	50	8.8	0.2	35.0				Y
H	<i>Bromus hordeaceus</i>	50	3.3	3.0	10.0				Y
H	<i>Bromus rubens</i>	50	3.0	6.0	6.0				Y
H	<i>Bromus madritensis</i>	50	1.1	0.2	4.0				Y
H	<i>Lepidium dictyotum</i>	50	0.6	0.2	2.0				Y
H	<i>Lotus wrangelianus</i>	50	0.3	0.2	1.0				Y
H	<i>Bromus diandrus</i>	50	0.3	0.2	1.0				Y
H	<i>Madia</i> sp.	50	0.3	0.2	1.0				Y
H	<i>Trichostema lanceolatum</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia tessellata</i>	50	0.1	0.2	0.2				Y
H	<i>Vicia</i> sp.	25	1.5	6.0	6.0				
H	<i>Astragalus didymocarpus</i>	25	0.5	2.0	2.0				
H	<i>Guillenia lasiophylla</i>	25	0.1	0.2	0.2				
H	<i>Centaurea solstitialis</i>	25	0.1	0.2	0.2				
H	<i>Erodium botrys</i>	25	0.1	0.2	0.2				
H	<i>Hemizonia</i> sp.	25	0.1	0.2	0.2				
H	<i>Castilleja exserta</i>	25	0.1	0.2	0.2				
H	<i>Frankenia salina</i>	25	0.1	0.2	0.2				
H	<i>Triteleia laxa</i>	25	0.1	0.2	0.2				
H	<i>Lotus humistratus</i>	25	0.1	0.2	0.2				
H	<i>Castilleja attenuata</i>	25	0.1	0.2	0.2				
H	<i>Brassica nigra</i>	25	0.1	0.2	0.2				
H	<i>Trifolium dubium</i>	25	0.1	0.2	0.2				
H	<i>Vicia villosa</i>	25	0.1	0.2	0.2				
H	<i>Croton setigerus</i>	25	0.1	0.2	0.2				
H	<i>Gilia tricolor</i>	25	0.1	0.2	0.2				
H	<i>Sinapis arvensis</i>	25	0.0	0.1	0.1				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Avena barbata – *Avena fatua* Semi-natural Association

Avena spp. – *Bromus* spp. Herbaceous Alliance

***Bromus diandrus* – Mixed herbs Semi-natural Association**

Common Name: Ripgut Brome – Mixed herbs Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 606 m (162 – 793 m)

Slope: 3° (0 – 6°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.5% (0 – 3%)

Herb Cover: 63.5% (14 – 95%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.2% (0 – 1%)

Fines: 23.1% (1 – 48%)

Litter: 62.5% (10 – 99%)

Global Rarity Rank: GNA

State Rarity Rank: SNA

State Rare: N

Surveys Used in Description (N = 6): CARR0085, CARR0091, CARR6704, chg028, chg030, LPWA012

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Bromus diandrus</i>	100	18.3	2.0	51.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	83	6.5	0.2	35.0	Y			Y
H	<i>Avena</i> sp.	83	4.2	0.2	15.0	Y			Y
H	<i>Bromus rubens</i>	83	1.0	0.2	2.0	Y			Y
H	<i>Castilleja exserta</i>	67	0.3	0.2	1.0				Y
H	<i>Medicago polymorpha</i>	50	20.9	0.2	65.0				Y
H	<i>Vicia benghalensis</i>	50	4.7	5.0	13.0				Y
H	<i>Melilotus indicus</i>	50	4.2	2.0	12.0				Y
H	<i>Bromus hordeaceus</i>	50	1.4	0.2	6.0				Y
H	<i>Amsinckia menziesii</i>	50	0.6	0.2	3.0				Y
H	<i>Hordeum murinum</i>	33	1.7	1.0	9.0				
H	<i>Hirschfeldia incana</i>	33	0.5	1.0	2.0				
H	<i>Lactuca serriola</i>	33	0.4	0.2	2.0				
H	<i>Lotus wrangelianus</i>	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Bromus diandrus – Mixed herbs Semi-natural Association

Avena spp. – *Bromus* spp. Herbaceous Alliance

***Bromus hordeaceus* – *Erodium botrys* Semi-natural Association**

Common Name: Soft Chess - Fileree Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 811 m

Slope: 2°

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 60.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 58.0%

Litter: 40.0%

Global Rarity Rank: GNA

State Rarity Rank: SNA

State Rare: N

Surveys Used in Description (N = 1): chg016

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium botrys</i>	100	40.0	40.0	40.0	Y	Y		Y
H	<i>Vicia benghalensis</i>	100	5.0	5.0	5.0	Y			Y
H	<i>Bromus hordeaceus</i>	100	5.0	5.0	5.0	Y			Y
H	<i>Bromus rubens</i>	100	5.0	5.0	5.0	Y			Y
H	<i>Plantago erecta</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Micropus californicus</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Avena</i> sp.	100	1.0	1.0	1.0	Y			Y
H	<i>Lupinus bicolor</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Trifolium albopurpureum</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Thysanocarpus curvipes</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Achyrrachaena mollis</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Vicia sativa</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Bromus hordeaceus – *Erodium botrys* Semi-natural Association

Avena spp. – *Bromus* spp. Herbaceous Alliance

***Bromus hordeaceus* – *Hordeum* spp. – *Medicago polymorpha* Semi-natural Association**

Common Name: Soft Brome – Barley – Burclover Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 337 m (162 – 511 m)

Slope: 0°

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 76.0% (72 – 80%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 18.5% (13 – 24%)

Litter: 41.0% (7 – 75%)

Global Rarity Rank: GNA

State Rarity Rank: SNA

State Rare: N

Surveys Used in Description (N = 2): chg041, LPWA010

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Vulpia myuros</i>	100	32.5	30.0	35.0	Y		Y	Y
H	<i>Hordeum murinum</i>	100	15.0	10.0	20.0	Y			Y
H	<i>Bromus hordeaceus</i>	100	10.0	10.0	10.0	Y			Y
H	<i>Erodium cicutarium</i>	100	5.0	5.0	5.0	Y			Y
H	<i>Bromus diandrus</i>	100	4.6	0.2	9.0	Y			Y
H	<i>Medicago polymorpha</i>	100	1.1	0.2	2.0	Y			Y
H	<i>Bromus madritensis</i>	50	7.5	15.0	15.0				Y
H	<i>Melilotus indicus</i>	50	2.0	4.0	4.0				Y
H	<i>Avena</i> sp.	50	1.5	3.0	3.0				Y
H	<i>Amsinckia menziesii</i>	50	1.0	2.0	2.0				Y
H	<i>Hirschfeldia incana</i>	50	0.5	1.0	1.0				Y
H	<i>Lepidium dictyotum</i>	50	0.5	1.0	1.0				Y
H	<i>Agoseris</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Castilleja exserta</i>	50	0.1	0.2	0.2				Y
H	<i>Trichostema ovatum</i>	50	0.1	0.2	0.2				Y
H	<i>Lasthenia californica</i>	50	0.1	0.2	0.2				Y
H	<i>Lactuca serriola</i>	50	0.1	0.2	0.2				Y
H	<i>Hemizonia</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Astragalus</i> sp.	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Bromus hordeaceus – *Hordeum* spp. – *Medicago polymorpha* Semi-natural Association
Avena spp. – *Bromus* spp. Herbaceous Alliance

***Bidens cernua* – *Euthamia occidentalis* – *Ludwigia palustris* Herbaceous Alliance**

Common Name: Nodding beggarticks – western goldentop – marsh seedbox mudflats

NVC Alliance Code: A3850. *Bidens cernua* - *Euthamia occidentalis* - *Ludwigia palustris* Intertidal Mudflat Alliance

Associations	Sample Size
<i>Euthamia occidentalis</i> Provisional	1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 329 m

Slope: no data

Aspect: no data

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 65.0%

Surface Covers – Mean (Range):

Large Rock: no data

Small Rock: no data

Fines: no data

Litter: no data

Conservation Status Rank: Global: GNR; State (California): S4

Surveys Used in Description (N = 1): PAPR0013

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Euthamia occidentalis</i>	100	50.0	50.0	50.0	Y	Y		Y
H	<i>Typha</i> sp.	100	15.0	15.0	15.0	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Brassica nigra* – *Centaurea (solstitialis, melitensis)* Herbaceous Semi-Natural Alliance**

Common Name: Upland mustards or star-thistle fields

NVC Alliance Code: A4214. *Brassica nigra* - *Raphanus* spp. Ruderal Annual Forb Meadow Alliance

Associations	Sample Size
<i>Centaurea melitensis</i>	2

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 698 m (636 – 759 m)

Slope: 11° (2 – 20°)

Aspect: Mostly NE-facing

Tree Cover: 0.0%

Shrub Cover: 2.0% (0 – 4%)

Herb Cover: 47.5% (40 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 3.1% (0 – 6%)

Fines: 65.5% (63 – 68%)

Litter: 30.0%

Conservation Status Rank: Global: GNA; State (California): SNA

Surveys Used in Description (N = 2): CARR0617B, CARR6669A

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Eriogonum fasciculatum</i>	50	1.5	3.0	3.0				Y
S	<i>Gutierrezia californica</i>	50	0.1	0.2	0.2				Y
S	<i>Salvia leucophylla</i>	50	0.1	0.2	0.2				Y
S	<i>Artemisia californica</i>	50	0.1	0.2	0.2				Y
H	<i>Centaurea melitensis</i>	100	31.0	22.0	40.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	100	3.0	1.0	5.0	Y			Y
H	<i>Vulpia myuros</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Avena</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus rubens</i>	50	7.5	15.0	15.0				Y
H	<i>Bromus madritensis</i>	50	1.5	3.0	3.0				Y
H	<i>Bromus hordeaceus</i>	50	0.5	1.0	1.0				Y
H	<i>Daucus pusillus</i>	50	0.1	0.2	0.2				Y
H	<i>Schismus</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Bromus berteroanus</i>	50	0.1	0.2	0.2				Y
H	<i>Stephanomeria exigua</i>	50	0.1	0.2	0.2				Y
H	<i>Calochortus clavatus</i>	50	0.1	0.2	0.2				Y
H	<i>Herniaria hirsuta</i>	50	0.1	0.2	0.2				Y
H	<i>Castilleja exserta</i>	50	0.1	0.2	0.2				Y
H	<i>Clarkia cylindrica</i>	50	0.1	0.2	0.2				Y
H	<i>Lotus wrangelianus</i>	50	0.1	0.2	0.2				Y
H	<i>Monolopia lanceolata</i>	50	0.1	0.2	0.2				Y
H	<i>Pholistoma membranaceum</i>	50	0.1	0.2	0.2				Y
H	<i>Thysanocarpus</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Lactuca serriola</i>	50	0.1	0.2	0.2				Y
H	<i>Eriogonum angulosum</i>	50	0.1	0.2	0.2				Y
H	<i>Poa annua</i>	50	0.1	0.2	0.2				Y
N	Lichen	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Centaurea melitensis* Semi-natural Association**

Common Name: Maltese Starthistle Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 698 m (636 – 759 m)

Slope: 11° (2 – 20°)

Aspect: Mostly NE-facing

Tree Cover: 0.0%

Shrub Cover: 2.0% (0 – 4%)

Herb Cover: 47.5% (40 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 3.1% (0 – 6%)

Fines: 65.5% (63 – 68%)

Litter: 30.0% (30 – 30%)

Global Rarity Rank: GNA

State Rarity Rank: SNA

State Rare: N

Surveys Used in Description (N = 2): CARR0617B, CARR6669A

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Eriogonum fasciculatum</i>	50	1.5	3.0	3.0				Y
S	<i>Artemisia californica</i>	50	0.1	0.2	0.2				Y
S	<i>Gutierrezia californica</i>	50	0.1	0.2	0.2				Y
S	<i>Salvia leucophylla</i>	50	0.1	0.2	0.2				Y
H	<i>Centaurea melitensis</i>	100	31.0	22.0	40.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	100	3.0	1.0	5.0	Y			Y
H	<i>Vulpia myuros</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Avena</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus rubens</i>	50	7.5	15.0	15.0				Y
H	<i>Bromus madritensis</i>	50	1.5	3.0	3.0				Y
H	<i>Bromus hordeaceus</i>	50	0.5	1.0	1.0				Y
H	<i>Bromus berteroanus</i>	50	0.1	0.2	0.2				Y
H	<i>Castilleja exserta</i>	50	0.1	0.2	0.2				Y
H	<i>Clarkia cylindrica</i>	50	0.1	0.2	0.2				Y
H	<i>Daucus pusillus</i>	50	0.1	0.2	0.2				Y
H	<i>Lactuca serriola</i>	50	0.1	0.2	0.2				Y
H	<i>Calochortus clavatus</i>	50	0.1	0.2	0.2				Y
H	<i>Schismus</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Eriogonum angulosum</i>	50	0.1	0.2	0.2				Y
H	<i>Stephanomeria exigua</i>	50	0.1	0.2	0.2				Y
H	<i>Monolopia lanceolata</i>	50	0.1	0.2	0.2				Y
H	<i>Thysanocarpus</i>	50	0.1	0.2	0.2				Y
H	<i>Lotus wrangelianus</i>	50	0.1	0.2	0.2				Y
H	<i>Poa annua</i>	50	0.1	0.2	0.2				Y
H	<i>Herniaria hirsuta</i>	50	0.1	0.2	0.2				Y
H	<i>Pholistoma membranaceum</i>	50	0.1	0.2	0.2				Y
N	Lichen	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Brassica tournefortii* – *Malcolmia africana* Provisional Herbaceous Semi-Natural Alliance**

Common Name: Tournefort's mustard and other ruderal desert forb patches

NVC Alliance Code: A4166. *Brassica tournefortii* - *Malcolmia africana* Ruderal Desert Forbs Alliance

Associations	Sample Size
<i>Sisymbrium irio</i> Provisional	1

Classification Comments: The association circumscription is the same as that of the alliance. This provisional association is newly described here to recognize a non-native herb, *Sisymbrium irio*, as a dominant in similar habitats as other diagnostic plants of this alliance in desert-adapted, dry sites that can include disturbed and cleared areas.

Plot/Sample Data Summary – Mean (Range):

Elevation: 623 m

Slope: 0°

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 50.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 20.0%

Fines: 76.0%

Litter: 2.0%

Conservation Status Rank: Global: GNR; **State (California):** SNR

Surveys Used in Description (N = 1): CARR0538

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Sisymbrium irio</i>	100	45.0	45.0	45.0	Y	Y		Y
H	<i>Hordeum murinum</i>	100	5.0	5.0	5.0	Y			Y
H	<i>Erodium cicutarium</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Schismus</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia tessellata</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Brassica tournefortii – *Malcolmia africana* Provisional Herbaceous Semi-Natural Alliance

***Bromus rubens* – *Schismus (arabicus, barbatus)* Herbaceous Semi-Natural Alliance**

Common Name: Red brome or Mediterranean grass grasslands

NVC Alliance Code: A4121. *Bromus rubens* - *Schismus arabicus* - *Schismus barbatus* Ruderal Desert Grassland Alliance

Associations	Sample Size
<i>Bromus (madritensis, rubens)</i> – <i>Erodium cicutarium</i> Provisional	31
<i>Schismus (arabicus, barbatus)</i> Provisional	2

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 590 m (151 – 970 m)

Slope: 4° (0 – 30°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.6% (0 – 5%)

Herb Cover: 38.9% (0 – 85%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 4.0% (0 – 60%)

Fines: 39.4% (0 – 98%)

Litter: 46.0% (0 – 98%)

Conservation Status Rank: Global: GNA; State (California): SNA

Surveys Used in Description (N = 33): CARR0145, CARR0513A, CARR0516C, CARR0520C, CARR0520F, CARR0521F, CARR0556B, CARR0901A, CARR0913A, CARR0947, CARR0949A, CARR0952, CARR0989B, CARR0989C, CARR1088, CARR1126B, CARR1152, CARR6700, CCBLM491, CHG150, CVPA0596, CVPA3057, CVPA3741, CVPA3809, CVPA4315, CVPA4373, E0429154, LPWA009, PHER022, PHER024, PHER025, PHER036, Z0409164

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	82	11.8	0.2	55.0	Y		Y	Y
H	<i>Bromus rubens</i>	82	9.2	0.2	55.0	Y			Y
H	<i>Hordeum murinum</i>	52	3.0	0.2	35.0				Y
H	<i>Vulpia myuros</i>	24	3.0	0.2	45.0				
H	<i>Bromus hordeaceus</i>	24	2.6	0.2	35.0				
H	<i>Schismus</i> sp.	24	1.8	0.2	20.0				
H	<i>Amsinckia tessellata</i>	24	0.1	0.2	1.0				
H	<i>Descurainia sophia</i>	21	0.7	0.2	20.0				
H	<i>Bromus diandrus</i>	21	0.6	0.2	10.0				
H	<i>Avena</i> sp.	21	0.2	0.2	3.0				
H	<i>Lactuca serriola</i>	21	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Bromus (madritensis, rubens) – Erodium cicutarium* Semi-natural Association**

Common Name: Madrid or Red Brome – Redstem Filaree Association

Classification Comments: The name of this association has been revised from the plain *Bromus rubens* Association to reflect that it has been expanded to include stands dominated by the closely related *Bromus madritensis* or by *Erodium cicutarium*. Because of taxonomic changes, the two bromes have been confused or used interchangeably in the past.

Plot/Sample Data Summary – Mean (Range):

Elevation: 584 m (151 – 970 m)

Slope: 4° (0 – 30°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.7% (0 – 5%)

Herb Cover: 40.5% (0 – 85%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 4.2% (0 – 60%)

Fines: 36.4% (0 – 98%)

Litter: 48.0% (0 – 98%)

Global Rarity Rank: GNA

State Rarity Rank: SNA

State Rare: N

Surveys Used in Description (N = 31): CARR0145, CARR0513A, CARR0516C, CARR0520C, CARR0520F, CARR0521A, CARR0556B, CARR0913A, CARR0947, CARR0949A, CARR0952, CARR0989B, CARR0989C, CARR1088, CARR1152, CARR6700, CCBLM491, CHG150, CVPA0596, CVPA3057, CVPA3741, CVPA3809, CVPA4315, CVPA4373, E0429154, LPWA009, PHER022, PHER024, PHER025, PHER036, Z0409164

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Of
H	<i>Erodium cicutarium</i>	81	14.7	0.2	70.0	Y		Y	Y
H	<i>Bromus rubens</i>	81	9.7	0.2	55.0	Y			Y
H	<i>Hordeum murinum</i>	48	2.7	0.2	35.0				
H	<i>Bromus hordeaceus</i>	29	2.8	0.2	35.0				
H	<i>Vulpia myuros</i>	26	3.2	0.2	45.0				
H	<i>Bromus diandrus</i>	23	0.6	0.2	10.0				
H	<i>Avena</i> sp.	23	0.2	0.2	3.0				
H	<i>Amsinckia tessellata</i>	23	0.1	0.2	1.0				

Bromus (madritensis, rubens) – Erodium cicutarium Semi-natural Association
Bromus rubens – *Schismus (arabicus, barbatus)* Herbaceous Alliance

***Schismus (arabicus, barbatus)* Provisional Semi-natural Association**

Common Name: Mediterranean Grass Provisional Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 689 m (618 – 759 m)

Slope: 4°

Aspect: Mostly SW-facing

Tree Cover: 0.0%

Shrub Cover: 0.7% (0 – 1%)

Herb Cover: 33.5% (21 – 46%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 1.6% (0 – 3%)

Fines: 76.5% (67 – 86%)

Litter: 20.0% (10 – 30%)

Global Rarity Rank: GNA

State Rarity Rank: SNA

State Rare: N

Surveys Used in Description (N = 2): CARR0901A, CARR1126B

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex polycarpa</i>	50	0.5	1.0	1.0				Y
S	<i>Standing snag</i>	50	0.1	0.2	0.2				Y
S	<i>Gutierrezia californica</i>	50	0.1	0.2	0.2				Y
H	Schismus sp.	100	17.0	14.0	20.0	Y	Y		Y
H	<i>Hordeum murinum</i>	100	8.5	2.0	15.0	Y			Y
H	<i>Bromus rubens</i>	100	4.0	3.0	5.0	Y			Y
H	<i>Erodium cicutarium</i>	100	1.1	0.2	2.0	Y			Y
H	<i>Eriogonum</i> sp.	50	0.5	1.0	1.0				Y
H	<i>Descurainia sophia</i>	50	0.5	1.0	1.0				Y
H	<i>Hollisteria lanata</i>	50	0.1	0.2	0.2				Y
H	<i>Astragalus oxyphysus</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia tessellata</i>	50	0.1	0.2	0.2				Y
H	<i>Lactuca serriola</i>	50	0.1	0.2	0.2				Y
H	<i>Castilleja exserta</i>	50	0.1	0.2	0.2				Y
H	<i>Chorizanthe uniaristata</i>	50	0.1	0.2	0.2				Y
H	<i>Croton setigerus</i>	50	0.1	0.2	0.2				Y
H	<i>Eriogonum gracillimum</i>	50	0.1	0.2	0.2				Y
H	<i>Gilia</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Guillenia lasiophylla</i>	50	0.1	0.2	0.2				Y
H	<i>Herniaria hirsuta</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia menziesii</i> var. <i>intermedia</i>	50	0.1	0.2	0.2				Y
H	<i>Microseris elegans</i>	50	0.1	0.2	0.2				Y
H	<i>Stephanomeria</i>	50	0.1	0.2	0.2				Y
H	<i>Vulpia microstachys</i>	50	0.1	0.2	0.2				Y
H	<i>Trifolium</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Pectocarya</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Malacothrix coulteri</i>	50	0.1	0.2	0.2				Y
H	<i>Lasthenia gracilis</i>	50	0.1	0.2	0.2				Y
H	<i>Lepidium nitidum</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia menziesii</i>	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Schismus (arabicus, barbatus) Provisional Semi-natural Association
Bromus rubens – *Schismus (arabicus, barbatus)* Herbaceous Alliance

Corethrogyne filaginifolia – Eriogonum (elongatum, nudum) Herbaceous Alliance

Common Name: Sand-aster and perennial buckwheat fields

NVC Alliance Code: A4238. *Corethrogyne filaginifolia* - *Eriogonum elongatum* - *Eriogonum nudum* Dry Meadow Alliance

Associations	Sample Size
<i>Corethrogyne filaginifolia</i>	4
<i>Corethrogyne filaginifolia</i> – <i>Eriogonum (elongatum, nudum)</i> alliance	1
<i>Eriogonum elongatum</i>	7
<i>Eriogonum nudum</i> Provisional	2
<i>Eriogonum nudum</i> var. <i>indictum</i> – <i>Eriogonum vestitum</i>	14
<i>Eriophyllum confertiflorum</i> Provisional	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 562 m (210 – 810 m)

Slope: 16° (3 – 45°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 1.0% (0 – 7%)

Herb Cover: 23.6% (3 – 74%)

Surface Covers – Mean (Range):

Large Rock: 1.5% (0 – 10%)

Small Rock: 25.7% (0 – 92%)

Fines: 49.5% (5 – 93%)

Litter: 14.4% (0 – 60%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 28): A0512151, CARR0064, CARR0073, CARR0082, CARR0139, CARR0173, CARR0174, CARR0606, CARR0608, CARR0654, CARR0674, CARR0981, CARR1230, CCBLM474, CCBLM496, CCBLM499, CCBLM502, chg001, CVPA0009, CVPA0124, CVPA8008, CVPA8068, CVPA8214, CVPA8225, MORE0001, MORI0054, MORI0056, Q19030856

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Gutierrezia californica</i>	41	0.5	0.2	4.0				
H	<i>Bromus rubens</i>	72	3.5	0.2	24.0				Y
H	<i>Erodium cicutarium</i>	69	2.3	0.2	15.0				Y
H	<i>Eriogonum nudum</i>	38	3.2	1.0	20.0				
H	<i>Poa secunda</i>	34	0.3	0.2	4.0				
H	<i>Avena</i>	34	0.3	0.2	5.0				
H	<i>Eriogonum nudum</i> var. <i>indictum</i>	31	3.1	0.2	20.0				
H	<i>Bromus hordeaceus</i>	31	2.8	0.2	30.0				
H	<i>Eriogonum elongatum</i>	31	2.2	0.2	17.0				
H	<i>Amsinckia tessellata</i>	31	1.3	0.2	30.0				
H	<i>Vulpia myuros</i>	31	0.5	0.1	7.0				
H	<i>Vulpia microstachys</i>	28	0.2	0.2	5.0				
H	<i>Corethrogyne filaginifolia</i>	24	2.1	1.0	26.0				
H	<i>Amsinckia vernicosa</i>	24	0.3	0.2	5.0				
H	<i>Castilleja exserta</i>	24	0.1	0.1	2.0				
H	<i>Lotus wrangelianus</i>	21	0.2	0.2	3.0				
H	<i>Nassella cernua</i>	21	0.1	0.2	2.0				
H	<i>Lomatium utriculatum</i>	21	0.1	0.2	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Corethrogyne filaginifolia* Association**

Common Name: Sand-aster Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 746 m (734 – 761 m)

Slope: 9° (8 – 11°)

Aspect: Variable

Tree Cover: 0.1%

Shrub Cover: 0.1%

Herb Cover: 30.8% (14 – 58%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 11.9% (5 – 20%)

Fines: 65.0% (40 – 84%)

Litter: 22.3% (10 – 40%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 4): A0512151, CARR0082, CARR0674, CARR0981

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Juniperus californica</i>	25	0.1	0.2	0.2				
S	<i>Hazardia stenolepis</i>	25	0.3	1.0	1.0				
S	<i>Ericameria linearifolia</i>	25	0.1	0.2	0.2				
S	<i>Gutierrezia californica</i>	25	0.1	0.2	0.2				
H	<i>Corethrogyne filaginifolia</i>	100	14.3	6.0	26.0	Y		Y	Y
H	<i>Bromus rubens</i>	100	4.0	2.0	7.0	Y			Y
H	<i>Erodium cicutarium</i>	75	3.5	1.0	8.0	Y			Y
H	<i>Lotus wrangelianus</i>	75	1.3	0.2	3.0	Y			Y
H	<i>Castilleja exserta</i>	75	0.6	0.1	2.0	Y			Y
H	<i>Hirschfeldia incana</i>	50	1.0	1.0	3.0				Y
H	<i>Eriogonum elongatum</i>	50	0.8	0.2	3.0				Y
H	<i>Trifolium gracilentum</i>	50	0.3	0.2	1.0				Y
H	<i>Stephanomeria exigua</i>	50	0.1	0.2	0.2				Y
H	<i>Avena</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Bromus hordeaceus</i>	25	5.0	20.0	20.0				
H	<i>Pectocarya linearis</i>	25	0.8	3.0	3.0				
H	<i>Bromus diandrus</i>	25	0.8	3.0	3.0				
H	<i>Herniaria hirsuta</i>	25	0.8	3.0	3.0				
H	<i>Chorizanthe xanti</i> var. <i>xanti</i>	25	0.3	1.0	1.0				
H	<i>Vulpia myuros</i>	25	0.3	1.0	1.0				
H	<i>Poa secunda</i>	25	0.3	1.0	1.0				
H	<i>Trifolium albopurpureum</i>	25	0.1	0.2	0.2				
H	<i>Gilia minor</i>	25	0.1	0.2	0.2				
H	<i>Eschscholzia californica</i>	25	0.1	0.2	0.2				
H	<i>Clarkia purpurea</i>	25	0.1	0.2	0.2				
H	<i>Trichostema lanceolatum</i>	25	0.1	0.2	0.2				
H	<i>Astragalus oxyphysus</i>	25	0.1	0.2	0.2				
H	<i>Lasthenia californica</i>	25	0.1	0.2	0.2				
H	<i>Lomatium utriculatum</i>	25	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	25	0.1	0.2	0.2				
H	<i>Lupinus bicolor</i>	25	0.1	0.2	0.2				
H	<i>Nassella cernua</i>	25	0.1	0.2	0.2				
H	<i>Lasthenia gracilis</i>	25	0.0	0.1	0.1				
H	<i>Schismus</i> sp.	25	0.0	0.1	0.1				
N	Moss	25	0.1	0.2	0.2				

***Eriogonum elongatum* Association**

Common Name: Longstem Buckwheat Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 693 m (644 – 760 m)

Slope: 14° (7 – 24°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 1.5% (0 – 7%)

Herb Cover: 31.1% (12 – 52%)

Surface Covers – Mean (Range):

Large Rock: 2.7% (0 – 9%)

Small Rock: 18.3% (0 – 34%)

Fines: 49.0% (30 – 72%)

Litter: 28.6% (10 – 60%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 7): CARR0064, CARR0073, CARR0139,
CARR0174, CARR0608, CARR0654, CARR1230

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Gutierrezia californica</i>	43	0.5	0.2	2.0				
S	<i>Lupinus albifrons</i>	29	0.5	0.2	3.0				
S	<i>Eriogonum fasciculatum</i>	29	0.2	0.2	1.0				
H	<i>Bromus rubens</i>	100	9.6	0.2	24.0	Y			Y
H	<i>Eriogonum elongatum</i>	100	8.7	3.0	17.0	Y			Y
H	<i>Erodium cicutarium</i>	100	3.8	0.2	10.0	Y			Y
H	<i>Bromus hordeaceus</i>	71	2.5	0.2	10.0				Y
H	<i>Poa secunda</i>	71	0.9	0.2	4.0				Y
H	<i>Amsinckia tessellata</i>	57	0.6	0.2	2.0				Y
H	<i>Avena</i> sp.	57	0.5	0.2	2.0				Y
H	<i>Castilleja exserta</i>	57	0.1	0.2	0.2				Y
H	<i>Vulpia myuros</i>	43	1.3	0.2	7.0				
H	<i>Eriogonum nudum</i>	43	1.1	2.0	4.0				
H	<i>Nassella cernua</i>	43	0.3	0.2	2.0				
H	<i>Lotus wrangelianus</i>	43	0.2	0.2	1.0				
H	<i>Vulpia microstachys</i>	43	0.1	0.2	0.2				
H	<i>Lasthenia californica</i>	43	0.1	0.2	0.2				
H	<i>Pectocarya penicillata</i>	43	0.1	0.2	0.2				
H	<i>Muilla maritima</i>	43	0.1	0.2	0.2				
H	<i>Lomatium utriculatum</i>	43	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	43	0.1	0.2	0.2				
H	<i>Plantago erecta</i>	29	0.6	0.2	4.0				
H	<i>Eschscholzia californica</i>	29	0.2	0.2	1.0				
H	<i>Gilia minor</i>	29	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	29	0.1	0.2	0.2				
H	<i>Lepidium nitidum</i>	29	0.1	0.2	0.2				
H	<i>Layia platyglossa</i>	29	0.1	0.2	0.2				
H	<i>Crassula connata</i>	29	0.1	0.2	0.2				
H	<i>Trifolium albopurpureum</i>	29	0.1	0.2	0.2				
H	<i>Astragalus didymocarpus</i>	29	0.1	0.2	0.2				
N	Lichen	29	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Eriogonum elongatum Association
Corethrogyne filaginifolia – *Eriogonum* (*elongatum*, *nudum*) Herbaceous Alliance

***Eriogonum nudum* Provisional Association**

Common Name: Nude Buckwheat Provisional Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 661 m (615 – 707 m)

Slope: 10° (3 – 16°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 1.1% (0 – 2%)

Herb Cover: 34.5% (24 – 45%)

Surface Covers – Mean (Range):

Large Rock: 5.2% (0 – 10%)

Small Rock: 17.6% (15 – 20%)

Fines: 37.0% (30 – 44%)

Litter: 39.0% (25 – 53%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 2): CARR0173, CARR0606

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Gutierrezia californica</i>	50	1.0	2.0	2.0				Y
S	<i>Ericameria linearifolia</i>	50	0.1	0.1	0.1				Y
H	<i>Eriogonum nudum</i>	100	13.5	10.0	17.0	Y		Y	Y
H	<i>Bromus hordeaceus</i>	100	6.6	0.2	13.0	Y			Y
H	<i>Bromus rubens</i>	100	5.1	0.2	10.0	Y			Y
H	<i>Erodium cicutarium</i>	100	4.5	2.0	7.0	Y			Y
H	<i>Vulpia myuros</i>	100	1.6	0.2	3.0	Y			Y
H	<i>Nassella cernua</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Amsinckia tessellata</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Avena</i> sp.	50	2.5	5.0	5.0				Y
H	<i>Poa secunda</i>	50	0.5	1.0	1.0				Y
H	<i>Navarretia</i> sp.	50	0.5	1.0	1.0				Y
H	<i>Trifolium depauperatum</i>	50	0.5	1.0	1.0				Y
H	<i>Corethrogyne filaginifolia</i>	50	0.5	1.0	1.0				Y
H	<i>Plantago erecta</i>	50	0.5	1.0	1.0				Y
H	<i>Lasthenia californica</i>	50	0.1	0.2	0.2				Y
H	<i>Trifolium albopurpureum</i>	50	0.1	0.2	0.2				Y
H	<i>Lupinus bicolor</i>	50	0.1	0.2	0.2				Y
H	<i>Eschscholzia californica</i>	50	0.1	0.2	0.2				Y
H	<i>Clarkia purpurea</i>	50	0.1	0.2	0.2				Y
H	<i>Trichostema lanceolatum</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia menziesii</i>	50	0.1	0.2	0.2				Y
H	<i>Bloomeria crocea</i>	50	0.1	0.2	0.2				Y
H	<i>Thysanocarpus curvipes</i>	50	0.1	0.2	0.2				Y
H	<i>Lomatium utriculatum</i>	50	0.1	0.2	0.2				Y
H	<i>Vulpia microstachys</i>	50	0.1	0.2	0.2				Y
N	Lichen	50	0.1	0.2	0.2				Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eriogonum nudum* var. *indictum* – *Eriogonum vestitum* Association**

Common Name: Naked Buckwheat – Idira Buckwheat Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 416 m (210 – 810 m)

Slope: 20° (8 – 45°)

Aspect: Mostly south-facing

Tree Cover: 0.0%

Shrub Cover: 1.0% (0 – 5%)

Herb Cover: 14.3% (5 – 30%)

Surface Covers – Mean (Range):

Large Rock: 0.8% (0 – 5%)

Small Rock: 37.2% (0 – 92%)

Fines: 45.2% (5 – 93%)

Litter: 1.6% (0 – 10%)

Global Rarity Rank: G2 **State Rarity Rank:** S2

State Rare: Y

Surveys Used in Description (N = 14): CCBLM474, CCBLM496, CCBLM499, CCBLM502, CVPA0009, CVPA0124, CVPA8008, CVPA8068, CVPA8214, CVPA8225, MORE0001, MORI0054, MORI0056, Q19030856

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Gutierrezia californica</i>	50	0.6	0.2	4.0				Y
S	<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	21	0.0	0.2	0.2				
H	<i>Eriogonum nudum</i> var. <i>indictum</i>	64	6.4	0.2	20.0				Y
H	<i>Bromus rubens</i>	50	0.2	0.2	1.0				Y
H	<i>Amsinckia vernicosa</i>	43	0.6	0.2	5.0				
H	<i>Erodium cicutarium</i>	43	0.1	0.2	1.0				
H	<i>Eriogonum nudum</i>	36	4.1	5.0	20.0				
H	<i>Eriogonum vestitum</i>	36	0.1	0.2	1.0				
H	<i>Bromus madritensis</i>	29	1.6	0.2	15.0				
H	<i>Vulpia microstachys</i>	29	0.4	0.2	5.0				
H	<i>Eriogonum</i> sp.	21	0.2	0.2	3.0				
H	<i>Vulpia myuros</i>	21	0.2	0.1	1.0				
N	Moss	21	0.0	0.1	0.2				

***Eriophyllum confertiflorum* Provisional Association**

Common Name: Golden Yarrow Provisional Association

Classification Comments: *Eriophyllum confertiflorum* is a perennial herb or subshrub, found as a dominant to co-dominant in stands of this provisional association. More sampling will help determine whether this is better placed in a seral scrub alliance (such as *Ericameria linearifolia* – *Cleome isomeris*) or in the perennial / annual grassland alliance for which its placed in this report.

Plot/Sample Data Summary – Mean (Range):

Elevation: 993 m

Slope: 36°

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 1.0%

Herb Cover: 62.0%

Surface Covers – Mean (Range):

Large Rock: 0.2%

Small Rock: 35.2%

Fines: 62.0%

Litter: 2.0%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 1): CARR0851

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex polycarpa</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Ephedra californica</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Ericameria linearifolia</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Eriogonum fasciculatum</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Krascheninnikovia lanata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia tessellata</i>	100	30.0	30.0	30.0	Y		Y	Y
H	<i>Eriophyllum confertiflorum</i>	100	18.0	18.0	18.0	Y			Y
H	<i>Bromus rubens</i>	100	7.0	7.0	7.0	Y			Y
H	<i>Phacelia cicutaria</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Mentzelia pectinata</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Monolopia lanceolata</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Amsinckia vernicosa</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Poa secunda</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Erysimum capitatum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Erodium cicutarium</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Stanleya pinnata</i>	100	0.2	0.2	0.2	Y			Y
N	Lichen	100	2.0	2.0	2.0	Y	Y		Y
N	Moss	100	1.0	1.0	1.0	Y		Y	Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Dicoria canescens* – *Abronia villosa* – *Panicum urvilleanum* Sparsely Vegetated Alliance**

Common Name: Mojave-Sonoran desert dunes

NVC Alliance Code: A4026. *Dicoria canescens* - *Abronia villosa* - *Panicum urvilleanum* Dune Alliance

Associations	Sample Size
<i>Abronia pogonantha</i> – <i>Oenothera deltoidea</i> Provisional	7
<i>Rumex hymenosepalus</i> Provisional	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 374 m (242 – 731 m)

Slope: 17° (6 – 32°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.3% (0 – 2%)

Herb Cover: 13.8% (12 – 15%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.5% (0 – 2%)

Fines: 96.4% (85 – 99%)

Litter: 0.4% (0 – 1%)

Conservation Status Rank: Global: G4; **State (California):** S3

Surveys Used in Description (N = 8): CCBLM476, CVPA8212, KTHL0001, KTHL0004, KTHL0009, KTHL0012, KTHL0024, KTHL0028

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex polycarpa</i>	25	0.1	0.2	0.2				
H	<i>Oenothera deltoides</i>	88	3.1	1.0	6.0	Y			Y
H	<i>Schismus</i> sp.	88	1.6	0.2	6.0	Y			Y
H	<i>Erodium cicutarium</i>	88	0.9	0.2	3.0	Y			Y
H	<i>Abronia pogonantha</i>	75	2.5	1.0	9.0	Y			Y
H	<i>Hemizonia kelloggii</i>	75	0.5	0.2	2.0	Y			Y
H	<i>Salsola tragus</i>	75	0.4	0.2	1.0	Y			Y
H	<i>Ambrosia acanthicarpa</i>	63	0.7	0.2	5.0				Y
H	<i>Mentzelia affinis</i>	63	0.3	0.2	1.0				Y
H	<i>Pectocarya</i> sp.	63	0.2	0.2	1.0				Y
H	<i>Bromus rubens</i>	63	0.2	0.2	1.0				Y
H	<i>Lotus wrangelianus</i>	63	0.1	0.2	0.2				Y
H	<i>Amsinckia tessellata</i>	50	0.7	0.2	3.0				Y
H	<i>Calandrinia ciliata</i>	50	0.1	0.2	0.2				Y
H	<i>Camissonia campestris</i>	38	0.3	0.2	2.0				
H	<i>Eremalche parryi</i>	38	0.2	0.2	1.0				
H	<i>Lupinus nanus</i>	38	0.1	0.2	0.5				
H	<i>Eriogonum angulosum</i>	38	0.1	0.2	0.2				
H	<i>Croton setigerus</i>	38	0.1	0.2	0.2				
H	<i>Phacelia douglasii</i>	38	0.1	0.2	0.2				
H	<i>Loeflingia squarrosa</i>	38	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i> var. <i>intermedia</i>	25	0.4	0.2	3.0				
H	<i>Microseris lindleyi</i>	25	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	25	0.1	0.2	0.2				
H	<i>Salvia columbariae</i>	25	0.1	0.2	0.2				
H	<i>Chaenactis fremontii</i>	25	0.1	0.2	0.2				
H	<i>Bromus diandrus</i>	25	0.1	0.2	0.2				
H	<i>Hordeum murinum</i>	25	0.1	0.2	0.2				
H	<i>Malacothrix coulteri</i>	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Abronia pogonantha* – *Oenothera deltoides* Provisional Association**

Common Name: Mojave Sand Verbena – Desert Lantern Provisional Association

Classification Comments: This association is newly described here in which the characteristic species (*Abronia pogonantha* and *Oenothera deltoides*) occur as dominants alone or co-dominants with other herbs including native and non-native species in sand dune and sand flat sites.

Plot/Sample Data Summary – Mean (Range):

Elevation: 358 m (242 – 731 m)

Slope: 19° (6 – 32°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.3% (0 – 2%)

Herb Cover: 13.6% (12 – 15%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.5% (0 – 2%)

Fines: 98.0% (96 – 99%)

Litter: 0.4% (0 – 1%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 7): CVPA8212, KTHL0001, KTHL0004, KTHL0009, KTHL0012, KTHL0024, KTHL0028

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex polycarpa</i>	29	0.1	0.2	0.2				
H	<i>Oenothera deltoides</i>	100	3.6	1.0	6.0	Y			Y
H	<i>Schismus</i> sp.	100	1.8	0.2	6.0	Y			Y
H	<i>Erodium cicutarium</i>	100	1.0	0.2	3.0	Y			Y
H	<i>Abronia pogonantha</i>	86	2.9	1.0	9.0	Y			Y
H	<i>Hemizonia kelloggii</i>	86	0.5	0.2	2.0	Y			Y
H	<i>Salsola tragus</i>	71	0.4	0.2	1.0				Y
H	<i>Mentzelia affinis</i>	71	0.3	0.2	1.0				Y
H	<i>Pectocarya</i> sp.	71	0.3	0.2	1.0				Y
H	<i>Bromus rubens</i>	71	0.3	0.2	1.0				Y
H	<i>Lotus wrangelianus</i>	71	0.1	0.2	0.2				Y
H	<i>Amsinckia tessellata</i>	57	0.7	0.2	3.0				Y
H	<i>Calandrinia ciliata</i>	57	0.1	0.2	0.2				Y
H	<i>Ambrosia acanthicarpa</i>	57	0.1	0.2	0.2				Y
H	<i>Camissonia campestris</i>	43	0.3	0.2	2.0				
H	<i>Eremalche parryi</i>	43	0.2	0.2	1.0				
H	<i>Lupinus nanus</i>	43	0.1	0.2	0.5				
H	<i>Phacelia douglasii</i>	43	0.1	0.2	0.2				
H	<i>Eriogonum angulosum</i>	43	0.1	0.2	0.2				
H	<i>Loeflingia squarrosa</i>	43	0.1	0.2	0.2				
H	<i>Croton setigerus</i>	43	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i> var. <i>intermedia</i>	29	0.5	0.2	3.0				
H	<i>Chaenactis fremontii</i>	29	0.1	0.2	0.2				
H	<i>Salvia columbariae</i>	29	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	29	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	29	0.1	0.2	0.2				
H	<i>Malacothrix coulteri</i>	29	0.1	0.2	0.2				
H	<i>Hordeum murinum</i>	29	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Abronia pogonantha – *Oenothera deltoides* Provisional Association
Dicoria canescens – *Abronia villosa* – *Panicum urvilleanum* Sparsely Vegetated Alliance

***Rumex hymenosepalus* Provisional Association**

Common Name: Canaigre Dock Provisional Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 489 m

Slope: 6°

Aspect: Mostly SE-facing

Tree Cover: 0.0%

Shrub Cover: 0.2%

Herb Cover: 15.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 85.0%

Litter: 0.2%

Global Rarity Rank: G2 **State Rarity Rank:** S2

State Rare: Y

Surveys Used in Description (N = 1): CCBLM476

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Rumex hymenosepalus</i>	100	8.0	8.0	8.0	Y	Y		Y
H	<i>Ambrosia acanthicarpa</i>	100	5.0	5.0	5.0	Y		Y	Y
H	<i>Bromus diandrus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Salsola tragus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia menziesii</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Eriastrum pluriflorum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus madritensis</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Distichlis spicata* Interior Herbaceous Alliance**

Common Name: Salt grass playas and sinks

NVC Alliance Code: A1332. *Distichlis spicata* Alkaline Wet Meadow Alliance

Associations	Sample Size
<i>Distichlis spicata</i> Interior	12
<i>Distichlis spicata</i> – <i>Juncus arcticus</i> var. <i>balticus</i> (<i>J. mexicanus</i>) Interior	10
<i>Frankenia salina</i> Interior	10

Classification Comments: This alliance is newly constituted from two split alliances, the *Distichlis spicata* and *Frankenia salina* alliances. Coastal stands comprised of these two species are now treated in the *Distichlis spicata* – *Frankenia salina* Coastal Alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 462 m (162 – 871 m)

Slope: 2° (0 – 14°)

Aspect: Variable

Tree Cover: 0.4% (0 – 4%)

Shrub Cover: 1.9% (0 – 13%)

Herb Cover: 32.4% (5 – 86%)

Surface Covers – Mean (Range):

Large Rock: 0.5% (0 – 5%)

Small Rock: 1.3% (0 – 7%)

Fines: 48.7% (0 – 97%)

Litter: 41.1% (0 – 100%)

Conservation Status Rank: Global: GNR; **State (California):** SNR

Surveys Used in Description (N = 32): A0428170, A0514140, CARR0839, CARR0841, CARR0913B, CARR1084D, CARR1227, CARR1595, CARR1634, CARR2101, CVPA0057, CVPA0121, CVPA3660, CVPA4371b, CVPA8069, CVPA8100, CVPA8112, CVPA8204, CVPA8222, LPWA014, LPWA033, PAPR0009, PAPR0012, PAPR0014, PAPR0026, PAPR0027, PAPR0028, PAPR0029, PAPR0030, PAPR0033, PAPR0037, PAPR0043

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex lentiformis</i>	28	0.3	0.2	3.0				
S	<i>Isocoma acradenia</i>	22	0.3	0.2	3.0				
H	<i>Distichlis spicata</i>	82	11.4	0.2	46.0	Y		Y	Y
H	<i>Frankenia salina</i>	58	6.2	0.2	66.0				Y
H	<i>Hordeum murinum</i>	59	1.1	0.2	8.0				Y
H	<i>Erodium cicutarium</i>	53	1.8	0.1	32.0				Y
H	<i>Juncus arcticus</i>	34	2.6	0.2	35.0				
H	<i>Melilotus indicus</i>	34	1.5	0.2	40.0				
H	<i>Schoenoplectus americanus</i>	34	0.8	0.2	9.0				
H	<i>Typha</i> sp.	34	0.4	1.0	3.0				
H	<i>Polypogon monspeliensis</i>	28	0.5	1.0	10.0				
H	<i>Bromus rubens</i>	28	0.5	0.2	9.0				
H	<i>Bromus diandrus</i>	28	0.3	0.2	4.0				
H	<i>Sisymbrium irio</i>	28	0.3	0.1	2.0				
H	<i>Bromus hordeaceus</i>	25	0.7	1.0	9.0				
H	<i>Lotus corniculatus</i>	25	0.6	0.2	6.0				
H	<i>Schoenoplectus pungens</i>	25	0.3	1.0	2.0				
H	<i>Lactuca serriola</i>	25	0.1	0.1	1.0				
H	<i>Hordeum marinum</i>	25	0.6	0.2	10.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Distichlis spicata Interior Association

Common Name: Salt Grass Association

Classification Comments: This association was created by splitting the previous *Distichlis spicata* Association which consisted of strongly dominant *Distichlis* stands into separate interior and coastal associations.

Plot/Sample Data Summary – Mean (Range):

Elevation: 616 m (305 – 871 m)

Slope: 3° (0 – 14°)

Aspect: Variable

Tree Cover: 0.6% (0 – 4%)

Shrub Cover: 0.6% (0 – 2%)

Herb Cover: 27.8% (15 – 48%)

Surface Covers – Mean (Range):

Large Rock: 0.7% (0 – 5%)

Small Rock: 1.8% (0 – 7%)

Fines: 42.7% (3 – 97%)

Litter: 52.2% (0 – 96%)

Global Rarity Rank: G5

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 12): A0428170, A0514140, CARR0841, CARR1084D, CARR1227, CARR1595, CARR1634, CVPA8100, CVPA8204, CVPA8222, PAPR0026, PAPR0027

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Distichlis spicata</i>	100	16.5	1.0	35.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	92	1.8	0.2	10.0	Y			Y
H	<i>Hordeum murinum</i>	75	1.8	1.0	8.0	Y			Y
H	<i>Bromus rubens</i>	50	1.1	0.2	9.0				Y
H	<i>Descurainia sophia</i>	33	1.0	0.2	11.0				
H	<i>Frankenia salina</i>	33	0.6	0.2	4.0				
H	<i>Bromus hordeaceus</i>	25	0.9	1.0	9.0				
H	<i>Bromus diandrus</i>	25	0.4	0.2	4.0				
H	<i>Schoenoplectus pungens</i>	25	0.3	1.0	2.0				
H	<i>Melilotus indicus</i>	25	0.2	0.2	1.0				
H	<i>Avena</i> sp.	25	0.2	0.2	1.0				
H	<i>Lactuca serriola</i>	25	0.0	0.2	0.2				

***Distichlis spicata* – *Juncus arcticus* var. *balticus* (*J. mexicanus*) Interior Association**

Common Name: Baltic Rush – Salt Grass Association

Classification Comments: This association was created by splitting the previous *Distichlis spicata* – *Juncus arcticus* var. *balticus* (*J. arcticus* var. *mexicanus*) Association into separate interior and coastal associations.

Plot/Sample Data Summary – Mean (Range):

Elevation: 319 m (181 – 392 m)

Slope: 0°

Aspect: Variable

Tree Cover: 0.6% (0 – 2%)

Shrub Cover: 1.7% (0 – 3%)

Herb Cover: 39.2% (19 – 65%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 68.0% (68 – 68%)

Litter: 25.0% (25 – 25%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 10): CVPA0057, PAPR0009, PAPR0012, PAPR0015, PAPR0028, PAPR0029, PAPR0030, PAPR0033, PAPR0037, PAPR0043

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Populus fremontii</i>	40	0.5	1.0	2.0				
S	<i>Atriplex lentiformis</i>	50	0.4	0.2	1.0				Y
S	<i>Isocoma acradenia</i>	40	0.6	1.0	3.0				
S	<i>Atriplex polycarpa</i>	20	0.2	1.0	1.0				
H	<i>Distichlis spicata</i>	100	14.6	3.0	46.0	Y			Y
H	<i>Juncus arcticus</i>	100	8.4	1.0	35.0	Y			Y
H	<i>Schoenoplectus americanus</i>	90	2.6	1.0	9.0	Y			Y
H	<i>Typha</i> sp.	90	1.2	1.0	3.0	Y			Y
H	<i>Lotus corniculatus</i>	80	1.9	0.2	6.0	Y			Y
H	<i>Polypogon monspeliensis</i>	70	1.6	1.0	10.0				Y
H	<i>Melilotus indicus</i>	70	0.7	0.2	2.0				Y
H	<i>Hordeum murinum</i>	60	1.2	1.0	4.0				Y
H	<i>Frankenia salina</i>	50	0.9	1.0	5.0				Y
H	<i>Leymus triticoides</i>	50	0.8	1.0	3.0				Y
H	<i>Bromus diandrus</i>	50	0.5	1.0	1.0				Y
H	<i>Schoenoplectus pungens</i>	50	0.5	1.0	1.0				Y
H	<i>Hordeum marinum</i>	40	0.9	1.0	4.0				
H	<i>Sisymbrium irio</i>	40	0.4	1.0	1.0				
H	<i>Vulpia bromoides</i>	40	0.4	1.0	1.0				
H	<i>Parapholis incurva</i>	30	0.9	1.0	7.0				
H	<i>Heliotropium curassavicum</i>	30	0.5	1.0	3.0				
H	<i>Lactuca serriola</i>	30	0.3	1.0	1.0				
H	<i>Sonchus</i> sp.	30	0.3	1.0	1.0				
H	<i>Anemopsis californica</i>	20	0.3	1.0	2.0				
H	<i>Bromus hordeaceus</i>	20	0.2	1.0	1.0				
H	<i>Atriplex argentea</i> ssp. <i>expansa</i>	20	0.2	1.0	1.0				
H	<i>Spergularia rubra</i>	20	0.2	1.0	1.0				
H	<i>Lolium perenne</i>	20	0.2	1.0	1.0				
H	<i>Lepidium latifolium</i>	20	0.2	1.0	1.0				
H	<i>Centaurea melitensis</i>	20	0.2	1.0	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Distichlis spicata – *Juncus arcticus* var. *balticus* (*J. mexicanus*) Interior Association
Distichlis spicata Interior Herbaceous Alliance

***Frankenia salina* Interior Association**

Common Name: Alkali Heath Interior Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 406 m (162 – 806 m)

Slope: 2° (0 – 5°)

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 2.7% (0 – 13%)

Herb Cover: 33.5% (5 – 86%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.9% (0 – 3%)

Fines: 50.3% (0 – 97%)

Litter: 32.4% (1 – 100%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 10): CARR0839, CARR0913, CARR2101, CVPA0121, CVPA3660, CVPA4371b, CVPA8069, CVPA8112, LPWA033

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Suaeda moquinii</i>	30	1.3	0.2	13.0				
S	<i>Atriplex lentiformis</i>	20	0.3	0.2	3.0				
H	<i>Frankenia salina</i>	100	18.9	3.0	66.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	50	3.6	0.1	32.0				Y
H	<i>Distichlis spicata</i>	40	1.9	0.2	18.0				
H	<i>Hordeum murinum</i>	40	0.3	0.2	2.0				
H	<i>Bromus hordeaceus</i>	30	1.0	2.0	6.0				
H	<i>Sisymbrium irio</i>	30	0.2	0.1	2.0				
H	<i>Amsinckia tessellata</i>	30	0.1	0.1	1.0				
H	<i>Hordeum marinum</i>	20	1.0	0.2	10.0				
H	<i>Hordeum</i> sp.	20	0.7	2.0	5.0				
H	<i>Croton setigerus</i>	20	0.5	0.2	5.0				
H	<i>Vulpia myuros</i>	20	0.4	0.2	4.0				
H	<i>Bromus madritensis</i>	20	0.3	0.2	3.0				
H	<i>Bromus rubens</i>	20	0.3	1.0	2.0				
H	<i>Atriplex</i> sp.	20	0.0	0.2	0.2				
H	<i>Lactuca serriola</i>	20	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eschscholzia (californica) – Lupinus (nanus)* Herbaceous Alliance**

Common Name: California poppy – lupine fields

NVC Alliance Code: A4240. *Eschscholzia californica* - *Lupinus nanus* Dry Meadow Alliance

Associations	Sample Size
<i>Eschscholzia californica</i>	8
<i>Lupinus (microcarpus, succulentus)</i> Provisional	5
<i>Lupinus bicolor</i>	11
<i>Salvia carduacea</i>	12

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 688 m (490 – 885 m)

Slope: 8° (1 – 33°)

Aspect: Mostly north-facing

Tree Cover: 0.0% (0 – 1%)

Shrub Cover: 0.2% (0 – 3%)

Herb Cover: 38.9% (14 – 70%)

Surface Covers – Mean (Range):

Large Rock: 0.2% (0 – 4%)

Small Rock: 12.2% (0 – 79%)

Fines: 53.5% (2 – 93%)

Litter: 32.5% (0 – 97%)

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 39): A0512171, A0514144, CARR0034, CARR0061, CARR0068, CARR0079, CARR0080, CARR0527, CARR0576, CARR0939, CARR0954, CARR0985, CARR1053, CARR1061, CARR1100, CARR1112, CARR1582, CARR1602, CARR1627, CARR1631, CARR1633, CARR6715, CARR6716, CARR6730, chg011, chg018, chg020, chg029, chg034, chg124, chg137, CVPA8207, CVPA8215, E05071058C, J0506163A, J05061740, J05061740A, J05061740B, J05061740C

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Gutierrezia californica</i>	23	0.1	0.2	2.0				
H	<i>Bromus rubens</i>	95	4.6	0.2	25.0	Y			Y
H	<i>Erodium cicutarium</i>	90	5.6	0.2	23.0	Y			Y
H	<i>Amsinckia tessellata</i>	64	1.2	0.1	16.0				Y
H	<i>Microseris lindleyi</i>	62	0.2	0.2	1.0				Y
H	<i>Castilleja exserta</i>	51	0.2	0.1	4.0				Y
H	<i>Vulpia myuros</i>	49	1.6	0.2	22.0				
H	<i>Avena</i> sp.	46	1.5	0.2	30.0				
H	<i>Schismus</i> sp.	44	1.7	0.2	15.0				
H	<i>Lotus wrangelianus</i>	44	0.4	0.1	5.0				
H	<i>Salvia carduacea</i>	41	5.1	0.2	25.0				
H	<i>Vulpia microstachys</i>	41	0.6	0.2	7.0				
H	<i>Lupinus bicolor</i>	38	6.4	0.2	45.0				
H	<i>Eschscholzia californica</i>	38	2.0	0.2	17.0				
H	<i>Bromus hordeaceus</i>	36	0.8	0.2	8.0				
H	<i>Pectocarya penicillata</i>	36	0.5	0.2	7.0				
H	<i>Lasthenia gracilis</i>	36	0.2	0.2	3.0				
H	<i>Trifolium gracilentum</i>	33	1.0	0.2	14.0				
H	<i>Lupinus microcarpus</i>	33	0.4	0.2	8.0				
H	<i>Camissonia campestris</i>	33	0.3	0.2	3.0				
H	<i>Hordeum murinum</i>	28	0.2	0.2	4.0				
H	<i>Trifolium albopurpureum</i>	26	0.4	0.2	9.0				
H	<i>Amsinckia menziesii</i>	23	0.2	0.2	4.0				
H	<i>Poa secunda</i>	23	0.1	0.2	2.0				
H	<i>Malacothrix coulteri</i>	23	0.0	0.2	0.2				
H	<i>Leptosiphon liniflorus</i>	21	0.3	0.2	6.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eschscholzia californica* Association**

Common Name: California poppy fields Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 680 m (492 – 837 m)

Slope: 14° (4 – 33°)

Aspect: Mostly north-facing

Tree Cover: 0.1% (0 – 1%)

Shrub Cover: 0.4% (0 – 3%)

Herb Cover: 36.3% (14 – 65%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 13.9% (0 – 79%)

Fines: 39.5% (2 – 71%)

Litter: 45.1% (5 – 97%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 8): A0512171, A0514144, CARR0939, chg018, chg124, E05071058, J0506163A, J05061740C

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Eschscholzia californica</i>	100	9.6	1.0	17.0	Y			Y
H	<i>Bromus rubens</i>	100	8.3	2.0	25.0	Y			Y
H	<i>Erodium cicutarium</i>	88	5.1	2.0	20.0	Y			Y
H	<i>Amsinckia tessellata</i>	88	0.5	0.1	2.0	Y			Y
H	<i>Microseris lindleyi</i>	75	0.2	0.2	0.2	Y			Y
H	<i>Avena</i> sp.	63	0.2	0.2	1.0				Y
H	<i>Bromus diandrus</i>	50	1.4	0.2	8.0				Y
H	<i>Castilleja exserta</i>	50	0.2	0.2	1.0				Y
H	<i>Lupinus microcarpus</i>	50	0.2	0.2	1.0				Y
H	<i>Bromus hordeaceus</i>	38	1.5	2.0	7.0				
H	<i>Vulpia microstachys</i>	38	1.3	1.0	7.0				
H	<i>Lotus wrangelianus</i>	38	0.8	0.2	5.0				
H	<i>Vulpia myuros</i>	38	0.7	0.2	4.0				
H	<i>Nassella cernua</i>	38	0.2	0.2	1.0				
H	<i>Trichostema lanceolatum</i>	38	0.1	0.2	0.2				
H	<i>Schismus</i> sp.	25	1.9	0.2	15.0				
H	<i>Lupinus succulentus</i>	25	0.5	0.2	4.0				
H	<i>Lupinus bicolor</i>	25	0.3	0.2	2.0				
H	<i>Poa secunda</i>	25	0.2	0.2	1.0				
H	<i>Hordeum murinum</i>	25	0.2	0.2	1.0				
H	<i>Camissonia campestris</i>	25	0.2	0.2	1.0				
H	<i>Malacothrix coulteri</i>	25	0.1	0.2	0.2				
H	<i>Trifolium gracilentum</i>	25	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	25	0.1	0.2	0.2				
H	<i>Stephanomeria exigua</i>	25	0.1	0.2	0.2				
H	<i>Pectocarya penicillata</i>	25	0.1	0.2	0.2				
H	<i>Astragalus didymocarpus</i>	25	0.1	0.2	0.2				
H	<i>Descurainia sophia</i>	25	0.1	0.2	0.2				
H	<i>Trifolium albopurpureum</i>	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Lupinus (microcarpus, succulentus) Provisional Association

Common Name: Chick or Arroyo Lupine Provisional Association

Classification Comments: This association is newly described here in which either wide-ranging characteristic species (*Lupinus microcarpus* or *Lupinus succulentus*) occur as a dominant alone or as co-dominants with other herbs including native and non-native species. *Lupinus subvexus* var. *subvexus* is a synonym for *Lupinus microcarpus* var. *microcarpus*.

Plot/Sample Data Summary – Mean (Range):

Elevation: 706 m (646 – 811 m)

Slope: 12° (3 – 22°)

Aspect: Mostly north-facing

Tree Cover: 0.0%

Shrub Cover: 0.1%

Herb Cover: 31.6% (21 – 42%)

Surface Covers – Mean (Range):

Large Rock: 0.8% (0 – 4%)

Small Rock: 4.6% (0 – 10%)

Fines: 48.0% (25 – 77%)

Litter: 44.2% (8 – 70%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 5): CARR1627, CARR1631, CARR1633, chg020, chg137

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ericameria linearifolia</i>	20	0.0	0.2	0.2				
S	<i>Gutierrezia californica</i>	20	0.0	0.2	0.2				
H	<i>Lotus wrangelianus</i>	100	1.3	0.2	3.0	Y			Y
H	<i>Avena</i> sp.	80	9.6	0.2	30.0	Y			Y
H	<i>Vulpia myuros</i>	80	5.1	0.2	22.0	Y			Y
H	<i>Erodium cicutarium</i>	80	2.8	1.0	5.0	Y			Y
H	<i>Bromus hordeaceus</i>	80	1.7	0.2	8.0	Y			Y
H	<i>Amsinckia tessellata</i>	80	1.4	0.2	4.0	Y			Y
H	<i>Bromus rubens</i>	80	1.0	0.2	2.0	Y			Y
H	<i>Microseris lindleyi</i>	80	0.3	0.2	1.0	Y			Y
H	<i>Lupinus succulentus</i>	60	4.4	4.0	11.0				Y
H	<i>Lupinus microcarpus</i>	60	2.4	0.2	8.0				Y
H	<i>Trifolium albopurpureum</i>	60	0.5	0.2	2.0				Y

Lupinus (microcarpus, succulentus) Provisional Association
Eschscholzia (californica) – Lupinus (nanus) Herbaceous Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Trifolium gracilentum</i>	60	0.3	0.2	1.0				Y
H	<i>Dichelostemma capitatum</i>	40	0.2	0.2	1.0				
H	<i>Poa secunda</i>	40	0.1	0.2	0.2				
H	<i>Lepidium nitidum</i>	40	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i>	40	0.1	0.2	0.2				
H	<i>Glycyrrhiza lepidota</i>	20	1.6	8.0	8.0				
H	<i>Castilleja exserta</i>	20	0.8	4.0	4.0				
H	<i>Distichlis spicata</i>	20	0.4	2.0	2.0				
H	<i>Leptosiphon parviflorus</i>	20	0.2	1.0	1.0				
H	<i>Vulpia microstachys</i>	20	0.2	1.0	1.0				
H	<i>Hirschfeldia incana</i>	20	0.2	1.0	1.0				
H	<i>Eschscholzia californica</i>	20	0.2	1.0	1.0				
H	<i>Plantago erecta</i>	20	0.2	1.0	1.0				
H	<i>Lagophylla ramosissima</i>	20	0.0	0.2	0.2				
H	<i>Lasthenia gracilis</i>	20	0.0	0.2	0.2				
H	<i>Medicago polymorpha</i>	20	0.0	0.2	0.2				
H	<i>Clarkia cylindrica</i>	20	0.0	0.2	0.2				
H	<i>Heliotropium curassavicum</i>	20	0.0	0.2	0.2				
H	<i>Clarkia purpurea</i>	20	0.0	0.2	0.2				
H	<i>Iva axillaris</i>	20	0.0	0.2	0.2				
H	<i>Poa bulbosa</i>	20	0.0	0.2	0.2				
H	<i>Delphinium parryi</i>	20	0.0	0.2	0.2				
H	<i>Asclepias fascicularis</i>	20	0.0	0.2	0.2				
H	<i>Lupinus bicolor</i>	20	0.0	0.2	0.2				
H	<i>Muilla maritima</i>	20	0.0	0.2	0.2				
H	<i>Verbena lasiostachys</i>	20	0.0	0.2	0.2				
H	<i>Bromus diandrus</i>	20	0.0	0.2	0.2				
H	<i>Trifolium willdenovii</i>	20	0.0	0.2	0.2				
H	<i>Trichostema lanceolatum</i>	20	0.0	0.2	0.2				
H	<i>Bromus tectorum</i>	20	0.0	0.2	0.2				
H	<i>Melilotus indicus</i>	20	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Lupinus (microcarpus, succulentus) Provisional Association
Eschscholzia (californica) – *Lupinus (nanus)* Herbaceous Alliance

***Lupinus bicolor* Association**

Common Name: Miniature lupine fields Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 676 m (515 – 768 m)

Slope: 3° (1 – 8°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 49.3% (33 – 70%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.9% (0 – 6%)

Fines: 41.5% (2 – 83%)

Litter: 55.9% (12 – 97%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 11): CARR0034, CARR0079, CARR0080, CARR1053, CARR1061, CARR6715, CARR6716, CARR6730, chg011, chg029, chg034

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Lupinus bicolor</i>	100	22.4	10.0	45.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	91	9.5	4.0	23.0	Y			Y
H	<i>Bromus rubens</i>	91	6.1	1.0	15.0	Y			Y
H	<i>Castilleja exserta</i>	82	0.2	0.2	1.0	Y			Y
H	<i>Avena</i> sp.	73	0.8	0.2	5.0				Y
H	<i>Bromus hordeaceus</i>	64	1.0	0.2	7.0				Y
H	<i>Vulpia myuros</i>	55	2.7	1.0	11.0				Y
H	<i>Amsinckia tessellata</i>	55	1.1	0.2	6.0				Y
H	<i>Vulpia microstachys</i>	55	0.8	0.2	5.0				Y
H	<i>Amsinckia menziesii</i>	55	0.6	0.2	4.0				Y
H	<i>Trifolium gracilentum</i>	45	3.2	1.0	14.0				
H	<i>Plagiobothrys canescens</i>	45	1.8	0.2	16.0				
H	<i>Microseris lindleyi</i>	45	0.2	0.2	1.0				
H	<i>Lasthenia gracilis</i>	45	0.1	0.2	0.2				
H	<i>Trifolium albopurpureum</i>	36	1.2	0.2	9.0				
H	<i>Hordeum murinum</i>	36	0.5	0.2	4.0				
H	<i>Layia platyglossa</i>	36	0.1	0.2	0.2				
H	<i>Eschscholzia californica</i>	27	0.7	0.2	7.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salvia carduacea* Association**

Common Name: Thistle sage patches Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 705 m (490 – 885 m)

Slope: 7° (1 – 23°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.4% (0 – 2%)

Herb Cover: 33.1% (14 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.3% (0 – 3%)

Small Rock: 22.7% (0 – 70%)

Fines: 70.3% (15 – 93%)

Litter: 5.2% (0 – 13%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 12): CARR0061, CARR0068, CARR0527, CARR0954, CARR0985, CARR1100, CARR1112, CARR1582, CARR1602, CVPA8207, CVPA8215, J05061740A

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Gutierrezia californica</i>	58	0.3	0.2	2.0				Y
H	<i>Salvia carduacea</i>	100	13.7	2.0	25.0	Y		Y	Y
H	<i>Bromus rubens</i>	100	1.9	0.2	7.0	Y			Y
H	<i>Schismus</i> sp.	92	2.8	0.2	12.0	Y			Y
H	<i>Erodium cicutarium</i>	92	2.2	0.2	10.0	Y			Y
H	<i>Pectocarya penicillata</i>	75	1.4	0.2	7.0	Y			Y
H	<i>Camissonia campestris</i>	67	0.7	0.2	3.0				Y
H	<i>Amsinckia tessellata</i>	58	2.1	0.2	16.0				Y
H	<i>Lotus wrangelianus</i>	58	0.3	0.1	3.0				Y
H	<i>Microseris lindleyi</i>	58	0.2	0.2	1.0				Y
H	<i>Lasthenia gracilis</i>	50	0.5	0.2	3.0				Y
H	<i>Vulpia microstachys</i>	50	0.3	0.2	2.0				Y
H	<i>Leptosiphon liniflorus</i>	42	0.3	0.2	1.0				
H	<i>Malacothrix californica</i>	33	3.2	0.2	32.0				
H	<i>Calandrinia ciliata</i>	33	1.6	0.1	19.0				
H	<i>Eriogonum gracillimum</i>	33	0.1	0.2	1.0				
H	<i>Lupinus microcarpus</i>	33	0.1	0.2	0.2				
H	<i>Malacothrix coulteri</i>	33	0.1	0.2	0.2				
H	<i>Castilleja exserta</i>	33	0.1	0.1	0.2				
H	<i>Chaenactis glabriuscula</i>	25	1.0	1.0	10.0				
H	<i>Trifolium gracilentum</i>	25	0.3	0.2	2.0				
H	<i>Vulpia myuros</i>	25	0.1	0.2	1.0				
H	<i>Pectocarya linearis</i>	25	0.1	0.2	0.2				
H	<i>Hordeum murinum</i>	25	0.1	0.2	0.2				
H	<i>Lastarriaea coriacea</i>	25	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Juncus (effusus, patens) – Carex (pansa, praegracilis)* Herbaceous Alliance**

Common Name: Soft and western rush – Sedge marshes

NVC Alliance Code: N/A.

Associations	Sample Size
<i>Eleocharis macrostachya</i> Lowland	7

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 602 m (371 – 735 m)

Slope: 1° (0 – 2°)

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.7% (0 – 3%)

Herb Cover: 27.6% (5 – 50%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.3% (0 – 2%)

Fines: 20.3% (0 – 68%)

Litter: 14.2% (0 – 70%)

Conservation Status Rank: Global: G4?; **State (California):** S3S4

Surveys Used in Description (N = 7): chg090, chg117, chg118, chg119, chg120, chg121, CVPA0034

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Baccharis salicifolia</i>	29	0.7	2.0	3.0				
H	<i>Eleocharis</i> sp.	100	16.0	4.0	25.0	Y	Y		Y
H	<i>Polypogon monspeliensis</i>	86	1.6	0.2	6.0	Y			Y
H	<i>Juncus arcticus</i>	57	4.0	2.0	10.0				Y
H	<i>Mimulus guttatus</i>	57	0.5	0.2	2.0				Y
H	<i>Rumex crispus</i>	57	0.4	0.2	2.0				Y
H	<i>Distichlis spicata</i>	43	0.2	0.2	1.0				
H	<i>Melilotus indicus</i>	43	0.1	0.2	0.2				
H	<i>Juncus bufonius</i>	29	0.3	0.2	2.0				
H	<i>Bromus hordeaceus</i>	29	0.2	0.2	1.0				
H	<i>Rumex salicifolius</i>	29	0.1	0.2	0.2				

Juncus (effusus, patens) – Carex (pansa, praegracilis) Herbaceous Alliance

***Juncus arcticus* (var. *balticus*, *mexicanus*) Herbaceous Alliance**

Common Name: Baltic and Mexican rush marshes

NVC Alliance Code: A1374. *Juncus arcticus* ssp. *littoralis* - *Juncus mexicanus* Wet Meadow Alliance

Associations	Sample Size
<i>Juncus arcticus</i> var. <i>balticus</i> – (var. <i>mexicanus</i>)	5

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 561 m (193 – 785 m)

Slope: 4° (0 – 16°)

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 2.0% (0 – 10%)

Herb Cover: 42.8% (30 – 60%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.8% (0 – 4%)

Fines: 49.0% (5 – 93%)

Litter: 16.4% (0 – 70%)

Conservation Status Rank: Global: G5; **State (California):** S4

Surveys Used in Description (N = 5): CARR0936, CARR1017, chg116, CVPA0065, CVPA8009

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Ericameria nauseosa</i>	20	0.6	3.0	3.0				
S	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	20	0.0	0.1	0.1				
S	<i>Eriogonum fasciculatum</i>	20	0.0	0.1	0.1				
H	<i>Juncus arcticus</i>	100	25.0	11.2	35.0	Y	Y		Y
H	<i>Bromus diandrus</i>	40	6.0	10.0	20.0				
H	<i>Polypogon monspeliensis</i>	40	3.4	0.2	17.0				
H	<i>Bromus rubens</i>	40	1.0	0.2	5.0				
H	<i>Bromus hordeaceus</i>	40	0.4	0.2	2.0				
H	<i>Distichlis spicata</i>	40	0.2	0.2	1.0				
H	<i>Lactuca serriola</i>	40	0.1	0.2	0.2				
H	<i>Melilotus indicus</i>	40	0.1	0.2	0.2				
H	<i>Leymus triticoides</i>	40	0.1	0.2	0.2				
H	<i>Rumex crispus</i>	40	0.1	0.2	0.2				
H	<i>Nasturtium officinale</i>	20	3.4	17.0	17.0				
H	<i>Achillea millefolium</i>	20	2.0	10.0	10.0				
H	<i>Schoenoplectus americanus</i>	20	2.0	10.0	10.0				
H	<i>Hordeum murinum</i>	20	0.8	4.0	4.0				
H	<i>Hordeum brachyantherum</i>	20	0.4	2.0	2.0				
H	<i>Lemna gibba</i>	20	0.2	1.0	1.0				
H	<i>Lotus corniculatus</i>	20	0.2	1.0	1.0				
H	<i>Eleocharis</i> sp.	20	0.2	1.0	1.0				
H	<i>Juncus xiphioides</i>	20	0.0	0.2	0.2				
H	<i>Bromus arenarius</i>	20	0.0	0.2	0.2				
H	<i>Typha</i> sp.	20	0.0	0.2	0.2				
H	<i>Heliotropium curassavicum</i>	20	0.0	0.2	0.2				
H	<i>Amsinckia menziesii</i>	20	0.0	0.2	0.2				
H	<i>Sonchus</i> sp.	20	0.0	0.2	0.2				
H	<i>Marrubium vulgare</i>	20	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Lasthenia californica* – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance**

Common Name: California goldfields – dwarf plantain – small fescue flower fields

NVC Alliance Code: A4153. *Lasthenia californica* - *Plantago erecta* - *Vulpia microstachys* Meadow Alliance

Associations	Sample Size
<i>Erodium cicutarium</i> – <i>Vulpia microstachys</i>	12
<i>Lasthenia</i> (<i>californica</i> , <i>gracilis</i>)	22
<i>Lasthenia californica</i> – <i>Plantago erecta</i> – <i>Vulpia microstachys</i> alliance	4
<i>Lasthenia gracilis</i> – <i>Plantago erecta</i> – <i>Plagiobothrys canescens</i>	15
<i>Lasthenia minor</i> Provisional	3
<i>Layia</i> (<i>platyglossa</i> , <i>munzii</i>) Provisional	5
<i>Lepidium jaredii</i> ssp. <i>album</i> – <i>Lepidium nitidum</i> Provisional	2
<i>Lepidium nitidum</i> – <i>Trifolium gracilentum</i> – <i>Vulpia microstachys</i>	59
<i>Pectocarya</i> (<i>linearis</i> , <i>penicillata</i>)	17
<i>Vulpia microstachys</i> – <i>Plantago erecta</i>	4

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 612 m (175 – 974 m)

Slope: 4° (0 – 30°)

Aspect: Variable

Tree Cover: 0.0% (0 – 3%)

Shrub Cover: 0.2% (0 – 3%)

Herb Cover: 35.3% (6 – 95%)

Surface Covers – Mean (Range):

Large Rock: 0.0% (0 – 2%)

Small Rock: 8.7% (0 – 65%)

Fines: 65.3% (0 – 100%)

Litter: 23.3% (0 – 99%)

Conservation Status Rank: Global: G4; State (California): S4

Surveys Used in Description (N = 168): CARR0002, CARR0008, CARR0009, CARR0015, CARR0023, CARR0037, CARR0040, CARR0071, CARR0089, CARR0099, CARR0125, CARR0133, CARR0500, CARR0506, CARR0520, CARR0521, CARR0521C, CARR0521E, CARR0522, CARR0525, CARR0526, CARR0535, CARR0539, CARR0541, CARR0542, CARR0543, CARR0552, CARR0554, CARR0555, CARR0659, CARR0901, CARR0905, CARR0905A, CARR0906, CARR0908, CARR0910, CARR0911, CARR0912, CARR0916,

Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

CARR0917, CARR0919, CARR0924, CARR0944, CARR0945, CARR0946, CARR0948, CARR0951, CARR0982, CARR0982A, CARR0982B, CARR0982C, CARR0982D, CARR0987, CARR0988, CARR0989, CARR0989A, CARR0989D, CARR0992, CARR0995, CARR0996, CARR0997, CARR0997A, CARR0997B, CARR1013, CARR1016, CARR1019, CARR1033, CARR1040, CARR1041, CARR1090, CARR1092, CARR1093, CARR1094, CARR1109, CARR1110, CARR1111, CARR1115, CARR1116, CARR1119, CARR1123, CARR1124, CARR1125, CARR1125A, CARR1125B, CARR1126A, CARR1131A, CARR1131B, CARR1137, CARR1143, CARR1145, CARR1150D, CARR1151, CARR1159, CARR1222, CARR1232, CARR1585, CARR1592, CARR1593, CARR1601, CARR1626, CARR1630, CARR1632, CARR1635, CARR1644, CARR1645, CARR1659, CARR1673, CARR6666, CARR6666A, CARR6666B, CARR6701, CARR6706, CARR6708, CARR6710, CARR6712, CARR6713, CARR6714, CARR6717, CARR6720, CARR6721, CARR6722, CARR6725, CARR6727, CARR6728, CARR6733, CARR6734, CARR6735, CCBLM490, CCBLM494, CCBLM498, chg002, chg015, CVPA1439, CVPA3064, CVPA3233, CVPA3971a, CVPA3971b, CVPA4412, CVPA8058, CVPA8060, CVPA8065, CVPA8067, E05071520, E05071520A, E05071520B, E05071520C, E05071520D, J0409163, KTHL0011, KTHL0016, KTHL0017, KTHL0026, LIPA0001, LIPA0002, LIPA0003, PAPR0004, PAPR0019, PAPR0020, PAPR0021, PAPR0022, PAPR0023, PAPR0024, PAPR0025, PAPR0031, PAPR0032, PAPR0035, PAPR0036, PAPR0042

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	97	8.3	0.1	40.0	Y			Y
H	<i>Bromus rubens</i>	74	2.9	0.1	28.0				Y
H	<i>Vulpia microstachys</i>	67	2.2	0.2	30.0				Y
H	<i>Lasthenia gracilis</i>	65	3.4	0.1	70.0				Y
H	<i>Lepidium nitidum</i>	64	2.3	0.1	28.0				Y
H	<i>Trifolium gracilentum</i>	54	2.8	0.2	35.0				Y
H	<i>Amsinckia tessellata</i>	53	0.4	0.1	12.0				Y
H	<i>Vulpia myuros</i>	51	1.9	0.1	20.0				Y
H	<i>Schismus</i> sp.	42	1.7	0.1	30.0				
H	<i>Hordeum murinum</i>	37	0.4	0.1	20.0				
H	<i>Lotus wrangelianus</i>	32	0.2	0.1	7.0				
H	<i>Poa secunda</i>	29	0.3	0.1	7.0				
H	<i>Dichelostemma capitatum</i>	29	0.1	0.1	2.0				
H	<i>Castilleja exserta</i>	27	0.2	0.1	10.0				
H	<i>Trifolium albopurpureum</i>	26	0.8	0.1	20.0				
H	<i>Plagiobothrys canescens</i>	26	0.5	0.2	15.0				
H	<i>Astragalus didymocarpus</i>	26	0.2	0.1	9.0				
H	<i>Calandrinia ciliata</i>	24	0.4	0.1	25.0				
H	<i>Trichostema lanceolatum</i>	22	0.1	0.1	4.0				
H	<i>Guillenia lasiophylla</i>	22	0.1	0.1	1.0				
H	<i>Bromus hordeaceus</i>	20	0.4	0.1	15.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Erodium cicutarium* – *Vulpia microstachys* Association**

Common Name: Red Stemmed Filaree – Small Fescue Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 634 m (338 – 759 m)

Slope: 2° (0 – 10°)

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.2% (0 – 2%)

Herb Cover: 32.6% (15 – 70%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 5.8% (0 – 16%)

Fines: 83.5% (40 – 100%)

Litter: 10.2% (0 – 59%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: N

Surveys Used in Description (N = 12): CARR0520, CARR0543, CARR0552, CARR0901, CARR0908, CARR0910, CARR0946, CARR1111, CARR1123, CARR1131, CARR1137, PAPR0042

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	100	11.9	2.0	35.0	Y			Y
H	<i>Vulpia microstachys</i>	100	6.5	0.2	23.0	Y			Y
H	<i>Schismus</i> sp.	83	8.4	0.2	25.0	Y			Y
H	<i>Amsinckia tessellata</i>	75	1.1	0.2	5.0	Y			Y
H	<i>Hordeum murinum</i>	75	0.7	0.2	7.0	Y			Y
H	<i>Bromus rubens</i>	67	1.1	0.2	7.0				Y
H	<i>Microseris elegans</i>	67	0.4	0.2	2.0				Y
H	<i>Lasthenia gracilis</i>	67	0.3	0.2	1.0				Y
H	<i>Eriogonum gracillimum</i>	58	0.8	0.2	8.0				Y
H	<i>Lepidium nitidum</i>	58	0.6	0.2	2.0				Y
H	<i>Astragalus didymocarpus</i>	50	0.4	0.2	4.0				Y
H	<i>Trifolium gracilentum</i>	50	0.2	0.2	1.0				Y
H	<i>Lotus wrangelianus</i>	42	0.2	0.2	2.0				
H	<i>Guillenia lasiophylla</i>	42	0.2	0.2	1.0				
H	<i>Trichostema lanceolatum</i>	42	0.2	0.2	1.0				
H	<i>Astragalus lentiginosus</i>	42	0.1	0.2	0.2				
H	<i>Hollisteria lanata</i>	33	0.3	0.2	2.0				
H	<i>Malacothrix coulteri</i>	33	0.1	0.1	0.2				
H	<i>Poa secunda</i>	25	0.6	0.2	7.0				
H	<i>Dichelostemma capitatum</i>	25	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Lasthenia (californica, gracilis)* Association**

Common Name: Goldfields Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 602 m (175 – 931 m)

Slope: 3° (0 – 10°)

Aspect: Variable

Tree Cover: 0.1% (0 – 3%)

Shrub Cover: 0.0% (0 – 1%)

Herb Cover: 38.3% (20 – 75%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 9.5% (0 – 49%)

Fines: 70.3% (18 – 100%)

Litter: 19.0% (0 – 79%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 22): CARR0023, CARR0040, CARR0071, CARR0521, CARR0535, CARR0542, CARR0659, CARR0917, CARR0919, CARR0948, CARR0997, CARR1013, CARR1033, CARR1090, CARR1143, CARR1635, chg002, KTHL0016, KTHL0017, KTHL0026, LIPA0001, LIPA0003

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	95	8.9	0.1	31.0	Y			Y
H	<i>Bromus rubens</i>	91	3.3	0.2	28.0	Y			Y
H	<i>Lasthenia gracilis</i>	82	19.7	1.0	70.0	Y		Y	Y
H	<i>Lepidium nitidum</i>	68	2.5	0.2	20.0				Y
H	<i>Poa secunda</i>	50	0.3	0.2	3.0				Y
H	<i>Amsinckia tessellata</i>	50	0.3	0.2	2.0				Y
H	<i>Vulpia microstachys</i>	45	0.3	0.2	3.0				
H	<i>Hordeum murinum</i>	41	0.2	0.2	1.0				
H	<i>Dichelostemma capitatum</i>	41	0.1	0.2	1.0				
H	<i>Vulpia myuros</i>	36	1.2	0.2	20.0				
H	<i>Trifolium gracilentum</i>	36	0.4	0.2	4.0				
H	<i>Calandrinia ciliata</i>	32	1.8	0.2	25.0				
H	<i>Schismus</i> sp.	32	0.8	0.2	9.0				
H	<i>Lotus wrangelianus</i>	32	0.6	0.2	7.0				
H	<i>Castilleja exserta</i>	27	0.8	0.1	10.0				
H	<i>Lepidium dictyotum</i>	27	0.7	0.2	10.0				
H	<i>Trifolium depauperatum</i>	27	0.2	0.2	3.0				
H	<i>Crassula connata</i>	23	0.1	0.2	2.0				
H	<i>Microseris campestris</i>	23	0.1	0.2	1.0				
H	<i>Pectocarya penicillata</i>	23	0.1	0.2	1.0				
H	<i>Tropidocarpum gracile</i>	23	0.1	0.2	1.0				
H	<i>Lupinus microcarpus</i>	23	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Lasthenia gracilis* – *Plantago erecta* – *Plagiobothrys canescens* Association**

Common Name: Needle Goldfields – Dwarf Plantain – Valley Popcornflower Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 579 m (343 – 774 m)

Slope: 10° (0 – 24°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.4% (0 – 3%)

Herb Cover: 31.0% (13 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 8.4% (0 – 45%)

Fines: 58.6% (15 – 98%)

Litter: 31.4% (0 – 80%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 15): CARR0009, CARR0037, CARR0089, CARR0099, CARR0125, CARR0133, CARR0525, CARR0982, CARR1151, CARR1585, CARR1630, CARR6733, PAPR0031, PAPR0035, PAPR0036

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	100	7.6	0.2	27.0	Y			Y
H	<i>Plagiobothrys canescens</i>	80	3.1	0.2	15.0	Y			Y
H	<i>Bromus rubens</i>	67	2.6	0.2	15.0				Y
H	<i>Vulpia microstachys</i>	67	0.9	0.2	8.0				Y
H	<i>Lepidium nitidum</i>	67	0.7	0.2	4.0				Y
H	<i>Plantago erecta</i>	60	4.5	0.2	20.0				Y
H	<i>Crassula connata</i>	53	0.5	0.2	2.0				Y
H	<i>Lasthenia californica</i>	47	2.0	0.2	13.0				
H	<i>Vulpia myuros</i>	47	1.2	0.2	7.0				
H	<i>Bromus hordeaceus</i>	47	0.7	0.2	5.0				
H	<i>Lasthenia gracilis</i>	47	0.6	0.1	4.0				
H	<i>Trifolium gracilentum</i>	47	0.5	0.2	3.0				
H	<i>Trifolium albopurpureum</i>	47	0.5	0.2	3.0				
H	<i>Lotus wrangelianus</i>	47	0.3	0.2	1.0				
H	<i>Avena</i> sp.	47	0.2	0.2	2.0				
H	<i>Calandrinia ciliata</i>	47	0.1	0.2	1.0				
H	<i>Dichelostemma capitatum</i>	40	0.2	0.2	2.0				
H	<i>Microseris lindleyi</i>	40	0.1	0.1	1.0				
H	<i>Lupinus bicolor</i>	33	1.8	0.2	15.0				
H	<i>Schismus</i> sp.	33	0.6	0.2	4.0				
H	<i>Pectocarya penicillata</i>	33	0.3	0.2	2.0				
H	<i>Amsinckia menziesii</i>	33	0.1	0.2	1.0				
H	<i>Castilleja exserta</i>	33	0.1	0.2	1.0				
H	<i>Hordeum murinum</i>	27	1.6	0.2	20.0				
H	<i>Microseris campestris</i>	27	0.3	0.2	2.0				
H	<i>Amsinckia tessellata</i>	27	0.3	0.2	2.0				
H	<i>Trichostema lanceolatum</i>	27	0.3	0.2	2.0				
H	<i>Bromus madritensis</i>	27	0.3	1.0	1.0				
H	<i>Erodium brachycarpum</i>	27	0.2	0.2	2.0				
H	<i>Lupinus microcarpus</i>	27	0.1	0.2	1.0				
H	<i>Gilia clivorum</i>	20	0.0	0.2	0.2				
H	<i>Microseris douglasii</i>	20	0.0	0.2	0.2				
H	<i>Tropidocarpum gracile</i>	20	0.0	0.2	0.2				

Lasthenia gracilis – *Plantago erecta* – *Plagiobothrys canescens* Association
Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

***Lasthenia minor* Provisional Association**

Common Name: Coastal Goldfields Provisional Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 655 m (600 – 732 m)

Slope: 1° (0 – 2°)

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 46.0% (32 – 55%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 1.9% (0 – 5%)

Fines: 79.7% (70 – 89%)

Litter: 16.3% (10 – 27%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 3): CARR0989, CARR1222, CARR1673

Lasthenia minor Provisional Association

Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Lasthenia minor</i>	100	41.7	30.0	49.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	100	8.0	2.0	16.0	Y			Y
H	<i>Vulpia microstachys</i>	100	1.1	0.2	3.0	Y			Y
H	<i>Trifolium gracilentum</i>	100	0.5	0.2	1.0	Y			Y
H	<i>Calandrinia ciliata</i>	67	0.4	0.2	1.0				Y
H	<i>Lepidium nitidum</i>	67	0.1	0.2	0.2				Y
H	<i>Amsinckia tessellata</i>	67	0.1	0.2	0.2				Y
H	<i>Tropidocarpum gracile</i>	67	0.1	0.2	0.2				Y
H	<i>Guillenia lasiophylla</i>	67	0.1	0.2	0.2				Y
H	<i>Vulpia myuros</i>	67	0.1	0.2	0.2				Y
H	<i>Schismus</i> sp.	67	0.1	0.2	0.2				Y
H	<i>Hordeum murinum</i>	33	1.0	3.0	3.0				
H	<i>Microseris lindleyi</i>	33	0.1	0.2	0.2				
H	<i>Microseris</i> sp.	33	0.1	0.2	0.2				
H	<i>Lupinus bicolor</i>	33	0.1	0.2	0.2				
H	<i>Camissonia campestris</i>	33	0.1	0.2	0.2				
H	<i>Lepidium dictyotum</i>	33	0.1	0.2	0.2				
H	<i>Lastarriaea coriacea</i>	33	0.1	0.2	0.2				
H	<i>Amsinckia</i> sp.	33	0.1	0.2	0.2				
H	<i>Microseris elegans</i>	33	0.1	0.2	0.2				
H	<i>Hordeum marinum</i>	33	0.1	0.2	0.2				
H	<i>Monolopia congdonii</i>	33	0.1	0.2	0.2				
H	<i>Pectocarya penicillata</i>	33	0.1	0.2	0.2				
H	<i>Plagiobothrys canescens</i>	33	0.1	0.2	0.2				
H	<i>Descurainia sophia</i>	33	0.1	0.2	0.2				
H	<i>Bromus</i> sp.	33	0.1	0.2	0.2				
H	<i>Eremalche parryi</i>	33	0.1	0.2	0.2				
H	<i>Astragalus didymocarpus</i>	33	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	33	0.1	0.2	0.2				
H	<i>Trifolium willdenovii</i>	33	0.1	0.2	0.2				
H	<i>Poa secunda</i>	33	0.0	0.1	0.1				
H	<i>Camissonia contorta</i>	33	0.0	0.1	0.1				
H	<i>Castilleja exserta</i>	33	0.0	0.1	0.1				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Lasthenia minor Provisional Association

Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

***Layia (platyglossa, munzii)* Provisional Association**

Common Name: Coastal Tidytips Provisional Association

Classification Comments: The name of the existing *Layia platyglossa* Provisional Association was expanded to include stands of the rare *Layia munzii*, (CA Rare Plant Rank of 1B.2) which overlaps in range with the more extensive *L. platyglossa*.

Plot/Sample Data Summary – Mean (Range):

Elevation: 591 m (585 – 594 m)

Slope: 0° (0 – 2°)

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 56.2% (41 – 75%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.1%

Fines: 64.0% (7 – 92%)

Litter: 34.2% (6 – 90%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 5): CARR0924, CARR0987, CARR0997A, CARR1094, CARR6666

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Isocoma acradenia</i>	20	0.0	0.2	0.2				
H	<i>Erodium cicutarium</i>	100	15.6	5.0	35.0	Y			Y
H	<i>Bromus rubens</i>	100	8.6	0.2	22.0	Y			Y
H	<i>Lasthenia gracilis</i>	80	3.0	0.2	11.0	Y			Y
H	<i>Layia platyglossa</i>	60	18.0	22.0	40.0				Y
H	<i>Vulpia myuros</i>	60	2.6	2.0	7.0				Y
H	<i>Bromus hordeaceus</i>	60	1.4	1.0	4.0				Y
H	<i>Microseris douglasii</i>	60	0.6	0.2	2.0				Y
H	<i>Layia munzii</i>	40	7.2	1.0	35.0				
H	<i>Trifolium gracilentum</i>	40	0.8	0.2	4.0				
H	<i>Astragalus didymocarpus</i>	40	0.4	0.2	2.0				
H	<i>Hordeum murinum</i>	40	0.4	0.2	2.0				
H	<i>Phacelia ciliata</i>	40	0.4	1.0	1.0				
H	<i>Microseris lindleyi</i>	40	0.2	0.2	1.0				

Layia (platyglossa, munzii) Provisional Association
Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Amsinckia tessellata</i>	40	0.1	0.2	0.2				
H	<i>Microseris campestris</i>	20	3.0	15.0	15.0				
H	<i>Malacothrix coulteri</i>	20	2.0	10.0	10.0				
H	<i>Vulpia microstachys</i>	20	0.8	4.0	4.0				
H	<i>Sisymbrium irio</i>	20	0.2	1.0	1.0				
H	<i>Amsinckia</i> sp.	20	0.2	1.0	1.0				
H	<i>Microsteris gracilis</i>	20	0.2	1.0	1.0				
H	<i>Matricaria occidentalis</i>	20	0.2	1.0	1.0				
H	unknown <i>Asteraceae</i>	20	0.1	0.4	0.4				
H	<i>Lotus wrangelianus</i>	20	0.0	0.2	0.2				
H	<i>Achyrachaena mollis</i>	20	0.0	0.2	0.2				
H	<i>Castilleja densiflora</i>	20	0.0	0.2	0.2				
H	<i>Lepidium nitidum</i>	20	0.0	0.2	0.2				
H	<i>Amsinckia menziesii</i>	20	0.0	0.2	0.2				
H	<i>Stephanomeria</i>	20	0.0	0.2	0.2				
H	<i>Lasthenia ferrisiae</i>	20	0.0	0.2	0.2				
H	<i>Lactuca serriola</i>	20	0.0	0.2	0.2				
H	<i>Descurainia sophia</i>	20	0.0	0.2	0.2				
H	<i>Guillenia lasiophylla</i>	20	0.0	0.2	0.2				
H	<i>Sonchus</i> sp.	20	0.0	0.1	0.1				
N	Moss	20	1.0	5.0	5.0				
N	Cryptogammic crust	20	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Lepidium jaredii* ssp. *album* – *Lepidium nitidum* Provisional Association**

Common Name: Panoche Pepper Grass – Shining Pepper Grass Provisional Association

Classification Comments: This association is newly described here from the Ciervo-Panoche Natural Area to represent mesic, upland stands of *Lepidium* spp. on clay soils. Stands include a characteristic species (*Lepidium jaredii* ssp. *album*) as a dominant or co-dominant with other herbs including native and non-native species. *Lepidium jaredii* ssp. *album* has a limited distribution with a CA Rare Plant Rank of 1B.2.

Plot/Sample Data Summary – Mean (Range):

Elevation: 452 m (311 – 592 m)

Slope: 17° (3 – 30°)

Aspect: Mostly south-facing

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 16.0% (12 – 20%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 1.0% (0 – 2%)

Fines: 97.5% (97 – 98%)

Litter: 1.0%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 2): CVPA8060, CVPA8065

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Lepidium nitidum</i>	100	7.0	4.0	10.0	Y		Y	Y
H	<i>Lepidium jaredii</i> ssp. <i>album</i>	100	6.0	5.0	7.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	100	0.6	0.2	1.0	Y			Y
H	<i>Polypogon monspeliensis</i>	50	1.5	3.0	3.0				Y
H	<i>Plagiobothrys acanthocarpus</i>	50	1.5	3.0	3.0				Y
H	<i>Claytonia parviflora</i>	50	0.1	0.2	0.2				Y
H	<i>Amsinckia tessellata</i>	50	0.1	0.2	0.2				Y
H	<i>Calandrinia ciliata</i>	50	0.1	0.2	0.2				Y
H	<i>Deinandra halliana</i>	50	0.1	0.2	0.2				Y
H	<i>Dichelostemma capitatum</i>	50	0.1	0.2	0.2				Y
H	<i>Poa secunda</i>	50	0.1	0.2	0.2				Y
H	<i>Phacelia ciliata</i>	50	0.1	0.2	0.2				Y

Lepidium jaredii ssp. *album* – *Lepidium nitidum* Provisional Association
Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

***Lepidium nitidum* – *Trifolium gracilentum* – *Vulpia microstachys* Association**

Common Name: Shining Peppergrass – Pinpoint Clover – Dwarf Plantain Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 625 m (310 – 974 m)

Slope: 4° (0 – 23°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.1% (0 – 2%)

Herb Cover: 36.8% (6 – 95%)

Surface Covers – Mean (Range):

Large Rock: 0.0% (0 – 2%)

Small Rock: 9.2% (0 – 65%)

Fines: 55.2% (0 – 99%)

Litter: 31.9% (0 – 99%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 59): CARR0500, CARR0506, CARR0522, CARR0541, CARR0555, CARR0905, CARR0906, CARR0911, CARR0912, CARR0916, CARR0944, CARR0945, CARR0951, CARR0988, CARR1016, CARR1019, CARR1040, CARR1041, CARR1092, CARR1093, CARR1115, CARR1119, CARR1125, CARR1145, CARR1232, CARR1601, CARR1632, CARR1644, CARR1645, CARR1659, CARR6701, CARR6706, CARR6708, CARR6710, CARR6712, CARR6713, CARR6714, CARR6717, CARR6720, CARR6721, CARR6722, CARR6725, CARR6727, CARR6728, CCBLM490, CCBLM494, CCBLM498, chg015, CVPA1439, CVPA3064, CVPA3233, CVPA8067, J0409163, LIPA0002, PAPR0004, PAPR0019, PAPR0020, PAPR0021, PAPR0032

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	95	8.5	0.2	30.0	Y			Y
H	<i>Lepidium nitidum</i>	83	4.1	0.1	28.0	Y			Y
H	<i>Trifolium gracilentum</i>	80	6.9	0.2	35.0	Y			Y
H	<i>Bromus rubens</i>	73	3.5	0.1	18.0				Y
H	<i>Vulpia microstachys</i>	66	2.8	0.2	30.0				Y
H	<i>Lasthenia gracilis</i>	66	0.7	0.2	12.0				Y
H	<i>Vulpia myuros</i>	64	2.6	0.1	20.0				Y
H	<i>Amsinckia tessellata</i>	61	0.6	0.1	12.0				Y
H	<i>Trifolium albopurpureum</i>	44	1.8	0.2	20.0				
H	<i>Hordeum murinum</i>	39	0.1	0.1	1.0				
H	<i>Castilleja exserta</i>	39	0.1	0.1	0.7				
H	<i>Dichelostemma capitatum</i>	37	0.1	0.1	1.1				
H	<i>Schismus</i> sp.	34	0.5	0.1	7.0				
H	<i>Astragalus didymocarpus</i>	32	0.3	0.1	9.0				
H	<i>Poa secunda</i>	31	0.3	0.1	7.0				
H	<i>Guillenia lasiophylla</i>	29	0.1	0.1	1.0				
H	<i>Lotus wrangelianus</i>	27	0.1	0.1	2.0				
H	<i>Bromus hordeaceus</i>	25	0.7	0.1	15.0				
H	<i>Microseris campestris</i>	24	0.2	0.1	5.0				
H	<i>Layia platyglossa</i>	24	0.1	0.1	2.0				
H	<i>Trichostema lanceolatum</i>	22	0.1	0.1	1.0				
H	<i>Avena</i> sp.	20	0.6	0.1	17.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Lepidium nitidum – *Trifolium gracilentum* – *Vulpia microstachys* Association
Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

Pectocarya (linearis, penicillata) Association

Common Name: Combseed Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 671 m (360 – 805 m)

Slope: 2° (0 – 6°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.2% (0 – 3%)

Herb Cover: 27.1% (14 – 48%)

Surface Covers – Mean (Range):

Large Rock: 0.1% (0 – 2%)

Small Rock: 19.5% (0 – 60%)

Fines: 62.9% (0 – 97%)

Litter: 10.7% (0 – 50%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 17): CARR0002, CARR0015, CARR0526, CARR0539, CARR0992, CARR0995, CARR0996, CARR1109, CARR1110, CARR1124, CARR1126A, CARR1131A, CARR1150, CARR1159, CARR1592, CARR1593, KTHL0011

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	100	6.5	0.2	15.0	Y			Y
H	<i>Vulpia microstachys</i>	94	0.8	0.2	4.0	Y			Y
H	<i>Schismus</i> sp.	76	5.4	0.2	30.0	Y			Y
H	<i>Amsinckia tessellata</i>	76	0.4	0.2	2.0	Y			Y
H	<i>Lasthenia gracilis</i>	71	1.0	0.1	8.0				Y
H	<i>Calandrinia ciliata</i>	59	0.7	0.2	5.0				Y
H	<i>Bromus rubens</i>	59	0.4	0.2	2.0				Y
H	<i>Camissonia campestris</i>	47	0.3	0.1	4.0				
H	<i>Lotus wrangelianus</i>	47	0.1	0.2	1.0				
H	<i>Vulpia myuros</i>	47	0.1	0.2	1.0				
H	<i>Pectocarya linearis</i>	41	4.4	2.0	20.0				
H	<i>Pectocarya penicillata</i>	41	2.2	2.0	9.0				
H	<i>Tropidocarpum gracile</i>	41	1.3	0.2	20.0				
H	<i>Lepidium nitidum</i>	41	0.8	0.2	12.0				
H	<i>Leptosiphon liniflorus</i>	35	0.4	0.2	3.0				
H	<i>Herniaria hirsuta</i>	35	0.1	0.2	0.2				
H	<i>Malacothrix coulteri</i>	35	0.1	0.1	0.2				
H	<i>Lastarriaea coriacea</i>	29	0.2	0.2	2.0				
H	<i>Crassula connata</i>	29	0.1	0.2	1.0				
H	<i>Monolopia congdonii</i>	29	0.1	0.1	1.0				
H	<i>Eriogonum gracillimum</i>	29	0.1	0.2	0.2				
H	<i>Amsinckia menziesii</i>	29	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	29	0.1	0.2	0.2				
H	<i>Plagiobothrys canescens</i>	24	0.5	0.2	4.0				
H	<i>Astragalus didymocarpus</i>	24	0.0	0.2	0.2				
H	<i>Hollisteria lanata</i>	24	0.0	0.2	0.2				
H	<i>Astragalus</i> sp.	24	0.0	0.2	0.2				
N	Cryptogammic crust	35	0.9	0.2	8.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Vulpia microstachys* – *Plantago erecta* Association**

Common Name: Small Fescue - Dwarf Plantain Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 581 m (386 – 733 m)

Slope: 3° (1 – 8°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.6% (0 – 2%)

Herb Cover: 49.3% (12 – 80%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 2.7% (0 – 7%)

Fines: 87.7% (83 – 95%)

Litter: 7.0% (1 – 15%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 4): CARR0982A, CVPA3971b, CVPA8058, E05071520A

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Atriplex polycarpa</i>	25	0.3	1.0	1.0				
S	<i>Gutierrezia californica</i>	25	0.1	0.2	0.2				
H	<i>Plantago erecta</i>	75	12.8	11.0	20.0	Y			Y
H	<i>Vulpia microstachys</i>	75	7.1	0.2	18.0	Y			Y
H	<i>Erodium cicutarium</i>	75	2.8	0.2	10.0	Y			Y
H	<i>Bromus rubens</i>	75	1.3	1.0	2.0	Y			Y
H	<i>Erodium brachycarpum</i>	50	9.6	0.2	38.0				Y
H	<i>Vulpia myuros</i>	50	5.3	7.0	14.0				Y
H	<i>Lotus wrangelianus</i>	50	1.0	1.0	3.0				Y
H	<i>Bromus hordeaceus</i>	50	0.6	0.2	2.0				Y
H	unknown <i>Asteraceae</i>	50	0.1	0.2	0.2				Y
H	<i>Trifolium gracilentum</i>	50	0.1	0.2	0.2				Y
H	<i>Plantago ovata</i>	25	2.5	10.0	10.0				
H	<i>Allium lacunosum</i>	25	1.3	5.0	5.0				
H	<i>Trichostema lanceolatum</i>	25	1.0	4.0	4.0				
H	<i>Plagiobothrys acanthocarpus</i>	25	0.8	3.0	3.0				

Vulpia microstachys – *Plantago erecta* Association

Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Deinandra pentactis</i>	25	0.8	3.0	3.0				
H	<i>Croton setigerus</i>	25	0.8	3.0	3.0				
H	<i>Crassula connata</i>	25	0.5	2.0	2.0				
H	<i>Lasthenia gracilis</i>	25	0.5	2.0	2.0				
H	<i>Lagophylla ramosissima</i>	25	0.5	2.0	2.0				
H	<i>Corethrogyne filaginifolia</i>	25	0.3	1.0	1.0				
H	<i>Castilleja attenuata</i>	25	0.3	1.0	1.0				
H	<i>Microseris elegans</i>	25	0.3	1.0	1.0				
H	<i>Avena</i> sp.	25	0.1	0.4	0.4				
H	<i>Leptosiphon liniflorus</i>	25	0.1	0.2	0.2				
H	<i>Eriogonum</i> sp.	25	0.1	0.2	0.2				
H	<i>Camissonia graciliflora</i>	25	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	25	0.1	0.2	0.2				
H	<i>Delphinium</i> sp.	25	0.1	0.2	0.2				
H	<i>Layia platyglossa</i>	25	0.1	0.2	0.2				
H	<i>Clarkia purpurea</i>	25	0.1	0.2	0.2				
H	<i>Chorizanthe uniaristata</i>	25	0.1	0.2	0.2				
H	<i>Lactuca serriola</i>	25	0.1	0.2	0.2				
H	<i>Centaurea melitensis</i>	25	0.1	0.2	0.2				
H	<i>Chorizanthe polygonoides</i> var. <i>polygonoides</i>	25	0.1	0.2	0.2				
H	<i>Lupinus bicolor</i>	25	0.1	0.2	0.2				
H	<i>Lepidium nitidum</i>	25	0.1	0.2	0.2				
H	<i>Trifolium albopurpureum</i>	25	0.1	0.2	0.2				
H	<i>Pectocarya linearis</i>	25	0.1	0.2	0.2				
H	<i>Poa secunda</i>	25	0.1	0.2	0.2				
H	<i>Plagiobothrys canescens</i>	25	0.1	0.2	0.2				
H	<i>Logfia californica</i>	25	0.1	0.2	0.2				
H	<i>Calandrinia ciliata</i>	25	0.1	0.2	0.2				
N	Algae	50	0.1	0.2	0.2				Y
N	Cryptogammic crust	25	8.5	34.0	34.0				
N	Moss	25	0.3	1.0	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Vulpia microstachys – *Plantago erecta* Association
Lasthenia californica – *Plantago erecta* – *Vulpia microstachys* Herbaceous Alliance

***Lasthenia fremontii* – *Distichlis spicata* Herbaceous Alliance**

Common Name: Fremont's goldfields – salt grass alkaline vernal pools

NVC Alliance Code: A4181. *Lasthenia fremontii* - *Distichlis spicata* Vernal Pool Alliance

Associations	Sample Size
<i>Atriplex vallicola</i> – <i>Lasthenia ferrisiae</i> – <i>Lepidium jaredii</i>	12
<i>Frankenia salina</i> – <i>Psilocarphus brevissimus</i> Provisional	3
<i>Lasthenia fremontii</i> – <i>Distichlis spicata</i> alliance	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 566 m (329 – 589 m)

Slope: 0° (0 – 3°)

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 18.2% (5 – 40%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.2% (0 – 3%)

Fines: 98.5% (93 – 100%)

Litter: 0.6% (0 – 3%)

Conservation Status Rank: Global: G2; **State (California):** S2

Surveys Used in Description (N = 16): CARR0508E, CARR0523, CARR0545, CARR0556, CARR0558, CARR0842, CARR0920, CARR0922, CARR0927, CARR1038, CARR1586, CARR1587, CARR1596, CARR2112, CVPA0091

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Lasthenia ferrisiae</i>	69	4.9	0.2	20.0				Y
H	<i>Bromus rubens</i>	69	0.4	0.1	2.0				Y
H	<i>Atriplex vallicola</i>	56	3.2	0.2	21.0				Y
H	<i>Lepidium jaredii</i>	50	6.2	0.2	30.0				Y
H	<i>Spergularia salina</i>	50	0.4	0.2	3.0				Y
H	<i>Schismus</i> sp.	44	0.1	0.1	0.2				
H	<i>Vulpia microstachys</i>	44	0.1	0.1	0.2				
H	<i>Erodium cicutarium</i>	38	0.1	0.2	0.2				
H	<i>Lepidium dictyotum</i>	31	1.0	0.2	12.0				
H	<i>Hordeum murinum</i>	25	0.2	0.2	1.0				
H	<i>Microseris douglasii</i>	25	0.1	0.2	0.2				
H	<i>Matricaria discoidea</i>	25	0.1	0.2	0.2				
H	<i>Malacothrix coulteri</i>	25	0.0	0.1	0.2				
N	Cryptogammic crust	38	2.5	0.2	15.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Atriplex vallicola* – *Lasthenia ferrisiae* – *Lepidium jaredii* Association**

Common Name: Lost Hills Crownscale – Ferris' Goldfields – Jared's Peppergrass Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 586 m (582 – 589 m)

Slope: 0° (0 – 3°)

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 20.9% (5 – 40%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 98.9% (97 – 100%)

Litter: 0.5% (0 – 2%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 12): CARR0508E, CARR0523, CARR0544, CARR0556, CARR0558, CARR0920, CARR0922, CARR0926, CARR0927, CARR1038, CARR1586, CARR1587

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Lasthenia ferrisiae</i>	92	6.6	0.2	20.0	Y		Y	Y
H	<i>Bromus rubens</i>	83	0.5	0.1	2.0	Y			Y
H	<i>Atriplex vallicola</i>	75	4.2	0.2	21.0	Y			Y
H	<i>Lepidium jaredii</i>	67	8.2	0.2	30.0				Y
H	<i>Spergularia salina</i>	67	0.5	0.2	3.0				Y
H	<i>Schismus</i> sp.	58	0.1	0.1	0.2				Y
H	<i>Vulpia microstachys</i>	50	0.1	0.1	0.2				Y
H	<i>Lepidium dictyotum</i>	33	1.1	0.2	12.0				
H	<i>Matricaria discoidea</i>	33	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	33	0.1	0.2	0.2				
H	<i>Malacothrix coulteri</i>	33	0.1	0.1	0.2				
H	<i>Microseris douglasii</i>	25	0.1	0.2	0.2				
N	Cryptogammic crust	33	2.3	0.2	15.0				
N	Moss	25	1.2	0.2	10.0				

Atriplex vallicola – *Lasthenia ferrisiae* – *Lepidium jaredii* Association
Lasthenia fremontii – *Distichlis spicata* Herbaceous Alliance

***Frankenia salina* – *Psilocarphus brevissimus* Provisional Association**

Common Name: Alkali Heath – Woolly Marbles Provisional Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 881 m (870 – 891 m)

Slope: 0°

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 15.5% (13 – 18%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.2%

Fines: 99.0% (98 – 100%)

Litter: 0.6% (0 – 1%)

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 3): CARR0842, CARR1596, CARR2112

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Frankenia salina</i>	100	2.5	0.2	7.0	Y			Y
H	<i>Psilocarphus brevissimus</i> var. <i>brevissimus</i>	67	5.3	6.0	10.0				Y
H	<i>Myosurus minimus</i>	67	1.7	1.0	4.0				Y
H	<i>Plagiobothrys leptocladus</i>	67	1.0	1.0	2.0				Y
H	<i>Lepidium dictyotum</i>	33	3.3	10.0	10.0				
H	<i>Lasthenia gracilis</i>	33	1.0	3.0	3.0				
H	<i>Plagiobothrys</i> sp.	33	1.0	3.0	3.0				
H	<i>Vulpia</i> sp.	33	0.1	0.2	0.2				
H	<i>Lepidium nitidum</i>	33	0.1	0.2	0.2				
H	<i>Hordeum murinum</i>	33	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	33	0.1	0.2	0.2				
H	<i>Cressa truxillensis</i>	33	0.1	0.2	0.2				
H	<i>Matricaria occidentalis</i>	33	0.1	0.2	0.2				
H	<i>Bromus rubens</i>	33	0.1	0.2	0.2				
N	Lichen	33	0.3	1.0	1.0				

Frankenia salina – *Psilocarphus brevissimus* Provisional Association

Lasthenia fremontii – *Distichlis spicata* Herbaceous Alliance

***Lasthenia fremontii* – *Downingia (bicornuta)* Herbaceous Alliance**

Common Name: Fremont's goldfields – *Downingia* vernal pools

NVC Alliance Code: A4168. *Lasthenia fremontii* - *Downingia bicornuta* - *Downingia* spp. Vernal Pool Alliance

Associations	Sample Size
<i>Plagiobothrys stipitatus</i> – <i>Psilocarphus brevissimus</i> Provisional	4

Classification Comments: The association circumscription is the same as that of the alliance. This provisional association is newly described from the Panoche Preserve where no other diagnostic vernal pool plants (such as *Lasthenia fremontii* or *Downingia* sp.) occur, but other characteristic plants of vernal pools (i.e., *Plagiobothrys stipitatus* var. *micranthus* or *Psilocarphus brevissimus*) occur as a dominant alone or as co-dominants with other herbs including native and non-native species.

Plot/Sample Data Summary – Mean (Range):

Elevation: 403 m (392 – 411 m)

Slope: no data

Aspect: no data

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 47.3% (30 – 58%)

Surface Covers – Mean (Range):

Large Rock: no data

Small Rock: no data

Fines: no data

Litter: no data

Conservation Status Rank: Global: G2; **State (California):** S2

Surveys Used in Description (N = 4): PAPR0002, PAPR0003, PAPR0005, PAPR0006

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Lepidium nitidum</i>	100	9.8	5.0	14.0	Y			Y
H	<i>Plagiobothrys stipitatus</i> var. <i>micranthus</i>	100	9.3	2.0	20.0	Y			Y
H	<i>Erodium cicutarium</i>	100	6.8	1.0	12.0	Y			Y
H	<i>Hordeum murinum</i>	100	5.8	2.0	13.0	Y			Y
H	<i>Erodium moschatum</i>	75	1.8	1.0	4.0	Y			Y
H	<i>Capsella bursa-pastoris</i>	75	1.0	1.0	2.0	Y			Y
H	<i>Croton setigerus</i>	50	5.5	11.0	11.0				Y
H	<i>Bromus madritensis</i>	50	2.0	2.0	6.0				Y
H	<i>Matricaria discoidea</i>	50	1.0	1.0	3.0				Y
H	<i>Bromus hordeaceus</i>	50	1.0	1.0	3.0				Y
H	<i>Psilocarphus brevissimus</i> var. <i>brevissimus</i>	25	1.3	5.0	5.0				
H	<i>Plagiobothrys acanthocarpus</i>	25	0.5	2.0	2.0				
H	<i>Trifolium depauperatum</i>	25	0.5	2.0	2.0				
H	<i>Plantago elongata</i>	25	0.3	1.0	1.0				
H	<i>Lasthenia californica</i>	25	0.3	1.0	1.0				
H	<i>Sisymbrium irio</i>	25	0.3	1.0	1.0				
H	<i>Vulpia myuros</i>	25	0.3	1.0	1.0				
H	<i>Poa annua</i>	25	0.3	1.0	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Leymus cinereus* – *Leymus triticoides* Herbaceous Alliance**

Common Name: Ashy ryegrass – Creeping wildrye turfs

NVC Alliance Code: A1329. *Leymus cinereus* - *Leymus triticoides* Alkaline Wet Meadow Alliance

Associations	Sample Size
<i>Leymus triticoides</i>	9
<i>Leymus triticoides</i> – <i>Bromus</i> spp. – <i>Avena</i> spp.	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 771 m (586 – 1282 m)

Slope: 6° (1 – 27°)

Aspect: Mostly east-facing

Tree Cover: 0.0%

Shrub Cover: 0.1%

Herb Cover: 47.0% (23 – 76%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.7% (0 – 3%)

Fines: 25.0% (0 – 90%)

Litter: 72.9% (9 – 98%)

Conservation Status Rank: Global: G3; **State (California):** S3

Surveys Used in Description (N = 10): A0514110, A0515093, CARR0569, CARR0637, CARR0759, CARR0914, CARR1028, CARR1046, E05071250, E05071250B

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Leymus triticoides</i>	100	28.6	7.0	71.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	90	4.8	0.2	25.0	Y			Y
H	<i>Bromus hordeaceus</i>	80	3.3	0.2	14.0	Y			Y
H	<i>Bromus rubens</i>	80	2.6	0.2	10.0	Y			Y
H	<i>Hordeum murinum</i>	80	0.8	0.2	2.0	Y			Y
H	<i>Bromus diandrus</i>	60	3.7	0.2	30.0				Y
H	<i>Distichlis spicata</i>	60	1.3	0.2	7.0				Y
H	<i>Lactuca serriola</i>	40	0.1	0.2	0.2				
H	<i>Amsinckia tessellata</i>	40	0.1	0.1	0.2				
H	<i>Avena</i> sp.	30	0.6	0.2	6.0				
H	<i>Dichelostemma capitatum</i>	30	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	30	0.1	0.2	0.2				
H	<i>Microseris lindleyi</i>	30	0.1	0.2	0.2				
H	<i>Lomatium utriculatum</i>	30	0.1	0.1	0.2				
H	<i>Claytonia perfoliata</i>	20	1.5	0.2	15.0				
H	<i>Centaurea melitensis</i>	20	0.1	0.2	1.0				
H	<i>Hirschfeldia incana</i>	20	0.1	0.2	1.0				
H	<i>Sisymbrium altissimum</i>	20	0.1	0.2	1.0				
H	<i>Cressa truxillensis</i>	20	0.1	0.2	1.0				
H	<i>Hordeum depressum</i>	20	0.0	0.2	0.2				
H	<i>Sonchus</i> sp.	20	0.0	0.2	0.2				
H	<i>Frankenia salina</i>	20	0.0	0.2	0.2				
H	<i>Amsinckia menziesii</i>	20	0.0	0.2	0.2				
H	<i>Capsella bursa-pastoris</i>	20	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Leymus triticoides* Association**

Common Name: Creeping Wildrye Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 783 m (586 – 1282 m)

Slope: 6° (1 – 27°)

Aspect: Mostly east-facing

Tree Cover: 0.0%

Shrub Cover: 0.1%

Herb Cover: 47.1% (23 – 76%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.8% (0 – 3%)

Fines: 32.5% (0 – 90%)

Litter: 65.4% (9 – 98%)

Global Rarity Rank: G4? **State Rarity Rank:** SNR

State Rare: Y

Surveys Used in Description (N = 9): A0514110, A0515093, CARR0569, CARR0637, CARR0759, CARR0914, CARR1028, CARR1046, E05071250

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Leymus triticoides</i>	100	31.0	16.0	71.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	89	5.4	0.2	25.0	Y			Y
H	<i>Bromus hordeaceus</i>	78	3.6	0.2	14.0	Y			Y
H	<i>Bromus rubens</i>	78	2.6	0.2	10.0	Y			Y
H	<i>Hordeum murinum</i>	78	0.7	0.2	2.0	Y			Y
H	<i>Distichlis spicata</i>	56	1.4	0.2	7.0				Y
H	<i>Bromus diandrus</i>	56	0.7	0.2	5.0				Y
H	<i>Amsinckia tessellata</i>	44	0.1	0.1	0.2				
H	<i>Microseris lindleyi</i>	33	0.1	0.2	0.2				
H	<i>Lactuca serriola</i>	33	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	33	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	33	0.1	0.2	0.2				
H	<i>Lomatium utriculatum</i>	33	0.1	0.1	0.2				
H	<i>Avena</i> sp.	22	0.7	0.2	6.0				
H	<i>Hirschfeldia incana</i>	22	0.1	0.2	1.0				
H	<i>Cressa truxillensis</i>	22	0.1	0.2	1.0				
H	<i>Frankenia salina</i>	22	0.0	0.2	0.2				
H	<i>Hordeum depressum</i>	22	0.0	0.2	0.2				
H	<i>Capsella bursa-pastoris</i>	22	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Leymus triticoides* – *Bromus* spp. – *Avena* spp. Association**

Common Name: Creeping Wildrye – Annual Brome – Wild Oats Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 734 m

Slope: 4°

Aspect: Mostly SE-facing

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 45.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.2%

Fines: 3.0%

Litter: 95.0%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 1): E05071250B

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Bromus diandrus</i>	100	30.0	30.0	30.0	Y	Y		Y
H	<i>Leymus triticoides</i>	100	7.0	7.0	7.0	Y			Y
H	<i>Bromus rubens</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Hordeum murinum</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Sisymbrium altissimum</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Centaurea melitensis</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Amsinckia menziesii</i> var. <i>intermedia</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus hordeaceus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Avena</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Claytonia perfoliata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia menziesii</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Herniaria hirsuta</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lactuca serriola</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Sisymbrium orientale</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Sonchus</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Trifolium gracilentum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Distichlis spicata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Erodium cicutarium</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Leymus triticoides – *Bromus* spp. – *Avena* spp. Association
Leymus cinereus – *Leymus triticoides* Herbaceous Alliance

***Mimulus guttatus* – *Cirsium* spp. – *Stachys* spp. Herbaceous Alliance**

Common Name: Common monkey flower – thistle – hedgenettle seeps

NVC Alliance Code: A4415. *Mimulus guttatus* - *Claytonia sibirica* - *Triteleia hyacinthina* Seep & Spring Alliance

Associations	Sample Size
<i>Mimulus guttatus</i>	1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 373 m

Slope: no data

Aspect: no data

Tree Cover: 0.0%

Shrub Cover: 3.0%

Herb Cover: 21.0%

Surface Covers – Mean (Range):

Large Rock: no data

Small Rock: no data

Fines: no data

Litter: no data

Conservation Status Rank: Global: GNR; **State (California):** S3

Surveys Used in Description (N = 1): PAPR0048

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Artemisia californica</i>	100	2.0	2.0	2.0	Y	Y		Y
S	<i>Baccharis salicifolia</i>	100	1.0	1.0	1.0	Y		Y	Y
H	<i>Mimulus guttatus</i>	100	4.0	4.0	4.0	Y			Y
H	<i>Stachys albens</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Epilobium canum</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Hordeum brachyantherum</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Avena</i> sp.	100	1.0	1.0	1.0	Y			Y
H	<i>Solidago californica</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Brickellia californica</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Bromus diandrus</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Galium aparine</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Juncus xiphioides</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Mirabilis laevis</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Rumex salicifolius</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Polypogon monspeliensis</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Verbena lasiostachys</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Hordeum marinum</i>	100	1.0	1.0	1.0	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Monolopia (lanceolata) – Coreopsis (calliopsidea) Herbaceous Alliance

Common Name: Monolopia – leafy-stemmed tickseed fields

NVC Alliance Code: N/A.

Associations	Sample Size
<i>Coreopsis calliopsidea – Mentzelia pectinata</i>	9
<i>Eschscholzia hypaeoides – Monolopia lanceolata</i> Provisional	1
<i>Monolopia lanceolata</i>	36
<i>Monolopia major</i> Provisional	1
<i>Monolopia stricta</i>	10

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 669 m (217 – 1160 m)

Slope: 22° (0 – 50°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.3% (0 – 5%)

Herb Cover: 30.4% (1 – 75%)

Surface Covers – Mean (Range):

Large Rock: 0.1% (0 – 3%)

Small Rock: 10.5% (0 – 84%)

Fines: 75.8% (5 – 100%)

Litter: 12.4% (0 – 89%)

Conservation Status Rank: Global: G3; State (California): S3

Surveys Used in Description (N = 65): CARR0016, CARR0038, CARR0507, CARR0509, CARR0509A, CARR0509C, CARR0509E, CARR0509F, CARR0510, CARR0516B, CARR0517, CARR0533, CARR0547, CARR0551, CARR0580, CARR0615, CARR0903, CARR0918, CARR0967, CARR0980, CARR0983, CARR0984, CARR0986, CARR0991, CARR0994, CARR1001, CARR1005, CARR1014, CARR1023, CARR1024, CARR1027, CARR1043, CARR1048, CARR1049, CARR1060, CARR1106, CARR1144, CARR1148, CARR1149, CARR1221, CARR1614, CARR1649, CARR1740, CARR2102, CARR6703, CARR6707, CARR6709, CARR6718, CARR6719, CARR6731, CARR6732, CVPA3809b, CVPA8064, KTHL0002, KTHL0003, KTHL0007, KTHL0015, KTHL0020, KTHL0021, KTHL0022, KTHL0025, MORI0050, MORI0055, MORI0058, Q18031513

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium cicutarium</i>	97	7.9	0.2	35.0	Y			Y
H	<i>Amsinckia tessellata</i>	82	1.7	0.1	25.0	Y			Y
H	<i>Bromus rubens</i>	80	4.0	0.2	30.0	Y			Y
H	<i>Monolopia lanceolata</i>	77	12.4	0.2	65.0	Y		Y	Y
H	<i>Poa secunda</i>	43	0.7	0.1	12.0				
H	<i>Guillenia lasiophylla</i>	43	0.3	0.1	5.0				
H	<i>Malacothrix coulteri</i>	40	0.1	0.1	1.0				
H	<i>Astragalus didymocarpus</i>	37	0.6	0.1	20.0				
H	<i>Lotus wrangelianus</i>	26	0.2	0.1	5.0				
H	<i>Monolopia stricta</i>	25	1.9	0.2	26.0				
H	<i>Schismus</i> sp.	25	0.4	0.2	6.0				
H	<i>Caulanthus inflatus</i>	25	0.3	0.1	7.0				
H	<i>Phacelia tanacetifolia</i>	25	0.3	0.2	6.0				
H	<i>Dichelostemma capitatum</i>	23	0.0	0.1	0.2				
H	<i>Phacelia ciliata</i>	22	0.0	0.1	1.0				
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	22	0.0	0.1	0.2				
H	<i>Mentzelia pectinata</i>	20	1.5	0.1	25.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Coreopsis calliopsidea* – *Mentzelia pectinata* Association**

Common Name: Leafy-stemmed tickseed – San Joaquin Blazingstar Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 823 m (596 – 946 m)

Slope: 32° (4 – 50°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.5% (0 – 2%)

Herb Cover: 23.3% (11 – 35%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 17.8% (0 – 59%)

Fines: 72.3% (39 – 96%)

Litter: 8.7% (0 – 55%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 9): CARR0516B, CARR0580, CARR0967, CARR0984, CARR0986, CARR1001, CARR1014, CARR1027, CARR1049

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Amsinckia tessellata</i>	89	1.0	0.2	5.0	Y			Y
H	<i>Mentzelia pectinata</i>	78	10.3	1.0	25.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	78	5.8	0.2	18.0	Y			Y
H	<i>Bromus rubens</i>	78	2.9	0.2	12.0	Y			Y
H	<i>Malacothrix coulteri</i>	78	0.2	0.2	1.0	Y			Y
H	<i>Guillenia lasiophylla</i>	78	0.2	0.1	1.0	Y			Y
H	<i>Coreopsis calliopsidea</i>	56	4.7	1.0	20.0				Y
H	<i>Poa secunda</i>	56	1.2	0.2	6.0				Y
H	<i>Caulanthus inflatus</i>	56	0.7	0.2	3.0				Y
H	<i>Monolopia lanceolata</i>	44	0.3	0.2	2.0				
H	<i>Schismus</i> sp.	33	0.2	0.2	1.0				
H	<i>Astragalus didymocarpus</i>	33	0.2	0.2	1.0				
H	<i>Microseris lindleyi</i>	33	0.1	0.2	0.2				
H	<i>Phacelia tanacetifolia</i>	22	0.2	0.2	2.0				
H	<i>Eriogonum angulosum</i>	22	0.2	0.2	2.0				
H	<i>Mentzelia albicaulis</i>	22	0.0	0.2	0.2				
H	<i>Claytonia parviflora</i>	22	0.0	0.2	0.2				
H	<i>Lupinus microcarpus</i>	22	0.0	0.2	0.2				
H	<i>Lotus wrangelianus</i>	22	0.0	0.2	0.2				
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	22	0.0	0.2	0.2				
N	Cryptogammic crust	56	4.0	0.2	30.0				Y
N	Moss	22	0.8	0.2	7.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Eschscholzia hypecoides* – *Monolopia lanceolata* Provisional Association**

Common Name: Leafy Stemmed Poppy – Common Monolopia Association

Classification Comments: This association is newly described here from the Ciervo-Panoche Natural Area, in which the characteristic species (*Eschscholzia hypecoides* and *Monolopia lanceolata*) occur as co-dominants with other herbs along sandy slopes. More sampling across the range of these species will allow us to fully determine the association description and placement at the alliance level. *E. hypecoides* has a limited distribution with a CA Rare Plant Rank of 4.3.

Plot/Sample Data Summary – Mean (Range):

Elevation: 441 m

Slope: no data

Aspect: no data

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 30.0%

Surface Covers – Mean (Range):

Large Rock: no data

Small Rock: no data

Fines: no data

Litter: no data

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 1): Q18031513

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Eschscholzia hypecoides</i>	100	12.0	12.0	12.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	100	9.0	9.0	9.0	Y			Y
H	<i>Monolopia lanceolata</i>	100	7.0	7.0	7.0	Y			Y
H	<i>Amsinckia tessellata</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Salvia columbariae</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Lepidium nitidum</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Calandrinia ciliata</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Mentzelia affinis</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Dichelostemma capitatum</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Eschscholzia hypecoides – *Monolopia lanceolata* Provisional Association
Monolopia (lanceolata) – *Coreopsis (calliopsidea)* Herbaceous Alliance

***Monolopia lanceolata* Association**

Common Name: Common Monolopia Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 693 m (217 – 1160 m)

Slope: 20° (0 – 48°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.3% (0 – 5%)

Herb Cover: 34.6% (8 – 74%)

Surface Covers – Mean (Range):

Large Rock: 0.1% (0 – 2%)

Small Rock: 10.7% (0 – 84%)

Fines: 71.3% (5 – 100%)

Litter: 16.6% (0 – 89%)

Global Rarity Rank: G3 **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 36): CARR0016, CARR0038, CARR0507, CARR0509E, CARR0517, CARR0533, CARR0547, CARR0551, CARR0615, CARR0903, CARR0918, CARR0980, CARR0983, CARR0991, CARR0994, CARR1005, CARR1023, CARR1043, CARR1106, CARR1221, CARR1614, CARR1649, CARR1740, CARR6703, CARR6707, CARR6709, CARR6718, CARR6719, CARR6731, CARR6732, KTHL0007, KTHL0015, KTHL0020, KTHL0022, MORI0050, MORI0058

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Monolopia lanceolata</i>	100	19.3	2.0	65.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	100	8.2	0.2	33.0	Y			Y
H	<i>Amsinckia tessellata</i>	86	2.5	0.1	25.0	Y			Y
H	<i>Bromus rubens</i>	83	4.8	0.2	30.0	Y			Y
H	<i>Astragalus didymocarpus</i>	44	1.0	0.1	20.0				
H	<i>Poa secunda</i>	44	0.9	0.1	12.0				
H	<i>Lotus wrangelianus</i>	33	0.2	0.1	5.0				
H	<i>Guillenia lasiophylla</i>	33	0.2	0.2	2.0				
H	<i>Malacothrix coulteri</i>	33	0.1	0.1	1.0				
H	<i>Phacelia ciliata</i>	33	0.1	0.1	1.0				
H	<i>Avena</i> sp.	28	0.8	0.1	20.0				
H	<i>Phacelia tanacetifolia</i>	28	0.3	0.2	6.0				
H	<i>Caulanthus inflatus</i>	25	0.1	0.1	3.0				
H	<i>Hordeum murinum</i>	22	0.7	0.2	11.0				
H	<i>Dichelostemma capitatum</i>	22	0.0	0.1	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Monolopia major* Provisional Association**

Common Name: Cupped Monolopia Association

Classification Comments: This association is newly described here from Ciervo Panoche Natural Area, in which the characteristic species, *Monolopia major*, occurs as a co-dominant with other herbs on light, clayey slopes.

Plot/Sample Data Summary – Mean (Range):

Elevation: 537 m

Slope: no data

Aspect: no data

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 32.0%

Surface Covers – Mean (Range):

Large Rock: no data

Small Rock: no data

Fines: no data

Litter: no data

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 1): CVPA3809b

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Bromus rubens</i>	100	13.0	13.0	13.0	Y		Y	Y
H	<i>Monolopia major</i>	100	8.0	8.0	8.0	Y			Y
H	<i>Amsinckia</i> sp.	100	8.0	8.0	8.0	Y			Y
H	<i>Guillenia lasiophylla</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Erodium cicutarium</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Pholistoma membranaceum</i>	100	0.4	0.4	0.4	Y			Y
H	<i>Phacelia</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Poa secunda</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Dichelostemma capitatum</i>	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Monolopia stricta* Association**

Common Name: Crum's Monolopia Association

Classification Comments: If the native bunchgrass, *Poa secunda*, is high in cover, see the related type: *Monolopia stricta* – *Poa secunda* Association under the *Aristida purpurea* – *Elymus elymoides* – *Poa secunda* Alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 495 m (226 – 912 m)

Slope: 23° (1 – 38°)

Aspect: Mostly south-facing

Tree Cover: 0.0%

Shrub Cover: 0.1% (0 – 1%)

Herb Cover: 19.4% (12 – 46%)

Surface Covers – Mean (Range):

Large Rock: 0.3% (0 – 3%)

Small Rock: 7.1% (0 – 31%)

Fines: 89.6% (67 – 99%)

Litter: 2.0% (0 – 15%)

Global Rarity Rank: G2

State Rarity Rank: S2

State Rare: Y

Surveys Used in Description (N = 10): CARR0510, CARR1048, CARR1060, CARR1149, CARR2102, CVPA8064, KTHL0002, KTHL0003, KTHL0021, KTHL0025

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Monolopia stricta</i>	100	10.1	0.2	26.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	100	4.8	0.2	20.0	Y			Y
H	<i>Amsinckia tessellata</i>	80	1.1	0.2	3.0	Y			Y
H	<i>Bromus rubens</i>	80	1.0	0.2	6.0	Y			Y
H	<i>Guillenia lasiophylla</i>	60	0.6	0.2	5.0				Y
H	<i>Schismus</i> sp.	50	1.9	2.0	6.0				Y
H	<i>Mentzelia affinis</i>	50	0.2	0.2	1.0				Y
H	<i>Malacothrix coulteri</i>	50	0.1	0.2	0.2				Y
H	<i>Camissonia boothii</i> ssp. <i>decorticans</i>	50	0.1	0.2	0.2				Y
H	<i>Lepidium dictyotum</i>	40	0.4	0.2	3.0				
H	<i>Lepidium nitidum</i>	40	0.3	0.2	2.0				
H	<i>Salvia columbariae</i>	40	0.2	0.2	1.0				
H	<i>Pectocarya</i> sp.	40	0.1	0.2	0.2				
H	<i>Hemizonia kelloggii</i>	30	0.4	0.2	2.0				
H	<i>Lupinus microcarpus</i>	30	0.1	0.2	0.2				
H	<i>Monolopia lanceolata</i>	30	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	30	0.1	0.1	0.2				
H	<i>Coreopsis calliopsidea</i>	20	0.7	1.0	6.0				
H	<i>Hordeum murinum</i>	20	0.3	0.2	3.0				
H	<i>Astragalus didymocarpus</i>	20	0.2	0.2	2.0				
H	<i>Lotus wrangelianus</i>	20	0.1	0.2	1.0				
H	<i>Vulpia microstachys</i>	20	0.1	0.2	1.0				
H	<i>Amsinckia vernicosa</i>	20	0.1	0.2	1.0				
H	<i>Chaenactis fremontii</i>	20	0.0	0.2	0.2				
H	<i>Bromus hordeaceus</i>	20	0.0	0.2	0.2				
H	<i>Eriogonum angulosum</i>	20	0.0	0.2	0.2				
H	<i>Phacelia tanacetifolia</i>	20	0.0	0.2	0.2				
H	<i>Plantago erecta</i>	20	0.0	0.2	0.2				
H	<i>Poa secunda</i>	20	0.0	0.2	0.2				
N	Lichen	20	0.0	0.2	0.2				
N	Cryptogammic crust	20	0.0	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

Monolopia stricta Association
Monolopia (lanceolata) – *Coreopsis (calliopsidea)* Herbaceous Alliance

***Nassella* spp. – *Melica* spp. Herbaceous Alliance**

Common Name: Needle grass - Melic grass grassland

NVC Alliance Code: A1248. *Nassella lepida* - *Melica torreyana* Grassland Alliance

Associations	Sample Size
---------------------	--------------------

Nassella cernua

8

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 677 m (614 – 754 m)

Slope: 7° (3 – 14°)

Aspect: Variable

Tree Cover: 0.0%

Shrub Cover: 0.1%

Herb Cover: 22.9% (13 – 40%)

Surface Covers – Mean (Range):

Large Rock: 0.1%

Small Rock: 9.0% (0 – 21%)

Fines: 41.8% (2 – 72%)

Litter: 47.5% (20 – 96%)

Conservation Status Rank: Global: G3G4; **State (California):** S3S4

Surveys Used in Description (N = 8): A0512163, A0514121, CARR0050, CARR0065, CARR0072, CARR0118, CARR1029, E05070939B

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Isocoma acradenia</i>	38	0.1	0.2	0.2				
H	<i>Nassella cernua</i>	100	8.0	3.0	15.0	Y		Y	Y
H	<i>Erodium cicutarium</i>	100	6.6	2.0	18.0	Y			Y
H	<i>Bromus rubens</i>	100	3.6	2.0	6.0	Y			Y
H	<i>Castilleja exserta</i>	100	0.3	0.2	1.0	Y			Y
H	<i>Bromus hordeaceus</i>	63	0.8	0.2	5.0				Y
H	<i>Avena</i> sp.	63	0.4	0.2	2.0				Y
H	<i>Lotus wrangelianus</i>	63	0.2	0.1	1.0				Y
H	<i>Vulpia microstachys</i>	50	0.4	0.2	2.0				Y
H	<i>Trifolium albopurpureum</i>	50	0.2	0.2	1.0				Y
H	<i>Microseris lindleyi</i>	50	0.1	0.2	0.2				Y

Nassella spp. – *Melica* spp. Herbaceous Alliance

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Pectocarya penicillata</i>	50	0.1	0.2	0.2				Y
H	<i>Lasthenia californica</i>	50	0.1	0.2	0.2				Y
H	<i>Vulpia myuros</i>	38	0.6	0.2	4.0				
H	<i>Micropus californicus</i>	38	0.4	0.4	2.0				
H	<i>Plantago erecta</i>	38	0.3	0.1	2.0				
H	<i>Hirschfeldia incana</i>	38	0.1	0.2	0.2				
H	<i>Centaurea melitensis</i>	38	0.1	0.2	0.2				
H	<i>Poa secunda</i>	38	0.1	0.1	0.2				
H	<i>Trifolium gracilentum</i>	38	0.1	0.1	0.2				
H	<i>Lupinus bicolor</i>	25	0.4	1.0	2.0				
H	<i>Amsinckia menziesii</i>	25	0.2	0.2	1.0				
H	<i>Lupinus microcarpus</i>	25	0.2	0.2	1.0				
H	<i>Eriogonum elongatum</i>	25	0.2	0.2	1.0				
H	<i>Schismus</i> sp.	25	0.1	0.2	0.2				
H	<i>Leptosiphon liniflorus</i>	25	0.1	0.2	0.2				
H	<i>Lasthenia gracilis</i>	25	0.1	0.2	0.2				
H	<i>Amsinckia tessellata</i>	25	0.1	0.2	0.2				
H	<i>Lomatium utriculatum</i>	25	0.1	0.2	0.2				
H	<i>Astragalus didymocarpus</i>	25	0.1	0.2	0.2				
H	<i>Calandrinia ciliata</i>	25	0.1	0.2	0.2				
H	<i>Dichelostemma capitatum</i>	25	0.1	0.2	0.2				
H	<i>Castilleja brevistyla</i>	25	0.1	0.2	0.2				
H	<i>Layia platyglossa</i>	25	0.0	0.1	0.2				
N	Moss	38	0.1	0.2	0.2				
N	Cryptogammic crust	25	0.2	0.2	1.0				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Plagiobothrys nothofulvus* Herbaceous Alliance**

Common Name: Popcorn flower fields

NVC Alliance Code: A4182. *Amsinckia menziesii* - *Amsinckia tessellata* - *Phacelia* spp. Meadow Alliance

Associations	Sample Size
<i>Plagiobothrys nothofulvus</i> – <i>Castilleja exserta</i> – (<i>Lupinus nanus</i>) Provisional	1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 792 m

Slope: 6°

Aspect: Mostly NE-facing

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 42.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 5.0%

Fines: 23.0%

Litter: 70.0%

Conservation Status Rank: Global: G4; **State (California):** S4

Surveys Used in Description (N = 1): CARR0047

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Erodium botrys</i>	100	22.0	22.0	22.0	Y		Y	Y
H	<i>Dodecatheon clevelandii</i>	100	6.0	6.0	6.0	Y			Y
H	<i>Plagiobothrys nothofulvus</i>	100	4.0	4.0	4.0	Y			Y
H	<i>Bromus rubens</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Viola douglasii</i>	100	3.0	3.0	3.0	Y			Y
H	<i>Lupinus bicolor</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Collinsia sparsiflora</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Amsinckia menziesii</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Dichelostemma capitatum</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Sanicula bipinnatifida</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Poa secunda</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Thysanocarpus curvipes</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lepidium nitidum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Calandrinia ciliata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Delphinium gypsophilum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Plagiobothrys canescens</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lomatium utriculatum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lotus humistratus</i>	100	0.2	0.2	0.2	Y			Y
N	Moss	100	1.0	1.0	1.0	Y	Y		Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Salsola tragus* – *Isatis tinctoria* – *Bassia* spp. Herbaceous Semi-Natural Alliance**

Common Name: Russian thistle – dyers woad – fivehood bassia fields

NVC Alliance Code: A3257. *Centaurea solstitialis* - *Isatis tinctoria* - *Salsola tragus*
Ruderal Annual Forb Alliance

Associations	Sample Size
<i>Salsola</i> spp.	1

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 607 m

Slope: 1°

Aspect: Mostly SW-facing

Tree Cover: 0.0%

Shrub Cover: 0.0%

Herb Cover: 30.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 10.2%

Fines: 63.0%

Litter: 25.0%

Conservation Status Rank: Global: GNA; **State (California):** SNA

Surveys Used in Description (N = 1): Z04091545A

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
H	<i>Salsola tragus</i>	100	26.0	26.0	26.0	Y	Y		Y
H	<i>Erodium cicutarium</i>	100	2.0	2.0	2.0	Y			Y
H	<i>Bromus rubens</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Croton setigerus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Amsinckia tessellata</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Hirschfeldia incana</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Schismus</i> sp.	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Schoenoplectus americanus* Herbaceous Alliance**

Common Name: Common Three-square marsh

NVC Alliance Code: A3895. *Schoenoplectus americanus* - *Schoenoplectus pungens* - *Eleocharis palustris* Marsh Alliance

Associations	Sample Size
<i>Schoenoplectus americanus</i>	3
<i>Schoenoplectus pungens</i> Provisional	1

Classification Comments: None.

Plot/Sample Data Summary – Mean (Range):

Elevation: 309 m (181 – 431 m)

Slope: 1° (0 – 3°)

Aspect: Mostly flat

Tree Cover: 0.5% (0 – 2%)

Shrub Cover: 1.4% (0 – 4%)

Herb Cover: 48.0% (22 – 70%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.1%

Fines: 17.0% (7 – 32%)

Litter: 9.5% (1 – 30%)

Conservation Status Rank: Global: G5; **State (California):** S3

Surveys Used in Description (N = 4): chg122, chg123, CVPA0056, LPWA004

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Salix laevigata</i>	25	0.5	2.0	2.0				
S	<i>Tamarix</i> sp.	75	0.2	0.2	0.4	Y		Y	Y
S	<i>Salix exigua</i>	50	0.1	0.2	0.2				Y
S	<i>Atriplex lentiformis</i>	50	0.1	0.2	0.2				Y
S	<i>Salix lasiolepis</i>	25	0.8	3.0	3.0				
S	<i>Cleome isomeris</i>	25	0.1	0.2	0.2				
H	<i>Typha</i> sp.	100	2.1	0.2	6.0	Y			Y
H	<i>Distichlis spicata</i>	100	1.4	0.2	4.0	Y			Y
H	<i>Schoenoplectus pungens</i>	75	25.3	20.0	60.0	Y	Y		Y
H	<i>Schoenoplectus americanus</i>	75	19.8	1.0	70.0	Y		Y	Y
H	<i>Polypogon monspeliensis</i>	75	0.4	0.2	1.0	Y			Y
H	<i>Schoenoplectus maritimus</i>	50	0.1	0.2	0.2				Y
H	<i>Eleocharis</i> sp.	50	0.1	0.2	0.2				Y
H	<i>Euthamia occidentalis</i>	25	0.1	0.5	0.5				
H	<i>Frankenia salina</i>	25	0.1	0.2	0.2				
H	<i>Malva neglecta</i>	25	0.1	0.2	0.2				
H	<i>Bromus madritensis</i>	25	0.1	0.2	0.2				
H	<i>Erodium cicutarium</i>	25	0.1	0.2	0.2				
H	<i>Heliotropium curassavicum</i>	25	0.1	0.2	0.2				
H	<i>Hordeum murinum</i>	25	0.1	0.2	0.2				
H	<i>Lactuca serriola</i>	25	0.1	0.2	0.2				
H	<i>Melilotus indicus</i>	25	0.1	0.2	0.2				
H	<i>Silybum marianum</i>	25	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	25	0.1	0.2	0.2				
H	<i>Juncus</i> sp.	25	0.1	0.2	0.2				
H	<i>Cotula coronopifolia</i>	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Schoenoplectus americanus* Association**

Common Name: Common Three-square Association

Classification Comments: None

Plot/Sample Data Summary – Mean (Range):

Elevation: 346 m (181 – 431 m)

Slope: 0°

Aspect: Mostly flat

Tree Cover: 0.0%

Shrub Cover: 0.5% (0 – 1%)

Herb Cover: 40.7% (22 – 65%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.1%

Fines: 18.0% (7 – 32%)

Litter: 11.0% (1 – 30%)

Global Rarity Rank: G3? **State Rarity Rank:** S3

State Rare: Y

Surveys Used in Description (N = 3): chg122, chg123, CVPA0056

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
S	<i>Tamarix</i> sp.	100	0.3	0.2	0.4	Y	Y		Y
S	<i>Salix exigua</i>	67	0.1	0.2	0.2				Y
S	<i>Atriplex lentiformis</i>	33	0.1	0.2	0.2				
H	<i>Schoenoplectus americanus</i>	100	26.3	1.0	70.0	Y		Y	Y
H	<i>Typha</i> sp.	100	2.7	0.2	6.0	Y			Y
H	<i>Distichlis spicata</i>	100	0.5	0.2	1.0	Y			Y
H	<i>Schoenoplectus pungens</i>	67	13.7	20.0	21.0				Y
H	<i>Eleocharis</i> sp.	67	0.1	0.2	0.2				Y
H	<i>Polypogon monspeliensis</i>	67	0.1	0.2	0.2				Y
H	<i>Schoenoplectus maritimus</i>	67	0.1	0.2	0.2				Y
H	<i>Euthamia occidentalis</i>	33	0.2	0.5	0.5				
H	<i>Heliotropium curassavicum</i>	33	0.1	0.2	0.2				
H	<i>Cotula coronopifolia</i>	33	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Schoenoplectus pungens* Provisional Association**

Common Name: Common Three-Square Bulrush Association

Classification Comments: This association is newly described here from Little Panoche Reservoir Wildlife Area, in which the character species (*Schoenoplectus pungens*) occurs as a dominant in inland semi-arid, alkaline wetlands similar to where *S. americanus* could be found.

Plot/Sample Data Summary – Mean (Range):

Elevation: 200 m

Slope: 3°

Aspect: Mostly flat

Tree Cover: 2.0%

Shrub Cover: 4.0%

Herb Cover: 70.0%

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 14.0%

Litter: 5.0%

Global Rarity Rank: GNR

State Rarity Rank: SNR

State Rare: Y

Surveys Used in Description (N = 1): LPWA004

Association Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Salix laevigata</i>	100	2.0	2.0	2.0	Y	Y		Y
S	<i>Salix lasiolepis</i>	100	3.0	3.0	3.0	Y	Y		Y
S	<i>Atriplex lentiformis</i>	100	0.2	0.2	0.2	Y			Y
S	<i>Cleome isomeris</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Schoenoplectus pungens</i>	100	60.0	60.0	60.0	Y	Y		Y
H	<i>Distichlis spicata</i>	100	4.0	4.0	4.0	Y			Y
H	<i>Polypogon monspeliensis</i>	100	1.0	1.0	1.0	Y			Y
H	<i>Erodium cicutarium</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Malva neglecta</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Bromus madritensis</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Frankenia salina</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Hordeum murinum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Lactuca serriola</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Vulpia myuros</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Typha</i> sp.	100	0.2	0.2	0.2	Y			Y
H	<i>Silybum marianum</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Melilotus indicus</i>	100	0.2	0.2	0.2	Y			Y
H	<i>Juncus</i> sp.	100	0.2	0.2	0.2	Y			Y

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often

***Typha (angustifolia, domingensis, latifolia)* Herbaceous Alliance**

Common Name: Cattail marshes

NVC Alliance Code: A3896. *Typha domingensis* - *Typha latifolia* - *Schoenoplectus acutus* Western Marsh Alliance

Associations	Sample Size
<i>Typha (latifolia, angustifolia)</i>	4

Classification Comments: The association circumscription is the same as that of the alliance.

Plot/Sample Data Summary – Mean (Range):

Elevation: 254 m (160 – 365 m)

Slope: 1° (0 – 1°)

Aspect: Variable

Tree Cover: 1.3% (0 – 5%)

Shrub Cover: 1.6% (0 – 5%)

Herb Cover: 43.8% (3 – 77%)

Surface Covers – Mean (Range):

Large Rock: 0.0%

Small Rock: 0.0%

Fines: 10.0% (0 – 20%)

Litter: 1.5% (0 – 3%)

Conservation Status Rank: Global: G5; **State (California):** S5

Surveys Used in Description (N = 4): CVPA0046, CVPA2966, CVPA4341b, LPWA018

Alliance Stand Table:

Layer	Taxon	Con	Avg	Min	Max	Ch	D	cD	Oft
T	<i>Salix laevigata</i>	25	1.3	5.0	5.0				
S	<i>Tamarix</i> sp.	50	0.8	0.2	3.0				Y
S	<i>Atriplex lentiformis</i>	25	0.5	2.0	2.0				
S	<i>Salix</i> sp.	25	0.1	0.2	0.2				
H	<i>Typha</i> sp.	100	30.8	0.2	76.0	Y	Y		Y
H	<i>Melilotus indicus</i>	25	7.5	30.0	30.0				
H	<i>Schoenoplectus pungens</i>	25	1.0	4.0	4.0				
H	<i>Polypogon monspeliensis</i>	25	0.8	3.0	3.0				
H	<i>Frankenia salina</i>	25	0.8	3.0	3.0				
H	<i>Distichlis spicata</i>	25	0.8	3.0	3.0				
H	<i>Bromus madritensis</i>	25	0.3	1.0	1.0				
H	<i>Juncus arcticus</i>	25	0.1	0.5	0.5				
H	<i>Euthamia occidentalis</i>	25	0.1	0.5	0.5				
H	<i>Avena</i> sp.	25	0.1	0.2	0.2				
H	<i>Schoenoplectus americanus</i>	25	0.1	0.2	0.2				
H	<i>Lepidium latifolium</i>	25	0.1	0.2	0.2				
H	<i>Hordeum murinum</i>	25	0.1	0.2	0.2				
H	<i>Vulpia myuros</i>	25	0.1	0.2	0.2				
H	<i>Heliotropium curassavicum</i>	25	0.1	0.2	0.2				
H	<i>Brassica nigra</i>	25	0.1	0.2	0.2				
H	<i>Lactuca serriola</i>	25	0.1	0.2	0.2				

Con = Constancy, Avg = Average Absolute Cover, Min = Minimum Absolute Cover, Max = Maximum Absolute Cover, Ch = Characteristic, D = Dominant, cD = Co-dominant, Oft = Often