Attachment 7





City of San Diego 2019 MSCP Rare Plant Monitoring Report





City of San Diego Park and Recreation Department Open Space Division







December 2019

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Ambrosia pumila: © City of San Diego, 2015

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Appendix A - City of San Diego MSCP Rare Plant Monitoring: 2019 Field Monitoring Dates and Staff

I. Introduction

The Biological Monitoring Plan for the Multiple Species Conservation Program (Ogden Environmental, Inc. 1996), Status Summary of MSCP Biological Monitoring Protocols (Conservation Biology Institute 2001), San Diego MSCP Rare Plant Monitoring Review and Revision (USGS, 2007) and the Assessment of Eleven Years of Rare Plant Monitoring Data from the San Diego Multiple Species Conservation Program (2010) are important components of the City of San Diego's MSCP under its 1997 Implementing Agreement (R28455) with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. The monitoring program includes plant, animal, and habitat monitoring requirements for each MSCP-participating jurisdiction; the City of San Diego began rare plant monitoring in 1999. In 2019, the City performed rare plant monitoring using the Management Strategic Plan (MSP) 2019 Monitoring Protocol (SDMMP 2019) for the following species:

Acanthomintha ilicifolia – Black Mountain, Dennery Ranch East, Los Peñasquitos Canyon, Mission Trails Regional Park, Otay Lakes, Sabre Springs

Acmispon prostratus - Mission Bay

Ambrosia pumila – Mission Trails Regional Park (Kumeyaay Lake)

Bloomeria clevelandii – East Elliott, Lopez Ridge, Marron Valley, Mission Trails Regional Park, Otay Lakes Brodiaea filifolia – Black Mountain

Brodiaea orcuttii – Carroll Canyon, Lopez Ridge, Mission Trails Regional Park (Oak Creek), Nobel Drive Chloropyron maritimum ssp. maritimum – Dog Beach

Cylindropuntia californica var. californica – Balboa Golf, Spring Canyon

Deinandra conjugens - Dennery Ranch, Dennery Ranch East, Proctor Valley

Dicranostegia orcuttiana – Otay River Valley, Dennery Ranch East

Dudleva brevifolia - Carmel Mountain, Crest Canyon

Dudleya variegata - Black Mountain East, East Elliott, Goat Mesa/Spring Canyon, Marron Valley, Mercy Road,

Mission Trails Regional Park, Rancho Mission Canyon, Otay Lakes, Santa Luz

Erysimum ammophilum - Crest Canyon, North City West Open Space, Gonzales Canyon

Monardella stoneana - Marron Valley, Otay Lakes

Monardella viminea – Flanders Canyon, Lopez Canyon, Sycamore Canyon

Rosa minutifolia – Dennery Ranch

References:

San Diego Management and Monitoring Program (SDMMP). 2017. Management Strategic Plan (MSP) 2015 Monitoring Protocol for Rare Plant Occurrences on Conserved Lands in Western San Diego County. Prepared March 11, 2014; revised March 8, 2017.

				Population		Nat	tive	Non-N	lative			
Species	Species Site Name MSP C		Area (m ²) ¹	# Individuals in current maximum extent	Percent cover in sampling area	Number of Species ²	Percent Cover ²	Number of Species	Percent Cover ³	Management Recommendations	Field Data Sht (pg.#)	Photo (pg. #)
	Black Mountain	ACIL_6BLMO032-1	0.0	0	0.0%	19	47.2%	12	20.4%	Continue weed treatments	12	15
	Dennery Ranch East	ACIL_3DREA005 - 1	88.0	178	0.2%	11	15.2%	13	59.5%	Continue weed control efforts using herbicide and dethatching as needed. Consider more intensive restoration program including seed bulking.	17	20
	Los Penasquitos Canyon Obs. 1	ACIL_6LPCA039 - 1			0.2%	20	40.7%	9	5.4%	Fence repair needed	22	25
	Los Penasquitos Canyon Obs. 2	ACIL_6LPCA039 - 2	37.8	1072	0.2%	18	32.8%	12	5.0%	Repair fence and continue weed control	27	30
Acanthomintha ilicifolia (San Diego Thorn-mint)	Los Penasquitos Canyon Obs. 3	ACIL_6LPCA039 - 3			0.0%	19	54.0%	8	3.6%	Continue weed control and repair fence.	32	35
(Juli Blego Hioli Hillin)	Mission Trails Regional Park	ACIL_MTRP021 - 1	28.8	300	0.0%	13	45.4%	8	3,2%	Repair fencing around thornmint , continue restoration	37	40
	Otay Lakes	ACIL_3OTLA012 - 1	0.0	0	0.0%	25	45.8%	13	16.0%	Continue preserve stewardship	42	45
	Sabre Springs East #1 Subpopulation	ACIL_4SASP025 - 1			0.0%	17	30.8%	17	35.0%	Continue weed control efforts. Consider restoration and seed bulking of thornmint	47	50
	Sabre Springs West #2 Subpopulation	ACIL_4SASP025 - 2	0.0	0	0.0%	9	19.8%	17	40.2%	Herbicide, potential restoration and seed bulking	52	55
	Sabre Springs South #3 Subpopulation	ACIL_4SASP025 - 3			0.0%	12	22.4%	8	68.0%	Herbicide nonnatives, consider restoration and seed bulking	57	60

				Population		Nat	ive	Non-N	lative			
Species	Site Name	MSP Occurrence ID	Area (m²) ¹	# Individuals in current maximum extent	Percent cover in sampling area	Number of Species ²	Percent Cover ²	Number of Species	Percent Cover ³	Management Recommendations	Field Data Sht (pg.#)	Photo (pg. #)
	Dune Triangle (Mission Bay Site #5)	ACPR_1DUTR005 - 5	0.0	0	0.0%	6	50.8%	2	11.2%	Continue preserve stewardship	63	66
Acmispon prostratus	Hospitality Point (Mission Bay Site #2)	ACPR_1HOPO002 - 2	2322.9	1990	1.0%	3	9.0%	5	41.4%	Continue preserve stewardship and consider weed control program to reduce exotic grasses	68	71
(Nuttall's Lotus)	No Man's Land (Mission Bay Site #1)	ACPR_1NMLA001 - 1	2008.1	359	3.0%	8	28.8%	8	14.2%	Continue preserve stewardship and weed control	73	76
	Rip Rap (Mission Bay Site #3)	ACPR_1RRSO003 - 3	1216.1	312	0.0%	8	10.0%	10	29.3%	Consider invasive plant control	78	81
	South Shores (Mission Bay Site #6)	ACPR_1SOSH006 - 6	1226.8	333	0.0%	4	30.2%	6	46.6%	Continue preserve stewardship	83	86
Ambrosia pumila (San Diego Ambrosia)	Mission Trails Regional Park Kumeyaay Lake	AMPU_4KULA005-1	7206.0	82079	0.0%	14	30.8%	10	21.8%	Continue weed management actions and consider native grassland habitat restoration project as funding permits	89	92
	East Elliott Obs. 1	BLCL_4EAEL014 - 1			2.0%	25	39.0%	14	33.4%	Continue Preserve stewarship	95	98
	East Elliott Obs. 2	BLCL_4EAEL014 - 2	0.0	0	0.2%	18	27.4%	9	21.3%	Continue preserve stewardship	100	103
Bloomeria clevelandii (San Diego Goldenstar)	East Elliott Obs. 3	BLCL_4EAEL014 - 3			0.2%	20	38.6%	7	7.0%	Continue preserve stewardship	105	108
	East Elliott Obs. 5	BLCL_4EAEL014 - 5			0.2%	22	33.6%	9	12.2%	Continue preserve stewardship	110	113
	Lopez Ridge	BLCL_6LORI021 - 1	5721.5	6474	0.2%	29	65.2%	11	9.0%	Continue preserve stewardship	115	118

				Population		Nat	ive	Non-N	lative			
Species	Site Name	MSP Occurrence ID	Area (m²) ¹	# Individuals in current maximum extent	Percent cover in sampling area	Number of Species ²	Percent Cover ²	Number of Species	Percent Cover ³	Management Recommendations	Field Data Sht (pg.#)	Photo (pg. #)
	Marron Valley Obs. 1	BLCL_3MAVA005 - 1			8.0%	18	32.8%	15	23.3%	Continue preserve stewardship	120	123
	Marron Valley Obs. 2	BLCL_3MAVA005 - 2	93340.2	1193232	4.0%	21	27.4%	13	14.8%	Continue preserve stewardship	125	128
	Marron Valley Obs. 3	BLCL_3MAVA005 - 3	93340.2	1173232	6.0%	22	41.2%	15	10.2%	Continue preserve stewardship	130	133
Bloomeria clevelandii (San Diego Goldenstar)	Marron Valley Obs. 4	BLCL_3MAVA005 - 4			1.0%	16	12.6%	15	46.2%	Continue preserve stewardship	134	138
	Mission Trails Regional Park	BLCL_4MTRP023 - 1	0.0	0	0.0%	11	23.2%	10	61.0%	Continue preserve stewardship	140	143
	Otay Lakes East Obs. 1	BLCL_3OTLA006 - 1	385132.5	6743661	0.2%	15	32.8%	9	48.4%	Continue preserve stewardship	145	148
	Otay Lakes West Obs. 2	BLCL_3OTLA006 - 2	385132.5	6743661	35.0%	19	88.6%	8	24.0%	Continue preserve stewardship	150	153
Brodiaea filifolia (Thread-leaved Brodiaea)	Black Mountain	BRFI_6BMRA002 - 1	98.7	130	0.2%	10	31.8%	12	17.8%	Multiple weed control visits per year needed to control nonnative annuals	156	159
	Nobel Drive	BROR_2NODR002 - 1	130	22	0.2%	20	38.6%	13	17.8%	Continue VP HCP maintenance visits	162	165
Brodiaea orcuttii	Oak Creek (MTRP)	BROR_40ACR012 - 1	34.28	146	0.2%	38	41.0%	29	24.2%	Continue preserve stewardship	167	171
(Orcutt's Brodiaea)	Carroll Canyon	BROR_6CACA015 - 1	978.48	238	1.0%	32	52.6%	7	7.0%	VPHCP required weed maintenance visits	173	178
	Lopez Ridge	BROR_6LORI018 - 1	1498.5	7641	5.0%	29	65.6%	11	9.2%	Continue preserve stewardship	178	181
Chloropyron maritimum ssp. maritimum (Salt-marsh Bird's Beak)	Dog Beach	COMAM3_1DOBE007 - 1	5001.1	7761	1.0%	10	32.8%	1	1.0%	Continue preserve stewardship and weed control efforts	184	187

				Population		Nat	ive	Non-N	lative			
Species	Site Name	MSP Occurrence ID	Area (m²) ¹	# Individuals in current maximum extent	Percent cover in sampling area	Number of Species ²	Percent Cover ²	Number of Species	Percent Cover ³	Management Recommendations	Field Data Sht (pg.#)	Photo (pg. #)
Cylindropuntia californica (Snake Cholla)	Balboa Park Golf	CYCA_2BPGC001 -1	701.5	8	0.0%	25	82.6%	2	2.2%	Continue preserve stewardship and remove fountain grass as funding permits	190	193
	Spring Canyon	CYCA_3GOME003 - 1	1152.1	59	0.0%	16	83.6%	7	2.2%	Continue preserve stewardship	195	198
	Dennery Ranch	DECO13_3DERA020 - 1	344.9	62	0.2%	19	60.0%	12	13.8%	Continue preserve stewardship	201	204
Deinandra conjugens	Dennery Ranch East	DECO13_3DREA021 - 1	57841.1	3829081	40.0%	10	43.4%	17	32.4%	Continue preserve stewardship, regular patrols to prevent encampments and	205	209
(Otay Tarplant)	Proctor Valley	DECO13_3PRVA013 - 1	3794.0	556	0.2%	10	8.2%	17	77.8%	Continue preserve stewardship; consider developing a site specific restoration plan	211	214
Dicranostegia orcuttiana (Orcutt's Bird's Beak)	Dennery Ranch East	COOR7_3DREA007 - 1	3578.7	7998	2.0%	16	35.8%	12	49.8%	Continue prederve stewardship; consider more intendive weed control and creating a site specific restoration plan	217	220
	Otay River Valley	COOR7_3ORVA001 - 1	1840.9	2651	5.0%	18	88.2%	6	3.6%	Continue preserve stewardship and weed control efforts as needed	22 2	225

				Population		Nat	tive	Non-N	lative			
Species	Site Name	MSP Occurrence ID	Area (m ²) ¹	# Individuals in current maximum extent	Percent cover in sampling area	Number of Species ²	Percent Cover ²	Number of Species	Percent Cover ³	Management Recommendations	Field Data Sht (pg.#)	Photo (pg. #)
	Carmel Mountain Obs. 1	DUBLB2_6CMPR001 - 1			0.0%	14	35.8%	5	2.8%	Continuepreserve stewardship and routine patrols to reduce off trail use	228	231
	Carmel Mountain Obs. 2	DUBLB2_6CMPR001 - 2	2766.6	86346	1.0%	20	35.4%	4	0.8%	Continue preserve stewardship and routine patrols to discourage off trail use	233	236
Dudleya brevifolia (Short-Leaved Dudleya)	Carmel Mountain Obs. 3	DUBLB2_6CMPR001 - 3			2.0%	22	17.0%	8	5.2%	Continue preserve stewardship and routine patrols to ensure people stay on trails	238	241
	Crest Canyon North	DUBLB2_7CRCA003 - 1	120.7	18183	1.0%	19	50.8%	4	0.8%	Continue preserve stewardship, consider fencing site	243	246
	Crest Canyon South	DUBLB2_7CRCA003 - 2	24.2	149	0.2%	22	30.0%	3	0.6%	Continue preserve stweardship and patrols to enforce legal trail use	248	251
	Black Mountain East	DUVA_6BMRA020 - 1	0.0	0	0.0%	15	30.8%	12	60.8%	Continue preserce stewardship; consider preparation of a site specific restoration plan	256	25 9
Dudleya variegata	East Elliott - Hilltop	DUVA_4EAEL012 - 1	120.21	170	0.0%	33	66.0%	8	1.6%	Continue preserve stewardship	259	262
(Variegated Dudleya)	East Elliott - Creek	DUVA_4EAEL012 - 2	130.21	179	0.0%	31	55.2%	15	18.4%	Continue preserve stewardship	264	268
	Goat Mesa (Spring Canyon)	DUVA_3GOME003 - 1	87.1	159	0.2%	17	47.4%	7	9.0%	Continue preserve stewardship	270	273

				Population		Nat	ive	Non-N	lative			
Species	Site Name	MSP Occurrence ID	Area (m²) ¹	# Individuals in current maximum extent	Percent cover in sampling area	Number of Species ²	Percent Cover ²	Number of Species	Percent Cover ³	Management Recommendations	Field Data Sht (pg.#)	Photo (pg. #)
	Marron Valley	DUVA_3MAVA004 - 1	632.8	1964	1.0%	14	30.4%	11	46.6%	Continue preserve stewardship	275	278
	Mercy Road	DUVA_4MERO014 - 1	124.8	455	1.0%	15	50.4%	10	14.0%	Continue preserve stewardship	280	283
	Mission Trails #1	DUVA_4MTRP015 - 1			0.2%	23	43.6	12	16.4%	Continue preserve stewardship	285	288
	Mission Trails #2	DUVA_4MTRP015 - 2	547.4	4022	0.2%	22	32.4%	14	40.0%	Continue preserve stewardship	290	293
<i>Dudleya variegata</i> (Variegated Dudleya)	Mission Trails #3	DUVA_4MTRP015 - 3	347.4	4022	0.2%	18	37.4%	13	33.2%	Continue preserve stewardship, consider fencing to keep hikers on trail	295	298
	Navajo/Mission Gorge	DUVA_4NAVA016 - 1	80.6	128	0.2%	16	50.4%	12	22.0%	Continue preserve stewardship; consider more agressive weed management - create a site sprcific plan	300	302
	Otay Lakes	DUVA_3OTLA005 - 1	903.0	2854	0.0%	14	36.6%	3	50.4%	Continue preserve stewardship	304	308
	Santa Luz	DUVA_6SALU024 - 1	0.0	0	0.0%	14	38.0%	13	43.2%	Continue preserve stewardship	310	31 3
	North City West Open Space (Overlook Park)	ERAM4_6DEMA001 - 1	1532.0	691	3.0%	20	95.8%	2	7.0%	Continue preserve stewardship; treat/remove nonnative tree tobacco from site.	316	319
Erysimum ammophilum (Coast Wallflower)	Gonzales Canyon	ERAM4_6GOCA003 - 1	519.2	169	1.0%	27	69.8%	4	10.2%	Continue preserve stewardship	320	324
	Crest Canyon	ERAM4_7CRCA002 - 1	758.06	163	0.0%	20	42.8%	3	35.4%	Continue controlling velt grass.	326	329

				Population		Nat	tive	Non-N	lative			
Species	Site Name	MSP Occurrence ID	Area (m²)1	# Individuals in current maximum extent	Percent cover in sampling area	Number of Species ²	Percent Cover ²	Number of Species	Percent Cover ³	Management Recommendations	Field Data Sht (pg.#)	Photo (pg. #)
Monardella stoneana³	Marron Valley	MOST_3MAVA002 - 1	924.7	46	1.0%	37	47.0%	19	11.0%	Continue preserve stewardship	332	336
(Jennifer's Monardella)	Otay Lakes	MOST_30TLA005 - 1	0.0	0	0.0%	20	28.6%	20	22.0%	Continue preserve stewardship	338	341
	Flanders Canyon	MOLIV_6FLCA007 - 1	347.7	66	2.0%	11	52.4%	8	2.4%	Continue preserve stewardship	344	347
	Lopez Canyon West Terrace #1	MOLIV_6LOCA004 - 1			0.0%	15	37.2%	24	54.4%	Continue preserve stewardship	349	352
Monardella viminea	Lopez Canyon East of Bridge #2	MOLIV_6LOCA004 - 2	101.0	5	1.0%	13	32.2%	12	45.6%	Continue preserve stewardship	354	357
(Willowy Mondardella)	Lopez Canyon East of Bridge #3	MOLIV_6LOCA004 - 3			0.2%	12	51.2%	18	5.2%	Continue preserve stewardship	359	362
	Sycamore Canyon	MOLIV_4SYCA001 - 1	244.6	34	0.0%	26	30.0%	17	26.2%	Continue preserve stewardship. Consider plan to restore flow regime.	364	368
Rosa minutifolia (Small-leaved Rose)	Dennery Ranch	ROMI80_3DENC001 - 1	1087.3	74	1.0%	19	60.0%	12	13.8%	Continue preserve stewardship	371	374

¹⁾ Current Mapped Extent

²⁾ Number and percent cover of native species includes species of interest.

³⁾ Elvin.M.A and Sanders, S.C. (2003) A New Species of Monardella (Lamiaceae) from Baja California, Mexico, and Southern California, United States. Novon. 13:4. 425432

^{*} Photopoint locations within the same large continuous polygon mapped as current mapped extent.

[†] No data collected

Acanthomintha ilicifolia San Diego Thorn-Mint



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ACIL_6BLMO032_1 2019 Page 1 of 3
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_6BLM0032
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Black Mountain Open Space Occurrence Name: Black Mountain
Surveyors: Sara Allen, Diana Brand-Ramirez, Ninfa Negrete (Rocks Biological), Sarah McCutcheon (SDMMP)
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/9/2019 Time Start: 15:45 Time End: 16:42 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: n/a - no plants Species Found in Max Extent no
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 485657 N: 3651851
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACIL_6BLMO032_1_Photo1_4.9.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 32 % Cover of Rock: 0.2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 66.6 Total % Cover: 100
SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 2
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 150
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4

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IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		10
Acmispon wrangelianus - Chilean trefoil	Native	Annual	Herb		0.2
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		0.2
Avena fatua - wild oat	Nonnative	Annual	Grass		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		15
Brassica nigra - black mustard	Nonnative	Annual	Herb		2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb		0.2
Chorizanthe fimbriata - fringed spineflower	Native	Annual	Herb		0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		13
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Harpagonella palmeri - Palmer's grappling-hook	Native	Annual	Herb		17
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		1
Lupinus succulentus - Hollowleaf annual lupine	Native	Annual	Herb		1
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		1
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub		0.2
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass		0.2
Plantago rhodosperma - redseed plantain	Native	Annual	Herb		0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb		0.2
Salvia mellifera - black sage	Native	Perennial	Shrub		1
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		1
Stipa pulchra - purple needle grass	Native	Perennial	Grass		1
Uropappus lindleyi - silver puffs	Native	Annual	Herb		0.2

ACIL_6BLMO032_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EX monitoring) plus 10-m surrounding buffer.	KTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve		
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 4	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 5 if pre	esent, describe: Dethatching for weed manage	ement
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ear Burned? n/a	
Trails: 1 if trails are present,	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue weed treatments		
VII. MANAGEMENT ACTIONS IN LAST YEAR	R	
Dethatching		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)
None		
NOTES:		

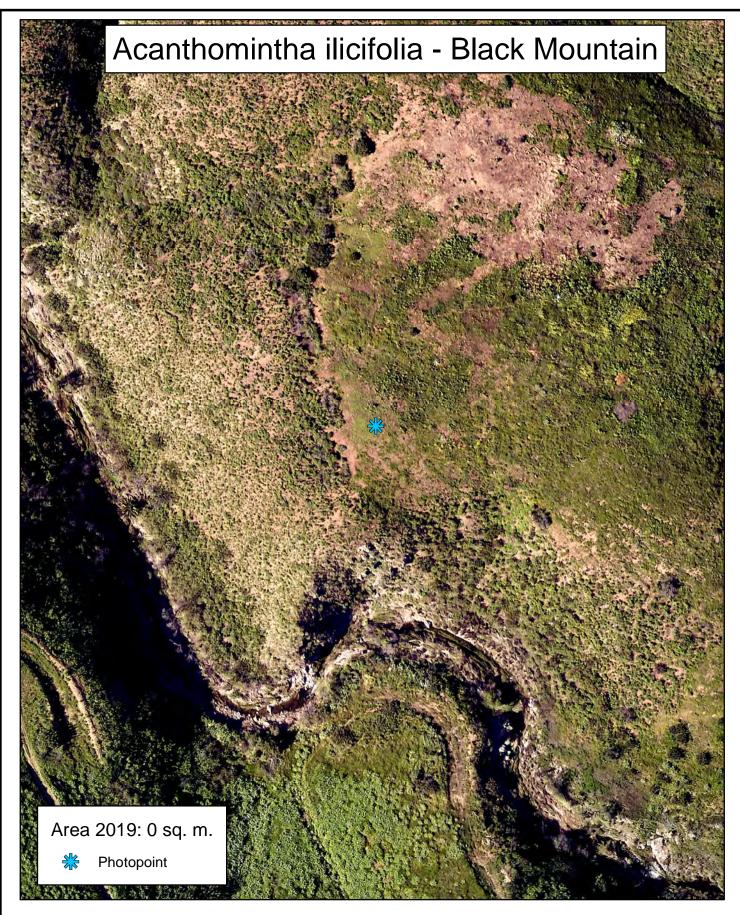
Acanthomintha ilicifolia (San Diego Thornmint) Black Mountain

MSP Occurrence ID: ACIL_6BLMO032-1



Panorama from Southwestern edge of population, facing North, Northeast, East, Southeast. Panorama location is 6284663.39 1946643.29 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 56.50 sq. m. Min Area: 0 sq. m.

40 ■ Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





ACIL_3DREA005_1 2019 Page 1 of 3
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_3DREA005
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Dennery Ranch Occurrence Name: Dennery Ranch East
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/12/2019 Time Start: 9:08 Time End: 9:47 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 178 Exact or Estimate? exact Uncertainty: medium
Area of Current Mapped Extent: 87.97 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter with GPS Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 18 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 6 % Flowering: 2 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 3
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 497759 N: 3605147
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Photo Direction: W SW S Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: ACIL_3DREA005_1_Photo1_4.12.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 20 % Cover of Rock: 0.2 % Cover of Litter: 6 % Cover of Water: 0 % Cover of Vegetation: 74
Total % Cover: 100.4 SANDAG 2012 Verstetien Allienes/Accepiation. Cimmonole chinanele Allienes// Simmonole chinanele Rehimele leginiste Accepiation.
SANDAG 2012 Vegetation Alliance/Association: Simmonsia chinensis Alliance// Simmonsia chinensis-Bahiopsis laciniata Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

ACIL_3DREA005_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acanthomintha ilicifolia - San Diego thornmint	Native	Annual	Herb		0.2
Acmispon strigosus	Native	Annual	Herb		0.2
Ambrosia chenopodiifolia - San Diego bur ragweed	Native	Perennial	Shrub		0.2
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		1
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		0.2
Brassica nigra - black mustard	Nonnative	Annual	Herb		1
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		50
Deinandra sp tarplant	Native	Annual	Herb		2
Dicranostegia orcuttiana - Orcutt's birds-beak	Native	Annual	Herb		2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		1
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		0.2
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		1
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		5
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb		0.2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub		1
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass		0.2
Plantago lanceolata - English plantain	Nonnative	Annual	Herb		0.2
Simmondsia chinensis - jojoba	Native	Perennial	Shrub		8
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2

ACIL_3DREA005_1		2019 Page 3 of		
V. THREATS ASSESSMENT IN MAXIMUM Exmonitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurrer	nce's maximum extent (cumulative extent over years of		
Surround_LandUse Open space preserve,	residential			
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 6	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 3	Trampling: 1	Erosion: 1		
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1		
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: 1 if pre	sent, describe:			
Brush Manangement: 7 if pre	esent, describe: Dethatching to reduce weed	cover		
ORV Activity: 1 if present, do	escribe:			
Evidence of Recent Fire: no Ye	ear Burned? n/a			
Trails: 1 if trails are present	, are they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use:				
Other Disturbance: 7 if present, describe: Lots of snails noted - Italian white snail. Could pose threat to thornmint.				
VI. MANAGEMENT RECOMMENDATIONS				
Continue weed control efforts using herbicide and dethatching as needed. Consider more intensive restoration program including seed bulking.				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
One-time mowing to reduce weed cover.				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDI)B)		
CAGN				
NOTES:				

Acanthomintha ilicifolia (San Diego Thornmint) Dennery Ranch East

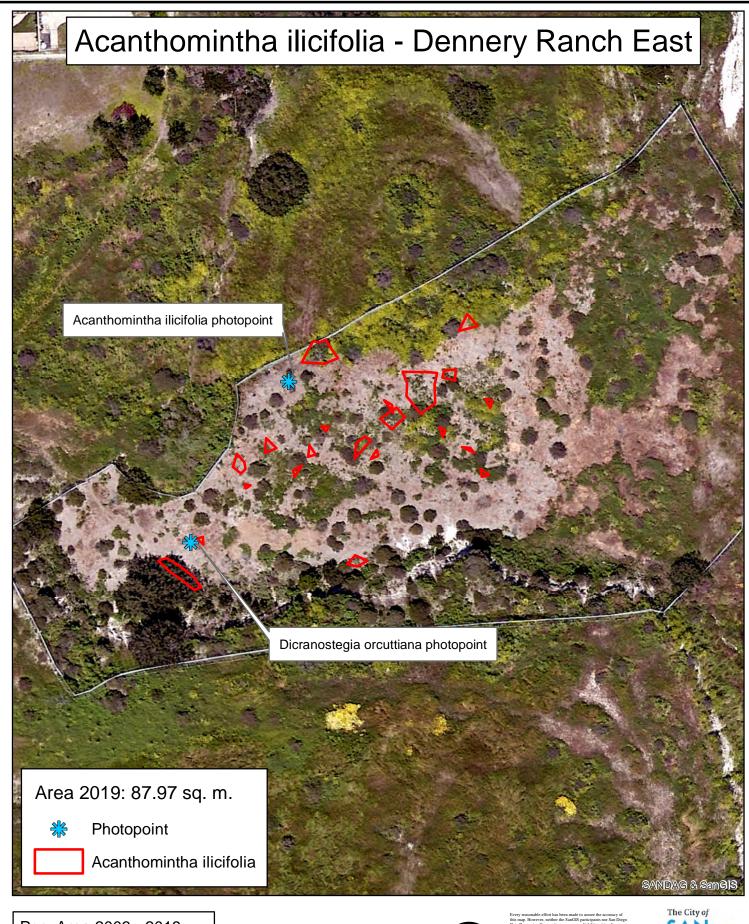
MSP Occurrence ID: ACIL_3DREA005 - 1



Panorama from Southern edge of population, facing West, Southwest, South.

Panorama location is 6323291.152 1793084.325 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 1,005.80 sq. m.

Min Area: 0 sq. m.

25 ⊐Meters 12.5

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





ACIL_6LPCA039_1 2019 Page 1 of 3				
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_6LPCA039				
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 6				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Los Penasquitos Canyon				
Surveyors: Sara Allen, Sarah McCutcheon (SDMMP), Ninfa Negrete (Rocks Biological), Diana Brand-Ramirez Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 4/9/2019 Time Start: 10:08 Time End: 11:26 Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 1072 Exact or Estimate? exact Uncertainty: very_low				
Area of Current Mapped Extent: 37.75 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes				
If not found, known or suspected reason:				
Number of Plants in Circle: 2 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 6 % Flowering: 1 % Dead: 1 % Fruiting: 1				
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1				
Is Sampling Area Representative of Current Mapped Extent? yes				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Coordinates at Center of Plot: E: 483231 N: 3643281				
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
Photo Direction: E SE SW Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: ACIL_6LPCA039_1_Photo1_4.9.2019				
File Location:				
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).				
% Cover of Bare Ground: 30 % Cover of Rock: 15 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 50.8 Total % Cover: 101				
SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association				
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1				
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0				
Dead Standing Biomass? no Dead Standing Biomass Species:				
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):				
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1				

ACIL_6LPCA039_1 2019 | Page 2 of 3

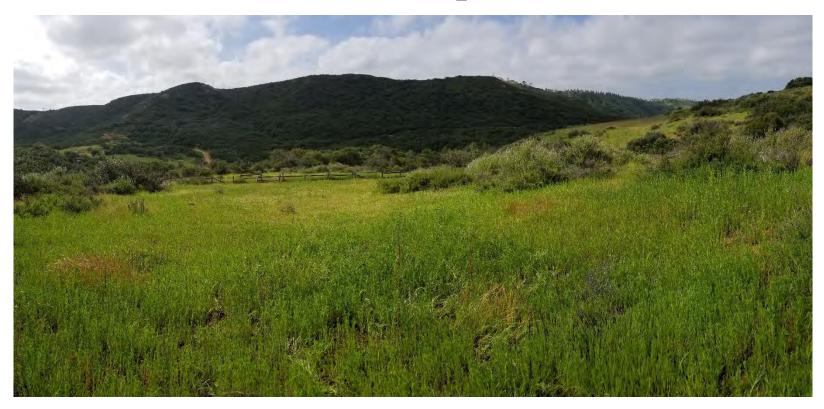
IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acanthomintha ilicifolia - San Diego thornmint	Native	Annual	Herb		0.2
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Acmispon wrangelianus - Chilean trefoil	Native	Annual	Herb		0.2
Adolphia californica - California adolphia	Native	Perennial	Shrub		9
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		3
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb		0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		23
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Encelia californica - California brittlebush	Native	Perennial	Shrub		0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		1
Harpagonella palmeri - Palmer's grappling-hook	Native	Annual	Herb		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lupinus succulentus - Hollowleaf annual lupine	Native	Annual	Herb		0.2
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub		1
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		3
Salvia apiana - white sage	Native	Perennial	Shrub		0.2
Salvia mellifera - black sage	Native	Perennial	Shrub		5
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		1

ACIL_6LPCA039_1		2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.					
Surround_LandUse Open space preseve a	nd recreation				
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 3	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 4	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 7 if pre	sent, describe: Ongoing weed control efforts	using herbicide and dethatching as needed			
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ar Burned? n/a				
Trails: 4 if trails are present,	are they authorized? yes				
Type of Trail Use:					
Hiking: yes Biking: yes Equestrian: yes Dog: yes Service Vehicles: yes Other: no					
	Illegal Trail Use: Fence repa				
Other Disturbance: if present, describe:					
VI. MANAGEMENT RECOMMENDATIONS					
Fence repair needed					
VII. MANAGEMENT ACTIONS IN LAST YEAR					
Herbicide application to control invasive weeds					
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)					
Rosie boa					
NOTES:					

Acanthomintha ilicifolia (San Diego Thornmint) Penasquitos Canyon Observation # 1

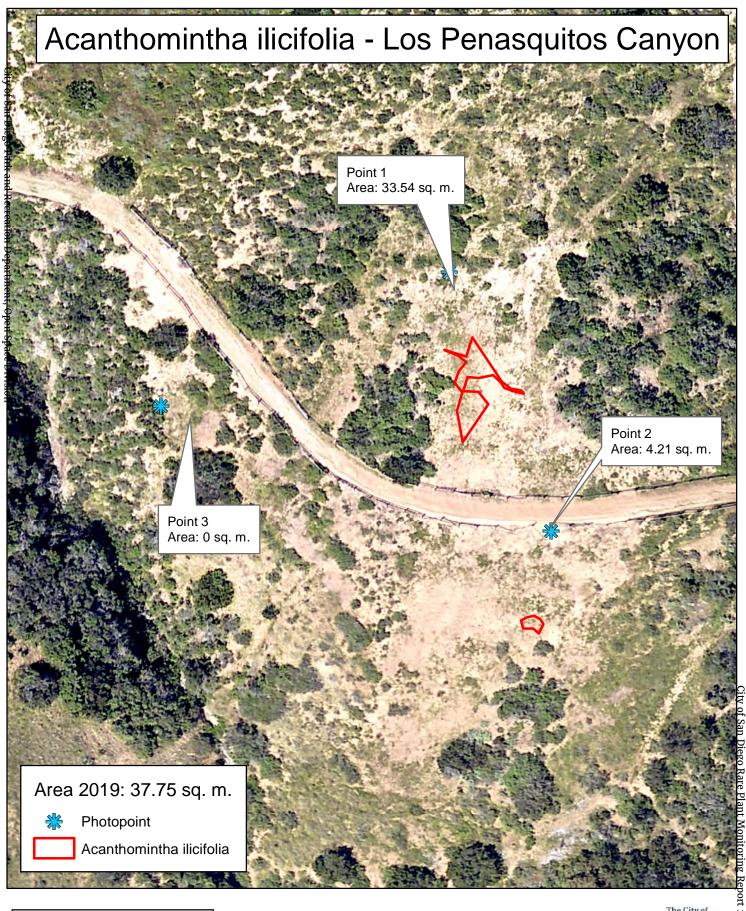
MSP Occurrence ID: ACIL_6LPCA039 - 1



Panorama from North of population, facing East, Southeast, South, Southwest.

Panorama location is 6276496.255 1918576.025 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2000 - 2019 Max Area: 2,062.00 sq. m. Min Area: 12.00 sq. m. 10 20 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019

1

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ACIL_6LPCA039_2 2019 Page 1 of 3				
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_6LPCA039				
Sample Point #: 2 CNDDB Elem. Occurr. #: EO19 Translocated? no Management Unit: 6				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Los Penasquitos Canyon				
Surveyors: Sara Allen, Diana Brand-Ramirez, Ninfa Negrete (Rocks Biological), Sarah McCutcheon (SDMMP) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 4/9/2019 Time Start: 11:54 Time End: 12:32 Mapped Extent Info Location ACIL_6LPCA039_1				
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:				
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?				
Current Extent Mapping Method: Species Found in Max Extent				
If not found, known or suspected reason:				
Number of Plants in Circle: 204 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 6 % Flowering: 2 % Dead: 1 % Fruiting: 1				
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 2 % Stunted: 1				
Is Sampling Area Representative of Current Mapped Extent? yes				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Coordinates at Center of Plot: E: 483244 N: 3643247				
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_6LPCA039_2_Photo1_4.9.2019				
File Location:				
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).				
% Cover of Bare Ground: 46 % Cover of Rock: 15 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 38.26 Total % Cover: 100.46				
SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association				
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1				
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0				
Dead Standing Biomass? no Dead Standing Biomass Species:				
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):				
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1				

ACIL_6LPCA039_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acanthomintha ilicifolia - San Diego thornmint	Native	Annual	Herb		0.2
Adolphia californica - California adolphia	Native	Perennial	Shrub		3
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		1
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Calochortus sp lily	Native	Perennial	Herb		0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb		0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		24
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		2
Harpagonella palmeri - Palmer's grappling-hook	Native	Annual	Herb		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Plantago rhodosperma - redseed plantain	Native	Annual	Herb		0.2
Salvia mellifera - black sage	Native	Perennial	Shrub		1
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		0.2
Uropappus lindleyi - silver puffs	Native	Annual	Herb		0.2

ACIL_6LPCA039_2		2019 Page 3 of 3		
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of		
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:		
Nonnative Grass:	Trampling:	Erosion:		
Nonnative Woody Plants:	Vandalism:	Urban Runoff:		
Competitive Native Plants:	Current Grazing:	Slope Movement:		
Dumping/Trash:	Historic Grazing:	Soil Compaction:		
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:		
Road Construction/Maintenance:	if present, describe:			
Vegetation Clearing: if pres	ent, describe:			
Brush Manangement: if pre	sent, describe:			
ORV Activity: if present, de	scribe:			
Evidence of Recent Fire: Ye	ar Burned?			
Trails: if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use:				
	ent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Repair fence and continue weed control				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Weed control using herbicide and dethatching as needed				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
CAGN				
NOTES:				

Acanthomintha ilicifolia (San Diego Thornmint) Penasquitos Canyon Observation # 2

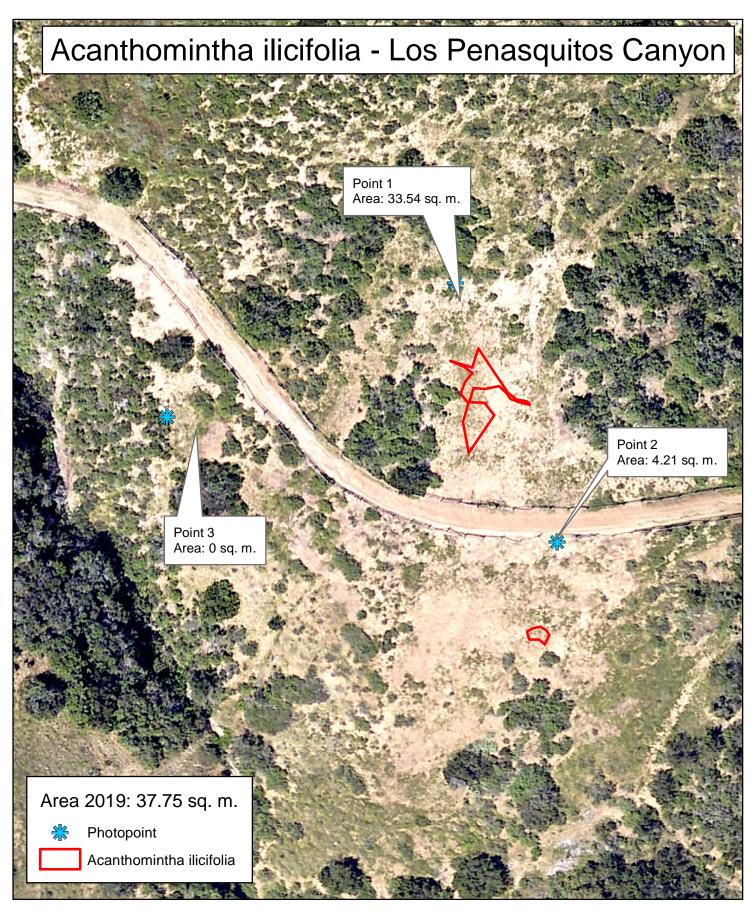
MSP Occurrence ID: ACIL_6LPCA039 - 2



Panorama from North of population, facing Southeast, South, Southwest.

Panorama location is 6276540.332 1918463.766 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.







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ACIL_6LPCA039_3 2019 Page 1 of 3			
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_6LPCA039			
Sample Point #: 3 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 6			
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department			
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Los Penasquitos Canyon			
Surveyors: Sara Allen, Diana Brand-Ramirez, Sarah McCutcheon (SDMMP), Ninfa Negrete (Rocks Biological) Other Surveyors:			
Affliation:			
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.			
Survey Date: 4/9/2019 Time Start: 12:44 Time End: 13:22 Mapped Extent Info Location ACIL_6LPCA039_1			
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:			
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?			
Current Extent Mapping Method: Species Found in Max Extent			
If not found, known or suspected reason:			
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 11			
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999			
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999			
Is Sampling Area Representative of Current Mapped Extent? no			
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a			
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING			
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM			
Coordinates at Center of Plot: E: 483193 N: 3643263			
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center			
Photo Direction: E SE S SW Camera Height: 1.1 m Camera Angle: -15 Photo Numbers: ACIL_6LPCA039_3_Photo1_4.9.2019			
File Location:			
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).			
% Cover of Bare Ground: 22 % Cover of Rock: 15 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 61 Total % Cover: 101			
SANDAG 2012 Vegetation Alliance/Association: Nassella pulchra Rhamnus crocea Provisional Alliance and Association			
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2			
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 6			
Dead Standing Biomass? no Dead Standing Biomass Species:			
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):			
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1			

ACIL_6LPCA039_3 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Acmispon wrangelianus - Chilean trefoil	Native	Annual	Herb		0.2
Adolphia californica - California adolphia	Native	Perennial	Shrub		15
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		1
Avena fatua - wild oat	Nonnative	Annual	Grass		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		2
Calochortus sp lily	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		12
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		4
Harpagonella palmeri - Palmer's grappling-hook	Native	Annual	Herb		0.2
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		1
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Plantago rhodosperma - redseed plantain	Native	Annual	Herb		0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub		4
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		12
Salvia mellifera - black sage	Native	Perennial	Shrub		5
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		1

ACIL_6LPCA039_3	2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrenc monitoring) plus 10-m surrounding buffer.	ce's maximum extent (cumulative extent over years of			
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: Feral Pig Activity:	Altered Hydrology:			
Nonnative Grass: Trampling:	Erosion:			
Nonnative Woody Plants: Vandalism:	Urban Runoff:			
Competitive Native Plants: Current Grazing:	Slope Movement:			
Dumping/Trash: Historic Grazing:	Soil Compaction:			
Encampments: Historic Agriculture:	Fuel Modification Zone/ Fire Break:			
Road Construction/Maintenance: if present, describe:				
Vegetation Clearing: if present, describe:				
Brush Manangement: if present, describe:				
ORV Activity: if present, describe:				
Evidence of Recent Fire: Year Burned?				
Trails: if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog:	Service Vehicles: Other:			
Illegal Trail Use:				
Other Disturbance: if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue weed control and repair fence.				
AWARAN OF MENTAL ACTION OF MALE ACTI				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Ongoing weed control using herbicide and dethatching as needed.				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDE	В)			
CAGN				
NOTES:				

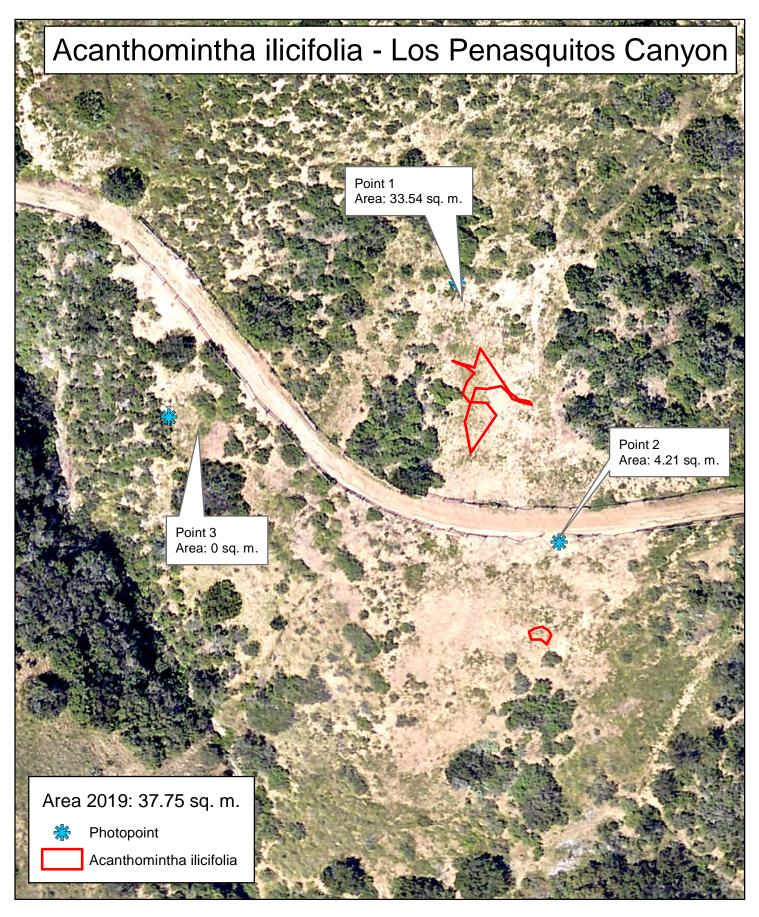
Acanthomintha ilicifolia (San Diego Thornmint) Penasquitos Canyon Observation # 3

MSP Occurrence ID: ACIL_6LPCA039 - 3



Panorama from Western edge of population, facing East, Southeast, South, Southwest. Panorama location is 6276371.012 191857.833 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.







Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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ACIL_4MTRP021_1 2019 Page 1 of 3
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_4MTRP021
Sample Point #: 1 CNDDB Elem. Occurr. #: EO33 Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Trails Regional Park Occurrence Name: Mission Trails Regional Park
Surveyors: Sara Allen, Mark Berninger, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/10/2019 Time Start: 10:13 Time End: Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 300 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 28.76 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 493100 N: 3631939
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: 15 Photo Numbers: ACIL_4MTRP021_1_Photo1_4.10.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 54 % Cover of Rock: 1 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 45 Total % Cover: 100.6
SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum Opuntia littoralis/Dudleya (edulis) Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):

ACIL_4MTRP021_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		1
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		37
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub		1
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub		1
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		1
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2

ACIL_4MTRP021_1	2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occumonitoring) plus 10-m surrounding buffer.	urrence's maximum extent (cumulative extent over years of
Surround_LandUse Open space regional park, passive recreation	
Disturbances (Rank each as 1-6):	
Nonnative Forbs: 3 Feral Pig Activity: #Error	Altered Hydrology: 1
Nonnative Grass: 3 Trampling: 3	Erosion: 1
Nonnative Woody Plants: Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1 Historic Grazing: no	Soil Compaction: 1
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1 if present, describe:	
Vegetation Clearing: 1 if present, describe:	
Brush Manangement: 7 if present, describe: RECON env. Performin	g restoration
ORV Activity: 1 if present, describe:	
Evidence of Recent Fire: no Year Burned? n/a	
Trails: 2 if trails are present, are they authorized? yes	
Type of Trail Use:	
Hiking: yes Biking: yes Equestrian: no Dog: yes	Service Vehicles: yes Other: no
Illegal Trail Use:	
Other Disturbance: 1 if present, describe:	
VI. MANAGEMENT RECOMMENDATIONS	
Repair fencing around thornmint , continue restoration	
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Recon performing restoration	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the C	CNDDB)
None	
NOTES:	

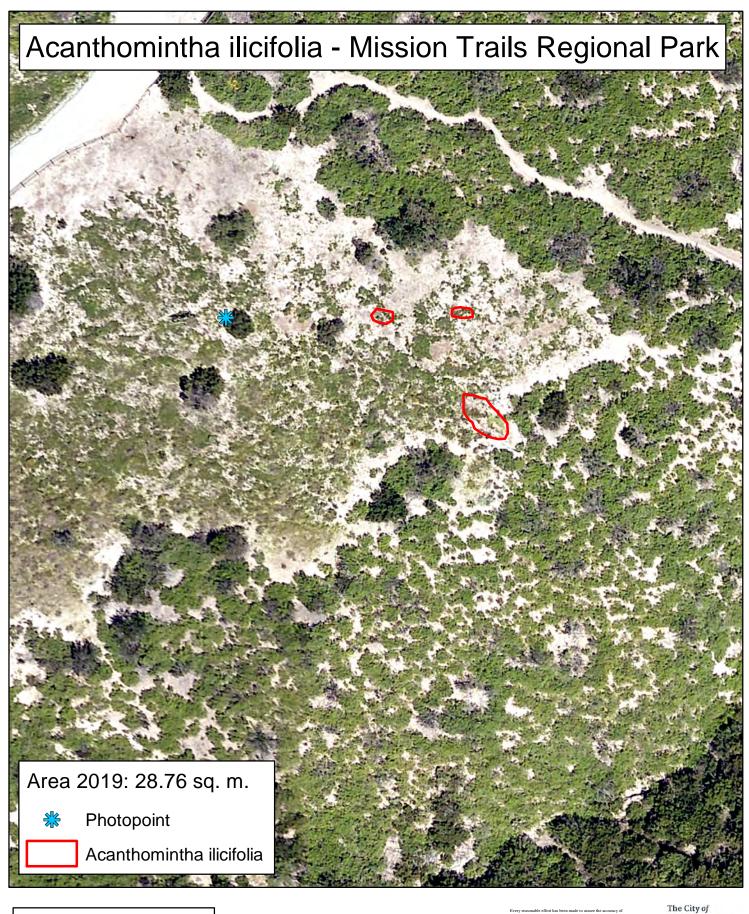
Acanthomintha ilicifolia (San Diego Thornmint) Mission Trails Regional Park

MSP Occurrence ID: ACIL_MTRP021 - 1

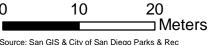


Panorama from Western edge of population, facing North, Northeast, East, Southeast, South. Panorama location is 6308619.848 1881117.522 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 1,206.07 sq. m. Min Area: 8.17 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





ACIL_3OTLA012_1 2019 Page 1 of 3
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_3OTLA012
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department
Preserve Name: Otay Lakes Cornerstone Land Occurrence Name: Otay Lakes
Surveyors: Sara Allen, Diana Brand-Ramirez Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/23/2019 Time Start: 11:19 Time End: 12:33 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: n/a - no plants Species Found in Max Extent no
If not found, known or suspected reason: Hasnt been found since 2003 fire
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: ACIL_3OTLA012_1_Photo1_4.23.2019
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: ACIL_3OTLA012_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 4 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 100.4
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_3OTLA012_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 4 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_3OTLA012_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 4 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_3OTLA012_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 4 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_3OTLA012_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 4 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 508022 N: 3609621 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_3OTLA012_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 4 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

ACIL_3OTLA012_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		1
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cressa truxillensis - spreading alkaliweed	Native	Perennial	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Cuscuta californica - California dodder	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		35
Deschampsia danthonioides - annual hairgrass	Native	Annual	Grass		0.2
Downingia cuspidata - Toothed downingia	Native	Annual	Herb		0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		42
Eryngium aristulatum var. parishii - San Diego button celery	Native	Annual	Herb		2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		1
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		0.2
Hordeum marinum - seaside barley	Nonnative	Annual	Grass		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		1
Juncus bufonius - toad rush	Native	Annual	Herb		2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Lythrum hyssopifolia - Hyssop loosestrife	Nonnative	Annual	Herb		0.2
Medicago polymorpha - burclover	Nonnative	Annual	Herb		0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		0.2
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Phalaris lemmonii - Lemmon's canarygrass	Native	Annual	Grass		1
Plantago rhodosperma - redseed plantain	Native	Annual	Herb		0.2
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		0.2

ACIL_3OTLA012_1	2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrent monitoring) plus 10-m surrounding buffer.	nce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve	
Disturbances (Rank each as 1-6):	
Nonnative Forbs: 3 Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 3 Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1 Historic Grazing: yes	Soil Compaction: 1
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1 if present, describe:	
Vegetation Clearing: 1 if present, describe:	
Brush Manangement: 1 if present, describe:	
ORV Activity: 1 if present, describe:	
Evidence of Recent Fire: no Year Burned? n/a	
Trails: 1 if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:	
Other Disturbance: 1 if present, describe:	
VI. MANAGEMENT RECOMMENDATIONS	
Continue preserve stewardship	
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserve stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CND	DB)
None	
NOTES:	

Acanthomintha ilicifolia (San Diego Thornmint) Otay Lakes

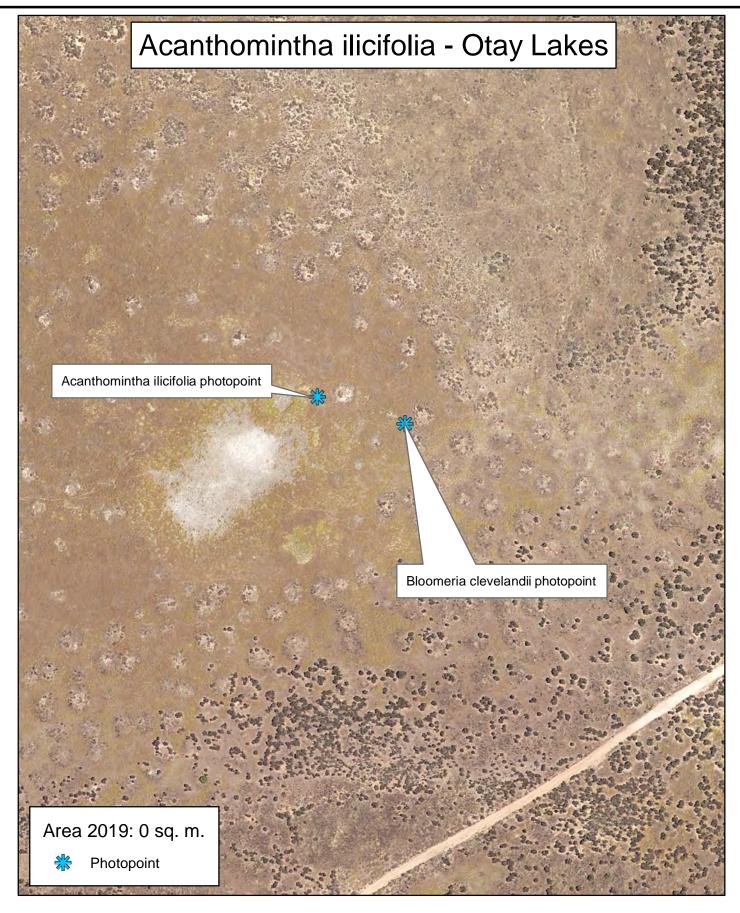
MSP Occurrence ID: ACIL_3OTLA012 - 1



Panorama from North of population, facing West, Southwest, South.

Panorama location is 6357069.84 1807513.80 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 10.70 sq. m. Min Area: 0 sq. m. 0 30 60 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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ACIL_4SASP025_1 2019 Page 1 of 3
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_4SASP025
Sample Point #: 1 CNDDB Elem. Occurr. #: EO36 Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Sabre Springs Occurrence Name: Sabre Springs (east, subpop 1)
Surveyors: Sara Allen Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/11/2019 Time Start: 14:54 Time End: 15:41 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: n/a - no plants Species Found in Max Extent no
If not found, known or suspected reason: Low population in recent years
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 491410 N: 3644838
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: NW N NE E Camera Height: 1.1 m Camera Angle: -15 Photo Numbers: ACIL_4SASP025_1_Photo1_4.11.2019
File Location:
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 21 % Cover of Rock: 3 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 66.2
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 21 % Cover of Rock: 3 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 66.2 Total % Cover: 100.4
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 21 % Cover of Rock: 3 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 66.2 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 21 % Cover of Rock: 3 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 66.2 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 21 % Cover of Rock: 3 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 66.2 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 21 % Cover of Rock: 3 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 66.2 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 21 % Cover of Rock: 3 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 66.2 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

ACIL_4SASP025_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		1
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		0.2
Adolphia californica - California adolphia	Native	Perennial	Shrub		3
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		1
Avena fatua - wild oat	Nonnative	Annual	Grass		0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub		7
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		3
Brassica nigra - black mustard	Nonnative	Annual	Herb		2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		4
Calandrinia breweri - Brewer's redmaids	Native	Annual	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		5
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Erodium moschatum - Musky stork's bill	Nonnative	Annual	Herb		0.2
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		12
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		0.2
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb		0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Geranium californicum - California geranium	Native	Annual	Herb		0.2
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb		7
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		1
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		5
Medicago polymorpha - burclover	Nonnative	Annual	Herb		0.2
Prunus ilicifolia - hollyleaf cherry	Native	Perennial	Shrub		0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Quercus dumosa - Nuttall's scrub oak	Native	Perennial	Shrub		10
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2

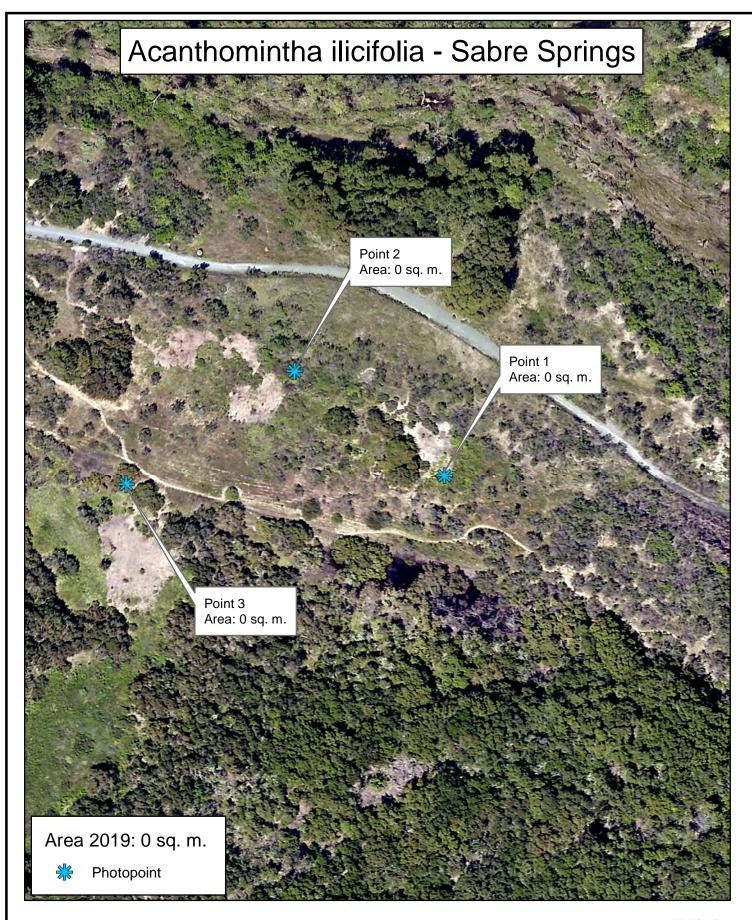
ACIL_4SASP025_1	2019	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extending) plus 10-m surrounding buffer.	ent over yea	ars of
Surround_LandUse Open space preserve and passive recreation		
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 6 Feral Pig Activity: 1 Altered Hydrology: 1		
Nonnative Grass: 5 Trampling: 1 Erosion: 1		
Nonnative Woody Plants: 1 Vandalism: 1 Urban Runoff: 1		
Competitive Native Plants: 1 Current Grazing: 1 Slope Movement: 1		
Dumping/Trash: 3 Historic Grazing: no Soil Compaction: 1		
Encampments: 2 Historic Agriculture: no Fuel Modification Zone/ Fire Break	: 1	
Road Construction/Maintenance: 1 if present, describe:		
Vegetation Clearing: 1 if present, describe:		
Brush Manangement: 7 if present, describe: Dethatching and herbicide targeting non native vegetation		
ORV Activity: 1 if present, describe:		
Evidence of Recent Fire: no Year Burned? n/a		
Trails: 2 if trails are present, are they authorized? unknown		
Type of Trail Use:		_
Hiking: yes Biking: yes Equestrian: no Dog: yes Service Vehicles: no Oth	er: no	
Illegal Trail Use:		
Other Disturbance: 1 if present, describe:		
VI. MANAGEMENT RECOMMENDATIONS		
Continue weed control efforts. Consider restoration and seed bulking of thornmint		
VII. MANAGEMENT ACTIONS IN LAST YEAR		
Dethatching and herbicide targeting non native species		
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)		
CAGN		
NOTES:		

Acanthomintha ilicifolia (San Diego Thornmint) Sabre Springs East Subpopulation # 1

MSP Occurrence ID: ACIL_4SASP025 - 1



Panorama from South edge of subpopulation, facing Northwest, North, Northeast, East. Panorama location is 6303376.7 1 1923491.22 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2006 - 2019 Max Area: 282.10 sq. m.

Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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ACIL_4SASP025_2 2019 Page 1 of 3
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_4SASP025
Sample Point #: 2 CNDDB Elem. Occurr. #: EO36 Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Sabre Springs Occurrence Name: Sabre Springs (west, subpop 2)
Surveyors: Sara Allen Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/11/2019 Time Start: 13:56 Time End: 14:47 Mapped Extent Info Location ACIL_4SASP025_1
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? estimate Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
Collection Taken: III Collection. III Collection #.
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491379 N: 3644859
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491379 N: 3644859 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491379 N: 3644859 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_2_Photo1_4.11.2019
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491379 N: 3644859 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_2_Photo1_4.11.2019 File Location:
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491379 N: 3644859 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_2_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 38 % Cover of Rock: 1 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 59 Total % Cover: 101.2
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491379 N: 3644859 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_2_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 38 % Cover of Rock: 1 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 59 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Baccharis sarothroides Provisional Alliance// Baccharis sarothroides Association
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491379 N: 3644859 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_2_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 38 % Cover of Rock: 1 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 59 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Baccharis sarothroides Provisional Alliance// Baccharis sarothroides Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

ACIL_4SASP025_2 2019 | Page 2 of 3

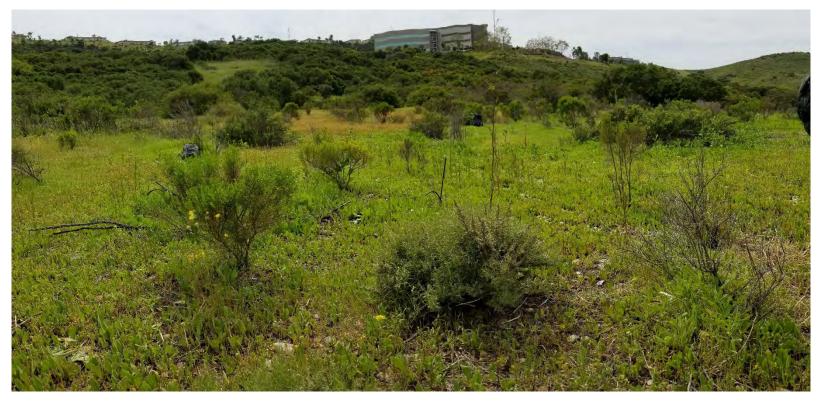
IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Adolphia californica - California adolphia	Native	Perennial	Shrub		5
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		0.2
Avena sp oat	Nonnative	Annual	Grass		0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub		4
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		3
Brassica nigra - black mustard	Nonnative	Annual	Herb		2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb		8
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		13
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Erodium moschatum - Musky stork's bill	Nonnative	Annual	Herb		0.2
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		2
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		0.2
Geranium californicum - California geranium	Native	Annual	Herb		0.2
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb		12
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		1
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		6
Medicago polymorpha - burclover	Nonnative	Annual	Herb		0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		0.2
Rumex crispus - curly dock	Nonnative	Perennial	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2

ACIL_4SASP025_2		2019 Pa	age 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of	
Surround_LandUse			
Disturbances (Rank each as 1-6):			
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:	
Nonnative Grass:	Trampling:	Erosion:	
Nonnative Woody Plants:	Vandalism:	Urban Runoff:	
Competitive Native Plants:	Current Grazing:	Slope Movement:	
Dumping/Trash:	Historic Grazing:	Soil Compaction:	
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:	
Road Construction/Maintenance:	if present, describe:		
Vegetation Clearing: if pres	sent, describe:		
Brush Manangement: if pre	sent, describe:		
ORV Activity: if present, de	escribe:		
Evidence of Recent Fire: Ye	ar Burned?		
Trails: if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use:			
	ent, describe:		
VI. MANAGEMENT RECOMMENDATIONS			
Herbicide, potential restoration an	d seed bulking		
VII. MANAGEMENT ACTIONS IN LAST YEAR	₹		
Hadesta and actual and a			
Herbicide, mechanical removal			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	DB)	
CAGN			
NOTES:			

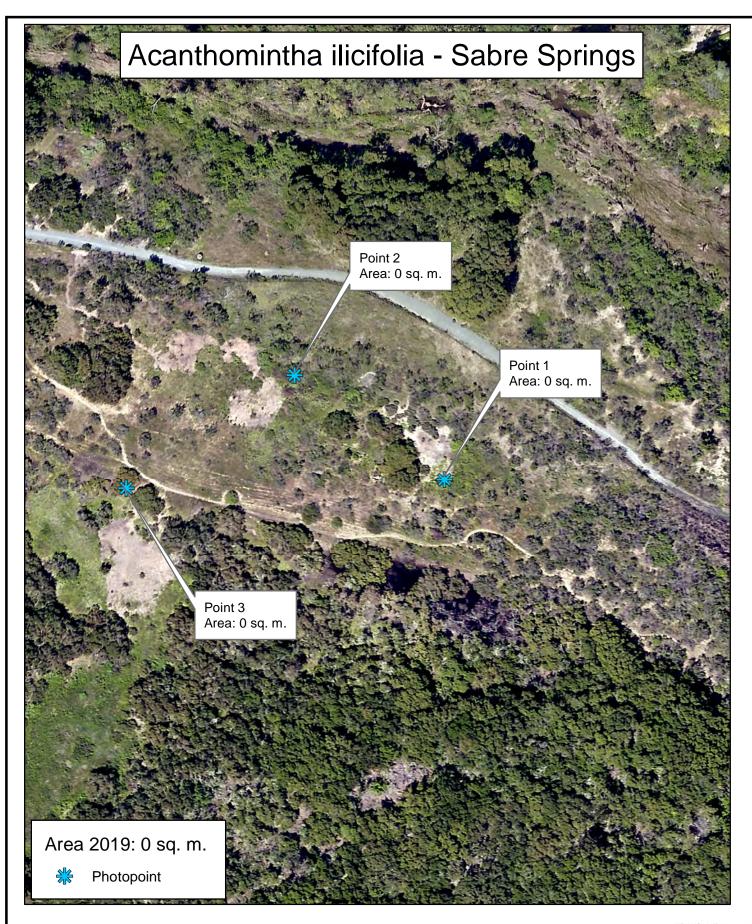
Acanthomintha ilicifolia (San Diego Thornmint) Sabre Springs West Flat Subpopulation # 2

MSP Occurrence ID: ACIL_4SASP025 - 2



Panorama from Northwestern edge of subpopulation, facing South, Southwest, West. Panorama location is 6303277.454 1923560.662 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2006 - 2019 Max Area: 282.10 sq. m.

Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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ACIL_4SASP025_3 2019 Page 1 of 3					
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_4SASP025					
Sample Point #: 3 CNDDB Elem. Occurr. #: EO36 Translocated? no Management Unit: 4					
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department					
Preserve Name: Sabre Springs Occurrence Name: Sabre Springs (south, subpop 3)					
Surveyors: Sara Allen, Mark Berninger, Diana Brand-Ramirez, Jessie Lane Other Surveyors:					
Affliation:					
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.					
Survey Date: 4/11/2019 Time Start: 12:55 Time End: 13:55 Mapped Extent Info Location ACIL_4SASP025_1					
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:					
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?					
Current Extent Mapping Method: Species Found in Max Extent					
If not found, known or suspected reason:					
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10					
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999					
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999					
Is Sampling Area Representative of Current Mapped Extent? yes					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a					
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING					
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING					
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot					
GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_3_Photo1_4.11.2019					
GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_3_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 88					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_3_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 88 Total % Cover: 101.2					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_3_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 88 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Quercus (berberidifolial ×acutidens) Alliance and Association					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_3_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 88 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Quercus (berberidifolial ×acutidens) Alliance and Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_3_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 88 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Quercus (berberidifolial ×acutidens) Alliance and Association					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 491346 N: 3644836 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACIL_4SASP025_3_Photo1_4.11.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 88 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Quercus (berberidifolia ×acutidens) Alliance and Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0					

ACIL_4SASP025_3 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Adolphia californica - California adolphia	Native	Perennial	Shrub	4
Apiastrum angustifolium - mock parsley	Native	Annual	Herb	3
Avena fatua - wild oat	Nonnative	Annual	Grass	0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	0.2
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb	0.2
Claytonia perfoliata - Miner's lettuce	Native	Annual	Herb	0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb	7
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	2
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb	60
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb	5
Pterostegia drymarioides - woodland threadstem	Native	Annual	Herb	0.2
Quercus dumosa - Nuttall's scrub oak	Native	Perennial	Shrub	4
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub	3
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass	0.2
Toxicoscordion fremontii - Fremont's star lily	Native	Perennial	Herb	0.2
Zeltnera venusta - charming centaury	Native	Annual	Herb	0.2

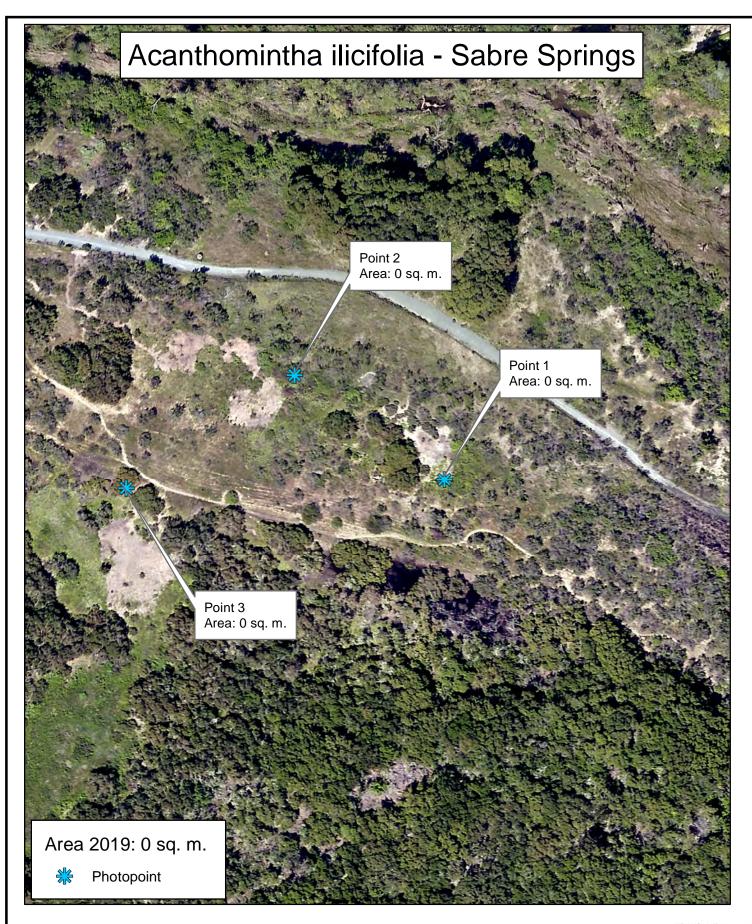
ACIL_4SASP025_3	2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum monitoring) plus 10-m surrounding buffer.	m extent (cumulative extent over years of			
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: Feral Pig Activity: Altered Hy	drology:			
Nonnative Grass: Trampling: Erosion:				
Nonnative Woody Plants: Vandalism: Urban Run	off:			
Competitive Native Plants: Current Grazing: Slope Move	ement:			
Dumping/Trash: Historic Grazing: Soil Compa	action:			
Encampments: Historic Agriculture: Fuel Modifi	ication Zone/ Fire Break:			
Road Construction/Maintenance: if present, describe:				
Vegetation Clearing: if present, describe:				
Brush Manangement: if present, describe:				
ORV Activity: if present, describe:				
Evidence of Recent Fire: Year Burned?				
Trails: if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Ve	ehicles: Other:			
Illegal Trail Use:				
Other Disturbance: if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Herbicide nonnatives, consider restoration and seed bulking				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Herbicide 1x and dethatching				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
None				
NOTES:				
Prime candiate for grant funded restoration				

Acanthomintha ilicifolia (San Diego Thornmint) Sabre Springs Southern Subpopulation # 3

MSP Occurrence ID: ACIL_4SASP025 - 3



Panorama from Southwestern edge of subpopulation, facing Southeast, South, Southwest. Panorama location is 6303165.85 1923485.4 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2006 - 2019 Max Area: 282.10 sq. m.

Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





Acmispon prostratus Nuttall's Lotus



ACPR_1DUTR005_1 2019 Page 1 of 3				
Scientific Name: Acmispon prostratus Common Name: Nuttall's acmispon MSP Occurr. ID: ACPR_1DUTR005				
Sample Point #: 1 CNDDB Elem. Occurr. #: EO6 Translocated? yes Management Unit: 1				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Mission Bay Park Occurrence Name: Dune Triangle				
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 5/28/2019 Time Start: 14:09 Time End: 14:30 Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: low				
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: n/a - no plants Species Found in Max Extent no				
If not found, known or suspected reason:				
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999				
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999				
Is Sampling Area Representative of Current Mapped Extent? no				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Coordinates at Center of Plot: E: 480326 N: 3624991				
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
Photo Direction: NE E SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACPR_1DUTR005_1_Photo1_5.28.2019				
File Location:				
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).				
% Cover of Bare Ground: 15 % Cover of Rock: 8 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 62 Total % Cover: 101				
SANDAG 2012 Vegetation Alliance/Association: Encelia californica Alliance// Encelia californica-Artemisia californica Association				
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1				
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0				
Dead Standing Biomass? no Dead Standing Biomass Species:				
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):				
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 2 Gopher Activity: 3				

ACPR_1DUTR005_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb		0.2
Encelia californica - California brittlebush	Native	Perennial	Shrub		48
Erigeron canadensis - Canada horseweed	Native	Annual	Herb		0.2
Heliotropium curassavicum - salt heliotrope	Native	Perennial	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		11
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2

ACPR_1DUTR005_1		2019 Page 3 c	of 3			
V. THREATS ASSESSMENT IN MAXIMUM E. monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurren	nce's maximum extent (cumulative extent over years of				
Surround_LandUse Developed regional pa	ırk; streets					
Disturbances (Rank each as 1-6):						
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1				
Nonnative Grass: 2	Trampling: 3	Erosion: 1				
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1				
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1				
Dumping/Trash: 4	Historic Grazing: no	Soil Compaction: 1				
Encampments: 4	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1				
Road Construction/Maintenance: 1	if present, describe:					
Vegetation Clearing: 1 if pre	sent, describe:					
Brush Manangement: 1 if pro	esent, describe:					
ORV Activity: 1 if present, d	escribe:					
Evidence of Recent Fire: no Ye	ear Burned? n/a					
Trails: 1 if trails are present	, are they authorized?					
Type of Trail Use:						
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:				
Illegal Trail Use:	Illegal Trail Use:					
Other Disturbance: 1 if pres	ent, describe:					
VI. MANAGEMENT RECOMMENDATIONS						
Continue preserve stewardship						
VII. MANAGEMENT ACTIONS IN LAST YEAR						
Preserve stewardship						
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)						
None						
NOTES:						

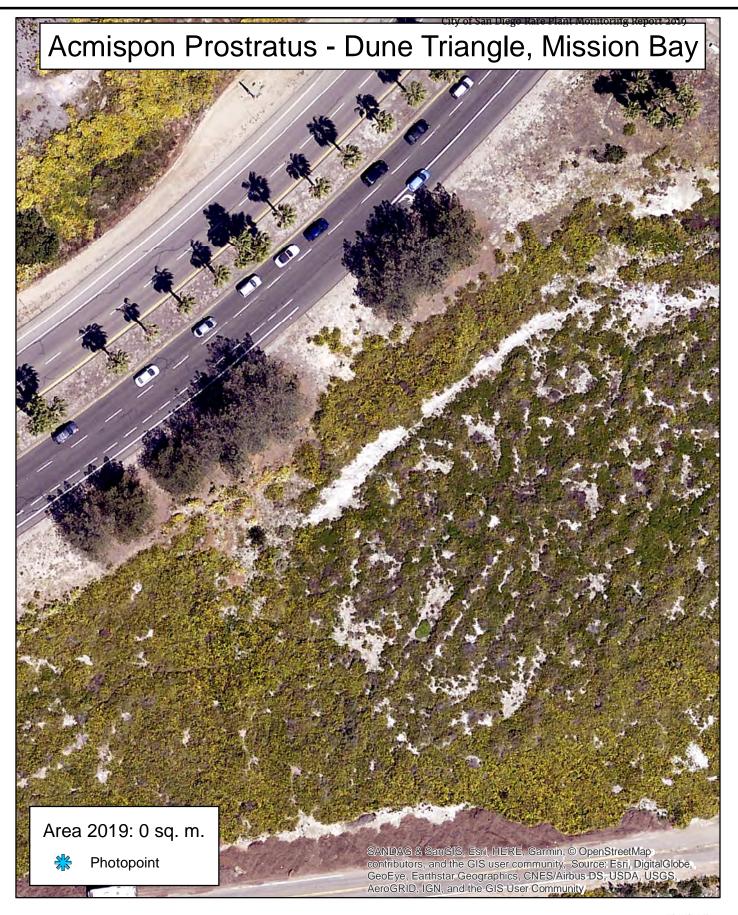
Acmispon prostratus (Nuttall's Acmispon) Mission Bay – Dune Triangle Site # 1

MSP Occurrence ID: ACPR_1DUTR005 - 1



Panorama from the Southern edge of population, facing Northeast, East, Southeast, South, Southwest. Panorama location is 6266528.38 1858616.164 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2006 - 2019 Max Area: 725.15 sq. m.

Min Area: 0 sq. m.

20 ■ Meters

rea: 0 sq. m.

Source: San GIS & City of San Diego Parks & Rec
Map Created By: Jessie Lane 2019

City of San Diego Park and Recreation Department, Open Space Division



The City of SanGIS

ACPR_1HOPO002_2 2019 Page 1 of 3				
Scientific Name: Acmispon prostratus Common Name: Nuttall's acmispon MSP Occurr. ID: ACPR_1HOPO002				
Sample Point #: 2 CNDDB Elem. Occurr. #: EO31 Translocated? no Management Unit: 1				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Mission Bay Park Occurrence Name: Hospitality Point				
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 5/28/2019 Time Start: 15:34 Time End: Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 1990 Exact or Estimate? estimate Uncertainty: low				
Area of Current Mapped Extent: 2322.92 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes				
If not found, known or suspected reason:				
Number of Plants in Circle: 269 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 4 % Flowering: 3 % Dead: 1 % Fruiting: 2				
Evidence in Circle Plot (1-6): % Herbivory: 2 % Diseased: 1 % Stunted: 1				
Is Sampling Area Representative of Current Mapped Extent? yes				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Coordinates at Center of Plot: E: 477384 N: 3624648				
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot				
Photo Direction: SW W NW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ACPR_1HOPO002_2_Photo1_5.28.2019				
File Location:				
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).				
% Cover of Bare Ground: 44 % Cover of Rock: 2 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 50 Total % Cover: 100				
SANDAG 2012 Vegetation Alliance/Association: Abronia latifolia-Ambrosia chamissonis Alliance// Ambrosia chamissonis-Abronia maritima-Cakile maritima Associaton				
Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2				
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1				
Dead Standing Biomass? no Dead Standing Biomass Species:				
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):				

ACPR_1HOPO002_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Abronia umbellata - pink sand verbena	Native	Perennial	Herb		1
Acmispon prostratus - Nuttall's acmispon	Native	Annual	Herb		1
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		37
Camissoniopsis cheiranthifolia - beach suncup	Native	Perennial	Herb		7
Digitaria sanguinalis - hairy crabgrass	Nonnative	Annual	Grass		3
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		1
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb		0.2

ACPR_1HOPO002_2		2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EX monitoring) plus 10-m surrounding buffer.	CTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of			
Surround_LandUse Developed regional part	rk				
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 5	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 3	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 2	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 1 if pre	sent, describe:				
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ar Burned? n/a				
Trails: 2 if trails are present,	are they authorized? yes				
Type of Trail Use:					
Hiking: yes Biking: yes	Equestrian: no Dog: yes	Service Vehicles: yes Other:			
Illegal Trail Use:					
Other Disturbance: 1 if present, describe:					
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship and consider weed control program to reduce exotic grasses					
VII. MANAGEMENT ACTIONS IN LAST YEAR					
Preserve stewardship					
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)					
None					
NOTES:					

Acmispon prostratus (Nuttall's Acmispon) Mission Bay – Hospitality Point Site # 2

MSP Occurrence ID: ACPR_1HOPO002 - 2



Panorama from Southern edge of population, facing Southwest, West, Northwest.

Panorama location is 6256864.804 1857560.724 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2006 - 2019 Max Area: 5,505.40 sq. m. Min Area: 1,622.00 sq. m.

0 15 30

Source: San GIS & City of San Diego Parks & Rec
Map Created By: Jessie Lane 2019



this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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SAN DIEGO SanGIS

ACPR_1NMLA001_1 2019 Page 1 of 3
Scientific Name: Acmispon prostratus Common Name: Nuttall's acmispon MSP Occurr. ID: ACPR_1NMLA001
Sample Point #: 1 CNDDB Elem. Occurr. #: EO6 Translocated? no Management Unit: 1
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Bay Park Occurrence Name: No Man's Land
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/28/2019 Time Start: 12:36 Time End: 13:11 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 359 Exact or Estimate? estimate Uncertainty: low
Area of Current Mapped Extent: 2008.07 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 45 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 6 % Flowering: 2 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 2 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 476988 N: 3624768
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 15 Photo Numbers: ACPR_1NMLA001_1_Photo1_5.28.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 25 % Cover of Rock: 1 % Cover of Litter: 30 % Cover of Water: 0 % Cover of Vegetation: 42 Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: Brassica(nigra) and Other Mustards Semi-Natural Stands Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0 Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica tournefortii

ACPR_1NMLA001_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Acmispon prostratus - Nuttall's acmispon	Native	Annual	Herb	3
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	0.2
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb	10
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Camissoniopsis bistorta - southern suncup	Native	Annual	Herb	2
Camissoniopsis cheiranthifolia - beach suncup	Native	Perennial	Herb	18
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Glebionis coronaria - crown daisy	Nonnative	Annual	Herb	3
Heterotheca grandiflora - telegraphweed	Native	Annual	Herb	0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb	0.2
Pseudognaphalium bicolor - Twocolor cudweed	Native	Perennial	Herb	5
Solanum sp nightshade	Unknown	Annual	Herb	1
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb	0.2

ACPR_1NMLA001_1		2019 Page 3 of		
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.				
Surround_LandUse Developed regional pa	ırk; streets			
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 5	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 3	Trampling: 1	Erosion: 1		
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1		
Dumping/Trash: 4	Historic Grazing: no	Soil Compaction: 1		
Encampments: 3	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: 1 if pre	sent, describe:			
Brush Manangement: 1 if pro	esent, describe:			
ORV Activity: 1 if present, d	escribe:			
Evidence of Recent Fire: no Ye	ear Burned? n/a			
Trails: 1 if trails are present	, are they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use:				
Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship and weed control				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship and hand weeding by volunteers				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
None				
NOTES:				

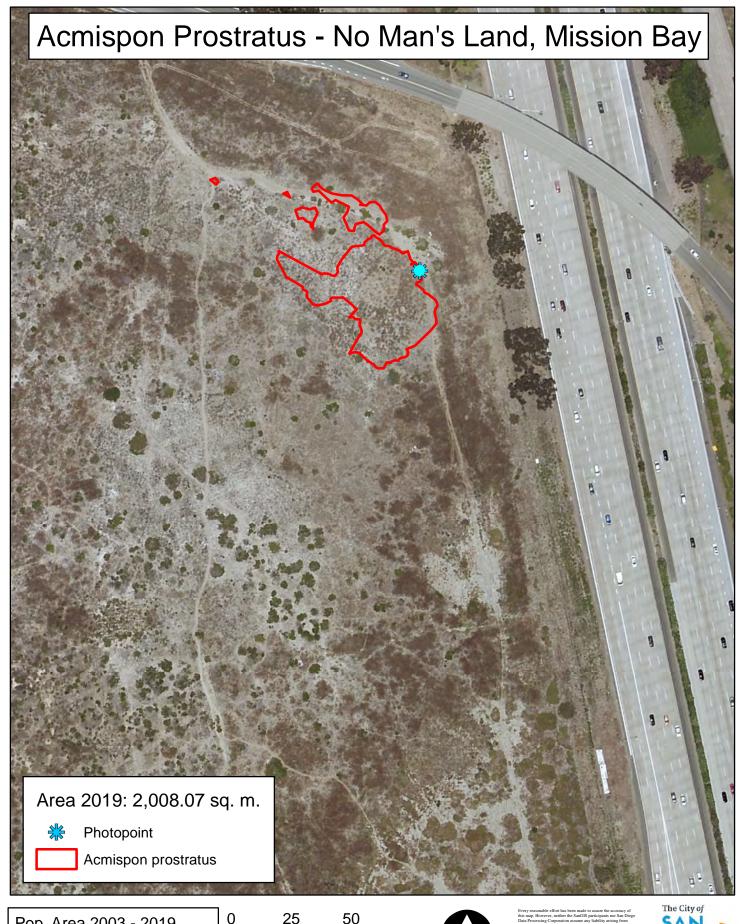
Acmispon prostratus (Nuttall's Acmispon) Mission Bay – No Man's Land Site #1

MSP Occurrence ID: ACPR_1NMLA001 - 1

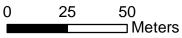


Panorama from Southwestern edge of population, facing Southeast, South, Southwest, West. Panorama location is 6267668.04 1859784.45 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 44,032.65 sq. m. Min Area: 2.00 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019

ACPR_1RRSO003_3 2019 Page 1 of 3				
Scientific Name: Acmispon prostratus Common Name: Nuttall's acmispon MSP Occurr. ID: ACPR_1RRSO003				
Sample Point #: 3 CNDDB Elem. Occurr. #: EO31 Translocated? no Management Unit: 1				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Flood Control Channel Southe Occurrence Name: Rip Rap				
Surveyors: Sara Allen, Mark Berninger, Jessie Lane Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 5/30/2019 Time Start: 8:31 Time End: Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 312 Exact or Estimate? exact Uncertainty: low				
Area of Current Mapped Extent: 1216.11 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes				
If not found, known or suspected reason:				
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very low Circle Area (sq_m): 11				
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999				
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999				
Is Sampling Area Representative of Current Mapped Extent? no				
is Sampling Area Representative of Current Mapped Extent: 110				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW W Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1RRS0003_3_Photo1_5.30.2019				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW W Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1RRS0003_3_Photo1_5.30.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 20 % Cover of Vegetation: 39.4				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW W Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1RRSO003_3_Photo1_5.30.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 20 % Cover of Vegetation: 39.4 Total % Cover: 101.4				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW W Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1RRS0003_3_Photo1_5.30.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 20 % Cover of Vegetation: 39.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Distichilis spicata Alliance// Distichilis spicata-Annual Grasses Association				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW W Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1RRS0003_3_Photo1_5.30.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 20 % Cover of Vegetation: 39.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Distichilis spicata Alliance// Distichilis spicata-Annual Grasses Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW W Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1RRS0003_3_Photo1_5.30.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 20 % Cover of Vegetation: 39.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Distichilis spicata Alliance// Distichilis spicata-Annual Grasses Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 4				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW W Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1RRS0003_3_Photo1_5.30.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 20 % Cover of Vegetation: 39.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Distichilis spicata Alliance// Distichilis spicata-Annual Grasses Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 480670 N: 3625350 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SE S SW W Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1RRS0003_3_Photo1_5.30.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 20 % Cover of Vegetation: 39.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Distichilis spicata Alliance// Distichilis spicata-Annual Grasses Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 4				

ACPR_1RRSO003_3 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon strigosus	Native	Annual	Herb		0.2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		0.2
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb		5
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		2
Distichlis spicata - saltgrass	Native	Perennial	Grass		2
Frankenia salina - alkali seaheath	Native	Perennial	Herb		5
Glebionis coronaria - crown daisy	Nonnative	Annual	Herb		0.2
Heterotheca grandiflora - telegraphweed	Native	Annual	Herb		0.2
Jaumea carnosa - marsh jaumea	Native	Perennial	Herb		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Medicago polymorpha - burclover	Nonnative	Annual	Herb		0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		3
Pennisetum setaceum - crimson fountaingrass	Nonnative	Perennial	Grass		18
Salicornia pacifica - glasswort	Native	Perennial	Herb		2
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass		0.2
Suaeda esteroa - estuary seablite	Native	Perennial	Herb		0.2
Tribulus terrestris - puncture vine	Nonnative	Annual	Herb		0.2

ACPR_1RRSO003_3	2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurren monitoring) plus 10-m surrounding buffer.	ce's maximum extent (cumulative extent over years of			
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 3 Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 6 Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 2 Historic Grazing: no	Soil Compaction: 1			
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1 if present, describe:				
Vegetation Clearing: 1 if present, describe:				
Brush Manangement: 1 if present, describe:				
ORV Activity: 1 if present, describe:				
Evidence of Recent Fire: no Year Burned? n/a				
Trails: 1 if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use:				
Other Disturbance: if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Consider invasive plant control				
VIII MANIACEMENT ACTIONS IN LAST VEAD				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDD	B)			
None				
NOTES:				

Acmispon prostratus (Nuttall's Acmispon) Mission Bay – Rip Rap Site #3

MSP Occurrence ID: ACPR_1RRSO003 - 3



Panorama from Southern edge of population, facing Southwest, West, Northwest.

Panorama location is 6258823.558 1857305.759 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2008 - 2019 Max Area: 10,774.29 sq. m.

Min Area: 70.41 sq. m.





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ACPR_1SOSH006_6 2019 Page 1 of 3
Scientific Name: Acmispon prostratus Common Name: Nuttall's acmispon MSP Occurr. ID: ACPR_1SOSH006
Sample Point #: 6 CNDDB Elem. Occurr. #: EO6 Translocated? no Management Unit: 1
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Bay Park Occurrence Name: South Shores
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/28/2019 Time Start: 8:37 Time End: 9:04 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 333 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 1226.77 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 477981 N: 3624575
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SW W NW Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: ACPR_1SOSH006_6_Photo1_5.28.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 6 % Cover of Rock: 4 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 78 Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natural Stands Alliance and Assocation
Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? yes Dead Standing Biomass Species: Glebionis coronaria
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 2 Gopher Activity: 1

ACPR_1SOSH006_6 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	20
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	9
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb	3
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Glebionis coronaria - crown daisy	Nonnative	Annual	Herb	40
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb	3

ACPR_1SOSH006_6		2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	KTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of			
Surround_LandUse Developed regional pa	rk				
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 6	Feral Pig Activity:	Altered Hydrology: 1			
Nonnative Grass: 3	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 2	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 3	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 1 if pre	esent, describe:				
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ear Burned? n/a				
Trails: 2 if trails are present,	are they authorized? yes				
Type of Trail Use:	_				
Hiking: yes Biking: yes Equestrian: no Dog: yes Service Vehicles: no Other: no					
Illegal Trail Use:					
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship					
VII. MANAGEMENT ACTIONS IN LAST YEAR					
Preserve stewardship; volunteers removing iceplant					
. 1000170 Stoll di distrip, 101011100111 (copidini					
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)			
Osprey flying overhead					
NOTES:					

Acmispon prostratus (Nuttall's Acmispon) Mission Bay – South Shores Site # 6

MSP Occurrence ID: ACPR_1SOSH006 - 6

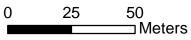


Panorama from Western edge of population, facing South, Southwest, West, Northwest. Panorama location is 6266789.998 1859495.947 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 15,970.40 sq. m. Min Area: 15.60 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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Ambrosia pumila San Diego Ambrosia



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AMPU_4KULA005_1 2019 Page 1 of 3
Scientific Name: Ambrosia pumila Common Name: San Diego ambrosia MSP Occurr. ID: AMPU_4KULA005
Sample Point #: 1 CNDDB Elem. Occurr. #: EO12 Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Trails Regional Park Occurrence Name: Kumeyaay Lake
Surveyors: Sara Allen, Mark Berninger, Diana Brand-Ramirez Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/25/2019 Time Start: 14:38 Time End: 15:40 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 82079 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 7205.98 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 480366 N: 3625284
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: 480403 N: 3625259
Photo Direction: S SW W NW Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: AMPU_4KULA005_1_Photo1_4.25.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 32 % Cover of Rock: 0.2 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 60 Total % Cover: 101.2
SANDAG 2012 Vegetation Alliance/Association: Eriogonum fasciculatum Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species:
beau Standing biolinass? III0 beau Standing biolinass Species.
Dead Standing Biomass ? 110 Dead Standing Biomass Species. Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):

AMPU_4KULA005_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon americanus - American bird's-foot trefoil	Native	Annual	Herb		0.2
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		4
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		0.2
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Camissoniopsis bistorta - southern suncup	Native	Annual	Herb		1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		2
Croton setigerus - dove weed	Native	Annual	Herb		1
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Distichlis spicata - saltgrass	Native	Perennial	Grass		0.2
Erigeron canadensis - Canada horseweed	Native	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		21
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		20
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Erodium moschatum - Musky stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		0.2
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lythrum hyssopifolia - Hyssop loosestrife	Nonnative	Annual	Herb		0.2
Nuttallanthus texanus - Texas toadflax	Native	Annual	Herb		0.2
Pseudognaphalium beneolens - cudweed	Native	Perennial	Herb		0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb		0.2
Unknown - herb	Unknown	Annual	Herb		0.2

AMPU_4KULA005_1		2019 Page 3 of 3		
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.				
Surround_LandUse Open space preserve,	passive recreation, parking lot, camping			
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 5	Feral Pig Activity:	Altered Hydrology: 1		
Nonnative Grass: 3	Trampling: 1	Erosion: 1		
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1		
Dumping/Trash: 2	Historic Grazing: no	Soil Compaction: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: if pres	sent, describe:			
Brush Manangement: 7 if pre	esent, describe: Weed control using targeted	herbicide applixations and mowing/dethatch		
ORV Activity: 1 if present, de	escribe:			
Evidence of Recent Fire: no Ye	ear Burned? n/a			
Trails: 2 if trails are present,	are they authorized? yes			
Type of Trail Use:				
Hiking: yes Biking: yes Equestrian: no Dog: yes Service Vehicles: yes Other: no				
Illegal Trail Use: Site adjace				
Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue weed management actions and consider native grassland habitat restoration project as funding permits				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Weed management usung targeted herbicide applications and mowing/dethatching				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	B)		
None				
NOTES:				

Ambrosia pumila (San Diego Ragweed) Mission Trails Regional Park - Kumeyaay Lake

MSP Occurrence ID: AMPU_4KULA005-1

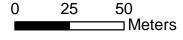


Panorama from Western edge of population, facing Northwest, North, Northeast, East. Panorama location is 6321443.02 1886016.48 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 1998 - 2019 Max Area: 16,809.01 sq. m. Min Area: 5,276.08 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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Bloomeria clevelandii San Diego Goldenstar



© City of San Diego, 2015

BLCL_4EAEL014_1 2019 Page 1 of 3				
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_4EAEL014				
Sample Point #: 1 CNDDB Elem. Occurr. #: EO3 Translocated? no Management Unit: 4				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Mission Trails Regional Park Occurrence Name: East Elliott				
Surveyors: Sara Allen, Mark Berninger, Diana Brand-Ramirez, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 4/16/2019 Time Start: 9:00 Time End: Mapped Extent Info Location BLCL_4EAEL014_5				
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:				
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?				
Current Extent Mapping Method: Species Found in Max Extent				
If not found, known or suspected reason:				
Number of Plants in Circle: 3111 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1				
Evidence in Circle Plot (1-6): % Herbivory: 2 % Diseased: 1 % Stunted: 1				
Is Sampling Area Representative of Current Mapped Extent? yes				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Coordinates at Center of Plot: E: 507825 N: 3609610				
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
Photo Direction: N NE E Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: BLCL_4EAEL014_1_Photo1_4.16.2019				
File Location:				
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).				
% Cover of Bare Ground: 12 % Cover of Rock: 15 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 69 Total % Cover: 100				
SANDAG 2012 Vegetation Alliance/Association: Malosma laurina Alliance// Malosma laurina-Lotus scoparius Association				
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2				
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 2				
Dead Standing Biomass? no Dead Standing Biomass Species:				
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):				
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3				

BLCL_4EAEL014_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		3
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		0.2
Acmispon strigosus	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		3
Avena fatua - wild oat	Nonnative	Annual	Grass		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		14
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		7
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		1
Cerastium glomeratum - sticky mouseear chickweed	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub		3
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		6
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Jepsonia parryi - Parry's jepsonia	Native	Perennial	Herb		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia filaginoides - California cottonrose	Native	Annual	Herb		1
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub		1
Malosma laurina - laurel sumac	Native	Perennial	Shrub		12
Pseudognaphalium sp cudweed	Native	Perennial	Herb		0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub		5
Salvia apiana - white sage	Native	Perennial	Shrub		3
Sanicula arguta - sharp toothed snakeroot	Native	Perennial	Herb		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		0.2
Unknown - herb	Unknown	Annual	Herb		0.2
Viola pedunculata	Native	Perennial	Herb		0.2

BLCL_4EAEL014_1	2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurren monitoring) plus 10-m surrounding buffer.	ce's maximum extent (cumulative extent over years of			
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: Feral Pig Activity:	Altered Hydrology:			
Nonnative Grass: Trampling:	Erosion:			
Nonnative Woody Plants: Vandalism:	Urban Runoff:			
Competitive Native Plants: Current Grazing:	Slope Movement:			
Dumping/Trash: Historic Grazing:	Soil Compaction:			
Encampments: Historic Agriculture:	Fuel Modification Zone/ Fire Break:			
Road Construction/Maintenance: if present, describe:				
Vegetation Clearing: if present, describe:				
Brush Manangement: if present, describe:				
ORV Activity: if present, describe:				
Evidence of Recent Fire: Year Burned?				
Trails: if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Equestrian: Dog:	Service Vehicles: Other:			
Illegal Trail Use:				
Other Disturbance: if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue Preserve stewarship				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
None				
NOTES:				

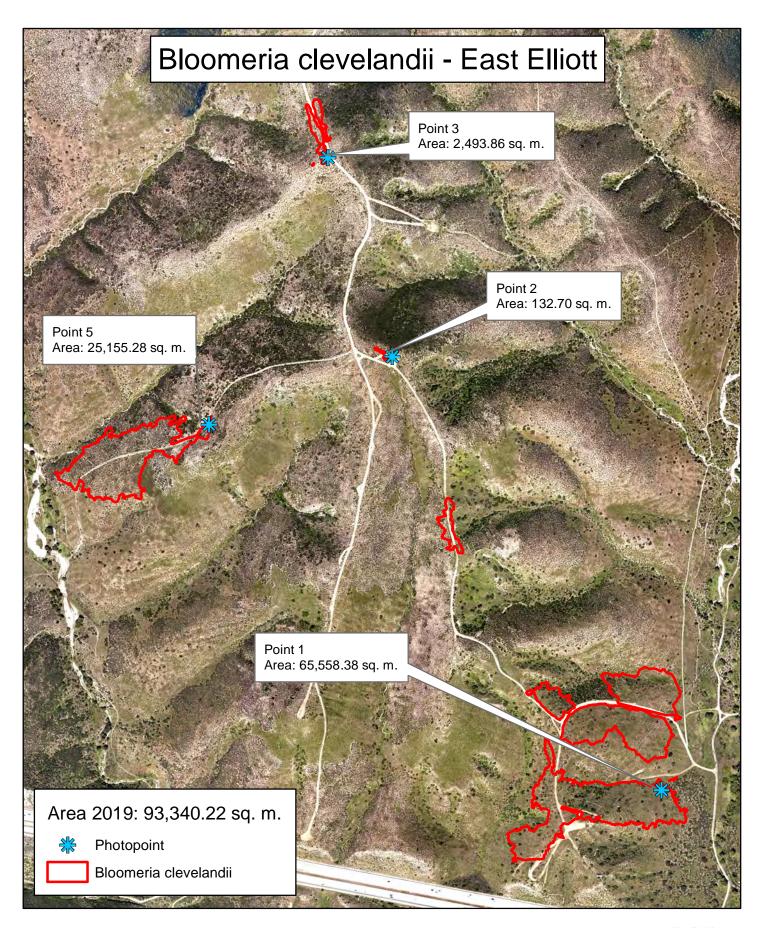
Bloomeria clevelandii (San Diego Goldenstar) East Elliott # 1

MSP Occurrence ID: BLCL_4EAEL014 - 1



Panorama from Southwestern edge of population, facing West, Southwest, South, Southeast, East. Panorama location is 6319260.20 1891551.76 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2008 - 2019 Max Area: 809,519.00 sq. m.

Min Area: 2,404.00 sq. m.

330 220 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



BLCL_4EAEL014_2 2019 Page 1 of 3					
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_4EAEL014					
Sample Point #: 2 CNDDB Elem. Occurr. #: EO3 Translocated? no Management Unit: 4					
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department					
Preserve Name: Mission Trails Regional Park Occurrence Name: East Elliott					
Surveyors: Sara Allen, Mark Berninger Other Surveyors:					
Affliation:					
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.					
Survey Date: 4/16/2019 Time Start: 12:33 Time End: Mapped Extent Info Location BLCL_4EAEL014_5					
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:					
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?					
Current Extent Mapping Method: Species Found in Max Extent					
If not found, known or suspected reason:					
Number of Plants in Circle: 22 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10					
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1					
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1					
Is Sampling Area Representative of Current Mapped Extent? yes					
Is Sampling Area Representative of Current Mapped Extent? yes					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 496319 N: 3635142					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 496319 N: 3635142 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 496319 N: 3635142 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: W SW S SE Camera Height: 1.1 m Camera Angle: 15 Photo Numbers: BLCL_4EAEL014_2_Photo1_4.16.2019					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accuracy: 1					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 496319 N: 3635142 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: W SW S SE Camera Height: 1.1 m Camera Angle: 15 Photo Numbers: BLCL_4EAEL014_2_Photo1_4.16.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 40 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 49 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-Lotus scoparius Association					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 496319 N: 3635142 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: W SW S SE Camera Height: 1.1 m Camera Angle: 15 Photo Numbers: BLCL_4EAEL014_2 Photo1_4.16.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). W Cover of Bare Ground: 10 % Cover of Rock: 40 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 49 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-Lotus scoparius Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 496319 N: 3635142					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 496319 N: 3635142 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: W SW S SE Camera Height: 1.1 m Camera Angle: 15 Photo Numbers: BLCL_4EAEL014_2 Photo1_4.16.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). W Cover of Bare Ground: 10 % Cover of Rock: 40 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 49 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-Lotus scoparius Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 496319 N: 3635142 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: W SW S SE Camera Height: 1.1 m Camera Angle: 15 Photo Numbers: BLCL_4EAEL014_2_Photo1_4.16.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 40 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 49 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-Lotus scoparius Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1					

BLCL_4EAEL014_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		1
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		0.2
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		18
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		15
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		1
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass		0.5
Lasthenia gracilis - needle goldfields	Native	Annual	Herb		1
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		3
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub		3
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2

BLCL_4EAEL014_2		2019 Page 3 of 3		
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of		
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:		
Nonnative Grass:	Trampling:	Erosion:		
Nonnative Woody Plants:	Vandalism:	Urban Runoff:		
Competitive Native Plants:	Current Grazing:	Slope Movement:		
Dumping/Trash:	Historic Grazing:	Soil Compaction:		
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:		
Road Construction/Maintenance:	if present, describe:			
Vegetation Clearing: if pres	sent, describe:			
Brush Manangement: if pre	sent, describe:			
ORV Activity: if present, de	escribe:			
Evidence of Recent Fire: Year	Burned?			
	are they authorized?			
Type of Trail Use:	¬			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:		
Illegal Trail Use:				
	ent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stweradship				
'				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
	plant of animal species to add to the CNDD	נטו		
None				
NOTES:				
Raven nest on wooden tramismissic	on pole			

Bloomeria clevelandii (San Diego Goldenstar) East Elliott # 2

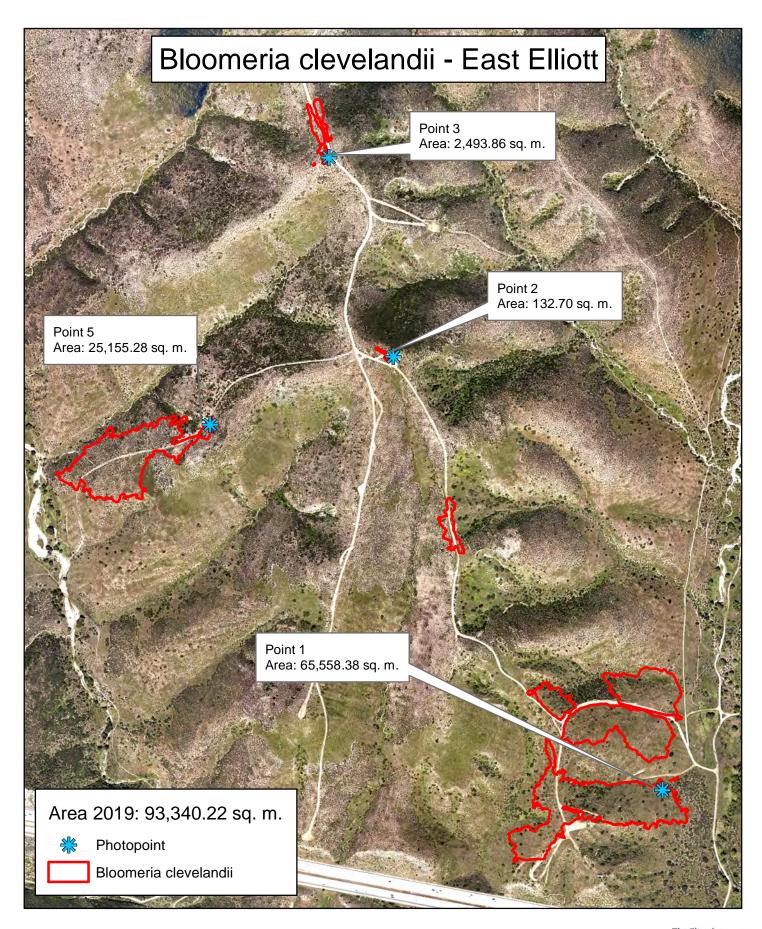
MSP Occurrence ID: BLCL_4EAEL014 - 2



Panorama from Southeastern edge of population, facing North, West, South.

Panorama location is 6317389.88 1894565.90 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2008 - 2019 Max Area: 809,519.00 sq. m.

Min Area: 2,404.00 sq. m.

0 110 220 330 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019

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BLCL_4EAEL014_3 2019 Page 1 of 3				
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_4EAEL014				
Sample Point #: 3 CNDDB Elem. Occurr. #: EO3 Translocated? no Management Unit: 4				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Mission Trails Regional Park Occurrence Name: East Elliott				
Surveyors: Sara Allen, Mark Berninger, Jessie Lane, Diana Brand-Ramirez, Ninfa Negrete (Rocks Biological) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 4/16/2019 Time Start: 14:19 Time End: Mapped Extent Info Location BLCL_4EAEL014_5				
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:				
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?				
Current Extent Mapping Method: Species Found in Max Extent				
If not found, known or suspected reason:				
Number of Plants in Circle: 42 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1				
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 4				
Is Sampling Area Representative of Current Mapped Extent? yes				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Coordinates at Center of Plot: E: 495743 N: 3636056				
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
Photo Direction: N W S Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: BLCL_4EAEL014_3_Photo1_4.16.2019				
File Location:				
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).				
% Cover of Bare Ground: 15 % Cover of Rock: 18 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 65 Total % Cover: 100				
SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-(Eriogonum fasciculatum Artemisia californica salvia mellifera) Association				
Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 1				
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0				
Dead Standing Biomass? no Dead Standing Biomass Species:				
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):				
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 4 Gopher Activity: 1				

BLCL_4EAEL014_3 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		2
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		20
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Calochortus sp lily	Native	Perennial	Herb		0.2
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		4
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		5
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass		0.2
Lasthenia gracilis - needle goldfields	Native	Annual	Herb		6
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		1
Lupinus concinnus - Bajada Iupine	Native	Annual	Herb		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		0.2
Pentachaeta aurea - golden chaetopappa	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb		1
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		1
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2

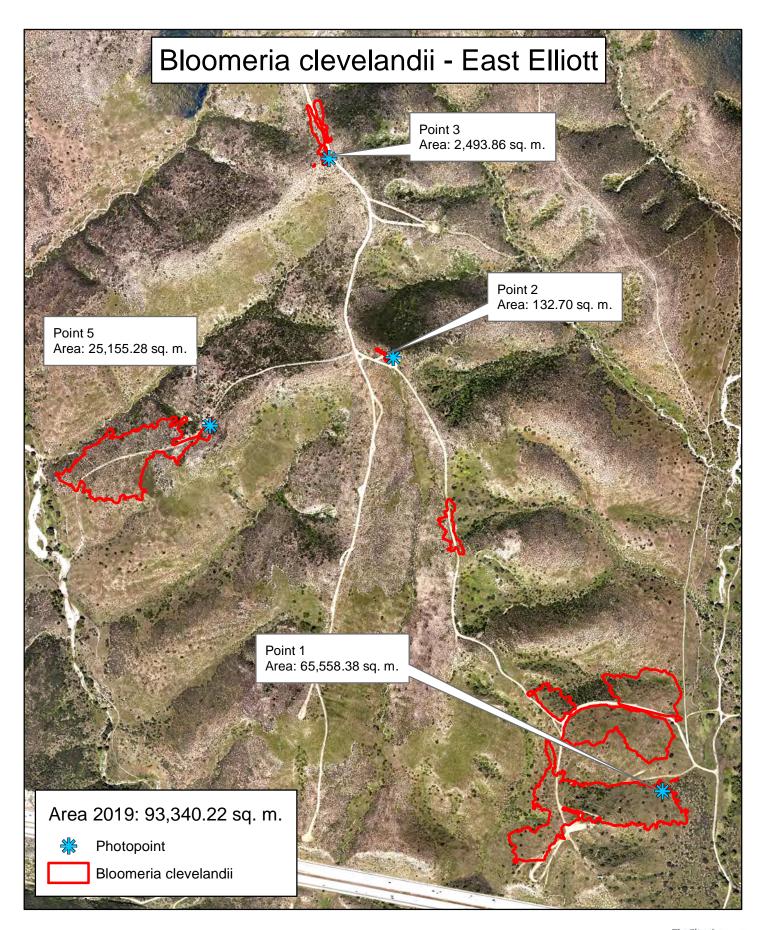
BLCL_4EAEL014_3		2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	nce's maximum extent (cumulative extent over years of			
Surround_LandUse					
Disturbances (Rank each as 1-6):					
Nonnative Forbs:	Feral Pig Activity: 1	Altered Hydrology:			
Nonnative Grass:	Trampling:	Erosion:			
Nonnative Woody Plants:	Vandalism:	Urban Runoff:			
Competitive Native Plants:	Current Grazing: 1	Slope Movement:			
Dumping/Trash:	Historic Grazing: no	Soil Compaction:			
Encampments:	Historic Agriculture: no	Fuel Modification Zone/ Fire Break:			
Road Construction/Maintenance:	if present, describe:				
Vegetation Clearing: if pres	sent, describe:				
Brush Manangement: if pre	sent, describe:				
ORV Activity: if present, de	escribe:				
Evidence of Recent Fire: no Ye	ar Burned? n/a				
Trails: if trails are present,	are they authorized?				
Type of Trail Use:					
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:			
Illegal Trail Use:					
Other Disturbance: if prese	ent, describe:				
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship	Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR					
Preserve stewardship					
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)					
None					
NOTES:					

Bloomeria clevelandii (San Diego Goldenstar) East Elliott # 3

MSP Occurrence ID: BLCL_4EAEL014 - 3



Panorama from Northwestern edge of population, facing South, Southwest, West, Northwest. Panorama location is 6316943.661 1895945.738 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2008 - 2019 Max Area: 809,519.00 sq. m.

Min Area: 2,404.00 sq. m.

0 110 220 330 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019

1

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BLCL_4EAEL014_5 2019 Page 1 of 3
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_4EAEL014
Sample Point #: 5 CNDDB Elem. Occurr. #: EO3 Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Trails Regional Park Occurrence Name: East Elliott
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/17/2019 Time Start: 9:40 Time End: 10:39 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 337621 Exact or Estimate? estimate Uncertainty: low
Area of Current Mapped Extent: 93340.22 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 57 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 2 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495604 N: 3636475
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495604 N: 3636475 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495604 N: 3636475 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W NW Camera Height: 1.1 m Camera Angle: -2 Photo Numbers: BLCL_4EAEL014_5_Photo1_4.17.2019
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accuracy: 1
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495604 N: 3636475 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W NW Camera Height: 1.1 m Camera Angle: 2 Photo Numbers: BLCL_4EAEL014_5_Photo1_4.17.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 35 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 46 Total % Cover: 100
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495604 N: 3636475 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W NW Camera Height: 1.1 m Camera Angle: 2 Photo Numbers: BLCL_4EAEL014_5_Photo1_4.17.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 35 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 46 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Quercus (berberidifolia ×acutidens) -Adenostoma fasciculatum Alliance and Association
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495604 N: 3636475 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W NW Camera Height: 1.1 m Camera Angle: 2 Photo Numbers: BLCL_4EAEL014_5_Photo1_4.17.2019 III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). W Cover of Bare Ground: 15 % Cover of Rock: 35 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 46 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Quercus (berberidifolia) **accutidens**) - Adenostoma fasciculatum Alliance and Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495604 N: 3636475 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: S SW W NW Camera Height: 1.1 m Camera Angle: 2 Photo Numbers: BLCL_4EAEL014_5_Photo1_4.17.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 35 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 46 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Quercus (berberidifolia) ×acutidens) -Adenostoma fasciculatum Alliance and Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

BLCL_4EAEL014_5 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		8
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		9
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Ceanothus tomentosus - woolyleaf ceanothus	Native	Perennial	Shrub		3
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb		1
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub		4
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		6
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Helianthemum scoparium - Bisbee peak rushrose	Native	Perennial	Shrub		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		2
Juncus bufonius - toad rush	Native	Annual	Herb		2
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass		2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb		0.2
Osmadenia tenella - false rosinweed	Native	Annual	Herb		0.2
Pellaea mucronata - birdfoot cliffbrake	Native	Perennial	Fern		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb		0.2
Quercus berberidifolia - scrub oak	Native	Perennial	Tree		2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb		1
Stipa lepida - foothill needle grass	Native	Perennial	Grass		1
Unknown - bulb	Unknown	Unknown	Herb		0.2

BLCL_4EAEL014_5		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EX monitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse		
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 4	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 3	if present, describe:	
Vegetation Clearing: 1 if pres	ent, describe:	
Brush Manangement: 1 if pre	sent, describe:	
ORV Activity: 1 if present, de	scribe:	
Evidence of Recent Fire: no Ye	ar Burned? n/a	
Trails: 3 if trails are present,	are they authorized? yes	
Type of Trail Use:		
Hiking: yes Biking: yes	Equestrian : yes Dog: yes	Service Vehicles: yes Other: no
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserved stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAR	?	
Preserved stewardship		
VIII. CNDDB SPECIES DETECTED (list any p	plant or animal species to add to the CNDD	B)
None		
NOTES:		
SDG&E access road maintained as	needed.	

Bloomeria clevelandii (San Diego Goldenstar) East Elliott # 5

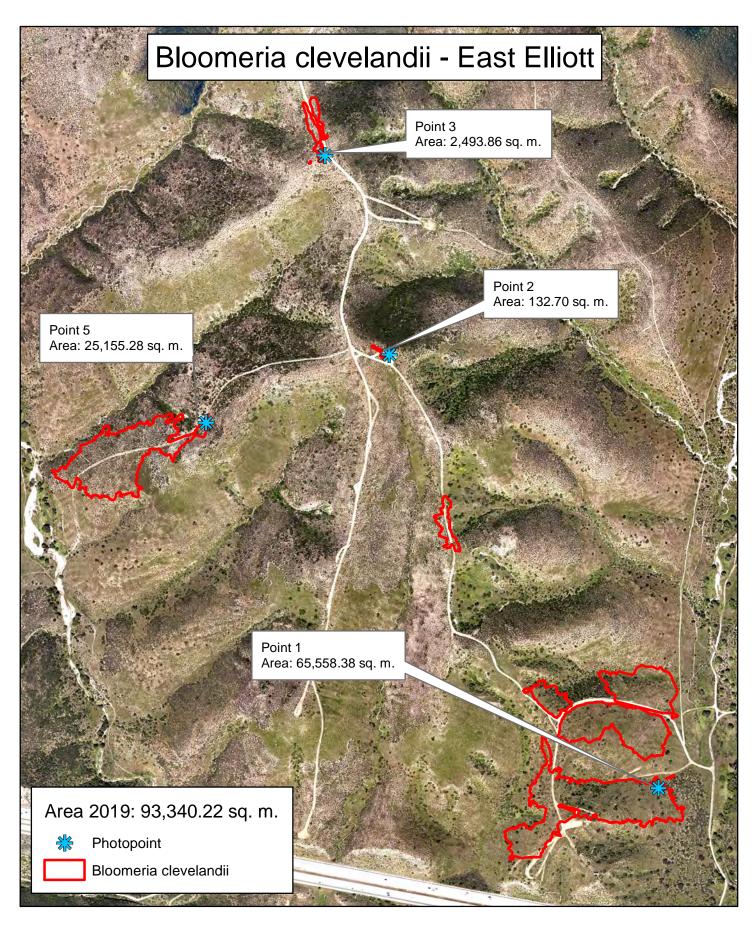
MSP Occurrence ID: BLCL_4EAEL014 - 5



Panorama from Western edge of population, facing Southwest, South, Southeast.

Panorama location is 6316118.12 1894089.91 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2008 - 2019 Max Area: 809,519.00 sq. m.

Min Area: 2,404.00 sq. m.

0 110 220 330 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019

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BLCL_6LORI021_1 2019 Page 1 of 3
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_6LORI021
Sample Point #: 1 CNDDB Elem. Occurr. #: EO10 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Lopez Ridge
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological), Jason Allen, other Other Surveyors: Jane Marie Fajardo (ESD)
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/22/2019 Time Start: 9:42 Time End: 12:35 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 6474 Exact or Estimate? estimate Uncertainty: low
Area of Current Mapped Extent: 5721.48 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 354 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 2
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 492755 N: 3633951
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE E NE N Camera Height: 1.1 m Camera Angle: -25 Photo Numbers: BLCL_6LORI021_1_Photo1_4.22.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 15 % Cover of Rock: 12 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 74.2 Total % Cover: 101.4
SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Alliance level only
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):

BLCL_6LORI021_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		1
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		20
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		0.2
Brodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb		5
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Callitriche marginata - California water starwort	Native	Annual	Herb		2
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb		0.2
Crassula aquatica - aquatic pygmy weed	Native	Annual	Herb		2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		1
Deschampsia danthonioides - annual hairgrass	Native	Annual	Grass		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Downingia cuspidata - Toothed downingia	Native	Annual	Herb		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		1
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		1
Gastridium phleoides - nit grass	Nonnative	Annual	Grass		0.2
Helianthemum scoparium - Bisbee peak rushrose	Native	Perennial	Shrub		0.2
Hordeum marinum - seaside barley	Nonnative	Annual	Grass		2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		2
Juncus bufonius - toad rush	Native	Annual	Herb		1
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lupinus bicolor - annual lupine	Native	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Lythrum hyssopifolia - Hyssop loosestrife	Nonnative	Annual	Herb		0.2
Muilla maritima - sea muilla	Native	Perennial	Herb		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		2
Pentachaeta aurea - golden chaetopappa	Native	Annual	Herb		0.2
Pogogyne abramsii - San Diego mesa mint	Native	Annual	Herb		7
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb		20
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		0.2
Uropappus lindleyi - silver puffs	Native	Annual	Herb		0.2
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2

BLCL_6LORI021_1		20	19	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EX monitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent ov	er year:	s of
Surround_LandUse Open space preserve				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 4	Trampling: 1	Erosion: 1		
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1		
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: 1 if pres	ent, describe:			
Brush Manangement: 1 if pres	sent, describe:			
ORV Activity: 1 if present, de	scribe:			
Evidence of Recent Fire: no Yea	ar Burned? n/a			
Trails: 1 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:		
Illegal Trail Use:				
	ent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR	R			
Preserve stewardship and VPHCP	required maintenace visits			
VIII. CNDDB SPECIES DETECTED (list any p	plant or animal species to add to the CNDD	В)		
None				
NOTES:				

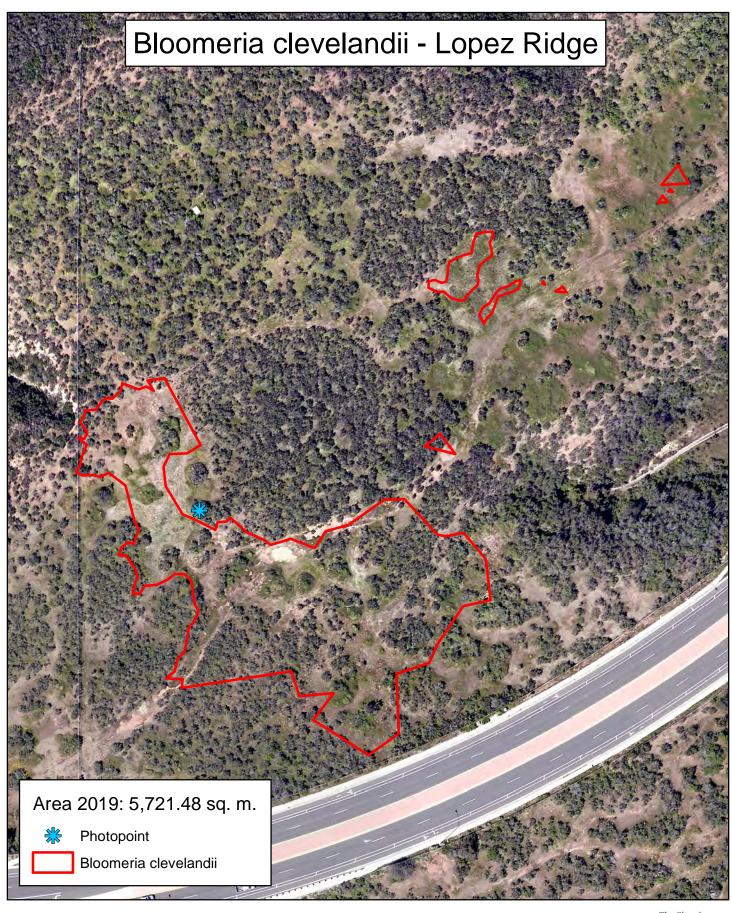
Bloomeria clevelandii (San Diego Goldenstar) Lopez Ridge

MSP Occurrence ID: BLCL_6LORI021 - 1



Panorama from Eastern edge of population, facing Southwest, West, Northwest, North, Northeast. Panorama location is 6278246.40 1915522.73 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2011 - 2019 Max Area: 5,721.48 sq. m. Min Area: 12.00 sq. m.

50 ■ Meters 25

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





BLCL_3MAVA005_1 2019 Page 1 of 3
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_3MAVA005
Sample Point #: 1 CNDDB Elem. Occurr. #: EO68 Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department
Preserve Name: Marron Valley Cornerstone La Occurrence Name: Marron Valley
Surveyors: Sara Allen, Mark Berninger, Diana Brand-Ramirez, Jason Allen, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/18/2019 Time Start: 14:35 Time End: 15:31 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 1193232 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 93340.22 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 8546 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 496996 N: 3633460
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: NW N NE E Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BLCL_3MAVA005_1_Photo1_4.18.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 35 % Cover of Rock: 3 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 51 Total % Cover: 101
SANDAG 2012 Vegetation Alliance/Association: Bahiopsis laciniata Alliance// Bahiopsis laciniata-Artemisia californica-Eriogonum fasciculatum Association
Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 3
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4

BLCL_3MAVA005_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type Co	ver
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb	0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	8
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub	1
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb	8
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	3
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	10
Clarkia purpurea - winecup clarkia	Native	Annual	Herb	0.2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb	0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb	1
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	0.2
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb	0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	3
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	4
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass	0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	1
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub	0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	3
Osmadenia tenella - false rosinweed	Native	Annual	Herb	0.2
Oxalis californica - California wood sorrel	Native	Annual	Herb	0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	4
Salvia apiana - white sage	Native	Perennial	Shrub	2
Silene gallica - common catchfly	Nonnative	Annual	Herb	1
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass	3
Trifolium sp clover	Unknown	Annual	Herb	0.2

BLCL_3MAVA005_1			2019	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	(TENT - Assess threats within the occurren	ce's maximum extent (cumulative exten	t over years	of
Surround_LandUse Open space preserve				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 5	Trampling: 1	Erosion: 3		
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 2	Slope Movement: 1		
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break:		
Road Construction/Maintenance: 3	if present, describe: Access road ma	aintained regularly for border patrol		
Vegetation Clearing: 1 if pres	sent, describe:			
Brush Manangement: 1 if pre	sent, describe:			
ORV Activity: 1 if present, de	escribe:			
Evidence of Recent Fire: no Ye	ar Burned? n/a			
Trails: 1 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:		
Illegal Trail Use:				
	ent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR	R			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)		
Badger foraging burrows				
NOTES:				

Bloomeria clevelandii (San Diego Goldenstar) Marron Valley # 1

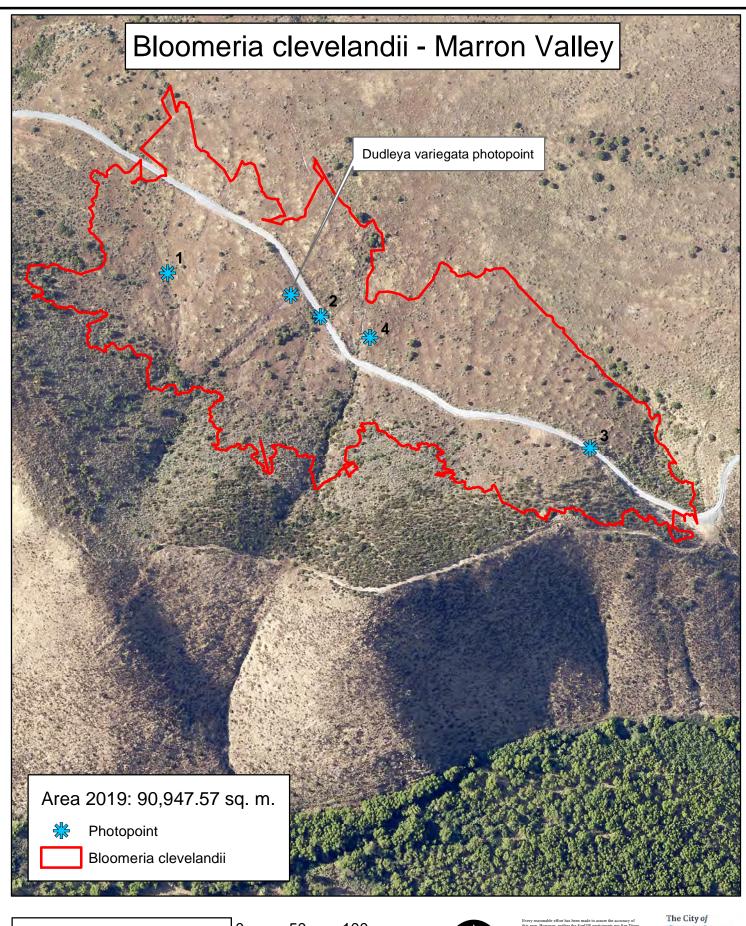
MSP Occurrence ID: BLCL_3MAVA005 - 1



Panorama from Western edge of population, facing Southeast, South, West, North.

Panorama location is 6406792.551 1788021.0137 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019

Max Area: 139,269.00 sq. m.

Min Area: 0 sq. m.

0 50 100 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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BLCL_3MAVA005_2 2019 Page 1 of 3
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_3MAVA005
Sample Point #: 2 CNDDB Elem. Occurr. #: EO68 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department
Preserve Name: Marron Valley Cornerstone La Occurrence Name: Marron Valley
Surveyors: Sara Allen, Jason Allen, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/18/2019 Time Start: 13:17 Time End: 14:34 Mapped Extent Info Location BLCL_3MAVA005_1
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 4853 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 2
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 523214 N: 3603791
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BLCL_3MAVA005_2_Photo1_4.18.2019
Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BLCL_3MAVA005_2_Photo1_4.18.2019 File Location:
File Location:
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 42 % Cover of Rock: 13 % Cover of Litter: 9 % Cover of Water: 0 % Cover of Vegetation: 33
File Location: [III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 42 % Cover of Rock: 13 % Cover of Litter: 9 % Cover of Water: 0 % Cover of Vegetation: 33 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 42 % Cover of Rock: 13 % Cover of Litter: 9 % Cover of Water: 0 % Cover of Vegetation: 33 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum Malosma laurina Assoication
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 42 % Cover of Rock: 13 % Cover of Litter: 9 % Cover of Water: 0 % Cover of Vegetation: 33 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum Malosma laurina Assoication Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 42 % Cover of Rock: 13 % Cover of Litter: 9 % Cover of Water: 0 % Cover of Vegetation: 33 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum Malosma laurina Assoication Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 2

BLCL_3MAVA005_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon americanus - American bird's-foot trefoil	Native	Annual	Herb		0.2
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		5
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub		1
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		4
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Clarkia purpurea - winecup clarkia	Native	Annual	Herb		0.2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		4
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		9
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		1
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub		2
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb		2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		3
Osmadenia tenella - false rosinweed	Native	Annual	Herb		0.2
Salvia apiana - white sage	Native	Perennial	Shrub		3
Sanicula arguta - sharp toothed snakeroot	Native	Perennial	Herb		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		1
Stylocline gnaphaloides - everlasting nest straw	Native	Annual	Herb		0.2
Trifolium depauperatum var. truncatum - dwarf sack clover	Native	Annual	Herb		0.2
Trifolium sp clover	Unknown	Annual	Herb		0.2

BLCL_3MAVA005_2			2019	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM monitoring) plus 10-m surrounding buffer		ccurrence's maximum extent (cumulative e	extent over years	s of
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:		
Nonnative Grass:	Trampling:	Erosion:		
Nonnative Woody Plants:	Vandalism:	Urban Runoff:		
Competitive Native Plants:	Current Grazing:	Slope Movement:		
Dumping/Trash:	Historic Grazing:	Soil Compaction:		
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Brea	ak:	
Road Construction/Maintenance:	if present, describe:			
Vegetation Clearing: if p	resent, describe:			
Brush Manangement: if p	present, describe:			
ORV Activity: if present,	describe:			
Evidence of Recent Fire:	Year Burned?			
Trails: if trails are present	nt, are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: 0	ther:	
Illegal Trail Use:				
Other Disturbance: if pr	esent, describe:			
VI. MANAGEMENT RECOMMENDATIONS	,			
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YE	:AR			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list ar	ny plant or animal species to add to the	e CNDDB)		
None				
NOTES:				

Bloomeria clevelandii (San Diego Goldenstar) Marron Valley # 2

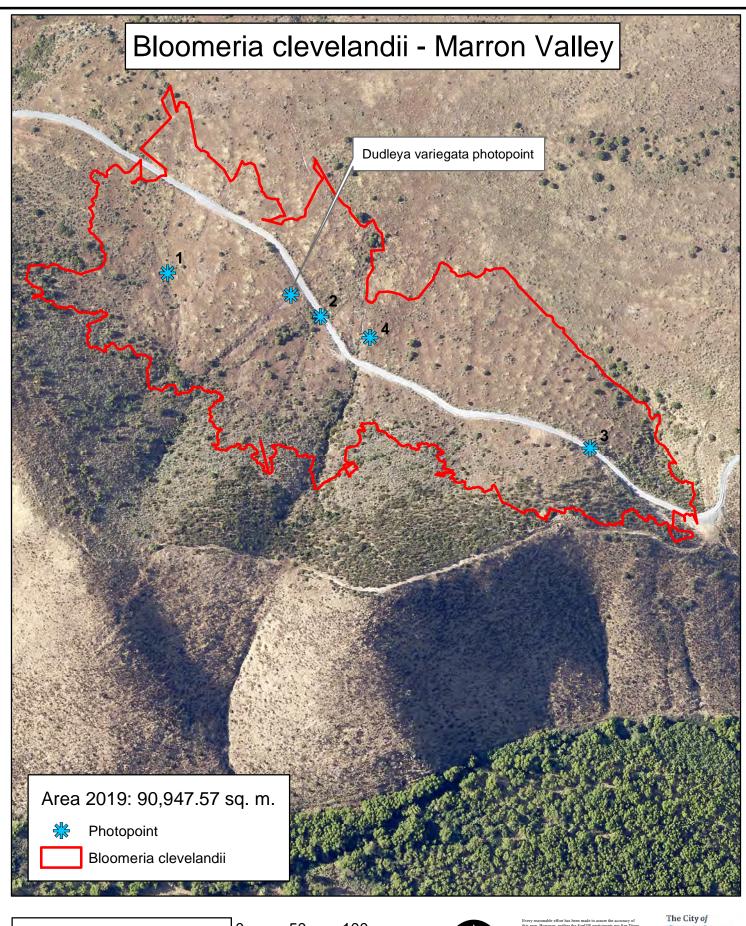
MSP Occurrence ID: BLCL_3MAVA005 - 2



Panorama from Western edge of population, facing South, Southwest.

Panorama location is 6407225.72 1787897.83 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019

Max Area: 139,269.00 sq. m.

Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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BLCL_3MAVA005_3 2019 Page 1 of 3					
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_3MAVA005					
Sample Point #: 3 CNDDB Elem. Occurr. #: EO68 Translocated? no Management Unit: 3					
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department					
Preserve Name: Marron Valley Cornerstone La Occurrence Name: Marron Valley					
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological), Jason Allen, Jessie Other Surveyors: Lane					
Affliation:					
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.					
Survey Date: 4/18/2019 Time Start: 10:33 Time End: Mapped Extent Info Location BLCL_3MAVA005_1					
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:					
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?					
Current Extent Mapping Method: Species Found in Max Extent					
If not found, known or suspected reason:					
Number of Plants in Circle: 3109 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10					
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1					
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1					
Is Sampling Area Representative of Current Mapped Extent? yes					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a					
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BLCL_3MAVA005_3_Photo1_4.18.2019					
GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BLCL_3MAVA005_3_Photo1_4.18.2019 File Location:					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BLCL_3MAVA005_3_Photo1_4.18.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 39 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 46					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BLCL_3MAVA005_3_Photo1_4.18.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 39 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 46 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Nassella pulchra Eriogonum fasciculatum Alliance// Nassella pulchra Eriogonum fasciculatum-salvia apiana					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BLCL_3MAVA005_3_Photo1_4.18.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 39 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 46 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Nassella pulchra Eriogonum fasciculatum Alliance// Nassella pulchra Eriogonum fasciculatum-salvia apiana					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BLCL_3MAVA005_3_Photo1_4.18.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 39 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 46 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Nassella pulchra Eriogonum fasciculatum Alliance// Nassella pulchra Eriogonum fasciculatum-salvia apiana Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523346 N: 3603754 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BLCL_3MAVA005_3_Photo1_4.18.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 39 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 46 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Nassella pulchra Eriogonum fasciculatum Alliance// Nassella pulchra Eriogonum fasciculatum-salvia apiana Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1					

BLCL_3MAVA005_3 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		12
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		6
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		3
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Cerastium glomeratum - sticky mouseear chickweed	Nonnative	Annual	Herb		0.2
Clarkia purpurea - winecup clarkia	Native	Annual	Herb		0.2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		4
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb		1
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		1
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		1
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub		2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Hesperoyucca whipplei - chaparral yucca	Native	Perennial	Shrub		0.2
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb		3
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Layia platyglossa - coastal tidytips	Native	Annual	Herb		1
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		1
Melica imperfecta - California melic	Native	Annual	Herb		1
Pentagramma glanduloviscida	Native	Pernnial	Fern		0.2
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass		0.2
Plantago erecta - California plantain	Native	Annual	Herb		1
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Salvia apiana - white sage	Native	Perennial	Shrub		4
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		5
Trifolium depauperatum var. truncatum - dwarf sack clover	Native	Annual	Herb		0.2

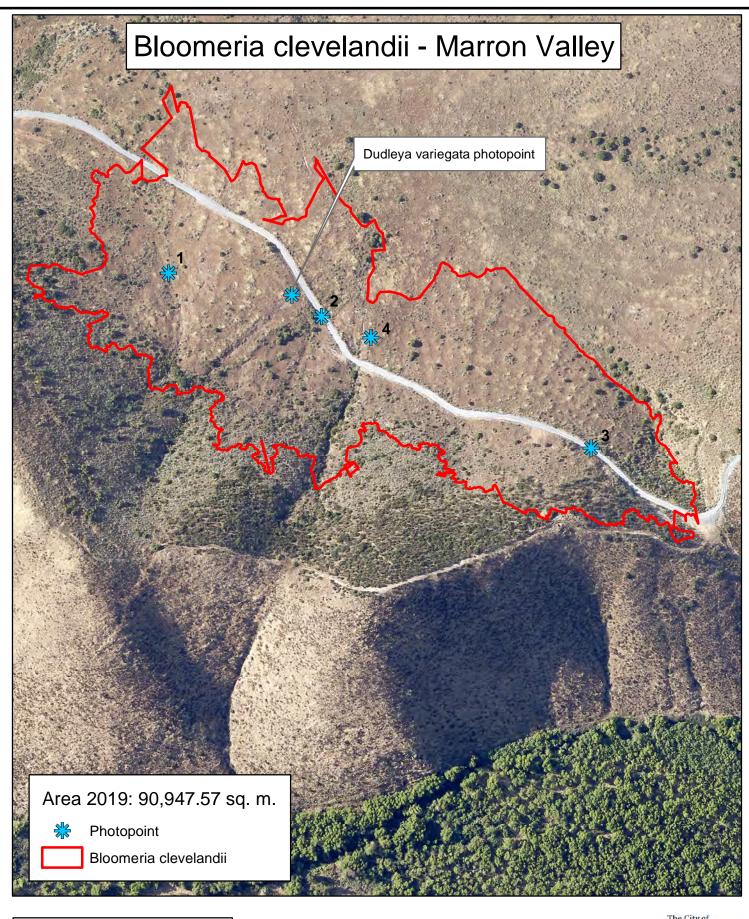
BLCL_3MAVA005_3	2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurre monitoring) plus 10-m surrounding buffer.	ence's maximum extent (cumulative extent over years of			
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: Feral Pig Activity:	Altered Hydrology:			
Nonnative Grass: Trampling:	Erosion:			
Nonnative Woody Plants: Vandalism:	Urban Runoff:			
Competitive Native Plants: Current Grazing:	Slope Movement:			
Dumping/Trash: Historic Grazing:	Soil Compaction:			
Encampments: Historic Agriculture:	Fuel Modification Zone/ Fire Break:			
Road Construction/Maintenance: if present, describe:				
Vegetation Clearing: if present, describe:				
Brush Manangement: if present, describe:				
ORV Activity: if present, describe:				
Evidence of Recent Fire: Year Burned?				
Trails: if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog:	Service Vehicles: Other:			
Illegal Trail Use:				
Other Disturbance: if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship				
NUL MANAGEMENT ACTIONS IN LAST VEAD				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
None				
NOTES:				

Bloomeria clevelandii (San Diego Goldenstar) Marron Valley # 3

MSP Occurrence ID: BLCL_3MAVA005 - 3



Panorama from Northeastern edge of population, facing Northwest, North, Northeast, East. Panorama location is 6407990.15 1787523.48 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019

Max Area: 139,269.00 sq. m.

Min Area: 0 sq. m.

0 50 100 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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BLCL_3MAVA005_4 2019 Page 1 of 3				
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_3MAVA005				
Sample Point #: 4 CNDDB Elem. Occurr. #: EO68 Translocated? no Management Unit: 3				
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department				
Preserve Name: Marron Valley Cornerstone La Occurrence Name: Marron Valley				
Surveyors: Sara Allen, Jessie Lane, Jason Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 4/18/2019 Time Start: 11:51 Time End: 12:42 Mapped Extent Info Location BLCL_3MAVA005_1				
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:				
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?				
Current Extent Mapping Method: Species Found in Max Extent				
If not found, known or suspected reason:				
Number of Plants in Circle: 3445 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1				
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1				
Is Sampling Area Representative of Current Mapped Extent? yes				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523580 N: 3603642				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523580 N: 3603642 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523580 N: 3603642 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE E Camera Height: 1.1 m Camera Angle: 40 Photo Numbers: BLCL_3MAVA005_4_Photo1_4.18.2019				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523580 N: 3603642 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE E Camera Height: 1.1 m Camera Angle: 40 Photo Numbers: BLCL_3MAVA005_4_Photo1_4.18.2019 File Location:				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523580 N: 3603642 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE E Camera Height: 1.1 m Camera Angle: 40 Photo Numbers: BLCL_3MAVA005_4_Photo1_4.18.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 12 % Cover of Rock: 10 % Cover of Litter: 17 % Cover of Water: 0 % Cover of Vegetation: 57 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Association				
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523580 N: 3603642 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE E Camera Height: 1.1 m Camera Angle: 40 Photo Numbers: BLCL_3MAVA005_4_Photo1_4.18.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 12 % Cover of Rock: 10 % Cover of Litter: 17 % Cover of Water: 0 % Cover of Vegetation: 57 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum—Opuntia littoralis/Dudleya (edulia) Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2				
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523580 N: 3603642 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE E Camera Height: 1.1 m Camera Angle: 40 Photo Numbers: BLCL_3MAVA005_4_Photo1_4.18.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 12 % Cover of Rock: 10 % Cover of Litter: 17 % Cover of Water: 0 % Cover of Vegetation: 57 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum Opuntia littoralis/Dudleya (edulia) Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2 Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1				

BLCL_3MAVA005_4 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		1
Avena barbata - slender oat	Nonnative	Annual	Grass		1
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		1
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		5
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Croton setigerus - dove weed	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		3
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		37
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		1
Gastridium phleoides - nit grass	Nonnative	Annual	Grass		0.2
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub		1
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		1
Lasthenia gracilis - needle goldfields	Native	Annual	Herb		2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Osmadenia tenella - false rosinweed	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		1
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		0.2
Trifolium sp clover	Unknown	Annual	Herb		0.2

BLCL_3MAVA005_4		2019 Page 3 of 3		
V. THREATS ASSESSMENT IN MAXIMUN monitoring) plus 10-m surrounding buffe		e occurrence's maximum extent (cumulative extent over years of		
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:		
Nonnative Grass:	Trampling:	Erosion:		
Nonnative Woody Plants:	Vandalism:	Urban Runoff:		
Competitive Native Plants:	Current Grazing:	Slope Movement:		
Dumping/Trash:	Historic Grazing:	Soil Compaction:		
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:		
Road Construction/Maintenance:	if present, describe:			
Vegetation Clearing: if p	present, describe:			
Brush Manangement: if	present, describe:			
ORV Activity: if present	, describe:			
Evidence of Recent Fire:	Year Burned?			
Trails: if trails are prese	ent, are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:		
Illegal Trail Use:				
Other Disturbance: if p	resent, describe:			
VI. MANAGEMENT RECOMMENDATIONS	S			
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST Y	EAR			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
None				
NOTES:				

Bloomeria clevelandii (San Diego Goldenstar) Marron Valley # 4

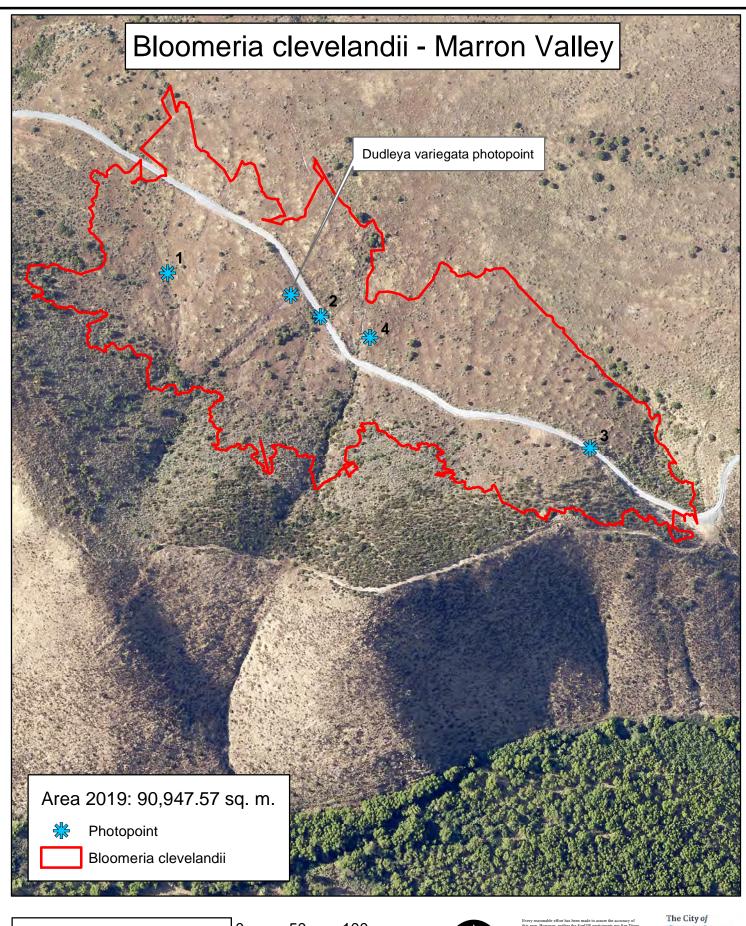
MSP Occurrence ID: BLCL_3MAVA005 - 4



Panorama from Eastern edge of population, facing Southeast, East, Northeast, North.

Panorama location is 6407366.178 1787837.573 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019

Max Area: 139,269.00 sq. m.

Min Area: 0 sq. m.

0 50 100 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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BLCL_4MTRP023_1 2019 Page 1 of 3				
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_4MTRP023				
Sample Point #: 1 CNDDB Elem. Occurr. #: EO2 Translocated? no Management Unit: 4				
Land Owner: City of San Diego Land Manager: City of San Diego				
Preserve Name: Mission Trails Regional Park Occurrence Name: Mission Trails Regional Park				
Surveyors: Sara Allen, Mark Berninger, Ninfa Negrete (Rocks Biological) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 4/10/2019 Time Start: 12:19 Time End: Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: medium				
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: n/a - no plants Species Found in Max Extent no				
If not found, known or suspected reason: Hasnt been found for several years				
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999				
Evidence in Circle Plot (1-6):				
Is Sampling Area Representative of Current Mapped Extent? no				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495356 N: 3635908				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495356 N: 3635908 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495356 N: 3635908 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SW S SE Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: BLCL_4MTRP023_1_Photo1_4.10.2019				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1				
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). Value of the cover of Bare Ground: III. Cover of Bare Ground: III. Cover of Rock: III. Cover of Cover of Litter: III. Cover of Litter: III. Cover of Water: III. Water of Water: III. Cover of Water: III. Water of Water of Water: III. Water of Water o				
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495356 N: 3635908 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SW S SE Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: BLCL_4MTRP023_1_Photo1_4.10.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 1 % Cover of Rock: 0.2 % Cover of Litter: 19 % Cover of Water: 0 % Cover of Vegetation: 82 Total % Cover: 103.4 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-Lotus scoparius Association				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1				
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495356 N: 3635908 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SW S SE Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: BLCL_4MTRP023_1_Photo1_4.10.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 1 % Cover of Rock: 0.2 % Cover of Litter: 19 % Cover of Water: 0 % Cover of Vegetation: 82 Total % Cover: 103.4 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-Lotus scoparius Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 3 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 5				

BLCL_4MTRP023_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	7
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	8
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	3
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	1
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb	0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Dichondra occidentalis - western ponysfoot	Native	Perennial	Herb	0.2
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub	2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	10
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	37
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	10
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Sanicula arguta - sharp toothed snakeroot	Native	Perennial	Herb	0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	2

BLCL_4MTRP023_1		2019 Page 3 of 3		
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.				
Surround_LandUse Open space preserve, pass	ive recreation			
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 5	ampling: 1	Erosion: 1		
Nonnative Woody Plants: Va	ndalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1 Cu	ırrent Grazing: 1	Slope Movement: 1		
Dumping/Trash: 1 His	storic Grazing: no	Soil Compaction:		
Encampments: 1 His	storic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: 1 if present,	describe:			
Brush Manangement: 1 if present	t, describe:			
ORV Activity: 1 if present, describ	be:			
Evidence of Recent Fire: no Year B	urned? n/a			
Trails: 1 if trails are present, are t	they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use:				
Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewrdship				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship, monitoring				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
CAGN				
NOTES:				

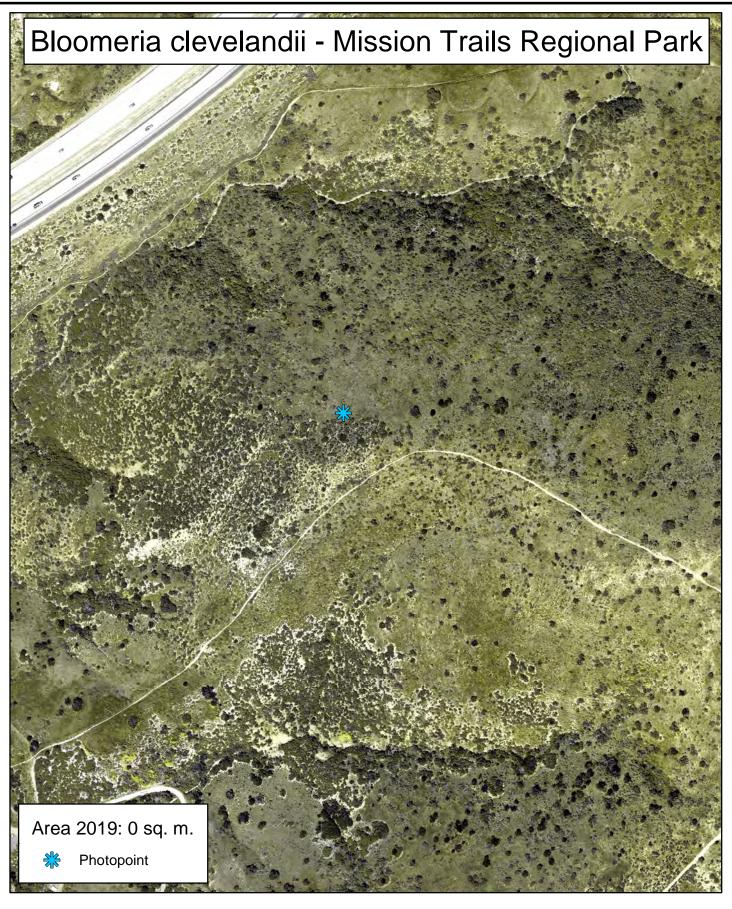
Bloomeria clevelandii (San Diego Goldenstar) Mission Trails Regional Park

MSP Occurrence ID: BLCL_4MTRP023 - 1



Panorama from Northwestern edge of population, facing Southeast, East, Northeast, North. Panorama location is 6307533.854 1887727.084 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 1,255.77 sq. m.

Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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BLCL_3OTLA006_1 2019 Page 1 of 3
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_3OTLA006
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department
Preserve Name: Otay Lakes Cornerstone Land Occurrence Name: Otay Lakes
Surveyors: Sara Allen, Diana Brand-Ramirez, Mark Berninger, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/23/2019 Time Start: 9:53 Time End: 10:44 Mapped Extent Info Location BLCL_3OTLA006_2
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 1053 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 2 % Fruiting: 3
Evidence in Circle Plot (1-6): % Herbivory: 2 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 523389 N: 3603736
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SW W NW N Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: BLCL_3OTLA006_1_Photo1_4.23.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 13 % Cover of Rock: 1 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 82 Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: Eriogonum fasciculatum Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

BLCL_3OTLA006_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		15
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		10
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		45
Hordeum marinum - seaside barley	Nonnative	Annual	Grass		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		3
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass		0.2
Lasthenia gracilis - needle goldfields	Native	Annual	Herb		1
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		1
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub		0.2
Polypogon monspeliensis - annual rabbitsfoot grass	Nonnative	Annual	Grass		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		0.2

BLCL_3OTLA006_1		20	19 Page	3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent o	er years of	
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:		
Nonnative Grass:	Trampling:	Erosion:		
Nonnative Woody Plants:	Vandalism:	Urban Runoff:		
Competitive Native Plants:	Current Grazing:	Slope Movement:		
Dumping/Trash:	Historic Grazing:	Soil Compaction:		
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:		
Road Construction/Maintenance:	if present, describe:			
Vegetation Clearing: if pres	sent, describe:			
Brush Manangement: if pre	sent, describe:			
ORV Activity: if present, de	escribe:			
Evidence of Recent Fire: Ye	ar Burned?			
Trails: if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:		
Illegal Trail Use:				
	ent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preseve stwewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
None				
NOTES:				
N/a				

Bloomeria clevelandii (San Diego Goldenstar) Otay Lakes Observation # 1

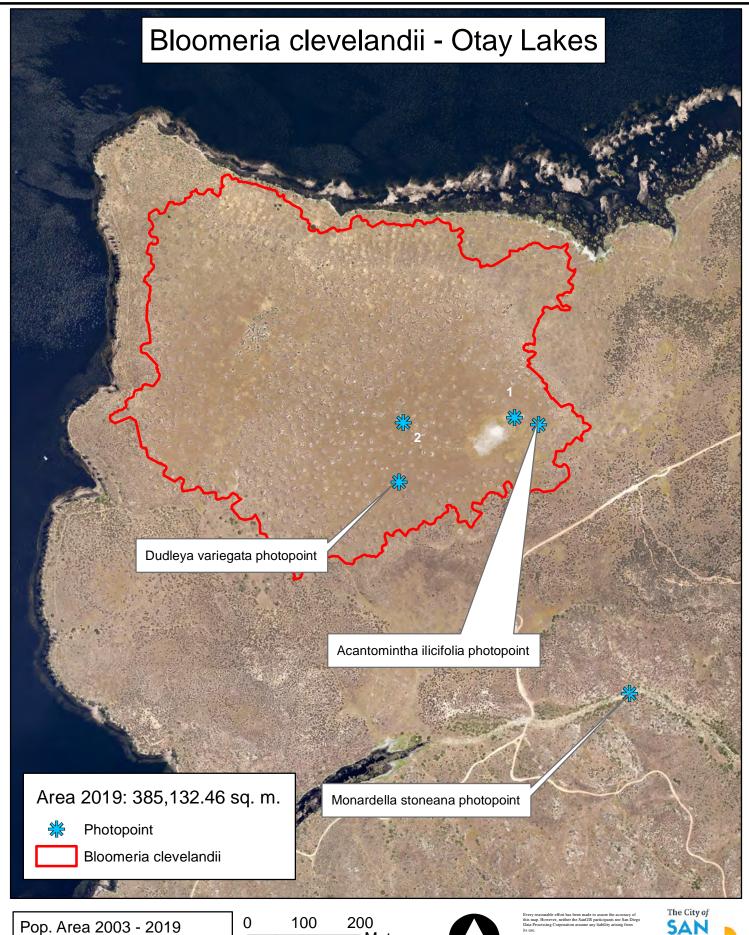
MSP Occurrence ID: BLCL_3OTLA006 - 1



Panorama from Northeastern edge of population, facing Northwest, North.

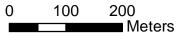
Panorama location is 6357208.466 1807472.481 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Max Area: 385,132.00 sq. m.

Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





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BLCL_3OTLA006_2 2019 Page 1 of 3
Scientific Name: Bloomeria clevelandii Common Name: San diego goldenstar MSP Occurr. ID: BLCL_3OTLA006
Sample Point #: 2 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department
Preserve Name: Otay Lakes Cornerstone Land Occurrence Name: Otay Lakes
Surveyors: Sara Allen, Diana Brand-Ramirez, Mark Berninger, Ninfa Negrete (Rocks Biological), Jessie Lane
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/23/2019 Time Start: 14:44 Time End: 15:23 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 6743661
Area of Current Mapped Extent: 385132.46 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 9941 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 2 % Fruiting: 2
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 508065 N: 3609608
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: NW N Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BLCL_3OTLA006_2_Photo1_4.23.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 8 % Cover of Rock: 3 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 90 Total % Cover: 101.6
SANDAG 2012 Vegetation Alliance/Association: Nassella pulchra Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):

BLCL_3OTLA006_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		35
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		1
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cressa truxillensis - spreading alkaliweed	Native	Perennial	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Cuscuta californica - California dodder	Native	Annual	Herb		10
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		35
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		3
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		20
Eryngium aristulatum var. parishii - San Diego button celery	Native	Annual	Herb		2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		0.2
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		0.2
Hordeum marinum - seaside barley	Nonnative	Annual	Grass		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Lasthenia gracilis - needle goldfields	Native	Annual	Herb		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		1
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		0.2

BLCL_3OTLA006_2		2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of			
Surround_LandUse Open Space Preserve					
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 4	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 1 if pre	sent, describe:				
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ar Burned? n/a				
Trails: 1 if trails are present,	are they authorized?				
Type of Trail Use:					
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:					
Illegal Trail Use:					
	Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship					
VII. MANAGEMENT ACTIONS IN LAST YEAR					
Preserve stewardship					
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)					
None					
NOTES:					
Plant layers overlaping: cuscuta, bloomeria/dienandra, and erodium					

Bloomeria clevelandii (San Diego Goldenstar) Otay Lakes Observation # 2

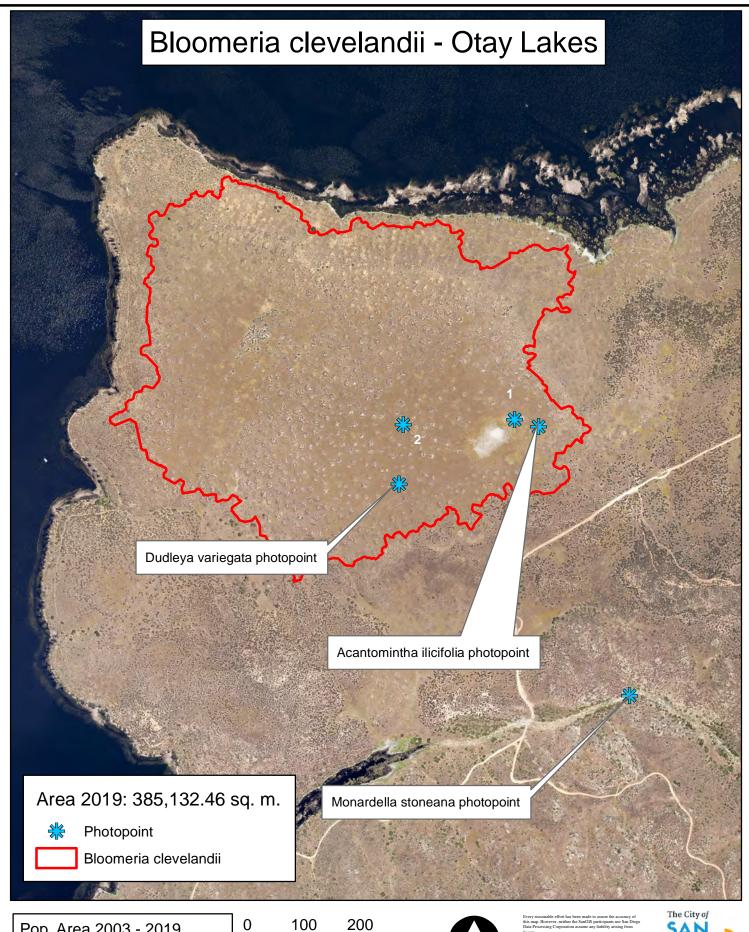
MSP Occurrence ID: BLCL_3OTLA006 - 2



Panorama from Southeastern edge of population, facing North, Northeast, East.

Panorama location is 6356421.86 1807483.77 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019

Max Area: 385,132.00 sq. m.

Min Area: 0 sq. m.

■ Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





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Brodiaea filifolia Thread-leaved Brodiaea



© City of San Diego, 2014

BRFI_6BMRA002_1 2019 Page 1 of 3				
Scientific Name: Brodiaea filifolia Common Name: Thread leaved brodiaea MSP Occurr. ID: BRFI_6BMRA002				
Sample Point #: 1 CNDDB Elem. Occurr. #: EO89 Translocated? no Management Unit: 6				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Black Mountain Open Space Occurrence Name: Black Mountain				
Surveyors: Sara Allen, Mark Berninger, Jason Allen Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 5/3/2019 Time Start: 12:26 Time End: 13:12 Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 130 Exact or Estimate? exact Uncertainty: very_low				
Area of Current Mapped Extent: 98.66 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes				
If not found, known or suspected reason:				
Number of Plants in Circle: 54 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1				
Evidence in Circle Plot (1-6): % Herbivory: 2 % Diseased: 1 % Stunted: 1				
Is Sampling Area Representative of Current Mapped Extent? yes				
Is Sampling Area Representative of Current Mapped Extent? yes				
Is Sampling Area Representative of Current Mapped Extent? yes Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483771 N: 3642355				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483771 N: 3642355 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accuracy: 1				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483771 N: 3642355 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SW W NW N Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: BRFI_6BMRA002_1_Photo1_5.3.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 0.2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 90				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483771 N: 3642355 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SW W NW N Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: BRFI_6BMRA002_1_Photo1_5.3.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483771 N: 3642355 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SW W NW N Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BRFI_6BMRA002_1_Photo1_5.3.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 0.2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 90 Total % Cover: 101.2				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483771 N: 3642355 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: SW W NW N Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BRFI_6BMRA002_1_Photo1_5.3.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 0.2 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 90 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Eriogonum fasciculatum Alliance and Association				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a Collection Taken? Collection Collection				

BRFI_6BMRA002_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Avena fatua - wild oat	Nonnative	Annual	Grass	15
Bloomeria crocea - common goldenstar	Native	Perennial	Herb	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	35
Brassica nigra - black mustard	Nonnative	Annual	Herb	5
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb	0.2
Brodiaea filifolia - Thread-leaved brodiaea	Native	Perennial	Herb	0.2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb	0.2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb	2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	2
Convolvulus arvensis	Nonnative	Perennial	Herb	1
Convolvulus simulans - field bindweed	Native	Annual	Herb	4
Cynara cardunculus - artichoke thistle	Nonnative	Perennial	Herb	2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	12
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	1
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb	0.2
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb	0.2
Lupinus succulentus - Hollowleaf annual lupine	Native	Annual	Herb	2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	8
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	1
Stipa pulchra - purple needle grass	Native	Perennial	Grass	3

BRFI_6BMRA002_1	2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.				
Surround_LandUse Open space preserve				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 7 Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 7 Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1 Historic Grazing: no	Soil Compaction: 1			
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1 if present, describe:				
Vegetation Clearing: 1 if present, describe:				
Brush Manangement: 1 if present, describe:				
ORV Activity: 1 if present, describe:				
Evidence of Recent Fire: no Year Burned? n/a				
Trails: 1 if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use:				
Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Multiple weed control visits per year needed to control nonnative annuals				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
None				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDD	B)			
None				
NOTES:				

Brodiaea filifolia (Threadleaf Brodiaea) Black Mountain Ranch

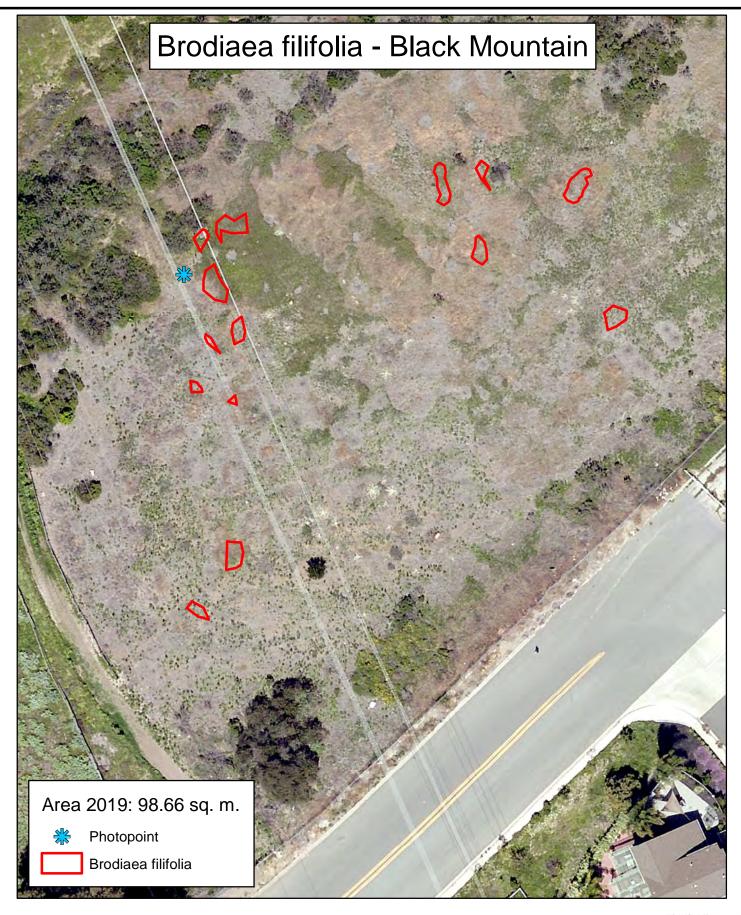
MSP Occurrence ID: BRFI_6BMRA002 - 1



Panorama from Northeastern end of population, facing Northeast, East, Southeast.

Panorama location is 6296131.963 1933513.962 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2014 - 2019 Max Area: 353.90 sq. m. Min Area: 31.36 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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Brodiaea orcuttii Orcutt's Brodiaea



© City of San Diego, 2015

BROR_2NODR002_1 2019 Page 1 of 3				
Scientific Name: Brodiaea orcuttii Common Name: Orcutt's brodiaea MSP Occurr. ID: BROR_2NODR002				
Sample Point #: 1 CNDDB Elem. Occurr. #: EO36 Translocated? no Management Unit: 2				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Rose Canyon Open Space Occurrence Name: Nobel Drive				
Surveyors: Sara Allen, Sarah McCutcheon (SDMMP) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 5/2/2019 Time Start: 14:44 Time End: 15:48 Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 22 Exact or Estimate? exact Uncertainty: very_low				
Area of Current Mapped Extent: 130.00 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes				
If not found, known or suspected reason:				
Number of Plants in Circle: 5 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1				
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1				
Is Sampling Area Representative of Current Mapped Extent? yes				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Coordinates at Center of Plot: E: 489180 N: 3647876				
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BROR_2NODR002_1_Photo1_5.2.2019				
File Location:				
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).				
% Cover of Bare Ground: 31 % Cover of Rock: 2 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 62.2				
Lotal W. Covore 1100 3				
Total % Cover: 100.2				
SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Alliance and Association				
SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Alliance and Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2				
SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Alliance and Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1				
SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Alliance and Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2				
SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Alliance and Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1				

BROR_2NODR002_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Avena fatua - wild oat	Nonnative	Annual	Grass		0.2
Brodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Cotula coronopifolia - common brassbuttons	Nonnative	Perennial	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		5
Croton setigerus - dove weed	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		27
Dittrichia graveolens	Nonnative	Annual	Herb		0.2
Eleocharis macrostachya - common spikerush	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		10
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		4
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		1
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Juncus bufonius - toad rush	Native	Annual	Herb		2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lythrum hyssopifolia - Hyssop loosestrife	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		1
Navarretia fossalis - Spreading navarretia	Native	Annual	Herb		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		0.2
Nuttallanthus texanus - Texas toadflax	Native	Annual	Herb		0.2
Phalaris lemmonii - Lemmon's canarygrass	Native	Annual	Grass		0.2
Polypogon monspeliensis - annual rabbitsfoot grass	Nonnative	Annual	Grass		0.2
Pseudognaphalium beneolens - cudweed	Native	Perennial	Herb		0.2
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb		0.2
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb		0.2
Unknown - grass	Unknown	Unknown	Unknown		0.2

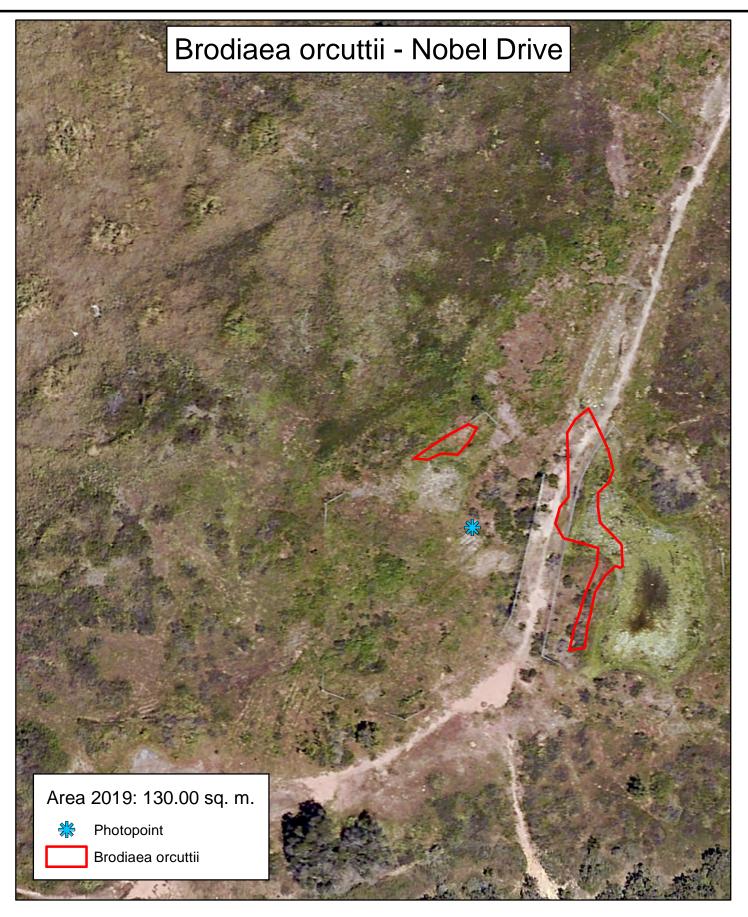
BROR_2NODR002_1		2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.					
Surround_LandUse Open space preserve;	passive recreation				
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 4	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	ent, describe:				
Brush Manangement: 7 if pre	sent, describe: 2 VP HCP weed treatments	per year			
ORV Activity: 1 if present, de	scribe:				
Evidence of Recent Fire: no Ye	ar Burned? n/a				
Trails: 3 if trails are present,	are they authorized? yes				
Type of Trail Use:					
Hiking: yes Biking: no Equestrian: no Dog: yes Service Vehicles: no Other: no					
	Illegal Trail Use:				
Other Disturbance: 1 if present, describe:					
VI. MANAGEMENT RECOMMENDATIONS					
Continue VP HCP maintenance visit	Continue VP HCP maintenance visits				
VII. MANAGEMENT ACTIONS IN LAST YEAR					
2 VP HCP weed treatments					
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)			
None					
NOTES:					

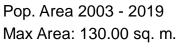
Brodiaea orcuttii (Orcutt's Brodiaea) Nobel Drive

MSP Occurrence ID: BROR_2NODR002 - 1



Panorama from Northern end of population, facing Northwest, West, Southwest, and South. Panorama location is 6271105.37 1896318.834 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.





Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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BROR_4OACR012_1 2019 Page 1 of 3
Scientific Name: Brodiaea orcuttii Common Name: Orcutt's brodiaea MSP Occurr. ID: BROR_40ACR012
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Trails Regional Park Occurrence Name: Oak Creek
Surveyors: Sara Allen, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/15/2019 Time Start: 13:59 Time End: 15:57 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 146 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 34.28 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 132 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 481637 N: 3636488
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: NW W SW S Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BROR_4OACR012_1_Photo1_5.15.2019
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: NW W SW S Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BROR_4OACR012_1_Photo1_5.15.2019 File Location:
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: NW W SW S Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BROR_4OACR012_1_Photo1_5.15.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 22 % Cover of Litter: 1 % Cover of Water: 10 % Cover of Vegetation: 63
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: NW W SW S Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BROR_4OACR012_1_Photo1_5.15.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 22 % Cover of Litter: 1 % Cover of Water: 10 % Cover of Vegetation: 63 Total % Cover: 103
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: NW W SW S Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BROR_4OACR012_1_Photo1_5.15.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 22 % Cover of Litter: 1 % Cover of Water: 10 % Cover of Vegetation: 63 Total % Cover: 103 SANDAG 2012 Vegetation Alliance/Association: Salvia mellifera Alliance// Salvia mellifera-Malosma laurina Association
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: NW W SW S Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BROR_4OACR012_1_Photo1_5.15.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 22 % Cover of Litter: 1 % Cover of Water: 10 % Cover of Vegetation: 63 Total % Cover: 103 SANDAG 2012 Vegetation Alliance/Association: Salvia mellifera Alliance// Salvia mellifera-Malosma laurina Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: NW W SW S Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: BROR_4OACR012_1_Photo1_5.15.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 22 % Cover of Litter: 1 % Cover of Water: 10 % Cover of Vegetation: 63 Total % Cover: 103 SANDAG 2012 Vegetation Alliance/Association: Salvia mellifera Alliance// Salvia mellifera-Malosma laurina Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 2

BROR_40ACR012_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon americanus - American bird's-foot trefoil	Native	Annual	Herb		5
Acmispon glaber - deerweed	Native	Perennial	Shrub		1
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		0.2
Acmispon strigosus	Native	Annual	Herb		0.2
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb		0.2
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Bothriochloa barbinodis - cane bluestem	Native	Perennial	Grass		1
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		7
Brassica nigra - black mustard	Nonnative	Annual	Herb		1
Briza minor - little quakinggrass	Nonnative	Annual	Grass		0.2
Brodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb		0.2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		1
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb		0.2
Carduus pycnocephalus - Italian plumeless thistle	Nonnative	Annual	Herb		0.2
Ceanothus tomentosus - woolyleaf ceanothus	Native	Perennial	Shrub		8
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Cerastium glomeratum - sticky mouseear chickweed	Nonnative	Annual	Herb		0.2
Chamaesyce maculata - spotted spurge	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Cyperus eragrostis - tall flatsedge	Native	Perennial	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Digitaria sanguinalis - hairy crabgrass	Nonnative	Annual	Grass		1
Eleocharis montevidensis - sand spikerush	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		0.2
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		6
Galium aparine - common bedstraw	Native	Annual	Herb		0.2
Geranium carolinianum - Carolina geranium	Native	Annual	Herb		0.2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		1
Juncus bryoides - moss rush	Native	Annual	Herb		0.2
Juncus bufonius - toad rush	Native	Annual	Herb		0.2

-		<u> </u>		
Juncus dubius - finger rush	Native	Perennial	Herb	0.2
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	1
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb	0.2
Lythrum hyssopifolia - Hyssop loosestrife	Nonnative	Annual	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	7
Medicago polymorpha - burclover	Nonnative	Annual	Herb	0.2
Melinis repens - natal grass	Nonnative	Perennial	Grass	0.2
Mimulus guttatus - seep monkeyflower	Native	Annual	Herb	0.2
Muhlenbergia rigens - deergrass	Native	Perennial	Grass	0.2
Plantago coronopus - buckhorn plantain	Nonnative	Annual	Herb	0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb	0.2
Salix gooddingii - Goodding's willow	Native	Perennial	Tree	0.2
Salvia mellifera - black sage	Native	Perennial	Shrub	12
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern	0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb	0.2
Stachys rigida var. rigida - rough hedgenettle	Native	Perennial	Herb	0.2
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb	0.2
Toxicodendron diversilobum - poison oak	Native	Perennial	Shrub	0.2
Trifolium albopurpureum - Indian clover	Native	Annual	Herb	0.2
Xanthium strumarium - rough cockleburr	Native	Perennial	Shrub	0.2

BROR_4OACR012_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EX monitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve;	passive recreation	
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 4	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 1 if pre	sent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ar Burned? n/a	
Trails: 3 if trails are present,	are they authorized? yes	
Type of Trail Use:		
Hiking: yes Biking: unknown	n Equestrian : yes Dog : yes	Service Vehicles: no Other: no
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAR	?	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)
2 Least Bell's Vireo singing in syca	more west of circle plot	
NOTES:		

Brodiaea orcuttii (Orcutt's Brodiaea) Mission Trails Regional Park- Oak Creek

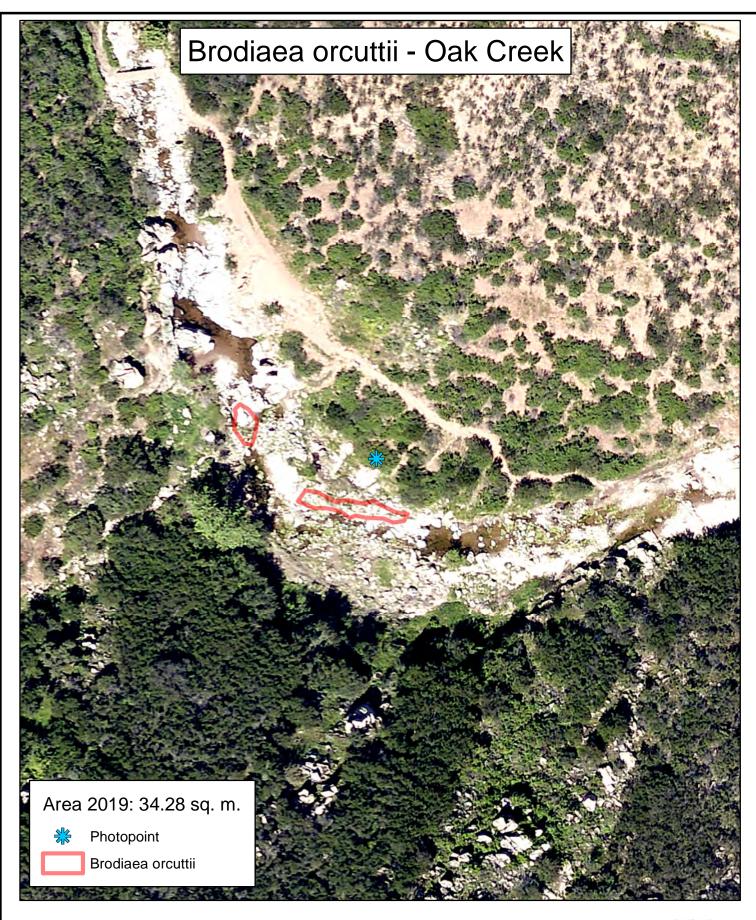
MSP Occurrence ID: BROR_4OACR012 - 1



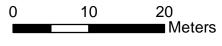
Panorama from Southern end of population, facing South, Southwest, West.

Panorama location is 6316339.88 1888177.768 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2015 - 2019 Max Area: 61.10 sq. m. Min Area: 0.58 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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BROR_6CACA015_1 2019 Page 1 of 3
Scientific Name: Brodiaea orcuttii Common Name: Orcutt's brodiaea MSP Occurr. ID: BROR_6CACA015
Sample Point #: 1 CNDDB Elem. Occurr. #: EO51 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Carroll Canyon Vernal Pool Pr Occurrence Name: Carroll Canyon Vernal Pool Preserve
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/30/2019 Time Start: 13:27 Time End: 14:11 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 55240 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 6453.20 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 2689 Exact or Estimate? estimate Uncertainty: medium Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 2
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 495437 N: 3634107
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: BROR_6CACA015_1_Photo1_4.30.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 10 % Cover of Rock: 9 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 55 Total % Cover: 101
SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-(Eriogonum fasciculatum Artemisia californica salvia mellifera) Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

BROR_6CACA015_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		0.2
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		2
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		0.2
Brodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb		1
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Callitriche marginata - California water starwort	Native	Annual	Herb		6
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chorizanthe polygonoides var. longispina - knotweed spineflower	Native	Annual	Herb		0.2
Clarkia purpurea - winecup clarkia	Native	Annual	Herb		0.2
Cneoridium dumosum - bush rue	Native	Perennial	Shrub		1
Crassula aquatica - aquatic pygmy weed	Native	Annual	Herb		1
Crassula connata - sand pygmyweed	Native	Annual	Herb		3
Cryptantha sp cryptantha	Native	Annual	Herb		1
Cuscuta californica - California dodder	Native	Annual	Herb		1
Daucus pusillus - American wild carrot	Native	Annual	Herb		1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		26
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		1
Erodium moschatum - Musky stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		5
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Juncus bufonius - toad rush	Native	Annual	Herb		2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Muilla maritima - sea muilla	Native	Perennial	Herb		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		0.2
Osmadenia tenella - false rosinweed	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		2
Pogogyne abramsii - San Diego mesa mint	Native	Annual	Herb		0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb		1
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb		0.2
Salvia mellifera - black sage	Native	Perennial	Shrub		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		0.2
Zeltnera venusta - charming centaury	Native	Annual	Herb		1

BROR_6CACA015_1			2019	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	CTENT - Assess threats within the occurren	ce's maximum extent (cumulative exter	it over years	s of
Surround_LandUse Open space preserve				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 3	Trampling: 1	Erosion: 1		
Nonnative Woody Plants: 2	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1		
Dumping/Trash: 3	Historic Grazing: no	Soil Compaction: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break:	1	
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: 1 if pres	sent, describe:			
Brush Manangement: 5 if pre	sent, describe: Two VPHCP required weed	maintenance visits per year		
ORV Activity: 1 if present, de	escribe:			
Evidence of Recent Fire: no Ye	ar Burned? n/a			
Trails: 1 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:		
Illegal Trail Use:				
	ent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue weed maintenance as rea	quired by the VPHCP and clean up	broken glass in site		
VII. MANAGEMENT ACTIONS IN LAST YEAR	R			
VPHCP required weed maintenance	ce visits			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	OB)		
None				
NOTES:				
Broken glass in circle plot and at g	gate entrance to open space prope	erty		

Brodiaea orcuttii (Orcutt's Brodiaea) Carroll Canyon

MSP Occurrence ID: BROR 6CACA015 - 1



Panorama from Southern edge of population, facing East, Southeast, South, Southwest. Panorama location is 6282439.860 1907633.765 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 6,453.20 sq. m.

Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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BROR_6LORI018_1 2019 Page 1 of 3
Scientific Name: Brodiaea orcuttii Common Name: Orcutt's brodiaea MSP Occurr. ID: BROR_6LORI018
Sample Point #: 1 CNDDB Elem. Occurr. #: EO63 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Lopez Ridge
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological), Jason Allen, other Other Surveyors: Jane Marie Fajardo (ESD)
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/22/2019 Time Start: 9:42 Time End: 12:35 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 7641 Exact or Estimate? estimate Uncertainty: low
Area of Current Mapped Extent: 1498.50 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 3769 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 492755 N: 3633951
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE E NE N Camera Height: 1.1 m Camera Angle: 25 Photo Numbers: BROR_6LORI018_1_Photo1_4.22.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 15 % Cover of Rock: 12 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 73
Total % Cover: 101.4
SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Alliance level only
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

BROR_6LORI018_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		1
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		20
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		0.2
Brodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb		5
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Callitriche marginata - California water starwort	Native	Annual	Herb		2
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb		0.2
Crassula aquatica - aquatic pygmy weed	Native	Annual	Herb		2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		
Deschampsia danthonioides - annual hairgrass	Native	Annual	Grass		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Downingia cuspidata - Toothed downingia	Native	Annual	Herb		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		
Gastridium phleoides - nit grass	Nonnative	Annual	Grass		0
Helianthemum scoparium - Bisbee peak rushrose	Native	Perennial	Shrub		0
Hordeum marinum - seaside barley	Nonnative	Annual	Grass		
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		
Juncus bufonius - toad rush	Native	Annual	Herb		
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lupinus bicolor - annual lupine	Native	Annual	Herb		0.:
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0
Lythrum hyssopifolia - Hyssop loosestrife	Nonnative	Annual	Herb		0.:
Muilla maritima - sea muilla	Native	Perennial	Herb		0
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		
Pentachaeta aurea - golden chaetopappa	Native	Annual	Herb		0.
Pogogyne abramsii - San Diego mesa mint	Native	Annual	Herb		
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb		2
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb		0.
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		0.
Uropappus lindleyi - silver puffs	Native	Annual	Herb		0.
Zeltnera venusta - charming centaury	Native	Annual	Herb		0

BROR_6LORI018_1		2019 Pa	ige 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve			
Disturbances (Rank each as 1-6):			
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1	
Nonnative Grass: 4	Trampling: 1	Erosion: 1	
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1	
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1	
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1	
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 1	if present, describe:		
Vegetation Clearing: 1 if pres	sent, describe:		
Brush Manangement: 1 if pre	esent, describe:		
ORV Activity: 1 if present, de	Nonnative Woody Plants: 1		
Evidence of Recent Fire: no Ye	ear Burned? n/a		
Trails: 1 if trails are present,	are they authorized?		
Type of Trail Use:			
	Equestrian: Dog:	Service Vehicles: Other:	
	ent, describe:		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAR	R		
Preserve stewardship and VPHCP	required maintenace visits		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)	
None			
NOTES:			

Brodiaea orcuttii (Orcutt's Brodiaea) Lopez Ridge

MSP Occurrence ID: BROR_6LORI018 - 1



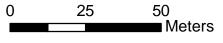
Panorama from Eastern edge of population, facing Southwest, West, Northwest.

Panorama location is 6278246.403 1915522.734 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 1,498.50 sq. m. Min Area: 25.00 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019

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Chloropyron maritimum ssp. maritimum Salt-marsh Bird's Beak



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COMAM3_1DOBE007_ 2019 Page 1 of 3
Scientific Name: Chloropyron maritimum Common Name: Salt marsh bird's beak MSP Occurr. ID: COMAM3_1DOBE007
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 1
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Flood Control Channel Southe Occurrence Name: Dog Beach
Surveyors: Sara Allen, Mark Berninger, Jessie Lane, Diana Brand-Ramirez Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/30/2019 Time Start: 12:28 Time End: 12:52 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 7761 Exact or Estimate? estimate Uncertainty: low
Area of Current Mapped Extent: 5001.10 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 487 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 483771 N: 3642355
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Photo Direction: SW W NW N Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: COMAM3_1DOBE007_1_Photo1_5.30.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 56 % Cover of Rock: 1 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 34
Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: no results available
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 2 Ground Squirrel Activity: 2 Gopher Activity: 1

COMAM3_1DOBE007_ 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Batis maritima	Native	Perennial	Shrub	(0.2
Chloropyron maritimum var. maritimum - Salt marsh bird's-beak	Native	Annual	Herb		1
Distichlis littoralis - shoregrass	Native	Perennial	Grass		10
Frankenia salina - alkali seaheath	Native	Perennial	Herb		3
Jaumea carnosa - marsh jaumea	Native	Perennial	Herb		4
Juncus acutus - spiny rush	Native	Perennial	Herb	(0.2
Limonium californicum - California sea lavender	Native	Perennial	Herb	(0.2
Limonium duriusculum - European sea lavender	Nonnative	Perennial	Herb		1
Salicornia pacifica - glasswort	Native	Perennial	Herb		9
Suaeda esteroa - estuary seablite	Native	Perennial	Herb	(0.2
Triglochin maritima - seaside arrow grass	Native	Perennial	Herb		5

COMAM3_1DOBE007_		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	KTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Developed regional pa	rk - off leash dog park; residential; National wil	dlife refuge
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 2	Trampling: 4	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 6	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 3	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 4 if pre	esent, describe: Weed control efforts to erad	cate Limonium d.
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ear Burned? n/a	
Trails: 3 if trails are present,	are they authorized? both	
Type of Trail Use:		
Hiking: yes Biking: no	Equestrian: no Dog: yes	Service Vehicles: no Other: no
Illegal Trail Use:	ant describe. Dogs and nearly walking off t	liai
	ent, describe: Dogs and people walking off to	all.
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship an	d weed control efforts	
VII. MANAGEMENT ACTIONS IN LAST YEA	R	,
Preserve stewardship and weed c	ontrol to manage invasive Limoniur	1
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	B)
Least terns (2) observed flying over	er flood control channel.	
NOTES:		

Chloropyron maritimum ssp. Maritimum (Salt Marsh Bird's Beak) Dog Beach

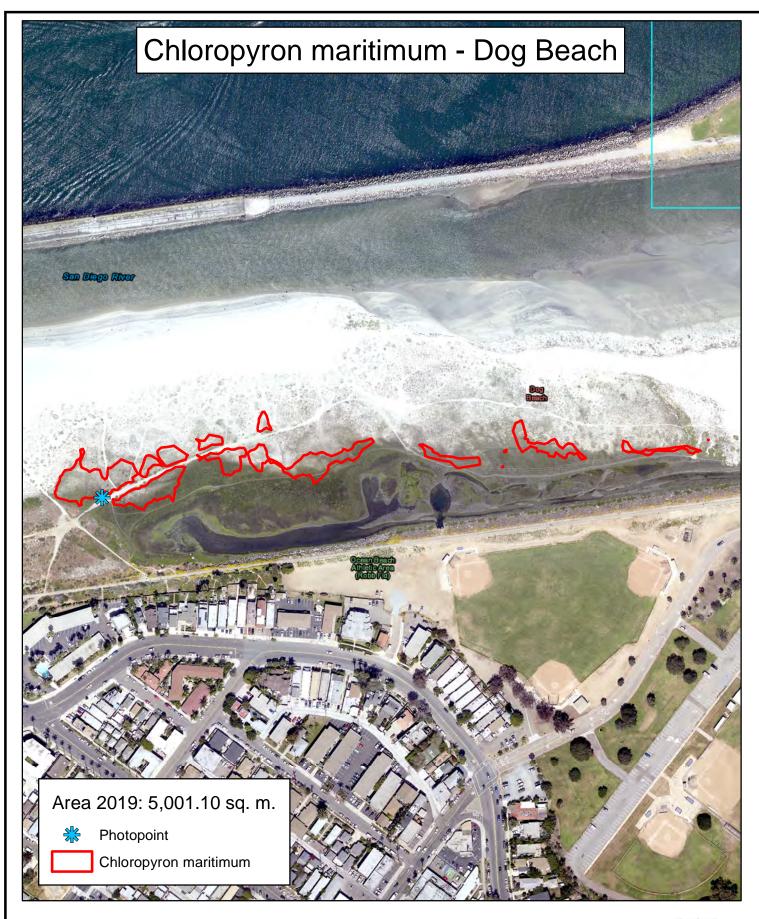
MSP Occurrence ID: COMAM3_1DOBE007 - 1



Panorama from Eastern end of population, facing Northeast, North, Northwest.

Panorama location is 6254606.503 1856076.178 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2014 - 2019 Max Area: 10,023.10 sq. m. Min Area: 223.57 sq. m.

100 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



Cylindropunita californica var. californica Snake Cholla



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CYCA_2BPGC001_1 2019 Page 1 of 3
Scientific Name: Cylindropuntia californica Common Name: Snake cholla MSP Occurr. ID: CYCA_2BPGC001
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 2
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Balboa Park/ Switzer Canyon Occurrence Name: Balboa Golf Course
Surveyors: Jessie Lane, Diana Brand-Ramirez, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 6/19/2019 Time Start: 10:28 Time End: Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 8 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 701.50 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 1 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
1 2 · · · · · · · · · · · · · · · · · ·
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495812 N: 3605509
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495812 N: 3605509 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495812 N: 3605509 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W SW S SE E N Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: CYCA_2BPGC001_1_Photo1_6.19.2019
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495812 N: 3605509 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W SW S SE E N Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: CYCA_2BPGC001_1_Photo1_6.19.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 1 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 83.6
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495812 N: 3605509 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W SW S SE E N Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: CYCA_2BPGC001_1_Photo1_6.19.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 1 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 83.6 Total % Cover: 101.8
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495812 N: 3605509 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W SW S SE E N Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: CYCA_2BPGC001_1_Photo1_6.19.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 1 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 83.6 Total % Cover: 101.8 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Salvia mellifera Alliance and Association
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495812 N: 3605509
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 495812 N: 3605509
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1

CYCA_2BPGC001_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		3
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		28
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub		3
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cylindropuntia californica - snake cholla	Native	Perennial	Herb		1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		3
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub		1
Encelia californica - California brittlebush	Native	Perennial	Shrub		3
Erigeron canadensis - Canada horseweed	Native	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub		0.2
Helianthemum scoparium - Bisbee peak rushrose	Native	Perennial	Shrub		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		3
Malosma laurina - laurel sumac	Native	Perennial	Shrub		8
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb		0.2
Muhlenbergia microsperma - littleseed muhly	Native	Annual	Grass		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		1
Pennisetum setaceum - crimson fountaingrass	Nonnative	Perennial	Grass		2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		10
Salvia mellifera - black sage	Native	Perennial	Shrub		10
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		0.2
Yucca schidigera - Mojave yucca	Native	Perennial	Shrub		5

CYCA_2BPGC001_1			2019	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurren	ce's maximum extent (cumulative exte	ent over year	rs of
Surround_LandUse Developed regional pa	rk - golf course			
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 1	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 3	Trampling: 1	Erosion: 1		
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1		
Dumping/Trash: 3	Historic Grazing: no	Soil Compaction: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break:	1	
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: 1 if pres	sent, describe:			
Brush Manangement: 1 if pre	esent, describe:			
ORV Activity: 1 if present, do	escribe:			
Evidence of Recent Fire: no Ye	ear Burned? n/a			
Trails: 1 if trails are present,	are they authorized?			
Type of Trail Use:				7
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Othe	r:	
Illegal Trail Use:				
Other Disturbance: 1 if pres	ent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship an	d remove fountain grass as funding	g permits		
VII. MANAGEMENT ACTIONS IN LAST YEA	R			
Preserved stewardship				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)		
2 CAGN				
NOTES:				

Cylindropuntia californica var. californica (Snake Cholla) Balboa Golf Course

MSP Occurrence ID: CYCA 2BPGC001 - 1



Panorama from Northern edge of population, facing Northwest, North, Northeast.

Panorama location is 6287974.598 1845159.527 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019 Max Area: 724.10 sq. m.

Min Area: 5.94 sq. m.

25 50 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019

ers ()

Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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CYCA_3GOME003_1 2019 Page 1 of 3
Scientific Name: Cylindropuntia californica Common Name: Snake cholla MSP Occurr. ID: CYCA_3GOME003
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Spring Canyon Open Space Occurrence Name: Goat Mesa/Spring Canyon
Surveyors: Sara Allen, Mark Berninger, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/8/2019 Time Start: 14:55 Time End: Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 59 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 1152.05 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6):
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: CYCA_3GOME003_1_Photo1_5.8.2019
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: CYCA_3GOME003_1_Photo1_5.8.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 84
GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: CYCA_3GOME003_1_Photo1_5.8.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 101
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: CYCA_3GOME003_1_Photo1_5.8.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: CYCA_3GOME003_1_Photo1_5.8.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: CYCA_3GOME003_1_Photo1_5.8.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 486889 N: 3620939 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: CYCA_3GOME003_1_Photo1_5.8.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 7 % Cover of Rock: 2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

CYCA_3GOME003_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Ambrosia chenopodiifolia - San Diego bur ragweed	Native	Perennial	Shrub		3
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		5
Atriplex pacifica - Davidson's saltbush	Native	Annual	Herb		0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub		4
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		5
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		40
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Encelia californica - California brittlebush	Native	Perennial	Shrub		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		1
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Nicotiana clevelandii	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		8
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb		0.2
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		7
Simmondsia chinensis - jojoba	Native	Perennial	Shrub		10
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2

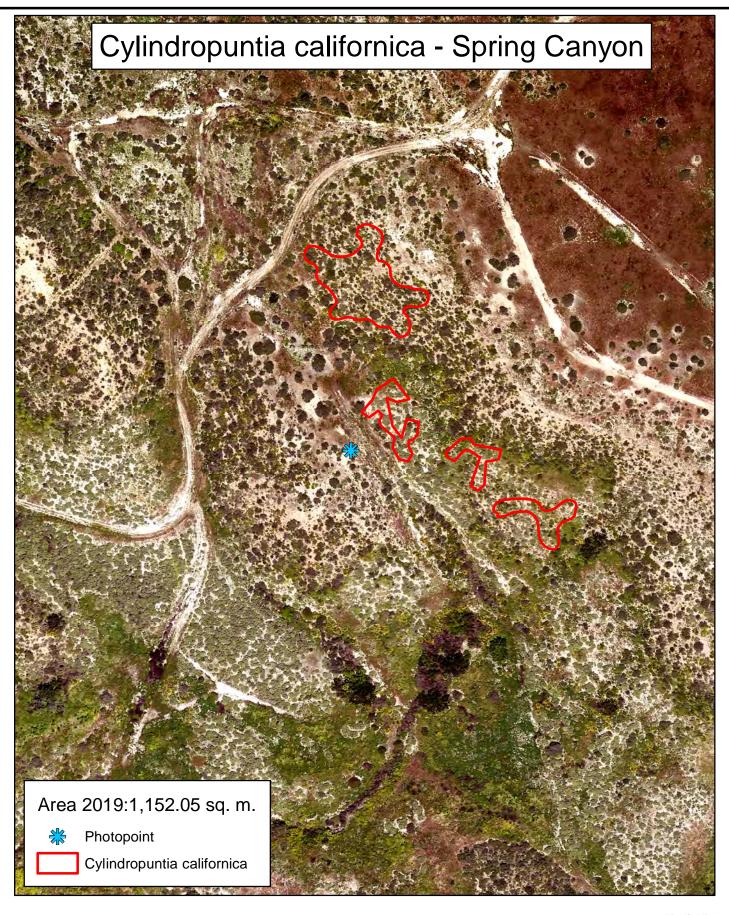
CYCA_3GOME003_1	2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurre monitoring) plus 10-m surrounding buffer.	ence's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve	
Disturbances (Rank each as 1-6):	
Nonnative Forbs: 3 Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 3 Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1 Historic Grazing: no	Soil Compaction: 1
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1 if present, describe:	
Vegetation Clearing: 1 if present, describe:	
Brush Manangement: 1 if present, describe:	
ORV Activity: 1 if present, describe:	
Evidence of Recent Fire: no Year Burned? n/a	
Trails: 1 if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Biking: Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:	
Other Disturbance: 1 if present, describe:	
VI. MANAGEMENT RECOMMENDATIONS	
Continue preserve stewardship	
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Processo stowardship	
Preserve stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNI	DDB)
2 Black tailed jackrabbits; 1 CAGN	
NOTES:	

Cylindropuntia californica var. californica (Snake Cholla) Spring Canyon

MSP Occurrence ID: CYCA_3GOME003 - 1



Panorama from Northeastern edge of population, facing North, Northeast, East, Southeast. Panorama location is 6330060.051 1781287.695 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2002 - 2019 Max Area: 3,138.60 sq. m. Min Area: 559.00 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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Deinandra conjugens Otay Tarplant



© City of San Diego, 2015

DECO13_3DERA020_1 2019 Page 1 of 3
Scientific Name: Deinandra conjugens Common Name: Otay tarplant MSP Occurr. ID: DECO13_3DERA020
Sample Point #: 1 CNDDB Elem. Occurr. #: EO27/29 Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Dennery Ranch Occurrence Name: Dennery Ranch
Surveyors: Sara Allen Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 7/9/2019 Time Start: 13:37 Time End: 14:18 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 62 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 344.87 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DECO13_3DERA020_1_Photo1_7.9.2019
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DECO13_3DERA020_1_Photo1_7.9.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 13 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 71
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DECO13_3DERA020_1_Photo1_7.9.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 13 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 100
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DECO13_3DERA020_1_Photo1_7.9.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 13 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DECO13_3DERA020_1_Photo1_7.9.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 13 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DEC013_3DERA020_1_Photo1_7.9.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 13 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 2
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DECO13_3DERA020_1_Photo1_7.9.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 13 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 497200 N: 3604701 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DEC013_3DERA020_1_Photo1_7.9.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 13 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 2

DECO13_3DERA020_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Ambrosia chenopodiifolia - San Diego bur ragweed	Native	Perennial	Shrub		1
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		15
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub		0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub		9
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		1
Cylindropuntia prolifera - coastal cholla	Native	Perennial	Shrub		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra conjugens - Otay tarplant	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		3
Encelia californica - California brittlebush	Native	Perennial	Shrub		15
Erigeron canadensis - Canada horseweed	Native	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		10
Heterotheca grandiflora - telegraphweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		1
Matricaria discoidea - pineapple weed	Native	Annual	Herb		0.2
Medicago polymorpha - burclover	Nonnative	Annual	Herb		0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		0.2
Oncosiphon piluliferum - stinknet	Nonnative	Annual	Herb		0.2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		8
Rosa minutifolia - small-leaved rose	Native	Perennial	Shrub		1
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass		0.2
Simmondsia chinensis - jojoba	Native	Perennial	Shrub		5
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2

DECO13_3DERA020_1	2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrer monitoring) plus 10-m surrounding buffer.	nce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve/ residential	
Disturbances (Rank each as 1-6):	
Nonnative Forbs: 3 Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 4 Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1 Historic Grazing: no	Soil Compaction: 1
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1 if present, describe:	
Vegetation Clearing: 1 if present, describe:	
Brush Manangement: 1 if present, describe:	
ORV Activity: 1 if present, describe:	
Evidence of Recent Fire: no Year Burned? n/a	
Trails: 1 if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:	
Other Disturbance: 1 if present, describe:	
VI. MANAGEMENT RECOMMENDATIONS	
Continue preserve stewardship	
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserve stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDI	DB)
None	
NOTES:	

Deinandra conjugens (Otay Tarplant) Dennery Ranch

MSP Occurrence ID: DECO13_3DERA020 - 1



Panorama from Southern edge of population, facing South, Southeast, East.

Panorama location is 6321437.419 1791601.507 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2000 - 2019 Max Area: 43,623.64 sq. m.

Min Area: 0 sq. m.

10 20

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





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DECO13_3DREA021_1 2019 Page 1 of 3
Scientific Name: Deinandra conjugens Common Name: Otay tarplant MSP Occurr. ID: DECO13_3DREA021
Sample Point #: 1 CNDDB Elem. Occurr. #: EO27/29 Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Dennery Ranch Occurrence Name: Dennery Ranch East
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/20/2019 Time Start: 15:23 Time End: 16:02 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 3829081 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 57841.10 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 20788 Exact or Estimate? estimate Uncertainty: medium Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 497200 N: 3604701
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DECO13_3DREA021_1_Photo1_5.20.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 10 % Cover of Rock: 12 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 74 Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: Mediterranean California Naturalized Annual and Perennial Grassland SemiNatural Stands Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 60

DECO13_3DREA021_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Avena fatua - wild oat	Nonnative	Annual	Grass		12
Bloomeria crocea - common goldenstar	Native	Perennial	Herb		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		1
Brassica nigra - black mustard	Nonnative	Annual	Herb		3
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb		1
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		1
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		2
Croton californicus - California croton	Native	Perennial	Herb		0.2
Deinandra conjugens - Otay tarplant	Native	Annual	Herb		40
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		0.2
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		8
Gastridium phleoides - nit grass	Nonnative	Annual	Grass		0.2
Glebionis coronaria - crown daisy	Nonnative	Annual	Herb		0.2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		1
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		1
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		1
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb		0.2
Simmondsia chinensis - jojoba	Native	Perennial	Shrub		1
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2

DECO13_3DREA021_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	KTENT - Assess threats within the occurrer	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve,	residential	
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 5	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 3	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 1 if pre	esent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ear Burned? n/a	
Trails: 2 if trails are present,	are they authorized? yes	
Type of Trail Use:		
Hiking: yes Biking: yes	Equestrian: no Dog: yes	Service Vehicles: yes Other: no
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship, re restoration plan	gular patrols to prevent encampm	ents and dumping, consider site specific
VII. MANAGEMENT ACTIONS IN LAST YEA	R	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	B)
None		
NOTES:		

Deinandra conjugens (Otay Tarplant) Dennery Ranch East

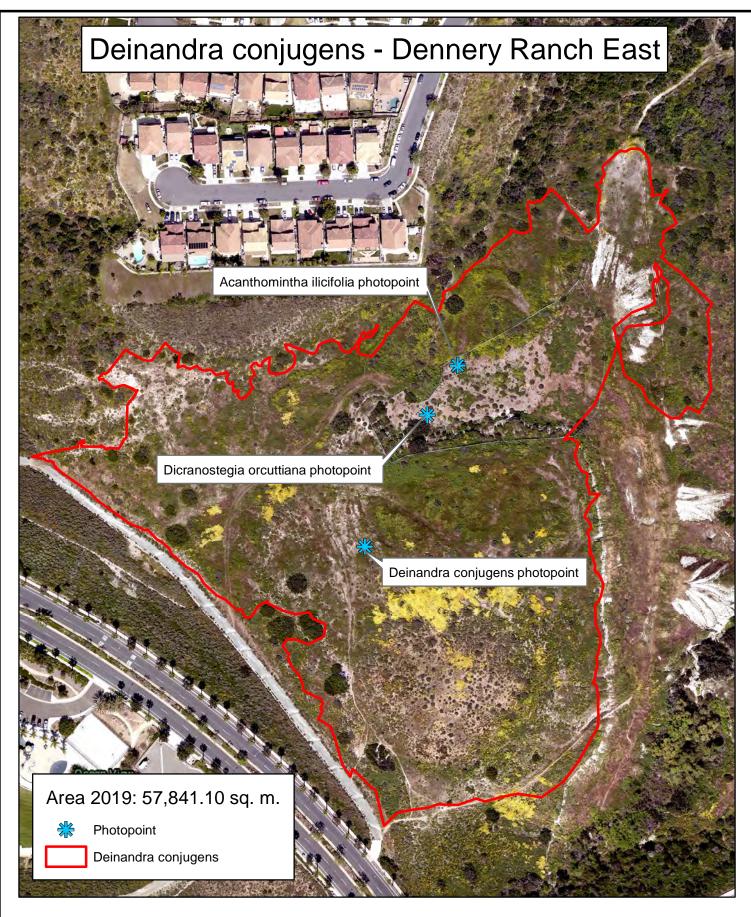
MSP Occurrence ID: DECO13_3DREA021 - 1



Panorama from Southern edge of population, facing Southwest, South, Southeast.

Panorama location is 6323116.396 1792756.721 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2000 - 2019 Max Area: 57,841.10 sq. m. Min Area: 0 sq. m.

Meters
Source: San GIS & City of San Diego Parks & Rec
Map Created By: Jessie Lane 2019

50



100

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DECO13_3PRVA013_1 2019 Page 1 of 3
Scientific Name: Deinandra conjugens Common Name: Otay tarplant MSP Occurr. ID: DECO13_3PRVA013
Sample Point #: 1 CNDDB Elem. Occurr. #: EO27/29 Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Otay Lakes Cornerstone Land Occurrence Name: Proctor Valley
Surveyors: Sara Allen, Diana Brand-Ramirez Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/24/2019 Time Start: 9:49 Time End: 10:08 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 556 Exact or Estimate? estimate Uncertainty: low
Area of Current Mapped Extent: 3793.97 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 46 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 497711 N: 3605050
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SW S SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DECO13_3PRVA013_1_Photo1_5.24.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 6 % Cover of Rock: 1 % Cover of Litter: 9 % Cover of Water: 0 % Cover of Vegetation: 84 Total % Cover: 101.2
SANDAG 2012 Vegetation Alliance/Association: Nassella pulchra Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 4
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 3
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica tournefortii
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 75
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DECO13_3PRVA013_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub		0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		65
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb		2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Deinandra conjugens - Otay tarplant	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		3
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		1
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		1
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		1
Hordeum marinum - seaside barley	Nonnative	Annual	Grass		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		1
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb		1
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		2

DECO13_3PRVA013_1	2019	Page 3 of 3		
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.				
Surround_LandUse Open space preserve				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 3 Feral Pig Activity: 1 Altered Hydrology: 1				
Nonnative Grass: 7 Trampling: 1 Erosion: 1				
Nonnative Woody Plants: 1 Vandalism: 1 Urban Runoff: 1				
Competitive Native Plants: 1 Current Grazing: 1 Slope Movement: 1				
Dumping/Trash: 1 Historic Grazing: no Soil Compaction: 1				
Encampments: 1 Historic Agriculture: no Fuel Modification Zone/ Fire Break:	1			
Road Construction/Maintenance: 1 if present, describe:				
Vegetation Clearing: 1 if present, describe:				
Brush Manangement: 1 if present, describe:				
ORV Activity: 1 if present, describe:				
Evidence of Recent Fire: no Year Burned? n/a				
Trails: 1 if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other	r:			
Illegal Trail Use:				
Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship; consider developing a site specific restoration plan				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
Least Bell's Vireo observed at gate entrance to SDGE access road				
NOTES:				

Deinandra conjugens (Otay Tarplant) Proctor Valley

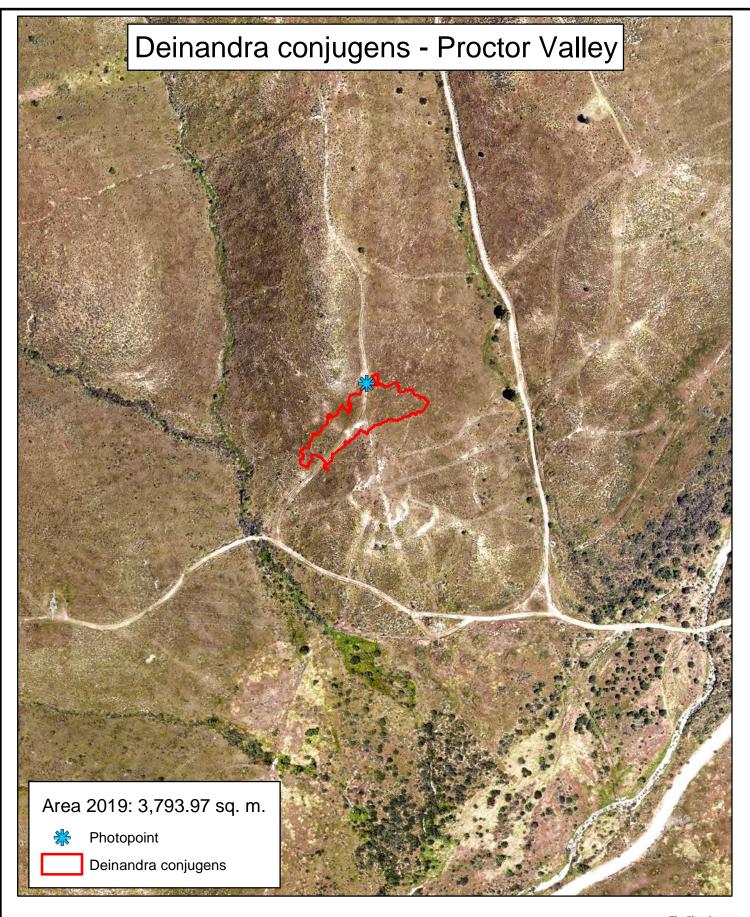
MSP Occurrence ID: DECO13_3PRVA013 - 1



Panorama from Southeastern edge of population, facing East, Southeast, South.

Panorama location is 6353224.49 1825326.86 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 3,793.97 sq. m. Min Area: 0 sq. m. 0 70 140 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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Dicranostegia orcuttiana Orcutt's Bird's Beak



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COOR7_3DREA007_1 2019 Page 1 of 3
Scientific Name: Dicranostegia orcuttiana Common Name: Orcutt's bird's-beak MSP Occurr. ID: COOR7_3DREA007
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Dennery Ranch Occurrence Name: Dennery Ranch East
Surveyors: Sara Allen, Diana Brand-Ramirez Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/23/2019 Time Start: 9:36 Time End: 10:43 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 7998 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 3578.73 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 436 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 4 % Flowering: 5 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184
GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W NW N NE Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: COOR7_3DREA007_1_Photo1_5.23.2019
GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W NW N NE Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: COOR7_3DREA007_1_Photo1_5.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 0.2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 83
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W NW N NE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: COOR7_3DREA007_1_Photo1_5.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 0.2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 83 Total % Cover: 100.4
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W NW N NE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: COOR7_3DREA007_1_Photo1_5.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 0.2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 83 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W NW N NE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: COOR7_3DREA007_1_Photo1_5.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 0.2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 83 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W NW N NE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: COOR7_3DREA007_1_Photo1_5.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 0.2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 83 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 476697 N: 3624184 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot Photo Direction: W NW N NE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: COOR7_3DREA007_1_Photo1_5.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 15 % Cover of Rock: 0.2 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 83 Total % Cover: 100.4 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

COOR7_3DREA007_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acanthomintha ilicifolia - San Diego thornmint	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		0.2
Brassica nigra - black mustard	Nonnative	Annual	Herb		3
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		44
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Cylindropuntia prolifera - coastal cholla	Native	Perennial	Shrub		2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra conjugens - Otay tarplant	Native	Annual	Herb		4
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Dicranostegia orcuttiana - Orcutt's birds-beak	Native	Annual	Herb		2
Erigeron sumatrensis - tropical horseweed	Nonnative	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Erodium malacoides	Nonnative	Annual	Herb		1
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Marrubium vulgare - White horehound	Nonnative	Perennial	Herb		0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		0.2
Oncosiphon piluliferum - stinknet	Nonnative	Annual	Herb		0.2
Parietaria hespera	Native	Annual	Herb		0.2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub		0.2
Pterostegia drymarioides - woodland threadstem	Native	Annual	Herb		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		17
Simmondsia chinensis - jojoba	Native	Perennial	Shrub		6
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2

COOR7_3DREA007_1	2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occur monitoring) plus 10-m surrounding buffer.	rence's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve	
Disturbances (Rank each as 1-6):	
Nonnative Forbs: 7 Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 3 Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1 Historic Grazing: no	Soil Compaction: 1
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1 if present, describe:	
Vegetation Clearing: 1 if present, describe:	
Brush Manangement: 1 if present, describe:	
ORV Activity: 1 if present, describe:	
Evidence of Recent Fire: no Year Burned? n/a	
Trails: 1 if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:	
Other Disturbance: 1 if present, describe:	
VI. MANAGEMENT RECOMMENDATIONS	
Continue prederve stewardship; consider more intendive weed cor	ntrol and creating a site specific restoration plan
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserve stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CN	IDDB)
CAGN in mapped extent	
NOTES:	

Dicranostegia orcuttiana (Orcutt's Bird's Beak) Dennery Ranch East

MSP Occurrence ID: COOR7_3DREA007 - 1



Panorama from Southwestern end of population, facing Southwest, West, Northwest.

Panorama location is 6323225.326 1792984.827 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2016 - 2019 Max Area: 3,503.81 sq. m. Min Area: 0 sq. m. 0 40 80 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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COOR7_3ORVA001_1 2019 Page 1 of 3
Scientific Name: Dicranostegia orcuttiana Common Name: Orcutt's bird's-beak MSP Occurr. ID: COOR7_3ORVA001
Sample Point #: 1 CNDDB Elem. Occurr. #: EO6 Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Otay Valley Regional Park Occurrence Name: Otay River Valley
Surveyors: Sara Allen, Sarah McCutcheon (SDMMP), Diana Brand-Ramirez, Jessie Lane Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/23/2019 Time Start: 15:05 Time End: 16:04 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 2651 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 1840.90 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 389 Exact or Estimate? exact Uncertainty: medium Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 497743 N: 3605120
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Photo Direction: SW W NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: COOR7_3ORVA001_1_Photo1_5.23.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 1 % Cover of Rock: 28 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 66 Total % Cover: 102
SANDAG 2012 Vegetation Alliance/Association: Salix lasiolepis Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

COOR7_3ORVA001_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	
Baccharis salicifolia - mule-fat	Native	Perennial	Shrub	
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	1
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	0.
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.
Bromus madritensis - compact brome	Nonnative	Annual	Grass	
Cortaderia selloana - pampas grass	Nonnative	Perennial	Grass	
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.
Dicranostegia orcuttiana - Orcutt's birds-beak	Native	Annual	Herb	
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub	
Eriastrum filifolium	Native	Annual	Herb	0.
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	0.
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.
Lysimachia minima - chaffweed	Native	Annual	Herb	0.
Malosma laurina - laurel sumac	Native	Perennial	Shrub	1
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub	0.
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb	0.
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub	2
Salix lasiolepis - Arroyo willow	Native	Perennial	Tree	1
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	
Toxicodendron diversilobum - poison oak	Native	Perennial	Shrub	

COOR7_30RVA001_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	CTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve;	passive recreation	
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 3	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 3	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 3	Historic Grazing: no	Soil Compaction: 1
Encampments: 2	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 5	if present, describe: SDG&E line-tri	mmed much of population while conducting access road maintenan
Vegetation Clearing: 6 if pres	sent, describe: Brush trimmings thrown on to	pp of DIOR population; SDG&E line-trimmed population (see above)
Brush Manangement: 3 if pre	esent, describe: Nonnative weed control	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ear Burned? n/a	
Trails: 6 if trails are present,	are they authorized? both	
Type of Trail Use:		
Hiking: yes Biking: yes	Equestrian: no Dog: yes	Service Vehicles: yes Other: no
Illegal Trail Use: This speci		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
·	d weed control efforts as needed; oulations and can identify the spec	Coordinate with SDG&E to ensure bio-monitor ies.
VII. MANAGEMENT ACTIONS IN LAST YEAR	R	
Preserve stewardship and targete	d weed control	
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)
CAGN		
NOTES:		

Dicranostegia orcuttiana (Orcutt's Bird's Beak) Otay River Valley

MSP Occurrence ID: COOR7_3ORVA001 - 1



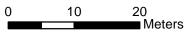
Panorama from Southwestern end of population, facing North, Northeast, East.

Panorama location is 6316896.838 1794306.621 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.







Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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*Dudleya brevifolia*Short-Leaved Dudleya



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DUBLB2_6CMPR001_1 2019 Page 1 of 3
Scientific Name: Dudleya brevifolia Common Name: Short leaved dudleya MSP Occurr. ID: DUBLB2_6CMPR001
Sample Point #: 1 CNDDB Elem. Occurr. #: EO8 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Carmel Mountain Preserve Occurrence Name: Carmel Mountain
Surveyors: Sara Allen, Mark Berninger, Jason Allen, Jessie Lane, Diana Brand-Ramirez, Sarah McCutcheon (SDMMP)
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/7/2019 Time Start: 12:47 Time End: 13:05 Mapped Extent Info Location DUBLB2_6CMPR001_3
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 5380 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 479936 N: 3643803
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: DUBLB2_6CMPR001_1_Photo1_5.7.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 20 % Cover of Rock: 24 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 36 Total % Cover: 100.4
SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum-Xylococcus bicolor Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUBLB2_6CMPR001_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	2
Crassula connata - sand pygmyweed	Native	Annual	Herb	1
Cryptantha sp cryptantha	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Dodecatheon clevelandii - padre's shootingstar	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	3
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	0.2
Osmadenia tenella - false rosinweed	Native	Annual	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	1
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb	0.2
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	27
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub	0.2
Zeltnera venusta - charming centaury	Native	Annual	Herb	0.2

DUBLB2_6CMPR001_1	2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurre monitoring) plus 10-m surrounding buffer.	ence's maximum extent (cumulative extent over years of
Surround_LandUse	
Disturbances (Rank each as 1-6):	
Nonnative Forbs: Feral Pig Activity:	Altered Hydrology:
Nonnative Grass: Trampling:	Erosion:
Nonnative Woody Plants: Vandalism:	Urban Runoff:
Competitive Native Plants: Current Grazing:	Slope Movement:
Dumping/Trash: Historic Grazing:	Soil Compaction:
Encampments: Historic Agriculture:	Fuel Modification Zone/ Fire Break:
Road Construction/Maintenance: if present, describe:	
Vegetation Clearing: if present, describe:	
Brush Manangement: if present, describe:	
ORV Activity: if present, describe:	
Evidence of Recent Fire: Year Burned?	
Trails: if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Biking: Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:	
Other Disturbance: if present, describe:	
VI. MANAGEMENT RECOMMENDATIONS	
Continuepreserve stewardship and routine patrols to reduce off trai	il use
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserve stewardship and routine patrols to reduce off trail use	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CND	DDB)
None	
NOTES:	
	-

Dudleya brevifolia (Short-Leaved Dudleya) Carmel Mountain Subpopulation # 1

MSP Occurrence ID: DUBLB2_6CMPR001 - 1



Panorama from Northwestern edge of population, Southwest, West, Northwest, North.

Panorama location is 6264079.979 1920661.488 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 313.30 sq. m. Min Area: 84.50 sq. m.

20 10 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





DUBLB2_6CMPR001_2 2019 Page 1 of 3
Scientific Name: Dudleya brevifolia Common Name: Short leaved dudleya MSP Occurr. ID: DUBLB2_6CMPR001
Sample Point #: 2 CNDDB Elem. Occurr. #: EO8 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Carmel Mountain Preserve Occurrence Name: Carmel Mountian
Surveyors: Sara Allen, Jason Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/7/2019 Time Start: 10:52 Time End: 11:20 Mapped Extent Info Location DUBLB2_6CMPR001_3
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 8334 Exact or Estimate? estimate Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 2
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 479443 N: 3643889
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Photo Direction: SW W NW N Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: DUBLB2_6CMPR001_2_Photo1_5.7.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 34 % Cover of Rock: 29 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 32 Total % Cover: 100.4
SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum Southern Maritime Association
Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUBLB2_6CMPR001_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		6
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Cardionema ramosissimum - sandcarpet	Native	Perennial	Herb		0.2
Chorizanthe polygonoides var. longispina - knotweed spineflower	Native	Annual	Herb		0.2
Crassula aquatica - aquatic pygmy weed	Native	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Dudleya brevifolia - Short-leaved dudleya	Native	Perennial	Herb		1
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		0.2
Eryngium aristulatum var. parishii - San Diego button celery	Native	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		0.2
Juncus bufonius - toad rush	Native	Annual	Herb		0.2
Lasthenia gracilis - needle goldfields	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		0.2
Pogogyne abramsii - San Diego mesa mint	Native	Annual	Herb		0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb		0.2
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb		0.2
Salvia mellifera - black sage	Native	Perennial	Shrub		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		25
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb		0.2

DUBLB2_6CMPR001_2			2019	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	CTENT - Assess threats within the occurren	ce's maximum extent (cumulative exten	t over year	s of
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:		
Nonnative Grass:	Trampling:	Erosion:		
Nonnative Woody Plants:	Vandalism:	Urban Runoff:		
Competitive Native Plants:	Current Grazing:	Slope Movement:		
Dumping/Trash:	Historic Grazing:	Soil Compaction:		
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:		
Road Construction/Maintenance:	if present, describe:			
Vegetation Clearing: if pres	sent, describe:			
Brush Manangement: if pre	sent, describe:			
ORV Activity: if present, de	escribe:			
Evidence of Recent Fire:	ar Burned?			
Trails: if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:		
Illegal Trail Use:				
	ent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship and	d routine patrols to discourage off	trail use		
VII. MANAGEMENT ACTIONS IN LAST YEAR	R			
Preserve stewardship and routine	patrols			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)		
CAGN				
NOTES:				

Dudleya brevifolia (Short-Leaved Dudleya) Carmel Mountain Subpopulation # 2

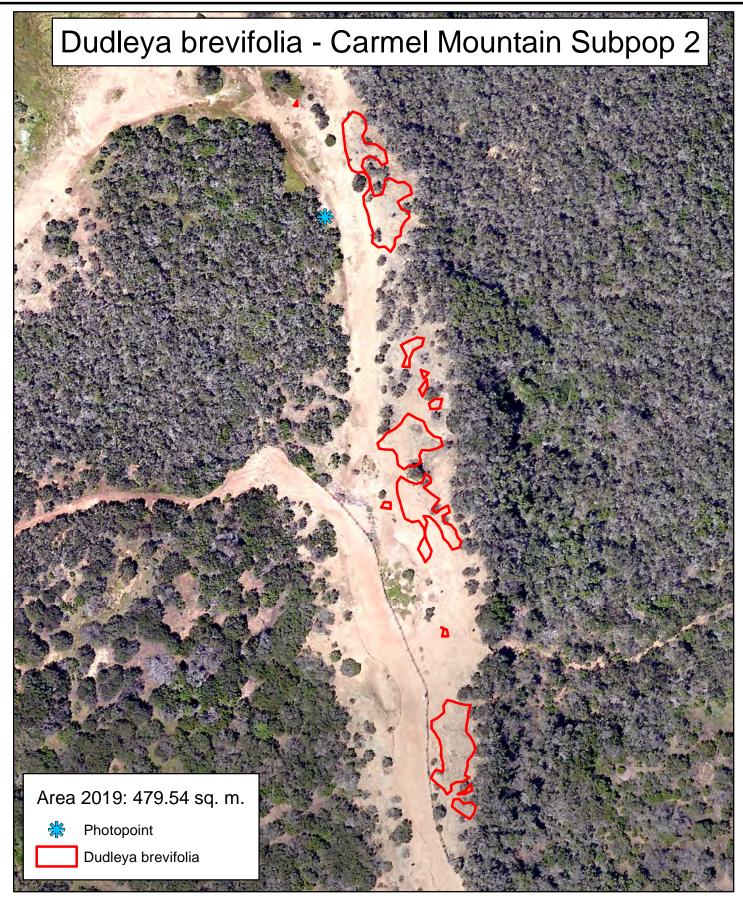
MSP Occurrence ID: DUBLB2 6CMPR001 - 2



Panorama from Northeastern edge of population, North, Northeast, East, Southeast.

Panorama location is 6265696.74 1920365.46 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 479.54 sq. m. Min Area: 26.54 sq. m. 0 10 20 30 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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DUBLB2_6CMPR001_3 2019 Page 1 of 3
Scientific Name: Dudleya brevifolia Common Name: Short leaved dudleya MSP Occurr. ID: DUBLB2_6CMPR001
Sample Point #: 3 CNDDB Elem. Occurr. #: EO8 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Carmel Mountain Preserve Occurrence Name: Carmel Mountain
Surveyors: Sara Allen, Jason Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/7/2019 Time Start: 9:36 Time End: 10:04 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 86346
Area of Current Mapped Extent: 2766.63 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 8831 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 2
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 479936 N: 3643803
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Continues of Photo Point. L. At eage of circle plot
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_5.7.2019
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_5.7.2019
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_5.7.2019 File Location:
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_5.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 58 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 20
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_5.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 58 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 20 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance.// Adenostoma fasciculatum-(Eriogonum fasciculatum Artemisia
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_5.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 58 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 20 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance.// Adenostoma fasciculatum-(Eriogonum fasciculatum Artemisia californica salvia mellifera) Association
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_5.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 58 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 20 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance.// Adenostoma fasciculatum-(Eriogonum fasciculatum Artemisia californica salvia mellifera) Association Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 1
Photo Direction: N NE E SE Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_5.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 10 % Cover of Rock: 58 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 20 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance.// Adenostoma fasciculatum-(Eriogonum fasciculatum Artemisia californica salvia mellifera) Association Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

DUBLB2_6CMPR001_3 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		9
Salvia mellifera - black sage	Native	Perennial	Shrub		1
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		6
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2
Stylocline gnaphaloides - everlasting nest straw	Native	Annual	Herb		0.2
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		0.2
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		2
Cerastium glomeratum - sticky mouseear chickweed	Nonnative	Annual	Herb		0.2
Chorizanthe polygonoides var. longispina - knotweed spineflower	Native	Annual	Herb		1
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		1
Dudleya brevifolia - Short-leaved dudleya	Native	Perennial	Herb		2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		3
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb		0.2
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Muilla maritima - sea muilla	Native	Perennial	Herb		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		0.2
Pentagramma triangularis - goldbeck fern	Native	Perennial	Fern		0.2

DUBLB2_6CMPR001_3			2019	Page 3 of 3	
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.					
Surround_LandUse Open space preserve					
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 3	Trampling: 3	Erosion: 1			
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break:	1		
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 1 if pre	esent, describe:				
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ear Burned? n/a				
Trails: 2 if trails are present,	are they authorized? both				
Type of Trail Use:					
Hiking: yes Biking: yes	Equestrian: yes Dog: yes	Service Vehicles: yes Other	: no		
Illegal Trail Use: Authorized					
	ent, describe:				
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship an	d routine patrols to ensure people	stay on trails			
VII. MANAGEMENT ACTIONS IN LAST YEAR	R				
Preserve stewardship and routine	enforcement patrols				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)			
CAGN calling in circle plot					
NOTES:					
Noted footprints and trampling in	Dudleya population by Sample Po	int 3			

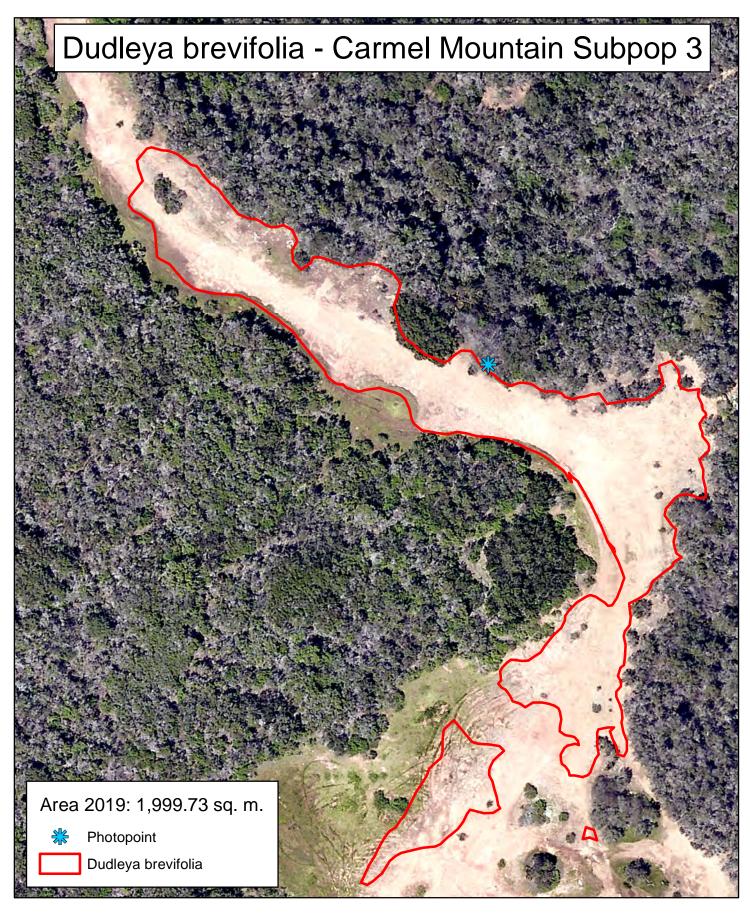
Dudleya brevifolia (Short-Leaved Dudleya) Carmel Mountain Subpopulation # 3

MSP Occurrence ID: DUBLB2_6CMPR001 - 3

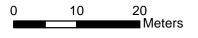


Panorama from Southwestern edge of population, Southeast, South, Southwest, West, Northwest. Panorama location is 6265588.551 1920725.098 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.







Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





DUBLB2_7CRCA003_1 2019 Page 1 of 3
Scientific Name: Dudleya brevifolia Common Name: Short leaved dudleya MSP Occurr. ID: DUBLB2_7CRCA003
Sample Point #: 1 CNDDB Elem. Occurr. #: EO1 Translocated? no Management Unit: 7
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Crest Canyon Preserve Occurrence Name: Crest Canyon North
Surveyors: Sara Allen, Mark Berninger, Jason Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP)
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/7/2019 Time Start: 14:33 Time End: 15:05 Mapped Extent Info Location DUBLB2_7CRCA003_2
Number of Plants in Mapped Extent: 18183
Area of Current Mapped Extent: 120.71 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 16570 Exact or Estimate? estimate Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 506812 N: 3615039
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: E SE S Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUBLB2_7CRCA003_1_Photo1_5.7.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 5 % Cover of Rock: 30 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 49 Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-(Eriogonum fasciculatum Artemisia californica salvia mellifera) Association
Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUBLB2_7CRCA003_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	4
Apiastrum angustifolium - mock parsley	Native	Annual	Herb	0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	3
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb	0.2
Camissoniopsis bistorta - southern suncup	Native	Annual	Herb	0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb	0.2
Cneoridium dumosum - bush rue	Native	Perennial	Shrub	0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub	1
Dudleya brevifolia - Short-leaved dudleya	Native	Perennial	Herb	1
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	7
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	1
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb	0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub	4
Salvia mellifera - black sage	Native	Perennial	Shrub	1
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern	25
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub	2

DUBLB2_7CRCA003_1		;	2019	Page 3 of 3	
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.					
Surround_LandUse Open space preserve					
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 3	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 3	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 1 if pre	esent, describe:				
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ear Burned? n/a				
Trails: 4 if trails are present,	are they authorized? yes				
Type of Trail Use:					
Hiking: yes Biking: no	Equestrian: no Dog: yes	Service Vehicles: no Other:	no		
Illegal Trail Use: Noted illeg					
Other Disturbance: 2 if present	ent, describe: Residential home adjacent to	ot 1			
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship, co	nsider fencing site				
VII. MANAGEMENT ACTIONS IN LAST YEAR	R				
Preserve stewardship					
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)			
CAGN					
NOTES:					

Dudleya brevifolia (Short-Leaved Dudleya)Crest Canyon – Northern Subpopulation

MSP Occurrence ID: DUBLB2_7CRCA003 - 1



Panorama from Northeastern edge of population, West, North, East.

Panorama location is 6253917.07 1928311.12 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 186.00 sq. m. Min Area: 9.40 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





DUBLB2_7CRCA003_2 2019 Page 1 of 3
Scientific Name: Dudleya brevifolia Common Name: Short leaved dudleya MSP Occurr. ID: DUBLB2_7CRCA003
Sample Point #: 2 CNDDB Elem. Occurr. #: EO1 Translocated? no Management Unit: 7
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Crest Canyon Preserve Occurrence Name: Crest Canyon South
Surveyors: Sara Allen, Jason Allen, Jessie Lane, Mark Berninger, Diana Brand-Ramirez, Sarah McCutcheon (SDMMP)
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/7/2019 Time Start: 15:33 Time End: 16:12 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 149 Exact or Estimate? estimate Uncertainty: low
Area of Current Mapped Extent: 24.23 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 149 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 476330 N: 3646198
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUBLB2_7CRCA003_2_Photo1_5.7.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 14 % Cover of Rock: 55 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 28 Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis) Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUBLB2_7CRCA003_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		16
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Ceanothus verrucosus - Wart-stemmed ceanothus	Native	Perennial	Shrub		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Cneoridium dumosum - bush rue	Native	Perennial	Shrub		5
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub		1
Dudleya brevifolia - Short-leaved dudleya	Native	Perennial	Herb		0.2
Dudleya lanceolata - lanceleaf liveforever	Native	Perennial	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		1
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb		0.2
Matricaria discoidea - pineapple weed	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		1
Salvia mellifera - black sage	Native	Perennial	Shrub		2
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		1
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub		0.2

DUBLB2_7CRCA003_2			2019	Page 3 of 3	
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.					
Surround_LandUse Open space preserve,	passive recreation				
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 3	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 3	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break:	1		
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 1 if pre	esent, describe:				
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ear Burned? n/a				
Trails: 4 if trails are present,	are they authorized? yes				
Type of Trail Use:					
Hiking: yes Biking: no	Equestrian: no Dog: yes	Service Vehicles: no Other	: no		
Illegal Trail Use: Noted illeg					
Other Disturbance: 2 if pres	ent, describe: Residential home adjacent to	ot 1			
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stweardship an	d patrols to enforce legal trail use				
VII. MANAGEMENT ACTIONS IN LAST YEA	R				
Preserve stewardship and regular	patrols enforce legal trail use				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)			
None					
NOTES:					
149 plants found in mapped area	ı for pt 2 (mapped area entirely ir	circle)			

Dudleya brevifolia (Short-Leaved Dudleya) Crest Canyon – Southern Subpopulation

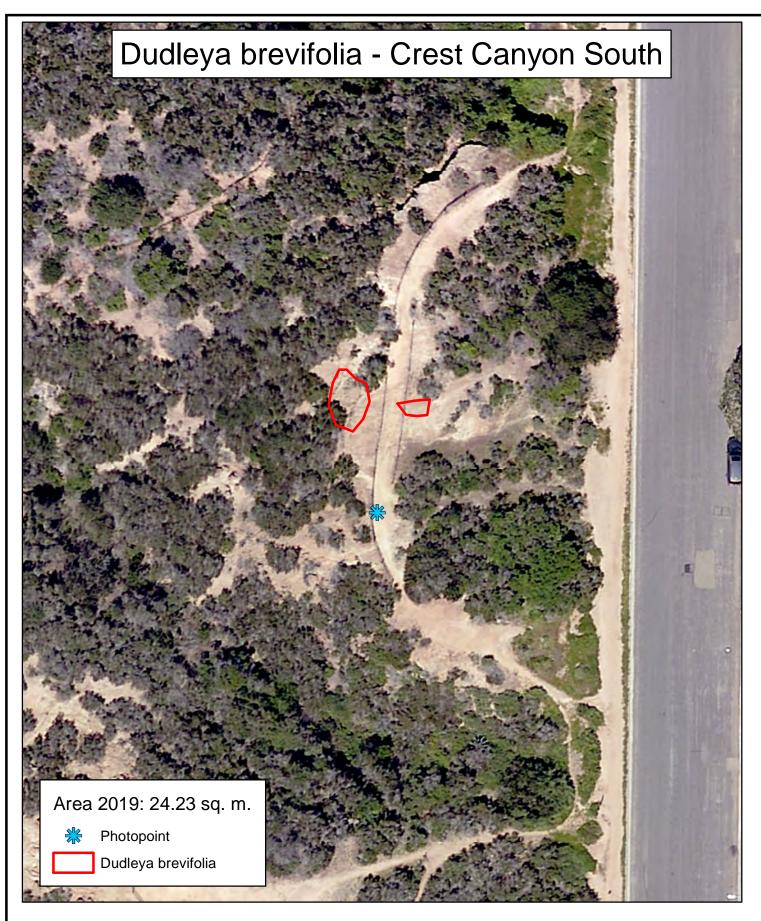
MSP Occurrence ID: DUBLB2_7CRCA003 - 2



Panorama from Northern edge of population, Northwest, North, Northeast.

Panorama location is 6253843.22 1927609.02 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2005 - 2019 Max Area: 126.90 sq. m. Min Area: 4.30 sq. m.

10 20 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



Dudleya variegata Variegated Dudleya



© City of San Diego, 2004

DUVA_6BMRA020_1 2019 Page 1 of 3
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_6BMRA020
Sample Point #: 1 CNDDB Elem. Occurr. #: EO51 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego
Preserve Name: Black Mountain Open Space P Occurrence Name: Black Mountain Ranch
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/20/2019 Time Start: 11:03 Time End: 11:30 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: n/a - no plants Species Found in Max Extent no
If not found, known or suspected reason: Has not been found in this site since 2003
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 487904 N: 3649730
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: E SE S Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: DUVA_6BMRA020_1_Photo1_5.20.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 2 % Cover of Rock: 0.2 % Cover of Litter: 9 % Cover of Water: 0 % Cover of Vegetation: 90
Total % Cover: 101.4
SANDAG 2012 Vegetation Alliance/Association: Salvia apiana Alliance// Salvia apiana-Artemisia californica Association
Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 6
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 6
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 55
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUVA_6BMRA020_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		53
Brassica nigra - black mustard	Nonnative	Annual	Herb		1
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb		1
Cynara cardunculus - artichoke thistle	Nonnative	Perennial	Herb		5
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Erodium moschatum - Musky stork's bill	Nonnative	Annual	Herb		0.2
Heterotheca grandiflora - telegraphweed	Native	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Salvia apiana - white sage	Native	Perennial	Shrub		10
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb		0.2
Solanum sp nightshade	Unknown	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		5
Stipa pulchra - purple needle grass	Native	Perennial	Grass		10
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2

DUVA_6BMRA020_1			2019	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM I monitoring) plus 10-m surrounding buffer.	EXTENT - Assess threats within the occurre	nce's maximum extent (cumulative exte	ent over years	s of
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 6	Trampling: 1	Erosion: 1		
Nonnative Woody Plants:	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1		
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break:	1	
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: if pr	esent, describe:			
Brush Manangement: 1 if p	resent, describe:			
ORV Activity: 1 if present,	describe:			
Evidence of Recent Fire: no	/ear Burned? n/a			
Trails: 1 if trails are presen	t, are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Othe	r:	
Illegal Trail Use:				
Other Disturbance: 1 if pre	sent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserce stewardship; c	onsider preparation of a site speci	fic restoration plan		
VII. MANAGEMENT ACTIONS IN LAST YE	AR			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list an	y plant or animal species to add to the CND	DB)		
CAGN				
NOTES:				

Dudleya variegata (Variegated Dudleya) Black Mountain East

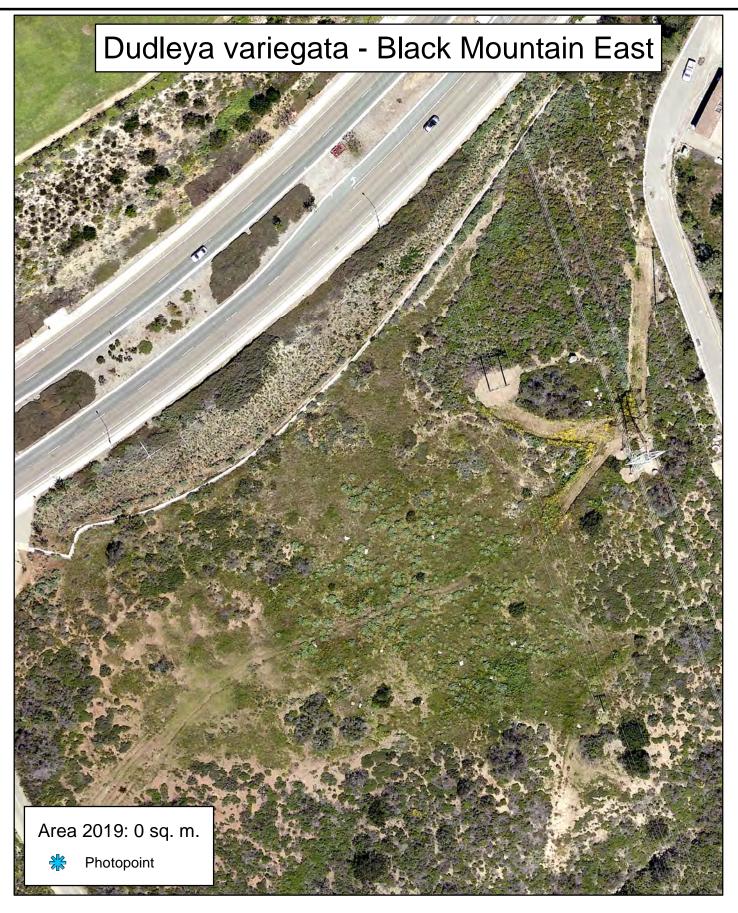
MSP Occurrence ID: DUVA_6BMRA020 - 1



Panorama from Southeastern edge of population, facing East, Southeast, South.

Panorama location is 6291985.772 1939628.716 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 1,845.90 sq. m. Min Area: 0 sq. m. O 20 40 Meters

Source: San GIS & City of San Diego Parks & Rec
Map Created By: Jessie Lane 2019

Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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DUVA_4EAEL012_1	2019 Page 1 of 3
Scientific Name: Dudleya variegata Common Name: Variegated dudleya	MSP Occurr. ID: DUVA_4EAEL012
Sample Point #: 1 CNDDB Elem. Occurr. #: EO22 Translocated? no	Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Re	ecreation Department
Preserve Name: Mission Trails Regional Pak Occurrence Name: East Elliot - Hilltop	
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surv	veyors:
Affliation:	
OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10	0-m radius circle) and in current mapped extent.
Survey Date: 5/31/2019 Time Start: 11:50 Time End: 12:3	30 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 179 Exact or Estimate? exact Unc	certainty: very_low
Area of Current Mapped Extent: 130.21 Area Units: sq_m Area Exact (GPS)	or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in M	Max Extent yes
If not found, known or suspected reason:	
Number of Plants in Circle: 0 Exact or Estimate? exact	certainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999	% Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999	% Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no	
Collection Taken? no Collector: n/a Collection #: n/a	Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83	Coordinate System: UTM
Coordinates at Center of Plot: E: 507818 N: 3609505	
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point:	E: Same as plot center N: Same as plot center
Photo Direction: N NE SE Camera Height: 1.1 m Camera Angle: -5 Ph	noto Numbers: DUVA_4EAEL012_1_Photo1_5.31.2019
File Location:	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-sp	pecific sampling area (typically 10-m radius circle).
	Cover of Water: 0 % Cover of Vegetation: 60
Total % Cover: 101.2	
SANDAG 2012 Vegetation Alliance/Association: Adenostoma fasciculatum-Xylococcus bicolor A Quercus (berberidifolia ×acutidens) Association	
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1	
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0	
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0 Dead Standing Biomass? no Dead Standing Biomass Species:	
	iomass (cm):

DUVA_4EAEL012_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		6
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub		24
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		3
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Calochortus weedii - Weed's mariposa lily	Native	Perennial	Herb		0.2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		1
Chorizanthe fimbriata - fringed spineflower	Native	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		1
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		5
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		2
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub		0.2
Hesperoyucca whipplei - chaparral yucca	Native	Perennial	Shrub		1
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		4
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb		0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb		0.2
Oxalis californica - California wood sorrel	Native	Annual	Herb		0.2
Pseudognaphalium bicolor - Twocolor cudweed	Native	Perennial	Herb		0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Quercus berberidifolia - scrub oak	Native	Perennial	Tree		5
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		1
Salvia mellifera - black sage	Native	Perennial	Shrub		7
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2
Stylocline gnaphaloides - everlasting nest straw	Native	Annual	Herb		0.2
Uropappus lindleyi - silver puffs	Native	Annual	Herb		0.2
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub		2

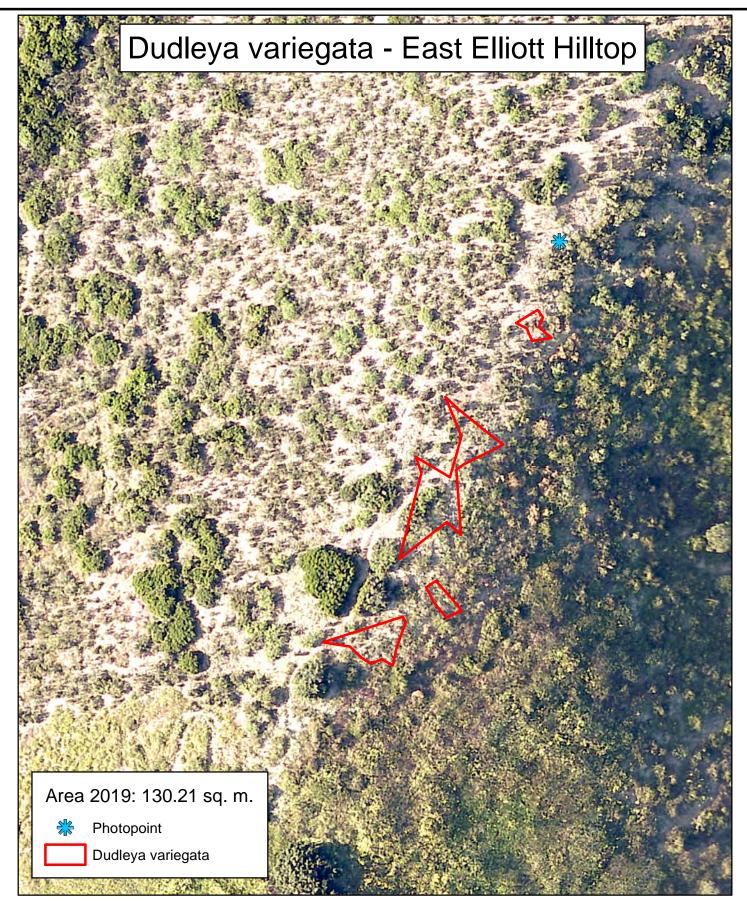
DUVA_4EAEL012_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve;	passive recreation	
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 5	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 1 if pre	esent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ear Burned? n/a	
Trails: 3 if trails are present,	are they authorized? yes	
Type of Trail Use:	_	
Hiking: yes Biking: yes	Equestrian: yes Dog: yes	Service Vehicles: no Other: no
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEA	R	
Preserve stewardship		
·		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)
None		
NOTES:		

Dudleya variegata (Variegated Dudleya) East Elliott – Hilltop

MSP Occurrence ID: DUVA_4EAEL012 - 1



Panorama from the Southwestern edge of population, facing Southeast, South, Southwest. Panorama location is 6316264.13 1897663.71 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019 Max Area: 369.10 sq. m.

Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





DUVA_4EAEL012_2 2019 Page 1 of 3
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_4EAEL012
Sample Point #: 2 CNDDB Elem. Occurr. #: EO22 Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Trails Regional Park Occurrence Name: East Elliott - Creek
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/31/2019 Time Start: 10:21 Time End: 11:29 Mapped Extent Info Location DUVA_4EAEL012_1
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 495393 N: 3636997
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: DUVA_4EAEL012_2_Photo1_5.31.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 20 % Cover of Rock: 10 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 62
Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: Salvia mellifera Alliance// Salvia mellifera-Malosma laurina Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 4
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 50

DUVA_4EAEL012_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		2
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		3
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		6
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		9
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub		2
Eriodictyon crassifolium - Felt leaved yerba santa	Native	Perennial	Shrub		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		3
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		0.2
Eucrypta chrysanthemifolia - spotted eucrypta	Native	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		1
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Gastridium phleoides - nit grass	Nonnative	Annual	Grass		1
Geranium californicum - California geranium	Native	Annual	Herb		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		1
Juncus dubius - finger rush	Native	Perennial	Herb		2
Lathyrus vestitus var. alefeldii - San Diego pea	Native	Annual	Herb		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		3
Mimulus guttatus - seep monkeyflower	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Polypogon monspeliensis - annual rabbitsfoot grass	Nonnative	Annual	Grass		0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb		0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub		2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb		0.2
Salvia apiana - white sage	Native	Perennial	Shrub		5
Salvia mellifera - black sage	Native	Perennial	Shrub		15
Sanicula arguta - sharp toothed snakeroot	Native	Perennial	Herb		0.2
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		0.2

Silene gallica - common catchfly	Nonnative	Annual	Herb	0.2
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	1
Vicia ludoviciana	Native	Annual	Herb	1
Zeltnera venusta - charming centaury	Native	Annual	Herb	0.2

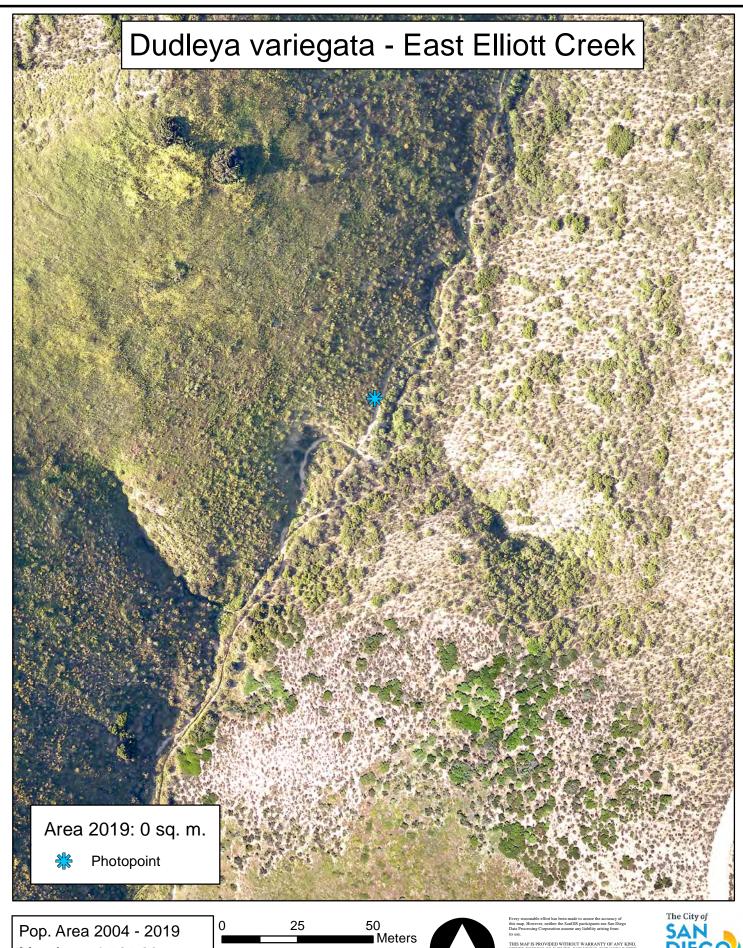
DUVA_4EAEL012_2		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse		
Disturbances (Rank each as 1-6):		
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:
Nonnative Grass:	Trampling:	Erosion:
Nonnative Woody Plants:	Vandalism:	Urban Runoff:
Competitive Native Plants:	Current Grazing:	Slope Movement:
Dumping/Trash:	Historic Grazing:	Soil Compaction:
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:
Road Construction/Maintenance:	if present, describe:	
Vegetation Clearing: if pres	sent, describe:	
Brush Manangement: if pre	sent, describe:	
ORV Activity: if present, de	escribe:	
Evidence of Recent Fire: Ye	ar Burned?	
•	are they authorized?	
Type of Trail Use:	¬	
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAR	?	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	DB)
California tohee nest w/ nestlings	in white sage	
NOTES:		

Dudleya variegata (Variegated Dudleya) East Elliott – Creek

MSP Occurrence ID: DUVA_4EAEL012 - 2



Panorama from Northwestern edge of population, facing Southwest, West, Northwest, North. Panorama location is 6316378.38 1897097.063 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019 Max Area: 1,725.20 sq. m.

Min Area: 0 sq. m.

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



SanGIS

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DUVA_3GOME003_1 2019 Page 1 of 3
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_3GOME003
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Spring Canyon Open Space Occurrence Name: Goat Mesa/Spring Canyon
Surveyors: Sara Allen, Mark Berninger, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/8/2019 Time Start: 10:42 Time End: 11:30 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 159 Exact or Estimate? exact Uncertainty: medium
Area of Current Mapped Extent: 87.11 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: medium Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 1 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 476309 N: 3645984
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Photo Direction: SW W NW Camera Height: 1.1 m Camera Angle: 10 Photo Numbers: DUVA_3GOME003_1_Photo1_5.8.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 21 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 56
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 21 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 56 Total % Cover: 100
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 21 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 56 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 21 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 56 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 1
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 21 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 56 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

DUVA_3GOME003_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Ambrosia chenopodiifolia - San Diego bur ragweed	Native	Perennial	Shrub		1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		4
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		3
Cryptantha sp cryptantha	Native	Annual	Herb		1
Cylindropuntia prolifera - coastal cholla	Native	Perennial	Shrub		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		20
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		4
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		7
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub		0.2
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		1
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb		1
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb		0.2
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass		0.2
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		6
Simmondsia chinensis - jojoba	Native	Perennial	Shrub		5
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2

DUVA_3GOME003_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	CTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve		
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 3	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 1 if pre	sent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ar Burned? n/a	
·	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAR	R	
Preserve stewardship; fencing add	led to deter off road activity	
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	В)
None		
NOTES:		
Many dudleya appeared to be de	escicating while still in bud	

Dudleya variegata (Variegated Dudleya) Goat Mesa/Spring Canyon

MSP Occurrence ID: DUVA_3GOME003 - 1



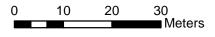
Panorama looking towards the Southwestern edge of the population, facing Southeast, South, Southwest.

Panorama location is 6330814.78 1782236.11 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 1,065.54 sq. m. Min Area: 37.00 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





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DUVA_3MAVA004_1 2019 Page 1 of
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_3MAVA004
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department
Preserve Name: Marron Valley Mitigation Bank Occurrence Name: Marron Valley
Surveyors: Mark Berninger, Diana Brand-Ramirez Other Surveyors:
Affliation:
OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 4/18/2019 Time Start: 10:16 Time End: 12:04 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 1964 Exact or Estimate? estimate Uncertainty: low
Area of Current Mapped Extent: 632.80 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 649 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 500079 N: 3601862
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUVA_3MAVA004_1_Photo1_4.18.2019
File Location:
II. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 5 % Cover of Rock: 3 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 75 Total % Cover: 103
SANDAG 2012 Vegetation Alliance/Association: Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natural Stands Alliance and
Association
Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):

DUVA_3MAVA004_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		1
Allium sp onion	Native	Perennial	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		1
Avena barbata - slender oat	Nonnative	Annual	Grass		1
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		13
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		3
Bromus madritensis - compact brome	Nonnative	Annual	Grass		3
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		1
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		25
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		2
Gastridium phleoides - nit grass	Nonnative	Annual	Grass		0.2
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		1
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		10
Silene gallica - common catchfly	Nonnative	Annual	Herb		10
Unknown - herb	Unknown	Annual	Herb		0.2
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2

DUVA_3MAVA004_1		2019 Page 3 o	f 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	KTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve			
Disturbances (Rank each as 1-6):			
Nonnative Forbs: 2	Feral Pig Activity: 1	Altered Hydrology: 1	
Nonnative Grass: 4	Trampling: 1	Erosion: 1	
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1	
Competitive Native Plants: 2	Current Grazing: 1	Slope Movement: 1	
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1	
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 2	if present, describe:		
Vegetation Clearing: 1 if pres	sent, describe:		
Brush Manangement: 1 if pre	esent, describe:		
ORV Activity: 1 if present, de	escribe:		
Evidence of Recent Fire: no Ye	ear Burned? n/a		
Trails: 1 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use:			
	ent, describe:		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAR	R		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	DB)	
None			
NOTES:			

Dudleya variegata (Variegated Dudleya) Marron Valley

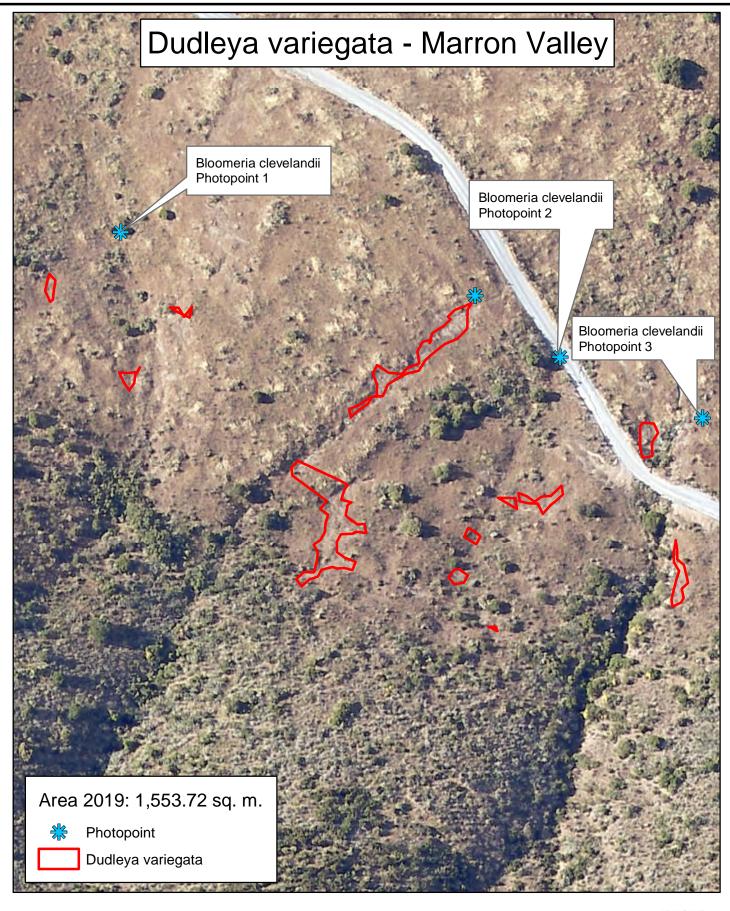
MSP Occurrence ID: DUVA_3MAVA004 - 1



Panorama from Northern edge of population, facing Southeast, South, Southwest.

Panorama location is 6407136.24 1787954.48 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.









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DUVA_4MERO014_1 2019 Page 1 of 3
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_4MERO014
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Mercy Road
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/31/2019 Time Start: 15:24 Time End: 15:52 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 455 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 124.78 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 433 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 3
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 488705 N: 3645102
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot
Photo Direction: SW W NW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUVA_4MERO014_1_Photo1_5.31.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 8 % Cover of Rock: 21 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 58 Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis)
Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):

DUVA_4MERO014_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		3
Adolphia californica - California adolphia	Native	Perennial	Shrub		2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		7
Bloomeria crocea - common goldenstar	Native	Perennial	Herb		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		1
Bromus madritensis - compact brome	Nonnative	Annual	Grass		3
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		4
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb		1
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		10
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		1
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		3
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		4
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		3
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		4
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lomatium dasycarpum - woollyfruit desertparsley	Nonnative	Perennial	Herb		2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		6
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		6
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2

DUVA_4MERO014_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	KTENT - Assess threats within the occurrer	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve		
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 4	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 1 if pre	esent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ear Burned? n/a	
Trails: 1 if trails are present,	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAR	R	
Continue preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	OB)
None		
NOTES:		

Dudleya variegata (Variegated Dudleya) Mercy Road

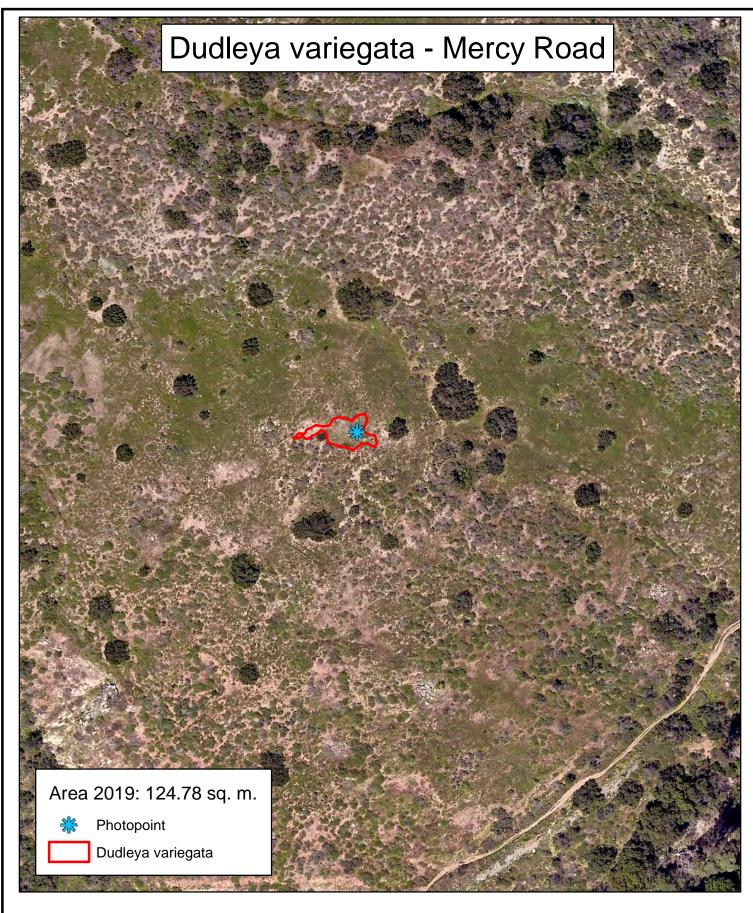
MSP Occurrence ID: DUVA_4MERO014 - 1



Panorama from Northwestern edge of population, facing Southwest, West, Northwest.

Panorama location is 6294507.443 1924420.89 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 494.99 sq. m. Min Area: 66.00 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diege Data Processing Corporation assume any liability arising from

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DUVA_4MTRP015_1 2019 Page 1 of 3
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_4MTRP015
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Trails Regional Park Occurrence Name: Mission Trails Regional Park
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/14/2019 Time Start: 10:53 Time End: 11:37 Mapped Extent Info Location DUVA_4MTRP015_3
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 12 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 493410 N: 3631511
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: NW N NE Camera Height: 1.1 m Camera Angle: 2 Photo Numbers: DUVA_4MTRP015_1_Photo1_5.14.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 4 % Cover of Rock: 17 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 66
Total % Cover: 101
SANDAG 2012 Vegetation Alliance/Association: Bahiopsis laciniata Alliance// Bahiopsis laciniata-Artemisia californica-Eriogonum fasciculatum Association
Cover Classes (1-6): Cryptogamic Crust Cover: 3 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3

DUVA_4MTRP015_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		5
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub		2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		6
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		3
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		1
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		1
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		12
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		15
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		4
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub		2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		1
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb		0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		0.2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub		3
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		10
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		1
Stipa pulchra - purple needle grass	Native	Perennial	Grass		2
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2

DUVA_4MTRP015_1			2019	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM monitoring) plus 10-m surrounding buffer.		the occurrence's maximum extent (cumulative ex	ktent over years	of
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:		
Nonnative Grass:	Trampling:	Erosion:		
Nonnative Woody Plants:	Vandalism:	Urban Runoff:		
Competitive Native Plants:	Current Grazing:	Slope Movement:		
Dumping/Trash:	Historic Grazing:	Soil Compaction:		
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break	K :	
Road Construction/Maintenance:	if present, describe:			
Vegetation Clearing: if pr	resent, describe:			
Brush Manangement: if p	present, describe:			
ORV Activity: if present,	describe:			
Evidence of Recent Fire:	Year Burned?			
Trails: if trails are preser	nt, are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Do	g: Service Vehicles: Oth	ner:	
Illegal Trail Use:				
Other Disturbance: if pre	esent, describe:			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YE	AR			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list ar	y plant or animal species to add	to the CNDDB)		
None				
NOTES:				

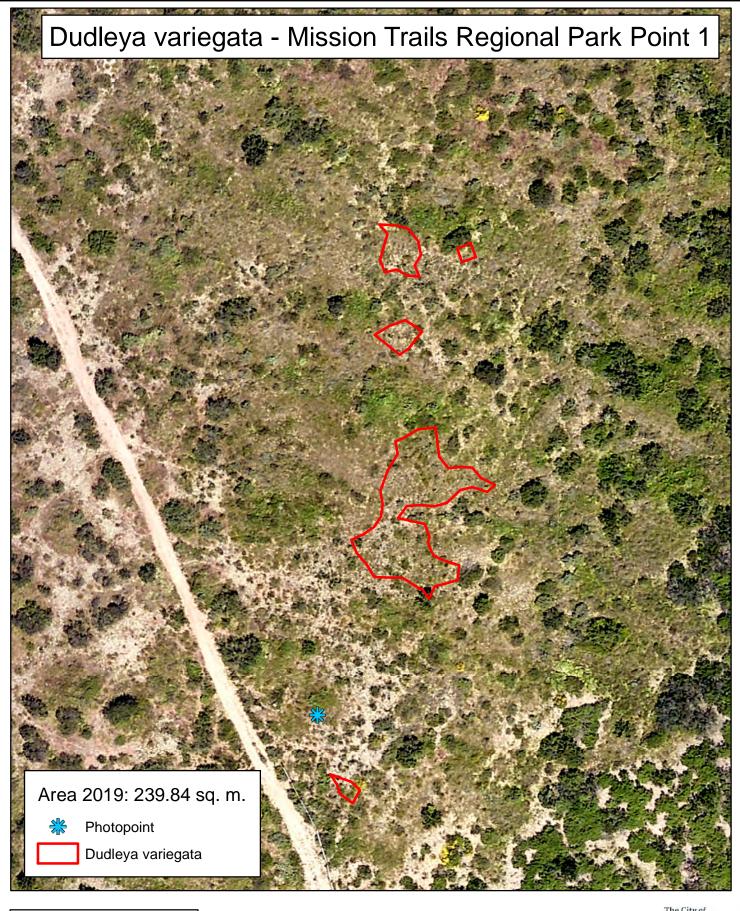
Dudleya variegata (Variegated Dudleya)Mission Trails Regional Park Subpopulation # 1

MSP Occurrence ID: DUVA_4MTRP015 - 1



Panorama from the Southern edge of population, facing Northwest, North, Northeast. Panorama location is 6309627.30 1879705.91 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019 Max Area: 386.40 sq. m. Min Area: 2.78 sq. m. 0 10 20 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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DUVA_4MTRP015_2 2019 Page 1 of 3
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_4MTRP015
Sample Point #: 2 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Trails Regional Park Occurrence Name: Mission Trails Regional Park
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/14/2019 Time Start: 13:14 Time End: 13:45 Mapped Extent Info Location DUVA_4MTRP015_3
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 55 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 493288 N: 3631639
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: W NW N Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: DUVA_4MTRP015_2_Photo1_5.14.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 5 % Cover of Rock: 20 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 68 Total % Cover: 103.2
SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum- Malosma laurina Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 2 Dead Standing Biomass? no Dead Standing Biomass Species:

DUVA_4MTRP015_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		3
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		25
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		1
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		1
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		12
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		7
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub		1
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		4
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		1
Malosma laurina - laurel sumac	Native	Perennial	Shrub		3
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb		0.2
Osmadenia tenella - false rosinweed	Native	Annual	Herb		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		4
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		1
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2

DUVA_4MTRP015_2			2019 Page 3 of 3	
V. THREATS ASSESSMENT IN MAXIMUN monitoring) plus 10-m surrounding buffe		occurrence's maximum extent (cumulative e	extent over years of	
Surround_LandUse				
Disturbances (Rank each as 1-6):				
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:		
Nonnative Grass:	Trampling:	Erosion:		
Nonnative Woody Plants:	Vandalism:	Urban Runoff:		
Competitive Native Plants:	Current Grazing:	Slope Movement:		
Dumping/Trash:	Historic Grazing:	Soil Compaction:		
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Brea	ak:	
Road Construction/Maintenance:	if present, describe:			
Vegetation Clearing: if p	present, describe:			
Brush Manangement: if	present, describe:			
ORV Activity: if present	t, describe:			
Evidence of Recent Fire:	Year Burned?			
Trails: if trails are prese	ent, are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: 0	ther:	
Illegal Trail Use:				
Other Disturbance: if p	resent, describe:			
VI. MANAGEMENT RECOMMENDATION	S			
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST Y	EAR			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list a	iny plant or animal species to add to the	ne CNDDB)		
None				
NOTES:				

Dudleya variegata (Variegated Dudleya)Mission Trails Regional Park Subpopulation # 2

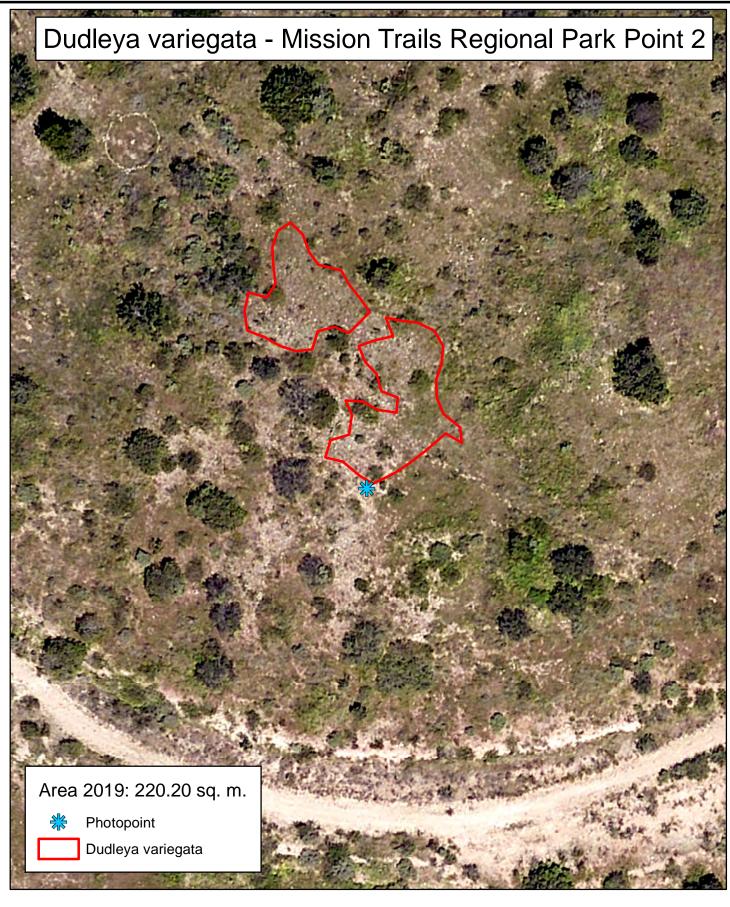
MSP Occurrence ID: DUVA 4MTRP015 - 2



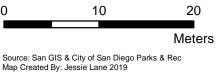
Panorama from Northeastern edge of population, facing West, Northwest, North.

Panorama location is 6309229.821 1880126.564 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019 Max Area: 241.36 sq. m. Min Area: 36.16 sq. m.



1

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DUVA_4MTRP015_3 2019 Page 1 of 3
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_4MTRP015
Sample Point #: 3 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mission Trails Regional Park Occurrence Name: Mission Trails Regional Park
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/14/2019 Time Start: 9:41 Time End: 10:17 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 4022 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 547.44 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 186 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 493384 N: 3631731
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE S SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUVA_4MTRP015_3_Photo1_5.14.2019
File Location:
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 17 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 63
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 17 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 63 Total % Cover: 100.2
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 17 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 63 Total % Cover: 100.2 SANDAG 2012 Vegetation Alliance/Association: Malosma laurina Alliance// Malosma laurina-Lotus scoparius Association
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 17 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 63 Total % Cover: 100.2 SANDAG 2012 Vegetation Alliance/Association: Malosma laurina Alliance// Malosma laurina-Lotus scoparius Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 17 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 63 Total % Cover: 100.2 SANDAG 2012 Vegetation Alliance/Association: Malosma laurina Alliance// Malosma laurina-Lotus scoparius Association
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 17 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 63 Total % Cover: 100.2 SANDAG 2012 Vegetation Alliance/Association: Malosma laurina Alliance// Malosma laurina-Lotus scoparius Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 2

DUVA_4MTRP015_3 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		6
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		1
Avena barbata - slender oat	Nonnative	Annual	Grass		1
Bloomeria crocea - common goldenstar	Native	Perennial	Herb		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		4
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		10
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Dichondra occidentalis - western ponysfoot	Native	Perennial	Herb		1
Dodecatheon clevelandii - padre's shootingstar	Native	Perennial	Herb		0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		6
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		5
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		9
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		1
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		1
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		7
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		7
Silene gallica - common catchfly	Nonnative	Annual	Herb		2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		3

DUVA_4MTRP015_3			2019	Page 3 of 3	
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.				s of	
Surround_LandUse Open space preserve,	passive recreation				
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 4	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction:			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break:	1		
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pre	sent, describe:				
Brush Manangement: 1 if pre	esent, describe:				
ORV Activity: 1 if present, do	escribe:				
Evidence of Recent Fire: no Ye	ear Burned? n/a				
Trails: 2 if trails are present,	, are they authorized? yes				
Type of Trail Use:					
Hiking: yes Biking: no Equestrian: no Dog: yes Service Vehicles: no Other: no					
Illegal Trail Use:					
Other Disturbance: 1 if present, describe:					
VI. MANAGEMENT RECOMMENDATIONS	VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship, consider fencing to keep hikers on trail					
VII. MANAGEMENT ACTIONS IN LAST YEA	R				
Preserve stwardship					
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)					
None					
NOTES:					

Dudleya variegata (Variegated Dudleya)Mission Trails Regional Park Subpopulation # 3

MSP Occurrence ID: DUVA_4MTRP015 - 3

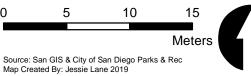


Panorama from Southwestern edge of population, facing Southeast, South, Southwest. Panorama location is 6309578.77 1880426.96 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019 Max Area: 66.24 sq. m. Min Area: 0.04 sq. m.



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DUVA_4NAVA016_1 2019 Page 1 of 3			
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_4NAVA016			
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 4			
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department			
Preserve Name: Rancho Mission Park Occurrence Name: Navajo/Mission Gorge			
Surveyors: Sara Allen, Ninfa Negrete (Rocks Biological) Other Surveyors:			
Affliation:			
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.			
Survey Date: 5/14/2019 Time Start: 15:48 Time End: 16:25 Mapped Extent Info Location n/a			
Number of Plants in Mapped Extent: 128 Exact or Estimate? exact Uncertainty: very_low			
Area of Current Mapped Extent: 80.55 Area Units: sq_m Area Exact (GPS) or Estim? exact			
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes			
If not found, known or suspected reason:			
Number of Plants in Circle: 14 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10			
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting:			
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1			
Is Sampling Area Representative of Current Mapped Extent? yes			
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a			
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING			
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM			
Coordinates at Center of Plot: E: 494474 N: 3629664			
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center			
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: DUVA_4NAVA016_1_Photo1_5.14.2019			
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 0 Photo Numbers: DUVA_4NAVA016_1_Photo1_5.14.2019 File Location:			
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 13 % Cover of Rock: 7 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 71			
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 13 % Cover of Rock: 7 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 101.2			
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 13 % Cover of Rock: 7 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica Alliance// Artemisia californica-Mimulus aurantiacus Association			
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 13 % Cover of Rock: 7 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica Alliance// Artemisia californica-Mimulus aurantiacus Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2			
File Location: [III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 13 % Cover of Rock: 7 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica Alliance// Artemisia californica-Mimulus aurantiacus Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 4			
File Location: [III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 13 % Cover of Rock: 7 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica Alliance// Artemisia californica-Mimulus aurantiacus Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2			
File Location: [III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 13 % Cover of Rock: 7 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica Alliance// Artemisia californica-Mimulus aurantiacus Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 4			

DUVA_4NAVA016_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	0010.	4
<u> </u>	Native	Perennial	Shrub		1
Baccharis pilularis - coyotebrush Baccharis sarothroides - desertbroom	Native		Shrub		
		Perennial			18
Bloomeria crocea - common goldenstar	Native	Perennial	Herb		0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		17
Brassica nigra - black mustard	Nonnative	Annual	Herb		3
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub		18
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		1
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		0.2
Gastridium phleoides - nit grass	Nonnative	Annual	Grass		0.2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb		0.2
Ranunculus californicus	Native	Perennial	Herb		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		2
Salvia mellifera - black sage	Native	Perennial	Shrub		1
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb		3
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		1

DUVA_4NAVA016_1	2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occumonitoring) plus 10-m surrounding buffer.	rrence's maximum extent (cumulative extent over years of			
Surround_LandUse Open space preserve				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 4 Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 4 Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1 Historic Grazing: no	Soil Compaction: 1			
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1 if present, describe:				
Vegetation Clearing: 1 if present, describe:				
Brush Manangement: 1 if present, describe:				
ORV Activity: 1 if present, describe:				
Evidence of Recent Fire: no Year Burned? n/a				
Trails: 1 if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use:				
Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship; consider more agressive weed mo	anagement - create a site sprcific plan			
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship; herbicide treatment to control nonnative br	achypodium			
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
None				
NOTES:				

Dudleya variegata (Variegated Dudleya) Navajo/Mission Gorge

MSP Occurrence ID: DUVA_4NAVA016 - 1



Panorama from Northwestern edge of population, facing Northeast, East, Southeast.

Panorama location is 6313074.339 1873618.051 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.







Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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DUVA_3OTLA005_1 2019 Page 1 of 3				
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_3OTLA005				
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3				
Land Owner: City of San Diego Land Manager: City of San Diego Public Utilities Department				
Preserve Name: Otay Lakes Cornerstone Land Occurrence Name: Otay Lakes				
Surveyors: Sara Allen, Diana Brand-Ramirez Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 4/23/2019 Time Start: 15:39 Time End: 16:13 Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 2854 Exact or Estimate? exact Uncertainty: medium				
Area of Current Mapped Extent: 903.02 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes				
If not found, known or suspected reason:				
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: 6				
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999				
Is Sampling Area Representative of Current Mapped Extent? no				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SE SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUVA_3OTLA005_1_Photo1_4.23.2019				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SE SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUVA_3OTLA005_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 3 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 89.4				
GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SE SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUVA_3OTLA005_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 3 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SE SW Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: DUVA_3OTLA005_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 3 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SE SW Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: DUVA_3OTLA005_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 3 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SE SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUVA_3OTLA005_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 3 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SE SW Camera Height: 1.1 m Camera Angle: -5 Photo Numbers: DUVA_3OTLA005_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 3 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 523320 N: 3603772 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SE SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: DUVA_3OTLA005_1_Photo1_4.23.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 3 % Cover of Litter: 0.2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0				

DUVA_3OTLA005_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb		2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb		0.2
Cressa truxillensis - spreading alkaliweed	Native	Perennial	Herb		0.2
Cuscuta californica - California dodder	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		32
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		50
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		1
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs	Native	Annual	Herb		0.2
Plantago erecta - California plantain	Native	Annual	Herb		0.2
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2

DUVA_3OTLA005_1		2019 Page 3 of		
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.				
Surround_LandUse Open space preserve				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 3	Trampling: 1	Erosion: 1		
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1		
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1		
Dumping/Trash: 1	Historic Grazing: yes	Soil Compaction: 1		
Encampments: 3	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe:			
Vegetation Clearing: 1 if pres	sent, describe:			
Brush Manangement: 1 if pre	esent, describe:			
ORV Activity: 1 if present, de	escribe:			
Evidence of Recent Fire: no Ye	ear Burned? n/a			
Trails: 1 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use:				
Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR	R			
Preserved stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
CAGN and san diego horned lizard				
NOTES:				
Horned lizard seen at navarettia site				

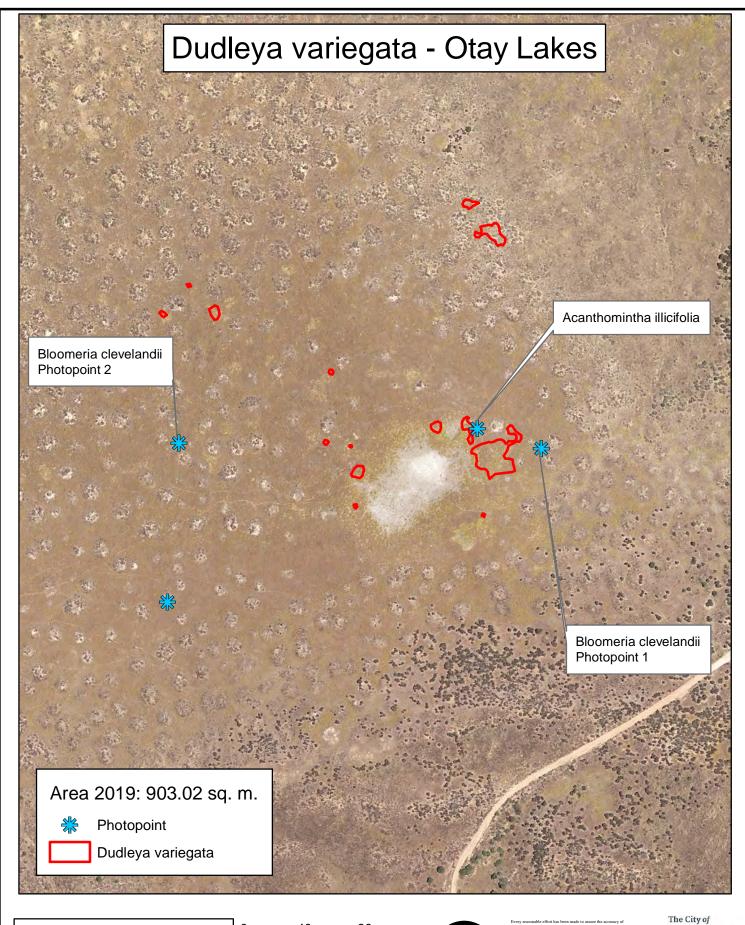
Dudleya variegata (Variegated Dudleya) Otay Lakes

MSP Occurrence ID: DUVA_3OTLA005 - 1



Panorama from Northeastern edge of the population, facing North, Northeast, East, Southeast. Panorama location is 6356396.91 1807139.55 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019

Max Area: 196,313.40 sq. m.

Min Area: 0 sq. m.

0 40 80 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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DUVA_6SALU024_1 2019 Page 1 of 3					
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_6SALU024					
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 6					
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department					
Preserve Name: Santa Luz Occurrence Name: Santa Luz					
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane Other Surveyors:					
Affliation:					
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.					
Survey Date: 5/20/2019 Time Start: 12:03 Time End: 12:25 Mapped Extent Info Location n/a					
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: low					
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim? exact					
Current Extent Mapping Method: n/a - no plants Species Found in Max Extent no					
If not found, known or suspected reason: Has nout been found in site for several years					
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10					
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999					
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999					
Is Sampling Area Representative of Current Mapped Extent? no					
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a					
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING					
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM					
Coordinates at Center of Plot: E: 487217 N: 3649927					
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center					
Photo Direction: SW W NW Camera Height: 1.1 m Camera Angle: -10 Photo Numbers: DUVA_6SALU024_1_Photo1_5.20.2019					
File Location:					
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).					
% Cover of Bare Ground: 15 % Cover of Rock: 8 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 75					
Total % Cover: 100.4					
SANDAG 2012 Vegetation Alliance/Association: Lotus scoparius Alliance and Association					
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2					
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 5					
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra					
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 45					
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1					

DUVA_6SALU024_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		12
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		6
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		4
Brassica nigra - black mustard	Nonnative	Annual	Herb		3
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		4
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Croton setigerus - dove weed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		13
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		25
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Erodium moschatum - Musky stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		4
Hordeum marinum - seaside barley	Nonnative	Annual	Grass		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Malacothamnus fasciculatus - Mendocino bushmallow	Native	Perennial	Shrub		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		1
Phacelia cicutaria - caterpillar phacelia	Native	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		0.2
Zeltnera venusta - charming centaury	Native	Annual	Herb		0.2

DUVA_6SALU024_1	2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurren monitoring) plus 10-m surrounding buffer.	ce's maximum extent (cumulative extent over years of			
Surround_LandUse Open space preserve, resindential				
Disturbances (Rank each as 1-6):				
Nonnative Forbs: 4 Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 4 Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1 Historic Grazing: no	Soil Compaction: 1			
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1 if present, describe:				
Vegetation Clearing: 1 if present, describe:				
Brush Manangement: 1 if present, describe:				
ORV Activity: 1 if present, describe:				
Evidence of Recent Fire: no Year Burned? n/a				
Trails: 1 if trails are present, are they authorized?				
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog:	Service Vehicles: Other:			
Illegal Trail Use:				
Other Disturbance: 1 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Prserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
None				
NOTES:				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) None				

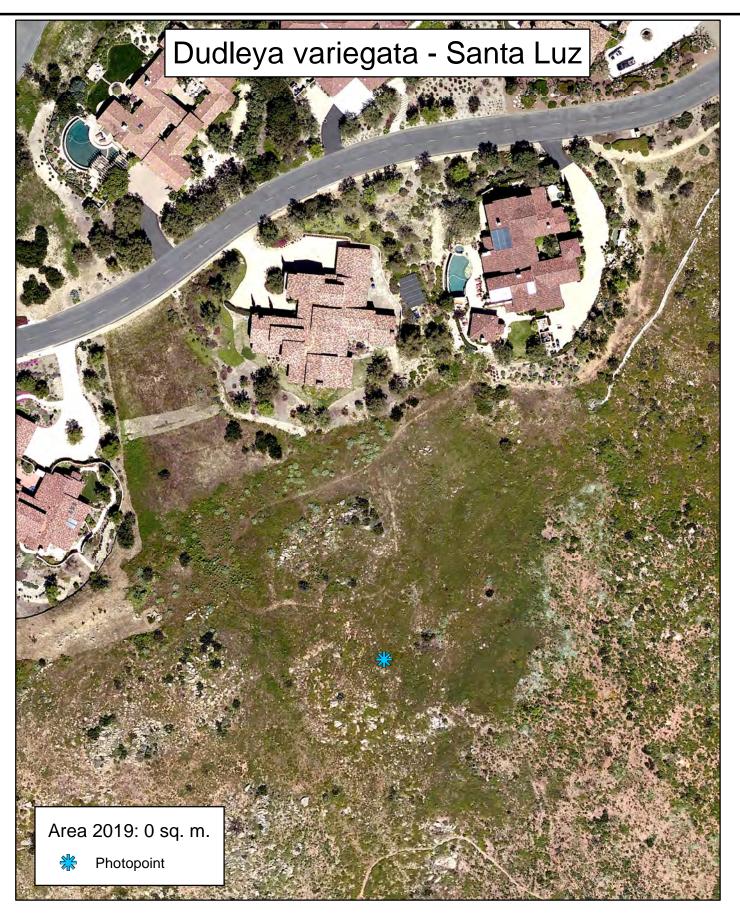
Dudleya variegata (Variegated Dudleya) Santa Luz East

MSP Occurrence ID: MSP Occurrence ID: DUVA_6SALU024_1



Panorama from Northeastern edge of population, facing Southeast, East, Northeast. Panorama location is 6289735.96 1940293.56 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 617.05 sq. m.

Min Area: 0 sq. m.

25 50 Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019

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Erysimum ammophilum Coast wallflower



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ERAM4_6DEMA001_1 2019 Page 1 of 3
Scientific Name: Erysimum ammophilum Common Name: Coast wallflower MSP Occurr. ID: ERAM4_6DEMA001
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: North City West Open Space Occurrence Name: Overlook Park
Surveyors: Sara Allen, Mark Berninger, Diana Brand-Ramirez, Jessie Lane Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 3/12/2019 Time Start: 10:02 Time End: Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 691 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 1532.04 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent Yes
If not found, known or suspected reason:
Number of Plants in Circle: 216 Exact or Estimate? exact Uncertainty: very low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 4 % Flowering: 4 % Dead: 4 % Fruiting: 4
Evidence in Circle Plot (1-6): % Herbivory: 2 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? Yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 477818 N: 3647270
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: W SW S Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6DEMA001-1_Photo1_3.12.2019
File Location:
File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 0 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 85
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 0 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 85 Total % Cover: 100
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 0 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 85 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Salvia apiana Alliance// Salvia apiana-Artemisia californica Association
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 0 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 85 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Salvia apiana Alliance// Salvia apiana-Artemisia californica Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 0 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 85 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Salvia apiana Alliance// Salvia apiana-Artemisia californica Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 0 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 85 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Salvia apiana Alliance// Salvia apiana-Artemisia californica Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 8 % Cover of Rock: 0 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 85 Total % Cover: 100 SANDAG 2012 Vegetation Alliance/Association: Salvia apiana Alliance// Salvia apiana-Artemisia californica Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0

ERAM4_6DEMA001_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Scientific flame - common flame	native/normative	Allilual/Felelililal	Flailt Type	Covei	
Acmispon glaber - deerweed	Native	Perennial	Shrub	C	0.2
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb	:	20
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		17
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub		4
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Camissoniopsis bistorta - southern suncup	Native	Annual	Herb	C	0.2
Croton californicus - California croton	Native	Perennial	Herb		1
Cryptantha sp cryptantha	Native	Annual	Herb	C	0.2
Erysimum ammophilum - Coast wallflower	Native	Perennial	Herb		3
Eucrypta chrysanthemifolia - spotted eucrypta	Native	Annual	Herb	C	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		18
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb		17
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb		1
Muhlenbergia microsperma - littleseed muhly	Native	Annual	Grass	C	0.2
Nicotiana glauca - tree tobacco	Nonnative	Perennial	Shrub		6
Nuttallanthus texanus - Texas toadflax	Native	Annual	Herb	C	0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	C	0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub	C	0.2
Salvia apiana - white sage	Native	Perennial	Shrub		3
Scrophularia californica - California figwort	Native	Perennial	Herb		8
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb	C	0.2

ERAM4_6DEMA001_1		2019	Page 3 of 3		
V. THREATS ASSESSMENT IN MAXIMUM EX monitoring) plus 10-m surrounding buffer.	CTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over	years of		
Surround_LandUse Open space preserve;	residential; brush management zone				
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 3			
Nonnative Grass: 3	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 4	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 3	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 4 if pre	sent, describe: Brush mgmt zone around re	sidential			
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ar Burned? n/a				
Trails: 1 if trails are present,	are they authorized?				
Type of Trail Use:					
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:			
Illegal Trail Use:					
Other Disturbance: 1 if present, describe:					
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship; treat/remove nonnative tree tobacco from site.					
VII. MANAGEMENT ACTIONS IN LAST YEAR					
Preserve stewardship					
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)			
CAGN					
NOTES:					

Erysimum ammophilum (Coast Wallflower) North City West Observation

MSP Occurrence ID: ERAM4_6DEMA001 - 1



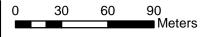
Panorama from Northern edge of population, facing West, Southwest, South.

Panorama location is 6258825.981 19317194.938 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2015 - 2019 Max Area: 1,532.09 sq. m. Min Area: 78.50 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





ERAM4_6GOCA003_1 2019 Page 1 of 3				
Scientific Name: Erysimum ammophilum Common Name: Coast wallflower MSP Occurr. ID: ERAM4_6GOCA003				
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 6				
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department				
Preserve Name: Gonzales Canyon Open Spac Occurrence Name: Gonzalez Canyon				
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:				
Affliation:				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Survey Date: 3/7/2019 Time Start: 10:24 Time End: Mapped Extent Info Location n/a				
Number of Plants in Mapped Extent: 169 Exact or Estimate? exact Uncertainty: low				
Area of Current Mapped Extent: 519.15 Area Units: sq_m Area Exact (GPS) or Estim? exact				
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes				
If not found, known or suspected reason:				
Number of Plants in Circle: 102 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 1				
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1				
Is Sampling Area Representative of Current Mapped Extent? yes				
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a				
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING				
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM				
Coordinates at Center of Plot: E: 479077 N: 3647585				
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center				
Sanistary Galaxy Note 0 Coordinates of Finoto Form. L. Sanie as piot center				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6GOCA003-1_Photo1_3.7.2019				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6GOCA003-1_Photo1_3.7.2019				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6GOCA003-1_Photo1_3.7.2019 File Location:				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6GOCA003-1_Photo1_3.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 16 % Cover of Rock: 0.2 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 81				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6GOCA003-1_Photo1_3.7.2019 File Location: [III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 16 % Cover of Rock: 0.2 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 81 Total % Cover: 102.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6GOCA003-1_Photo1_3.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 16 % Cover of Rock: 0.2 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 81 Total % Cover: 102.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis) Association				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6GOCA003-1_Photo1_3.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 16 % Cover of Rock: 0.2 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 81 Total % Cover: 102.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis) Association Cover Classes (1-6): Cryptogamic Crust Cover: 4 Thatch Cover: 1				
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ERAM4_6GOCA003-1_Photo1_3.7.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 16 % Cover of Rock: 0.2 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 81 Total % Cover: 102.2 SANDAG 2012 Vegetation Alliance/Association: Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis) Association Cover Classes (1-6): Cryptogamic Crust Cover: 4 Thatch Cover: 1 Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0				

ERAM4_6GOCA003_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		6
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		0.2
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb		3
Amsinckia intermedia - common fiddleneck	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		16
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub		2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub		4
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Camissoniopsis bistorta - southern suncup	Native	Annual	Herb		7
Chaenactis glabriuscula - yellow pincushion	Native	Annual	Herb		0.2
Claytonia perfoliata - Miner's lettuce	Native	Annual	Herb		2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb		1
Crassula connata - sand pygmyweed	Native	Annual	Herb		2
Croton californicus - California croton	Native	Perennial	Herb		1
Cryptantha sp cryptantha	Native	Annual	Herb		2
Cylindropuntia prolifera - coastal cholla	Native	Perennial	Shrub		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		4
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		7
Eriogonum gracile - slender buckwheat	Native	Annual	Herb		0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Erysimum ammophilum - Coast wallflower	Native	Perennial	Herb		1
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		5
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Hazardia squarrosa - sawtooth goldenbush	Native	Perennial	Shrub		1
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		3
Logfia filaginoides - California cottonrose	Native	Annual	Herb		2
Lupinus bicolor - annual lupine	Native	Annual	Herb		0.2
Pseudognaphalium beneolens - cudweed	Native	Perennial	Herb		0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb		0.2
Salvia mellifera - black sage	Native	Perennial	Shrub		2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		5

ERAM4_6GOCA003_1		2019 Page 3 of 3			
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring) plus 10-m surrounding buffer.					
Surround_LandUse Open space preserve;	passive recreation				
Disturbances (Rank each as 1-6):					
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1			
Nonnative Grass: 3	Trampling: 1	Erosion: 1			
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1			
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1			
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1			
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 1	if present, describe:				
Vegetation Clearing: 1 if pres	sent, describe:				
Brush Manangement: 1 if pre	esent, describe:				
ORV Activity: 1 if present, de	escribe:				
Evidence of Recent Fire: no Ye	ear Burned? n/a				
Trails: 3 if trails are present,	are they authorized? yes				
Type of Trail Use:					
	Hiking: yes Biking: yes Equestrian: unknown Dog: yes Service Vehicles: no Other: no				
Illegal Trail Use:					
Other Disturbance: 1 if present, describe:					
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship					
VII. MANAGEMENT ACTIONS IN LAST YEAR					
Preserve stewardship					
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)					
CAGN heard south of point					
NOTES:					

Erysimum ammophilum (Coast Wallflower) Gonzales Canyon

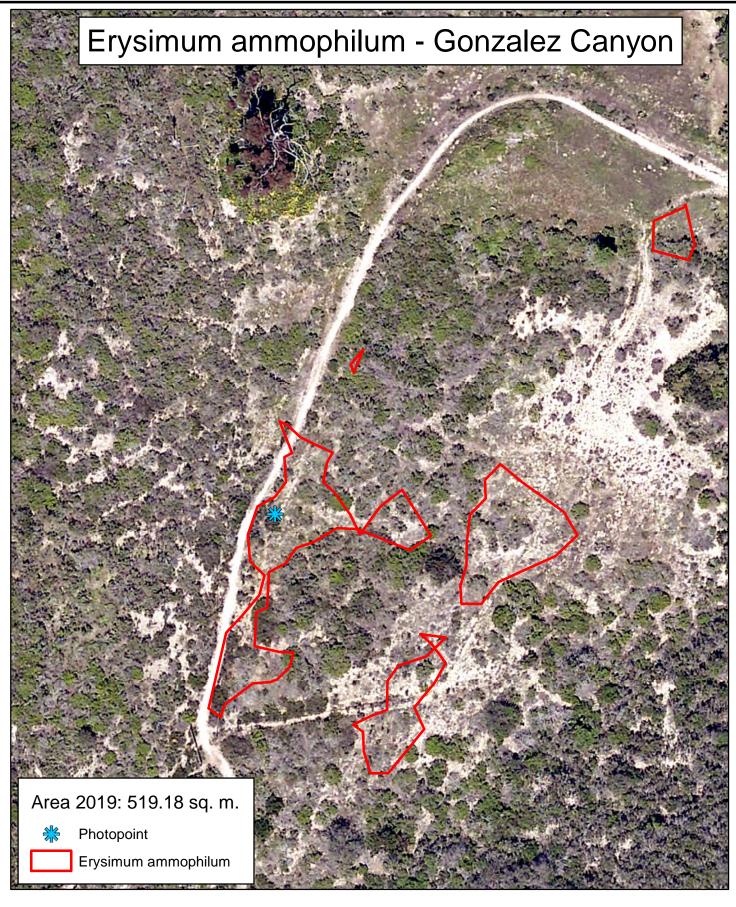
MSP Occurrence ID: ERAM4_6GOCA003 - 1



Panorama from Northern edge of population, facing Northeast, East, Southeast.

Panorama location is 6262965.904 1932798.061 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2016 - 2019 Max Area: 925.60 sq. m. Min Area: 26.20 sq. m.

20 ■ Meters

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





ERAM4_7CRCA002_1 2019 Page 1 of 3
Scientific Name: Erysimum ammophilum Common Name: Coast wallflower MSP Occurr. ID: ERAM4_7CRCA002
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Crest Canyon Preserve Occurrence Name: Crest Canyon
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 3/7/2019 Time Start: 14:49 Time End: Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 163 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 758.06 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 1 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 476223 N: 3646995
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SW W NW Camera Height: 1.1 m Camera Angle: 15 Photo Numbers: ERAM4_7CRCA002-1_Photo1_3.7.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 20 % Cover of Rock: 0.2 % Cover of Litter: 12 % Cover of Water: 0 % Cover of Vegetation: 76 Total % Cover: 108.2
SANDAG 2012 Vegetation Alliance/Association: Pinus torreyana Special Stands Alliance and Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 3
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 2
Dead Standing Biomass? yes Dead Standing Biomass Species: Ehrharta longiflora
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 25
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 2

ERAM4_7CRCA002_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		8
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Dodecatheon clevelandii - padre's shootingstar	Native	Perennial	Herb		0.2
Dudleya lanceolata - lanceleaf liveforever	Native	Perennial	Herb		1
Ehrharta longiflora - longflowered veldtgrass	Nonnative	Annual	Grass		35
Encelia californica - California brittlebush	Native	Perennial	Shrub		2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		2
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb		0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		2
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb		1
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb		5
Muhlenbergia microsperma - littleseed muhly	Native	Annual	Grass		0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		0.2
Phacelia parryi - Parry's phacelia	Native	Annual	Herb		0.2
Pinus torreyana - torrey pine	Native	Perennial	Tree		8
Polypodium californicum - California polypody	Native	Perennial	Fern		4
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub		1
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern		7
Senecio californicus - California butterweed	Native	Perennial	Shrub		0.2

ERAM4_7CRCA002_1		2019 F	Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years o	of
Surround_LandUse Open space preserve;	passive recreation		
Disturbances (Rank each as 1-6):			
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1	
Nonnative Grass: 5	Trampling: 1	Erosion: 1	
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1	
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1	
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1	
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 1	if present, describe:		
Vegetation Clearing: 1 if pres	sent, describe:		
Brush Manangement: 7 if pre	esent, describe:		
ORV Activity: 1 if present, de	escribe:		
Evidence of Recent Fire: no Ye	ear Burned? n/a		
Trails: 2 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: yes Biking: yes	Equestrian: unknown Dog: yes	Service Vehicles: no Other:	
Illegal Trail Use:			
Other Disturbance: 1 if pres	ent, describe:		
VI. MANAGEMENT RECOMMENDATIONS			
Continue controlling velt grass.			
VII. MANAGEMENT ACTIONS IN LAST YEA	R		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)	
None			
NOTES:			
Caulanthus heterophyllus: 0.2%, Li A large sinkhole opened up in the		is not currently threatening ERAM populat	ions.

Erysimum ammophilum (Coast Wallflower) Crest Canyon

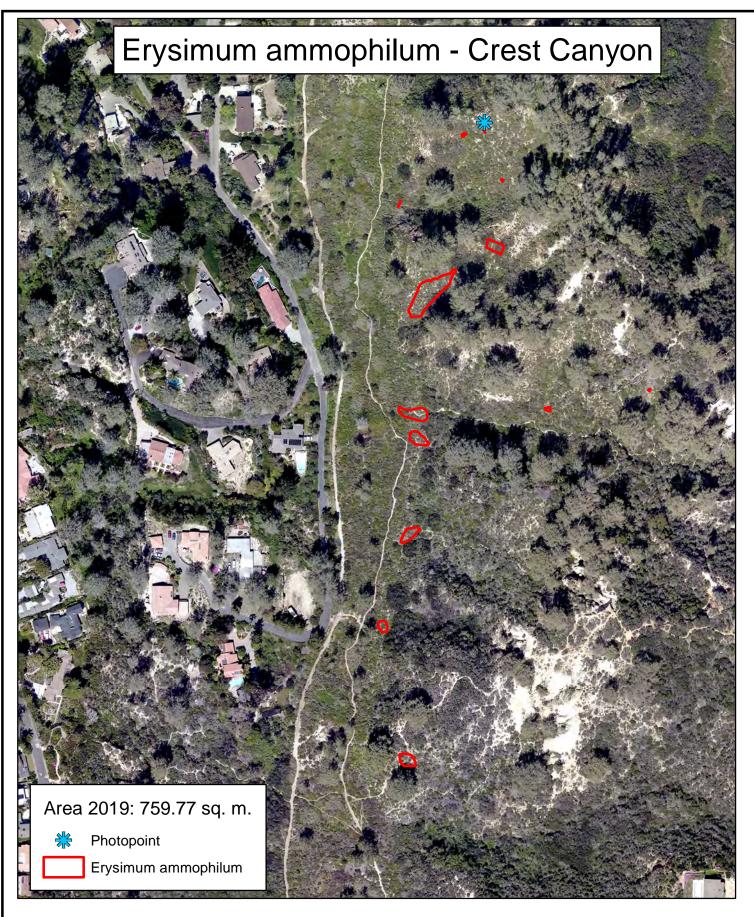
MSP Occurrence ID: ERAM4_7CRCA002 - 1



Panorama from Northern edge of population, facing Southwest, West, Northwest.

Panorama location is 6253583.239 1932214.379 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2015 - 2019 Max Area: 1,120.50 sq. m. Min Area: 0 sq. m.

80 ■ Meters 40

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





Monardella stoneana Jennifer's Monardella



© City of San Diego, 2005

MOST_3MAVA002_1 2019 Page 1 of 3
Scientific Name: Monardella stoneana Common Name: Jennifer's monardella MSP Occurr. ID: MOST_3MAVA002
Sample Point #: 1 CNDDB Elem. Occurr. #: EO6 Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Marron Valley Mitigation Bank Occurrence Name: Marron Valley
Surveyors: Sara Allen, Mark Berninger, Diana Brand-Ramirez, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 6/21/2019 Time Start: 10:41 Time End: 12:14 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 46 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 924.68 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 2 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 524003 N: 3604434
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOST_3MAVA002_1_Photo1_6.21.2019
File Location:
The Location.
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 33 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 52.2
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 33 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 52.2 Total % Cover: 101.2
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 33 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 52.2 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Bahiopsis laciniata Alliance// Bahiopsis laciniata-Artemisia californica-Eriogonum fasciculatum Association
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 33 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 52.2 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Bahiopsis laciniata Alliance// Bahiopsis laciniata-Artemisia californica-Eriogonum fasciculatum Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 33 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 52.2 Total % Cover: 101.2 SANDAG 2012 Vegetation Alliance/Association: Bahiopsis laciniata Alliance// Bahiopsis laciniata-Artemisia californica-Eriogonum fasciculatum Association Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1

MOST_3MAVA002_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb		0.2
Antirrhinum nuttallianum - Nuttall's snapdragon	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		1
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub		7
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub		5
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		0.2
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb		0.2
Brickellia californica - California brickellbush	Native	Perennial	Shrub		2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		3
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb		1
Cordylanthus rigidus var. setigerus - stiffbranch bird's beak	Native	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Croton setigerus - dove weed	Native	Annual	Herb		0.2
Cuscuta californica - California dodder	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Dudleya pulverulenta - chalk dudleya	Native	Perennial	Herb		0.2
Ephedra californica - California jointfir	Native	Perennial	Shrub		1
Eriodictyon trichocalyx - hairy yerba santa	Native	Perennial	Shrub		1
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		6
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Funastrum cynanchoides - climbing milkweed	Native	Perennial	Herb		0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub		0.2
Hainardia cilyndrica	Nonnative	Annual	Grass		0.2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb		1
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Juncus bufonius - toad rush	Native	Annual	Herb		0.2
Lamarckia aurea - goldentop grass	Nonnative	Annual	Grass		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lythrum hyssopifolia - Hyssop loosestrife	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		3
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb		0.2
Melica imperfecta - California melic	Native	Annual	Herb		0.2
Mimulus guttatus - seep monkeyflower	Native	Annual	Herb		0.2

Monardella stoneana - Jennifer's monardella	Native	Perennial	Herb	1
Pentagramma glanduloviscida	Native	Pernnial	Fern	0.2
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Polypogon monspeliensis - annual rabbitsfoot grass	Nonnative	Annual	Grass	0.2
Pseudognaphalium bicolor - Twocolor cudweed	Native	Perennial	Herb	0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb	0.2
Quercus sp oak	Native	Perennial	Tree	10
Romneya trichocalyx - hairy matilija poppy	Native	Perennial	Herb	0.2
Salvia apiana - white sage	Native	Perennial	Shrub	0.2
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern	4
Silene gallica - common catchfly	Nonnative	Annual	Herb	0.2
Sisymbrium irio - London rocket	Nonnative	Annual	Herb	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb	0.2

MOST_3MAVA002_1	2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrer monitoring) plus 10-m surrounding buffer.	nce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve	
Disturbances (Rank each as 1-6):	
Nonnative Forbs: 3 Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 3 Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1 Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1 Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 3 Historic Grazing: no	Soil Compaction: 1
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1 if present, describe:	
Vegetation Clearing: 1 if present, describe:	
Brush Manangement: 1 if present, describe:	
ORV Activity: 1 if present, describe:	
Evidence of Recent Fire: no Year Burned? n/a	
Trails: 1 if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:	
Other Disturbance: 1 if present, describe:	
VI. MANAGEMENT RECOMMENDATIONS	
Continue preserve stewardship	
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserved stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDI	DB)
None	
NOTES:	

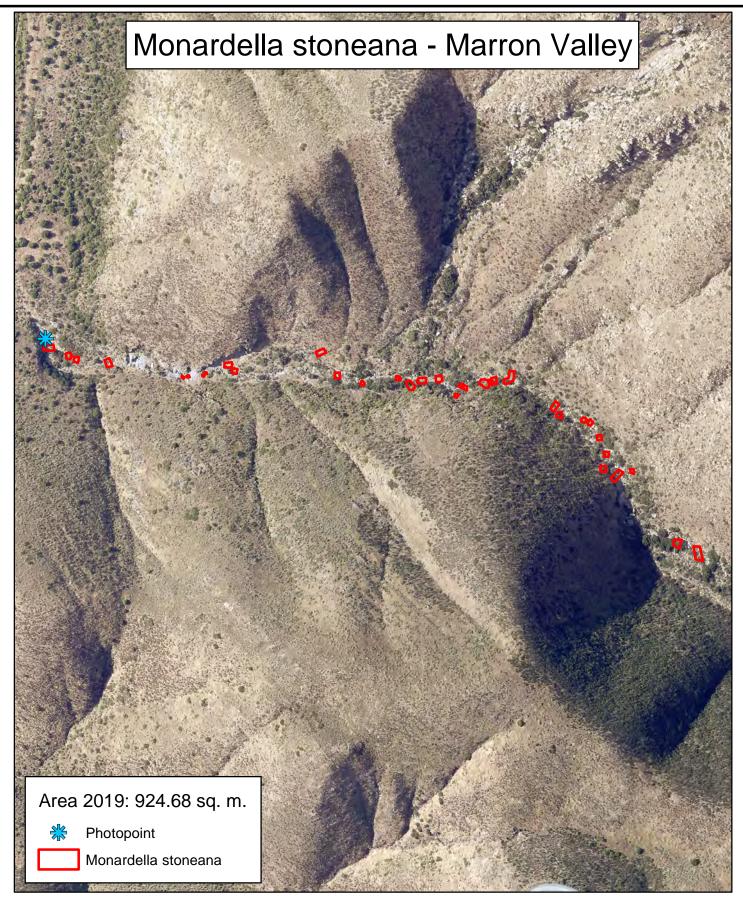
Monardella stoneana (Jennifer's Monardella) Marron Valley

MSP Occurrence ID: MOST_3MAVA002 - 1



Panorama from Northern edge of population, facing Southeast, South, Southwest Panorama location is 6409398.728 1790116.116 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 13,959.50 sq. m. Min Area: 26.00 sq. m.



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Scientific Name: Monardella stoneana Common Name: Jennifer's monardella MSP Occurr. ID: MOST_30TLA005
Sample Point #: 1 CNDDB Elem. Occurr. #: EO5 Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Otay Lakes Cornerstone Land Occurrence Name: Otay Lakes
Surveyors: Diana Brand-Ramirez, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 6/17/2019 Time Start: 10:21 Time End: 12:19 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: n/a - no plants Species Found in Max Extent no
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: -999 % Flowering: -999 % Dead: -999 % Fruiting: -999
Evidence in Circle Plot (1-6): % Herbivory: -999 % Diseased: -999 % Stunted: -999
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 508229 N: 3609134
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOST_3OTLA005_1_Photo1_6.17.2019
File Location:
FIIE LOCATION.
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 45 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 47.8
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 45 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 47.8 Total % Cover: 100.2
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 45 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 47.8
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 45 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 47.8 Total % Cover: 100.2 SANDAG 2012 Vegetation Alliance/Association: Bahiopsis laciniata Artemesia californica-Eriogonum fasciculatum Alliance// Bahiopsis laciniata-Artemesia californica-Eriogonum fasciculatum Artemesia californica-Eriogonum fasciculatum-Malosma laurina
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 45 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 47.8 Total % Cover: 100.2 SANDAG 2012 Vegetation Alliance/Association: Bahiopsis laciniata Artemesia californica-Eriogonum fasciculatum Alliance// Bahiopsis laciniata-Artemesia californica-Eriogonum fasciculatum-Malosma laurina Association
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 5 % Cover of Rock: 45 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 47.8 Total % Cover: 100.2 SANDAG 2012 Vegetation Alliance/Association: Bahiopsis laciniata Artemesia californica-Eriogonum fasciculatum Alliance// Bahiopsis laciniata-Artemesia californica-Eriogonum fasciculatum-Malosma laurina Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 3
We Cover of Bare Ground: 5

MOST_30TLA005_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon americanus - American bird's-foot trefoil	Native	Annual	Herb		1
Acmispon glaber - deerweed	Native	Perennial	Shrub		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		2
Avena fatua - wild oat	Nonnative	Annual	Grass		0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub		1
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		4
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb		0.2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		4
Carduus pycnocephalus - Italian plumeless thistle	Nonnative	Annual	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Croton setigerus - dove weed	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Erigeron canadensis - Canada horseweed	Native	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		2
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		9
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb		0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		0.2
Geranium californicum - California geranium	Native	Annual	Herb		0.2
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub		0.2
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb		1
lva hayesiana - San Diego marsh elder	Native	Perennial	Shrub		16
Juncus dubius - finger rush	Native	Perennial	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub		1
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Lythrum hyssopifolia - Hyssop loosestrife	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		3
Mimulus guttatus - seep monkeyflower	Native	Annual	Herb		0.2
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass		0.2
Polypogon monspeliensis - annual rabbitsfoot grass	Nonnative	Annual	Grass		0.2
Pseudognaphalium bicolor - Twocolor cudweed	Native	Perennial	Herb		0.2
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass		1
Tamarix sp tamarisk	Nonnative	Perennial	Tree		0.2

MOST_30TLA005_1		2019 Page 3 of
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurren	nce's maximum extent (cumulative extent over years of
Surround_LandUse Open space		
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 1	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 4	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 1 if pre	esent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ear Burned? n/a	
Trails: 1 if trails are present,	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEA	R	
Preserved stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD)B)
None		
NOTES:		

Monardella stoneana (Jennifer's Monardella) Otay Lakes

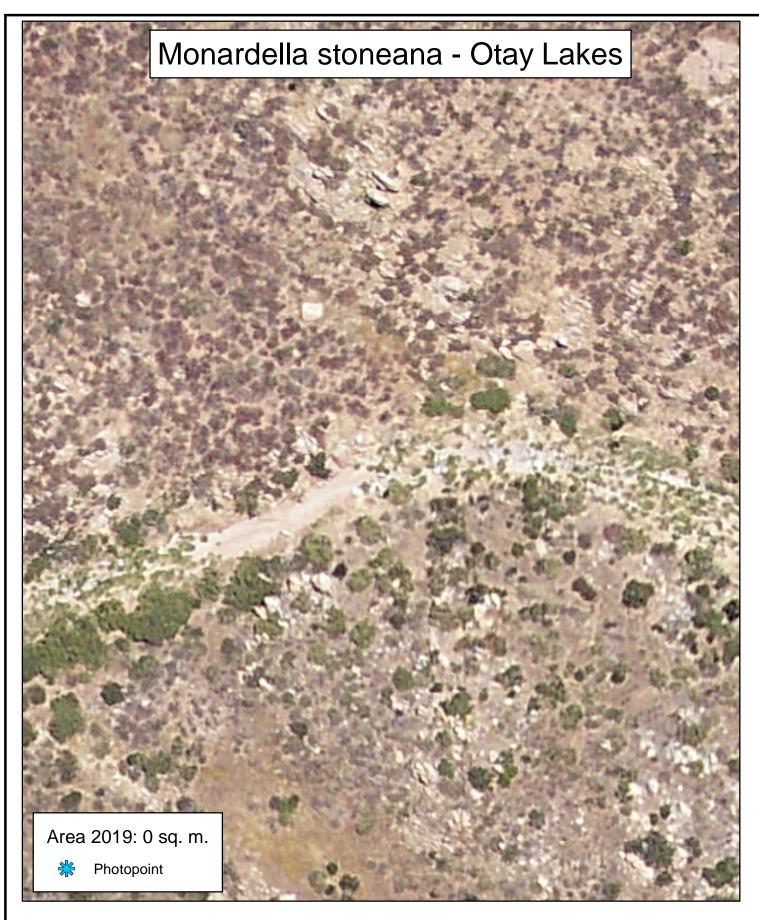
MSP Occurrence ID: MOST_3OTLA005 - 1



Panorama from Northern edge of population, facing Northeast, East, Southeast.

Panorama location is 6357735.58 1805911.58 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 7.98 sq. m. Min Area: 0 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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*Monardella viminea*Willowy Monardella



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MOLIV_6FLCA007_1 2019 Page 1 of 3
Scientific Name: Monardella viminea Common Name: Willowy monardella MSP Occurr. ID: MOLIV_6FLCA007
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? yes Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Mira Mesa Open Space Occurrence Name: Flanders Canyon
Surveyors: Sara Allen, Sarah McCutcheon (SDMMP), Jessie Lane, Diana Brand-Ramirez Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 6/4/2019 Time Start: 9:45 Time End: 10:33 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 66 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 347.65 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 39 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 483920 N: 3640201
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: W NW N Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6FLCA007_1_Photo1_6.4.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 5 % Cover of Rock: 37 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 55 Total % Cover: 102.2
SANDAG 2012 Vegetation Alliance/Association: Salvia mellifera Alliance// Salvia mellifera-Eriogonum fasciculatum Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Foeniculum vulgare
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 200
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

MOLIV_6FLCA007_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb	0.
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	0.
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	0.
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	4
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb	0.
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb	
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb	0.
Monardella viminea - Willowy monardella	Native	Perennial	Herb	
Pseudognaphalium beneolens - cudweed	Native	Perennial	Herb	0.
Pseudognaphalium bicolor - Twocolor cudweed	Native	Perennial	Herb	0.
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.
Salvia mellifera - black sage	Native	Perennial	Shrub	0.
Solanum sp nightshade	Unknown	Annual	Herb	0.
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.

MOLIV_6FLCA007_1	2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence monitoring) plus 10-m surrounding buffer.	e's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve and urban development	
Disturbances (Rank each as 1-6):	
Nonnative Forbs: 3 Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 3 Trampling: 1	Erosion: 1
Nonnative Woody Plants: 3 Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 3 Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 3 Historic Grazing: no	Soil Compaction: 1
Encampments: 1 Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1 if present, describe:	
Vegetation Clearing: 1 if present, describe:	
Brush Manangement: 1 if present, describe:	
ORV Activity: 1 if present, describe:	
Evidence of Recent Fire: no Year Burned? n/a	
Trails: 1 if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Biking: Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:	
Other Disturbance: 1 if present, describe:	
VI. MANAGEMENT RECOMMENDATIONS	
Continue preserve stewardship	
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserve stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)
None	
NOTES:	
Erigonum may be competetive	

Monardella viminea (Willowy Monardella) Flanders Canyon

MSP Occurrence ID: MOLIV_6FLCA007 - 1



Panorama from Southern edge of population, facing West, Northwest, North.

Panorama location is 6278683.235 1908449.893 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2015 - 2019 Max Area: 399.70 sq. m. Min Area: 314.10 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





MOLIV_6LOCA004_1 2019 Page 1 of
Scientific Name: Monardella viminea Common Name: Willowy monardella MSP Occurr. ID: MOLIV_6LOCA004
Sample Point #: 1 CNDDB Elem. Occurr. #: EO1 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Lopez Canyon - West Terrace
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 6/4/2019 Time Start: 14:26 Time End: 15:12 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 5 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 101.04 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 1 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
Conection raken: IIIO Conection IIIIa Conection#. IIIIa IVIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_1_Photo1_6.4.2019
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_1_Photo1_6.4.2019 File Location:
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_1_Photo1_6.4.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 3 % Cover of Rock: 4 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 89.4
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accuracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_1_Photo1_6.4.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 3 % Cover of Rock: 4 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Artemesia californica-Eriogonum fasciculatum Alliance// Deinandra fasciculata Provisional Artemesia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis)
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_1_Photo1_6.4.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 3 % Cover of Rock: 4 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Artemesia californica-Eriogonum fasciculatum Alliance// Deinandra fasciculata Provisional Artemesia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis) Association
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_1_Photo1_6.4.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 3 % Cover of Rock: 4 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Artemesia californica-Eriogonum fasciculatum Alliance// Deinandra fasciculata Provisional Artemesia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis) Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 3
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 483009 N: 3641648 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: S SW W Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_1_Photo1_6.4.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 3 % Cover of Rock: 4 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 89.4 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Deinandra fasciculata Provisional Artemesia californica-Eriogonum fasciculatum-Opuntia littoralis/Dudleya (edulis) Association Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 3 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 6

MOLIV_6LOCA004_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb		0.2
Avena sp oat	Nonnative	Annual	Grass		0.2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub		4
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		0.2
Brassica nigra - black mustard	Nonnative	Annual	Herb		1
Brickellia californica - California brickellbush	Native	Perennial	Shrub		2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		35
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		1
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Carduus pycnocephalus - Italian plumeless thistle	Nonnative	Annual	Herb		0.2
Carex sp sedge	Native	Perennial	Sedge		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Cerastium glomeratum - sticky mouseear chickweed	Nonnative	Annual	Herb		0.2
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub		6
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		1
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		3
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb		0.2
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		10
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		0.2
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb		1
Geranium californicum - California geranium	Native	Annual	Herb		0.2
Glebionis coronaria - crown daisy	Nonnative	Annual	Herb		1
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb		0.2
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		1
Phacelia cicutaria - caterpillar phacelia	Native	Annual	Herb		2
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass		0.2
Prunus ilicifolia - hollyleaf cherry	Native	Perennial	Shrub		16
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Salvia apiana - white sage	Native	Perennial	Shrub		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Toxicodendron diversilobum - poison oak	Native	Perennial	Shrub		1

MOLIV_6LOCA004_1		2019 Pago	e 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	TENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve a	and residential		
Disturbances (Rank each as 1-6):			
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 7	
Nonnative Grass: 6	Trampling: 1	Erosion: 3	
Nonnative Woody Plants: 3	Vandalism: 1	Urban Runoff: 7	
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1	
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1	
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 1	if present, describe:		
Vegetation Clearing: 1 if pres	ent, describe:		
Brush Manangement: 1 if pre	sent, describe:		
ORV Activity: 1 if present, de	scribe:		
Evidence of Recent Fire: no Ye	ar Burned? n/a		
Trails: 1 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use:			
	ent, describe:		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserving stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAR	?		
Preserved atewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)	_
None			
NOTES:			

Monardella viminea (Willowy Monardella) Lopez Canyon – West Terrace Observation # 1

MSP Occurrence ID: MOLIV_6LOCA004 - 1

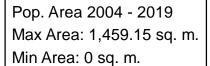


Panorama from Southern edge of population, facing South, Southwest, West.

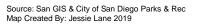
Panorama location is 6275731.67 1913221.28 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.











SAN SanGIS

MOLIV_6LOCA004_2 2019 Page 1 of 3
Scientific Name: Monardella viminea Common Name: Willowy monardella MSP Occurr. ID: MOLIV_6LOCA004
Sample Point #: 2 CNDDB Elem. Occurr. #: EO1 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Lopez Canyon - East of Bridge Site 2
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Sarah McCutcheon (SDMMP) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 6/4/2019 Time Start: 13:19 Time End: 13:58 Mapped Extent Info Location MOLIV_6LOCA004_1
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 3 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 5 % Flowering: 4 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 483777 N: 3641805
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: NE E SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_2_Photo1_6.4.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 7 % Cover of Rock: 1 % Cover of Litter: 15 % Cover of Water: 0 % Cover of Vegetation: 77.8 Total % Cover: 101.2
SANDAG 2012 Vegetation Alliance/Association: Baccharis sarothroides Provisional Alliance// Baccharis sarothroides Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 3
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 4
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 100
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

MOLIV_6LOCA004_2 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		0.2
Artemisia palmeri - San Diego sagewort	Native	Annual	Herb		0.2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub		11
Brassica nigra - black mustard	Nonnative	Annual	Herb		1
Brickellia californica - California brickellbush	Native	Perennial	Shrub		2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		1
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		30
Camissoniopsis bistorta - southern suncup	Native	Annual	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub		1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		11
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		12
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		0.2
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Monardella viminea - Willowy monardella	Native	Perennial	Herb		1
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub		2
Phacelia cicutaria - caterpillar phacelia	Native	Annual	Herb		3
Scrophularia californica - California figwort	Native	Perennial	Herb		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2

MOLIV_6LOCA004_2		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	CTENT - Assess threats within the occurred	nce's maximum extent (cumulative extent over years of
Surround_LandUse		
Disturbances (Rank each as 1-6):		
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:
Nonnative Grass:	Trampling:	Erosion:
Nonnative Woody Plants:	Vandalism:	Urban Runoff:
Competitive Native Plants:	Current Grazing:	Slope Movement:
Dumping/Trash:	Historic Grazing:	Soil Compaction:
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:
Road Construction/Maintenance:	if present, describe:	
Vegetation Clearing: if pres	sent, describe:	
Brush Manangement: if pre	esent, describe:	
ORV Activity: if present, de	escribe:	
Evidence of Recent Fire: Ye	ear Burned?	
Trails: if trails are present,	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		
Other Disturbance: if pres	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue Preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEA	R	
Preserved stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CND	DB)
None		
NOTES:		

Monardella viminea (Willowy Monardella) Lopez Canyon – East of Bridge Observation # 2

MSP Occurrence ID: MOLIV_6LOCA004 - 2



Panorama from Southeastern edge of population, facing Northeast, East, Southeast.

Panorama location is 6278255.527 1913718.712 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2003 - 2019 Max Area: 435.80 sq. m. Min Area: 1.00 sq. m.

Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019





MOLIV_6LOCA004_3 2019 Page 1 of 3
Scientific Name: Monardella viminea Common Name: Willowy monardella MSP Occurr. ID: MOLIV_6LOCA004
Sample Point #: 3 CNDDB Elem. Occurr. #: EO1 Translocated? no Management Unit: 6
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Los Penasquitos Canyon Pres Occurrence Name: Lopez Canyon - East of Bridge Site 3
Surveyors: Sara Allen, Sarah McCutcheon (SDMMP), Diana Brand-Ramirez, Jessie Lane Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 6/4/2019 Time Start: 12:02 Time End: 12:57 Mapped Extent Info Location MOLIV_6LOCA004_1
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty:
Area of Current Mapped Extent: Area Units: Area Exact (GPS) or Estim?
Current Extent Mapping Method: Species Found in Max Extent
If not found, known or suspected reason:
Number of Plants in Circle: 1 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 6 % Flowering: 1 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 484186 N: 3642089
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: SW W NW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_6LOCA004_3_Photo1_6.4.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 2 % Cover of Rock: 40 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation: 56.4 Total % Cover: 103.6
SANDAG 2012 Vegetation Alliance/Association: Cercocarpus montanus Alliance// Cercocarpus minutiflorus Provisional Association
Cover Classes (1-6): Cryptogamic Crust Cover: 1 Thatch Cover: 2
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Foeniculum vulgare
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 200
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

MOLIV_6LOCA004_3 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		0.2
Avena barbata - slender oat	Nonnative	Annual	Grass		0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub		11
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass		1
Brassica nigra - black mustard	Nonnative	Annual	Herb		1
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		0.2
Carduus pycnocephalus - Italian plumeless thistle	Nonnative	Annual	Herb		0.2
Carex sp sedge	Native	Perennial	Sedge		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub		30
Chamaesyce maculata - spotted spurge	Nonnative	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		2
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb		0.2
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		0.2
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb		0.2
Glebionis coronaria - crown daisy	Nonnative	Annual	Herb		0.2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Iva hayesiana - San Diego marsh elder	Native	Perennial	Shrub		1
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb		0.2
Lepidium didymum	Nonnative	Annual	Herb		0.2
Lobularia maritima	Nonnative	Perennial	Herb		0.2
Monardella viminea - Willowy monardella	Native	Perennial	Herb		0.2
Polycarpon tetraphyllum	Nonnative	Annual	Herb		0.2
Pseudognaphalium beneolens - cudweed	Native	Perennial	Herb		0.2
Rhus aromatica - basket bush	Native	Perennial	Shrub		0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2
Toxicodendron diversilobum - poison oak	Native	Perennial	Shrub		5
Xanthium strumarium - rough cockleburr	Native	Perennial	Shrub		1

MOLIV_6LOCA004_3		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of
Surround_LandUse		
Disturbances (Rank each as 1-6):		
Nonnative Forbs:	Feral Pig Activity:	Altered Hydrology:
Nonnative Grass:	Trampling:	Erosion:
Nonnative Woody Plants:	Vandalism:	Urban Runoff:
Competitive Native Plants:	Current Grazing:	Slope Movement:
Dumping/Trash:	Historic Grazing:	Soil Compaction:
Encampments:	Historic Agriculture:	Fuel Modification Zone/ Fire Break:
Road Construction/Maintenance:	if present, describe:	
Vegetation Clearing: if pres	sent, describe:	
Brush Manangement: if pre	esent, describe:	
ORV Activity: if present, de	escribe:	
Evidence of Recent Fire: Ye	ear Burned?	
Trails: if trails are present,	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		
Other Disturbance: if pres	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue Preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEA	R	
Preserved stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CND	DB)
None		
NOTES:		

Monardella viminea (Willowy Monardella) Lopez Canyon – East of Bridge Observation # 3

MSP Occurrence ID: MOLIV_6LOCA004 - 3



Panorama from Southwestern edge of population, facing Southwest, West, Northwest. Panorama location is 6279603.64 1914641.49 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2004 - 2019 Max Area: 290.00 sq. m.

Min Area: 0.04 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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MOLIV_4SYCA001_1 2019 Page 1 of
Scientific Name: Monardella viminea Common Name: Willowy monardella MSP Occurr. ID: MOLIV_4SYCA001
Sample Point #: 1 CNDDB Elem. Occurr. #: EO21 Translocated? no Management Unit: 4
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Sycamore Canyon Occurrence Name: Sycamore Canyon
Surveyors: Sara Allen, Diana Brand-Ramirez, Jessie Lane, Ninfa Negrete (Rocks Biological) Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 6/14/2019 Time Start: 10:02 Time End: 11:13 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 34 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 244.56 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 2 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_4SYCA001_1_Photo1_6.14.2019
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_4SYCA001_1_Photo1_6.14.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 14 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 55 Total % Cover: 101.4
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accurracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_4SYCA001_1_Photo1_6.14.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 14 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 55 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natural Stands Eriogonum fasciculatum Alliance// Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natural
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_4SYCA001_1_Photo1_6.14.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 14 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 55 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natura Stands Eriogonum fasciculatum Alliance// Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natura Stands Eriogonum fasciculatum-salvia apiana Associat
III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_4SYCA001_1_Photo1_6.14.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 14 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 55 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natural Stands Eriogonum fasciculatum Alliance// Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natural Stands Eriogonum fasciculatum-salvia apiana Associat Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM Coordinates at Center of Plot: E: 500841 N: 3642809 Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center Photo Direction: SE S SW Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: MOLIV_4SYCA001_1_Photo1_6.14.2019 File Location: III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle). % Cover of Bare Ground: 14 % Cover of Rock: 25 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 55 Total % Cover: 101.4 SANDAG 2012 Vegetation Alliance/Association: Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natura Stands Eriogonum fasciculatum-salvia apiana Associat Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2 Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 3

MOLIV_4SYCA001_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		2
Avena barbata - slender oat	Nonnative	Annual	Grass		1
Brassica nigra - black mustard	Nonnative	Annual	Herb		2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass		1
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb		0.2
Camissoniopsis bistorta - southern suncup	Native	Annual	Herb		0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		3
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub		1
Crassula connata - sand pygmyweed	Native	Annual	Herb		0.2
Cryptantha sp cryptantha	Native	Annual	Herb		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		12
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb		0.2
Eschscholzia californica - California poppy	Native	Annual	Herb		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		5
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass		4
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb		1
Galium aparine - common bedstraw	Native	Annual	Herb		0.2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb		0.2
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb		1
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb		1
Juncus bufonius - toad rush	Native	Annual	Herb		0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		1
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub		0.2
Phacelia cicutaria - caterpillar phacelia	Native	Annual	Herb		0.2
Pholistoma racemosum	Native	Annual	Herb		0.2
Prunus ilicifolia - hollyleaf cherry	Native	Perennial	Shrub		9
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb		0.2
Rhus aromatica - basket bush	Native	Perennial	Shrub		0.2
Salvia apiana - white sage	Native	Perennial	Shrub		1
Salvia columbariae	Native	Annual	Herb		0.2
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern		0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb		4
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb		0.2

Stephanomeria diegensis - San Diego milk aster	Native	Annual	Herb	0.2
Stephanomeria exigua - small wirelettuce	Native	Annual	Herb	0.2

MOLIV_4SYCA001_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	CTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space		
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 4	Feral Pig Activity: 1	Altered Hydrology: 3
Nonnative Grass: 4	Trampling: 1	Erosion: 4
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 1 if pre	sent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ar Burned? n/a	
Trails: 1 if trails are present,	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship. Co	onsider plan to restore flow regime	:.
VII. MANAGEMENT ACTIONS IN LAST YEAR	R	
Preserved stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)
CAGN		
NOTES:		

Monardella viminea (Willowy Monardella) Sycamore Canyon

MSP Occurrence ID: MOLIV_4SYCA001 - 1



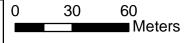
Panorama from Southern end of population, facing Southeast, South, Southwest.

Panorama location is 6334282.342 1916610.357 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2001 - 2019 Max Area: 15,970.40 sq. m. Min Area: 15.60 sq. m.



Source: San GIS & City of San Diego Parks & Rec Map Created By: Jessie Lane 2019



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Rosa minutifolia Baja Rose



© City of San Diego, 2015

ROMI80_3DENC001_1 2019 Page 1 of 3
Scientific Name: Rosa minutifolia Common Name: Small leaved rose MSP Occurr. ID: ROMI80_3DENC001
Sample Point #: 1 CNDDB Elem. Occurr. #: n/a Translocated? no Management Unit: 3
Land Owner: City of San Diego Land Manager: City of San Diego Park and Recreation Department
Preserve Name: Dennery Ranch Occurrence Name: Dennery Ranch
Surveyors: Sara Allen, Jessie Lane, Sarah McCutcheon (SDMMP), Diana Brand-Ramirez Other Surveyors:
Affliation:
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Survey Date: 5/23/2019 Time Start: 13:36 Time End: 14:18 Mapped Extent Info Location n/a
Number of Plants in Mapped Extent: 74 Exact or Estimate? exact Uncertainty: very_low
Area of Current Mapped Extent: 1087.27 Area Units: sq_m Area Exact (GPS) or Estim? exact
Current Extent Mapping Method: Walked perimeter Species Found in Max Extent yes
If not found, known or suspected reason:
Number of Plants in Circle: 12 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 1
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1
Is Sampling Area Representative of Current Mapped Extent? yes
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: 1 GPS Accuracy Units: m Datum: NAD 83 Coordinate System: UTM
Coordinates at Center of Plot: E: 497200 N: 3604701
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center
Photo Direction: S SW SE Camera Height: 1.1 m Camera Angle: 5 Photo Numbers: ROMI80_3DENC001_1_Photo1_5.23.2019
File Location:
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 5 % Cover of Rock: 13 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation: 71 Total % Cover: 100
SANDAG 2012 Vegetation Alliance/Association: Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association
Cover Classes (1-6): Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 2
Dead Standing Biomass? no Dead Standing Biomass Species:
Dead Standing Biomass Cover Class (1-6): Average Height of Dead Standing Biomass (cm):
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

ROMI80_3DENC001_1 2019 | Page 2 of 3

IV. ASSOCIATED SPECIES

Scientific name - common name	Native/Nonnative	Annual/Perennial	Plant Type	Cover	
Ambrosia chenopodiifolia - San Diego bur ragweed	Native	Perennial	Shrub		1
Apiastrum angustifolium - mock parsley	Native	Annual	Herb		0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub		15
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub		0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub		9
Brassica nigra - black mustard	Nonnative	Annual	Herb		0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass		0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass		1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb		0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb		1
Cylindropuntia prolifera - coastal cholla	Native	Perennial	Shrub		0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb		0.2
Deinandra conjugens - Otay tarplant	Native	Annual	Herb		0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb		3
Encelia californica - California brittlebush	Native	Perennial	Shrub		15
Erigeron canadensis - Canada horseweed	Native	Annual	Herb		0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub		0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass		10
Heterotheca grandiflora - telegraphweed	Native	Annual	Herb		0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb		0.2
Lysimachia arvensis - Scarlet pimpernel	Nonnative	Annual	Herb		1
Matricaria discoidea - pineapple weed	Native	Annual	Herb		0.2
Medicago polymorpha - burclover	Nonnative	Annual	Herb		0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb		0.2
Oncosiphon piluliferum - stinknet	Nonnative	Annual	Herb		0.2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub		0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub		8
Rosa minutifolia - small-leaved rose	Native	Perennial	Shrub		1
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass		0.2
Simmondsia chinensis - jojoba	Native	Perennial	Shrub		5
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb		0.2

ROMI80_3DENC001_1		2019 Page 3 of 3
V. THREATS ASSESSMENT IN MAXIMUM EXmonitoring) plus 10-m surrounding buffer.	KTENT - Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve/	residential	
Disturbances (Rank each as 1-6):		
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 4	Trampling: 1	Erosion: 1
Nonnative Woody Plants: 1	Vandalism: 1	Urban Runoff: 1
Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1
Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe:	
Vegetation Clearing: 1 if pres	sent, describe:	
Brush Manangement: 1 if pre	esent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ear Burned? n/a	
Trails: 1 if trails are present,	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:		7
	ent, describe:	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAR	R	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)
None		
NOTES:		

Rosa minutifolia (Baja Rose) Dennery Ranch

MSP Occurrence ID: ROMI80_3DENC001 - 1



Panorama from Southern edge of population, facing South, Southeast, East.

Panorama location is 6321424.15 1791627.98 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.



Pop. Area 2000 - 2019 Max Area: 1,087.27 sq. m. Min Area: 3.10 sq. m. Source: San GIS & City of San Diego Parks & Rec
Map Created By: Jessie Lane 2019

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Acknowledgments

The following staff assisted in the preparation of this report:

Mark Berninger, Senior Planner
Sara Allen, Biologist III
Jason Allen, Biologist II
Diana Brand Ramirez, Management Intern
Jessie Lane, Management Intern
Paula Birdwell, Management Intern
Ninfa Negrete, Biological Consultant (Rocks Biological)



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APPENDIX A

CITY OF SAN DIEGO RARE PLANT MONITORING: 2019 MONITORING DATES AND STAFF

City of San Diego MSCP Plant Monitoring: Priorities, Sites and Survey Dates

Species	Risk Group (SDSU '06)	Risk Group (Ogden '96)	Site	MSP Occurrence ID	Survey Date	Staff Initials	Methodology
			Blk Mtn Park West	ACIL_6BLMO032	9-Apr	SA, DB, NN SM	GPS, Photo, Habitat Assessment
			Dennery Canyon East	ACIL_3DREA005	12-Apr	SA, NN	GPS, Photo, Habitat Assessment
			Mission Trails Regional Park	ACIL_4MTRP021	10-Apr	MB, SA,NN	GPS, Photo, Habitat Assessment
Acanthomintha ilicifolia (San Diego Thorn-mint)	First	Second	Otay Lakes	ACIL_3OTLA012	4-Apr	MB, SA,NN	GPS, Photo, Habitat Assessment
			Penasquitos Canyon Obs. 1, 2, 3	ACIL_6LPCA039 - 1 ACIL_6LPCA039 - 2 ACIL_6LPCA039 - 3	9-Apr	SA, SM, NN DB	GPS, Photo, Habitat Assessment
			Sabre Springs/Poway Obs. 1, 2, 3	ACIL_4SASP025 - 1 ACIL_4SASP025 - 2 ACIL_4SASP025 - 3	4-Apr	SA,MB,DB JL	GPS, Photo, Habitat Assessment
			Dune Triangle (Site 5)	ACPR_1DUTR005 - 1	28-May	SA, DB,JL SM	GPS, Photo, Habitat Assessment
			Hospitality Point (Site 2)	ACPR_1HOPO002 - 2	28-May	SA, DB,JL SM	GPS, Photo, Habitat Assessment
		irst First	Mariner's Point (Site 4)	ACPR_1MAPO004 - 4	N/A	N/A	N/A
Acmispon prostratus (Nuttall's lotus)	^ ^ Hiret		No Man's Land (Site 1)	ACPR_1NMLA001 - 1	5-May	SA, DB, JL SM	GPS, Photo, Habitat Assessment
			Rip Rap (Site 3)	ACPR_1RRSO003 - 3	30-May	SA, MB, JL	GPS, Photo, Habitat Assessment
				South Shores (Site 6)	ACPR_1SOSH006 - 6	28-May	SA, DB, JL, SM
Ambrosia pumila (San Diego Ambrosia)	First	Second	Mission Trails Regional Park	AMPU_4KULA005	25-Apr	SA, MB, DB	GPS, Photo, Habitat Assessment
			East Elliott	BLCL_4EAEL014 - 1 BLCL_4EAEL014 - 2 BLCL_4EAEL014 - 3	16-Apr	SA, MB,DB JL, NN	GPS, Photo, Habitat Assessment
			East Elliott	BLCL_4EAEL014 - 5	17-Apr	SA, NN	GPS, Photo, Habitat Assessment
Bloomeria clevelandii			Lopez Ridge	BLCL_6LORI021	24-Apr	SA, NN, JA JF	GPS, Photo, Habitat Assessment
(San Diego Goldenstar)	Second	Second	Marron Valley Obs. 1, 2, 3, 4	BLCL_3MAVA005 - 1 BLCL_3MAVA005 - 2 BLCL_3MAVA005 - 3 BLCL_3MAVA005 - 4	18-Apr	SA, NN, JA JF, MB, JL	GPS, Photo, Habitat Assessment
			Mission Trails Regional Park	BLCL_4MTRP023	4-Apr	SA, MV,NN	GPS, Photo, Habitat Assessment
			Otay Lakes Obs. 1, 2	BLCL_3OTLA006 - 1 BLCL_3OTLA006 - 2	23-Apr	SA, DB, JL, MB	GPS, Photo, Habitat Assessment
Brodiaea filifolia (Thread-leaved Brodiaea)	Fourth	None	Black Mountain	BRFI_6BMRA002	3-May	MB,SA,JA	GPS, Photo, Habitat Assessment
Brodiaea orcuttii	Third	Second	Carroll Canyon	BROR_6CACA015	30- Apr	SA, DB, JL, NN	GPS, Photo, Habitat Assessment
(Orcutt's Brodiaea)	Timu	Second	Lopez Ridge	BROR_6LORI018	15-May	SA, JL,NN	GPS, Photo, Habitat Assessment

City of San Diego MSCP Plant Monitoring: Priorities, Sites and Survey Dates

Species	Risk Group (SDSU '06)	Risk Group (Ogden '96)	Site	MSP Occurrence ID	Survey Date	Staff Initials	Methodology
Brodiaea orcuttii	T1.:1	C1	Nobel Drive	BROR_2NODR002	2-May	SA, SM	GPS, Photo, Habitat Assessment
(Orcutt's Brodiaea)	Third	Second	Oak Creek (MTRP)	BROR_4OACR012	5-May	SA,JL,NN	GPS, Photo, Habitat Assessment
Chloropyron maritimum ssp. maritimum (Salt-marsh Bird's Beak)	Second	First	Dog Beach	COMAM3_1DOBE007	30-May	MB,SA,JL, DB	GPS, Photo, Habitat Assessment
Cylindropuntia californica	Second	Third	Spring Canyon	CYCA_3GOME003	8-May	SA,MB,NN	GPS, Photo, Habitat Assessment
(Snake Cholla)	Second	Third	Balboa Golf Course	CYCA_2BPGC001	19-Jun	JL,DB,NN	GPS, Photo, Habitat Assessment
			Dennery Ranch	DECO13_3DERA020	7-Sep	SA	GPS, Photo, Habitat Assessment
Deinandra conjugens (Otay Tarplant)	First	First	Dennery Ranch East	DECO13_3DREA021	20-May	SA, DB, JL	GPS, Photo, Habitat Assessment
			Proctor Valley	DECO13_3PRVA013	24-May	SA,DB	GPS, Photo, Habitat Assessment
Dicranostegia orcuttiana	Finat	First	Otay River Valley	COOR7_3ORVA001	5-May	SA, SM,DB JL	GPS, Photo, Habitat Assessment
(Orcutt's Bird's Beak)	First	FIISt	Dennery Ranch East	COOR7_3DREA007	23-May	SA, DB	GPS, Photo, Habitat Assessment
Dudley brevifolia	F: 4	F	Carmel Mountain	DUBLB2_6CMPR001 - 1 DUBLB2_6CMPR001 - 2 DUBLB2_6CMPR001 - 3	7-May	SA,MB,JA,JL DB, SM	GPS, Photo, Habitat Assessment
(Short Leaf Dudleya)	First	First	Crest Canyon North Obs.	DUBLB2_7CRCA003 - 1	7-May	SA,MB,JA,JL DB,SM	GPS, Photo, Habitat Assessment
			Crest Canyon South Obs. 2	DUBLB2_7CRCA003 - 2	7-May	SA,JA,JL,MB, DB,SM	GPS, Photo, Habitat Assessment
			Blk Mtn Park East	DUVA_6BMRA020	20-May	SA,DB,JL	GPS, Photo, Habitat Assessment
			East Elliott - Creek East Elliott - Hilltop	DUVA_4EAEL012 - 1 DUVA_4EAEL012 - 2	31-May	SA,NN	GPS, Photo, Habitat Assessment
			Goat Mesa/ Spring Canyon	DUVA_3GOME003	8-May	MB,SA,NN	GPS, Photo, Habitat Assessment
			Marron Valley	DUVA_3MAVA004	26-Apr	MB,DB	GPS, Photo, Habitat Assessment
Dudleya variegata	Second	First	Mercy Road	DUVA_4MERO014	18-Apr	MB,DB	GPS, Photo, Habitat Assessment
(Variegated Dudleya)			Mission Trails Regional Park Obs. 1, 2, 3	DUVA_4MTRP015 - 1 DUVA_4MTRP015 - 2 'DUVA_4MTRP015 - 3	31-May	SA, NN	GPS, Photo, Habitat Assessment
			Navajo/Mission Gorge	DUVA_4NAVA016	14-May	SA,NN	GPS, Photo, Habitat Assessment
			Otay Lakes	DUVA_3OTLA005	23-Apr	SA,DB	GPS, Photo, Habitat Assessment
			Santa Luz	DUVA_6SALU024	20-May	SA,DB,JL	GPS, Photo, Habitat Assessment

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Species	Risk Group (SDSU '06)	Risk Group (Ogden '96)	Site	MSP Occurrence ID	Survey Date	Staff Initials	Methodology
			Crest Canyon	ERAM4_7CRCA002	7-Mar	SA,DB,JL NN	GPS, Photo, Habitat Assessment
Erysimum ammophilum (Coast Wallflower)	Fourth	None	Gonzales Canyon	ERAM4_6GOCA003	7-Mar	SA,DB,JL,NN	GPS, Photo, Habitat Assessment
			North City West OS/Overlook Park	ERAM4_6DEMA001	12-Mar	SA,MB,DB, JL	GPS, Photo, Habitat Assessment
Monardella stoneana	Second	First	Marron Valley	MOST_3MAVA002	21-Jun	SA, MB, DB NN	GPS, Photo, Habitat Assessment
(Jennifer's Monardella)	Second	Flist	Otay Lakes	MOST_3OTLA005	17-Jun	DB,JL,NN	GPS, Photo, Habitat Assessment
Monardella viminea			Lopez Canyon Obs. 1, 2, 3	MOLIV_6LOCA004 - 1 MOLIV_6LOCA004 - 2 MOLIV_6LOCA004 - 3	04-Jun	SA,DB,JL,SM	GPS, Photo, Habitat Assessment
(Willowy Monardella)			Sycamore Canyon	MOLIV_4SYCA001	14-Jun	SA,DB,JL,NN	GPS, Photo, Habitat Assessment
			Flanders Canyon	MOLIV_6FLCA007	4-Jun	SA, SM,JL,DB	GPS, Photo, Habitat Assessment
Rosa minutifolia (Baja Rose)	First	Third	Dennery Ranch	ROMI80_3DENC001	23-May	SA, SM,JL,DB	GPS, Photo, Habitat Assessment

Survey Staff

DB = Diana Brand-Ramirez, Management Intern

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JF= Jane Fajardo (ESD)

MB = Mark Berninger, Senior Planner

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JA = Jason Allen, Biologist II

SM= Sarah McCutcheon (SDMMP)