



City of San Diego 2018 MSCP Rare Plant Monitoring Report



City of San Diego Park and Recreation Department Open Space Division







October 2018

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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 2018, the City performed rare plant monitoring using the Management Strategic Plan (MSP) 2018 Monitoring Protocol (SDMMP 2018) 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	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. #)
	Black Mountain	ACIL_6BLMO032-1	0.0	0	0.0%	16	14.0%	10	56.6%	Continue preserve stewardship and weed treatments, evaluate feasibility of seed bulking project.	12	15
	Dennery Ranch East	ACIL_3DREA005 - 1	0.0	0	0.0%	6	14.8%	5	1.8%	Continue preserve stewardship and weed treatments, evaluate feasibility of seed bulking project.	17	20
Acanthomintha ilicifolia	Los Penasquitos Canyon Obs. 1	ACIL_6LPCA039 - 1	15.9	229	0.2%	15	24.0%	8	9.0%	Continue weed treatments to address BRDI and broad- leaf invasives	22	25
(San Diego Thorn-mint)	Los Penasquitos Canyon Obs. 2	ACIL_6LPCA039 - 2	3.1	12	0.0%	10	25.0%	17	21.4%	Continue weed treatments and preserve stewardship	27	30
	Los Penasquitos Canyon Obs. 3	ACIL_6LPCA039 - 3	0.0	0	0.0%	14	24.0%	6	21.0%	Continue weed treatments and preserve stewardship	32	35
	Mission Trails Regional Park	ACIL_MTRP021 - 1	16.0	77	0.0%	13	11.8%	6	2.0%	Continue ongoing restoration efforts - weed control, seed bulking and supplemental seeding	37	40
	Otay Lakes	ACIL_3OTLA012 - 1	0.0	0	0.0%	10	4.4%	4	67.4%	Continue preserve stewardship	42	45
	Sabre Springs East #1 Subpopulation	ACIL_4SASP025 - 1	0.0	0	0.0%	10	25.0%	17	21.4%	Continue weed control and preserve stewardship actions	47	50

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Acanthomintha ilicifolia	Sabre Springs West #2 Subpopulation	ACIL_4SASP025 - 2	0.0	0	0.0%	11	13.2%	15	13.8%	Continue preserve stewardship and weed treatments, evaluate feasibility of seed bulking project	52	55
(San Diego Thorn-mint)	Sabre Springs South #3 Subpopulation	ACIL_4SASP025 - 3	0.0	0	0.0%	11	14.6%	5	8.8%	Continue preserve stewardship and weed treatments, evaluate feasibility of seed bulking project	57	60
							-					
	Dune Triangle (Mission Bay Site #5)	ACPR_1DUTR005 - 5	0.0	0	0.0%	4	59.4%	5	1.2%	Continue preserve stewardship and perform weed control as funding is available	63	66
Acmispon prostratus	Hospitality Point (Mission Bay Site #2)	ACPR_1HOPO002 - 2	3308.3	5788	15.0%	3	29.0%	4	27.4%	Continue preserve stewardship and weed control as funding permits	68	71
(Nuttall's Lotus)	Mariner's Point (Mission Bay Site #4)	ACPR_1MAPO004-4	n/a	n/a	18.0%	4	68.0%	0	0.0%	Continue preserve stewardship and continue to maintain area for tern nesting.	73	76
	No Man's Land (Mission Bay Site #1)	ACPR_1NMLA001 - 1	1502.3	236	6.0%	7	47.8%	7	19.0%	Continue preserve stewardship and weed treatments as funding permits	77	80

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Acmispon prostratus	Rip Rap (Mission Bay Site #3)	ACPR_1RRS0003 - 3	354.8	152	0.0%	7	10.8%	10	37.2%	Continue preserve stewardship and control pennesetum as funding permits	82	85
(Nuttall's Lotus)	South Shores (Mission Bay Site #6)	ACPR_1SOSH006 - 6	426.7	100	0.0%	3	7.4%	4	49.2%	Continue preserve stewardship and continue weed control as funding allows	87	90
<i>Ambrosia pumila</i> (San Diego Ambrosia)	Mission Trails Regional Park Kumeyaay Lake	AMPU_4KULA005-1	6355.8	32009	0.0%	9	38.0%	6	23.0%	Continue annual mowing and targeted weed control	93	96
	East Elliott Obs. 1	BLCL_4EAEL014 - 1	26674.1	2773	0.2%	18	40.6%	8	58.8%	Evaluate feasibility of BRDI treatment on steep, remote slopes	99	102
	East Elliott Obs. 2	BLCL_4EAEL014 - 2	0.0	0	0.0%	12	20.6%	7	4.0%	Contimue preserve stewardship	104	107
Bloomeria clevelandii	East Elliott Obs. 3	BLCL_4EAEL014 - 3	0.0	0	0.0%	8	30.8%	3	1.4%	Contimue preserve stewardship	109	112
(San Diego Goldenstar)	East Elliott Obs. 5	BLCL_4EAEL014 - 5	0.0	0	0.0%	14	29.6%	6	1.2%	Contimue preserve stewardship	114	117
	Lopez Ridge	BLCL_6LORI021 - 1	97.9	77	0.0%	10	38.2%	10	8.4%	Contimue preserve stewardship	119	122
	Marron Valley Obs. 1	BLCL_3MAVA005 - 1	20760.6	2087	0.2%	12	29.8%	7	31.8%	Contimue preserve stewardship	124	127
	Marron Valley Obs. 2	BLCL_3MAVA005 - 2	20760.6	2087	0.0%	11	36.8%	6	28.6%	Contimue preserve stewardship	129	132

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	Marron Valley Obs. 3	BLCL_3MAVA005 - 3	20760.6	2087	0.2%	18	34.8%	11	14.8%	Contimue preserve stewardship	134	137
	Marron Valley Obs. 4	BLCL_3MAVA005 - 4	20760.6	2087	0.2%	12	16.0%	7	70.6%	Contimue preserve stewardship	139	142
<i>Bloomeria clevelandii</i> (San Diego Goldenstar)	Mission Trails Regional Park	BLCL_4MTRP023 - 1	0.0	0	0.0%	12	30.2%	8	67.4%	Continue preserve stewardship; control nonnative grasses and forbs as funding becomes available	144	147
	Otay Lakes East Obs. 1	BLCL_3OTLA006 - 1	23012.3	1183	0.0%	9	14.2%	2	65.0%	Continue preserve stewardship	149	152
	Otay Lakes West Obs. 2	BLCL_3OTLA006 - 2	23012.3	1183	0.0%	10	29.2%	4	53.2%	Continue preserve stewardship	154	157
<i>Brodiaea filifolia</i> (Thread-leaved Brodiaea)	Black Mountain	BRFI_6BMRA002 - 1	59.8	136	0.2%	6	26.4%	8	30.8%	Continue weed management treatments	160	163
	Nobel Drive	BROR_2NODR002 - 1	0	0	0.0%	10	13.6%	7	21.0%	Continue preserved stewardship; weed control for Dittrichia	166	169
Brodiaea orcuttii	Oak Creek (MTRP)	BROR_40ACR012 - 1	61.17	79	0.2%	26	46.8%	21	19.2%	Continue preserve stewardship	171	175
(Orcutt's Brodiaea)	Carroll Canyon	BROR_6CACA015 - 1	978.48	238	0.2%	16	27.8%	5	10.6%	Continue preserve stewardship and perform invasive species removal/control as funding permits	177	180

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Brodiaea orcuttii (Orcutt's Brodiaea)	Lopez Ridge	BROR_6LORI018 - 1	44.32	26	0.2%	10	38.2%	10	8.4%	Continue preserve stewardship	182	185
<i>Chloropyron</i> <i>maritimum</i> ssp. <i>maritimum</i> (Salt-marsh Bird's Beak)	Dog Beach	COMAM3_1DOBE007 - 1	2749.8	7771	3.0%	10	47.6%	1	35.0%	Contimue preserve stewardship	188	191
Cylindropuntia californica	Balboa Park Golf	CYCA_2BPGC001 - 1	724.2	8	0.2%	13	84.0%	1	4.0%	Continue preserve stewardship and remove pennesetum as funding permits	194	197
(Snake Cholla)	Spring Canyon	CYCA_3GOME003 - 1	1658.7	83	0.0%	10	40.0%	5	14.4%	Continue preserve stewardship	199	202
	Dennery Ranch	DECO13_3DERA020 - 1	3.1	4	0.0%	11	49.2%	3	12.4%	Continue preserve stewardship	205	n/a
<i>Deinandra conjugens</i> (Otay Tarplant)	Dennery Ranch East	DECO13_3DREA021 - 1	3936.9	388	0.2%	6	4.0%	5	21.6%	Clean up trash from old encampment, continue preserve stewardship	210	213
	Proctor Valley	DECO13_3PRVA013 - 1	0.0	0	0.0%	8	7.0%	8	73.0%	Continue preserve stewardship	215	n/a
<i>Dicranostegia</i> <i>orcuttiana</i> (Orcutt's Bird's Beak)	Dennery Ranch East	COOR7_3DREA007 - 1	0.0	0	0.0%	7	37.2%	2	1.2%	Continue preserve stewardship and continue to perform weed control as needed	221	224

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<i>Dicranostegia</i> <i>orcuttiana</i> (Orcutt's Bird's Beak)	Otay River Valley	COOR7_30RVA001 - 1	90.3	390	0.2%	12	42.0%	1	0.2%	Continue preserve stewardship and repair fencing along trail	226	229
	Carmel Mountain Obs. 1	DUBLB2_6CMPR001 - 1	84.5	275	0.2%	13	49.6%	2	5.2%	Continue preserve stewardship	232	235
	Carmel Mountain Obs. 2	DUBLB2_6CMPR001 - 2	81.3	140	0.2%	13	30.0%	4	0.8%	Contimue preserve stewardship	237	240
Dudleya brevifolia	Carmel Mountain Obs. 3	DUBLB2_6CMPR001 - 3	880.8	4202	0.2%	9	31.2%	3	0.6%	Contimue preserve stewardship	242	245
(Short-Leaved Dudleya)	Crest Canyon North	DUBLB2_7CRCA003 - 1	186.1	2330	1.0%	12	62.0%	5	4.8%	Continue preserve stewardship and continue to positively engage nearby property owners.	247	250
	Crest Canyon South	DUBLB2_7CRCA003 - 2	13.8	50	0.2%	16	36.8%	2	0.4%	Contimue preserve stewardship	252	255
	Black Mountain East	DUVA_6BMRA020 - 1	0.0	0	0.0%	13	39.4%	4	59.2%	Contimue preserve stewardship	258	261
	East Elliott - Hilltop	DUVA_4EAEL012 - 1	35.96	33	0.0%	16	50.6%	2	1.2%	Contimue preserve stewardship	263	266
<i>Dudleya variegata</i> (Variegated Dudleya)	East Elliott - Creek	DUVA_4EAEL012 - 2	0.0	0	0.0%	17	53.0%	8	25.3%	Continue preserve stewardship and perform weed control for invasive grasses as funding permits	268	271
	Goat Mesa (Spring Canyon)	DUVA_3GOME003 - 1	72.3	85	0.2%	11	41.0%	4	1.6%	Contimue preserve stewardship	273	276
	Marron Valley	DUVA_3MAVA004 - 1	286.5	8789	0.2%	10	8.4%	4	75.4%	Contimue preserve stewardship	278	281

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	Mercy Road	DUVA_4MERO014 - 1	82.8	319	0.2%	26.2	26.2%	6	14.4%	Contimue preserve stewardship	283	286
	Mission Trails #1	DUVA_4MTRP015 - 1	36.1	129	0.2%	14	39.4%	4	16.2%	Survey site for additional Melinis repens and treat as needed	288	291
	Mission Trails #2	DUVA_4MTRP015 - 2	138.1	302	0.2%	14	28.8%	6	55.6%	Continue preserve stewardship and perform weed control for erosion and brachypodium	293	296
<i>Dudleya variegata</i> (Variegated Dudleya)	Mission Trails #3	DUVA_4MTRP015 - 3	23.7	118	0.2%	17	35.0%	9	45.0%	Continue preserve stewardship, look into feasibility of weed control at this site	298	301
	Navajo/Mission Gorge	DUVA_4NAVA016 - 1	14.3	176	0.2%	13	55.8%	9	16.6%	Continue preserve stewardship and targeted weed control efforts	303	306
	Otay Lakes	DUVA_3OTLA005 - 1	184.1	787	0.0%	8	7.2%	4	42.4%	Contimue preserve stewardship	308	311
	Santa Luz	DUVA_6SALU024 - 1	0.0	0	0.0%	12	13.8%	4	20.2%	Contimue preserve stewardship	313	316
Erysimum ammophilum	North City West Open Space (Overlook Park)	ERAM4_6DEMA001 - 1	78.6	190	0.2%	17	71.2%	2	4.2%	Treat tree tobacco	320	323
(Coast Wallflower)	Gonzales Canyon	ERAM4_6GOCA003 - 1	26.3	39	0.2%	15	52.0%	2	3.2%	Contimue preserve stewardship	325	328

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<i>Erysimum ammophilum</i> (Coast Wallflower)	Crest Canyon	ERAM4_7CRCA002 - 1	0	0	0.0%	15	30.8%	2	15.2%	Weed treatments recommended to control the spread of Ehrharta grass.	330	333
	Marron Valley	MOST_3MAVA002 - 1	188.4	51	0.2%	20	35.2%	7	16.8%	Continue preserve	336	339
<i>Monardella stoneana</i> ³ (Jennifer's Monardella)	Otay Lakes	MOST_30TLA005 - 1	0.0	0	0.0%	14	26.6%	9	28.2%	stewardship Continue preserve stewardship	341	344
	Flanders Canyon	MOLIV_6FLCA007 - 1	314.2	73	4.0%	7	63.4%	2	5.0%	Continue preserve stewardship and control weeds as funding permits	347	350
	Lopez Canyon West Terrace #1	MOLIV_6LOCA004 - 1	0.0	0	0.0%	14	48.8%	16	32.6%	Continue preserve stewardship and implement weed control as funding permits	352	355
<i>Monardella viminea</i> (Willowy Mondardella)	Lopez Canyon East of Bridge #2	MOLIV_6LOCA004 - 2	54.4	6	0.2%	11	39.8%	12	50.6%	Continue preserve stewardship and weed control as funding permits	357	360
	Lopez Canyon East of Bridge #3	MOLIV_6LOCA004 - 3	0.7	3	0.2%	13	53.4%	17	9.6%	Continue preserve stewardship and weed control as funding permits	362	365
	Sycamore Canyon	MOLIV_4SYCA001 - 1	178.0	52	1.0%	15	35.0%	11	26.0%	Continue preserve stewardship and investigate feasibility of restoration actions to help stabilize stream channel	367	370
	Sycamore Canyon	MOLIV_4SYCA001 - 1	178.0	52	1.0%	15	35.0%	11	26.0%	stewardship and investigate feasibility of restoration actions to help stabilize		

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<i>Rosa minutifolia</i> (Small-leaved Rose)	Dennery Ranch	ROMI80_3DENC001 - 1	228.3	14	0.2%	13	36.4%	13	28.6%	Continue preserve stewardship	373	n/a
1) Current Mapped Extent												
2) Number and percent co	ver of native species inc	ludes species of interest.										
		cies of Monardella (Lamiacea	ae) from Baja	California, Me	xico, and So	uthern Calif	ornia, Unit	ed States.	Novon. 13	4. 425432		
* Photopoint locations with	nin the same large contin	nuous polygon mapped as cu	irrent mapped	extent								
† No data collected												

Acanthomintha ilicifolia San Diego Thorn-Mint



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ACIL_6BLM0032-1 20	018
MSP - RARE PLANT MONITORING DATA	
Scientific Name: Acanthomintha illicifolia Common Name: San Diego thornmint MSP Occurr. ID: ACIL_6BLMO032	
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, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/24/2018 Time Start: 9:24 Time End: 10:00	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
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: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Low annual rainfall; high gopher activity in the area where it was found last year.	
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 % Fruiting: 1	
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1	
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: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 485657.384226932 N: 3651850.84367173	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: same as plot center N: same as plot center	iter
Photo Direction: N,NE,E,SE Camera Height: 1.1 m Camera Angle Photo Numbers: ACIL_6BLM0032_1_Photo1_04242018	8
File Location: S: MSCP Files	
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: 3 % Cover of Litter: 12 % Cover of Water: 0 % Cover of Vegetation:	68
Total % Cover: 113	
SANDAG 2012 Vegetation Alliance/Association Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association	
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 4	
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 10	
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra, Salsola tragus, Centaurea melitensis, Deinandra fascicu	ılata
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 50	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4	

ACIL_6BLMO032-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	8
Acmispon wrangelianus - Chilean trefoil	Native	Annual	Herb	0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	1
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	55
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb	0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Chorizanthe fimbriata - fringed spineflower	Native	Annual	Herb	0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb	0.2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb	0.2
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	0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Harpagonella palmeri - Palmer's grappling-hook	Native	Annual	Herb	1
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb	0.2
Lysimachia arvensis - scarlet pimpernel	Nonnative	Annual	Herb	0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	1
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass	0.2
Plantago erecta - California plantain	Native	Annual	Herb	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	0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2

ACIL_6BLMO032-1

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSM monitoring) plus 10-m		TENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of		
Surround_LandUse 0)pen space preserve				
Disturbances (Rank ea	ch as 1-6)				
Nonnative Forbs:	4	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 6	6	Trampling: 1	Erosion: 1		
Nonnative Woody P	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: 0			
Vegetation Clearing	g: 1 if prese	ent, describe: 0			
Brush Manangemer	nt: 7 if pres	ent, describe: Targeted herbicide treatmen	ts and dethatching as part of invasive species removal effort.		
ORV Activity: 1	if present, des	cribe: 0			
Evidence of Recent	Fire: no Yea	r Burned? 0			
Trails: 1	if trails are present, a	re they authorized? 0			
Type of Trail Use:					
Hiking: 0 Biking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0					
Illegal Trail Use: 0					
Other Disturbance: 1 if present, describe: 0					
VI. MANAGEMENT REC	COMMENDATIONS				
Continue preserve	e stewardship and	weed treatments, evaluate seed	bulking project		
VII. MANAGEMENT AC	TIONS IN LAST YEAR				
Preserve steward	ship, dethatching o	and herbicide treatments for wee	d control		
VIII. CNDDB SPECIES I	DETECTED (list any p	lant or animal species to add to the CNDD	В)		
none					
NOTES:					
Photo numbers 10	00-0608 to 100-0	611			

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.



ACIL_3DREA005-1 2	018
MSP - RARE PLANT MONITORING DATA	
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: Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/10/2018 Time Start: 23:24 Time End: 12:05	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
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: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Low population/absent in recent years + very low annual rainfall. Many Italian white snails observed on the sit	le.
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 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: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 497759.250792201 N: 3605146.66768089	
Camera Type: Olympus Stylus TG 830 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_05102010	8
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).	
% Cover of Bare Ground: 80 % Cover of Rock: 3 % Cover of Litter: 6 % Cover of Water: 0 % Cover of Vegetation:	15
Total % Cover: 104	
SANDAG 2012 Vegetation Alliance/Association Simmonsia chinensis Alliance// Simmonsia chinensis-Bahiopsis laciniata Association	
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: Centaurea melitensis, Brassica nigra, unknown plant	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 10	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

ACIL_3DREA005-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Ambrosia chenopodiifolia - San Diego bur ragweed	Native	Perennial	Shrub	0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	1
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Cylindropuntia prolifera - coastal cholla	Native	Perennial	Shrub	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	0.2
Lysimachia arvensis - scarlet pimpernel	Nonnative	Annual	Herb	0.2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub	0.2
Simmondsia chinensis - jojoba	Native	Perennial	Shrub	13
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2

2018

ACIL_3DREA005-1

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM E monitoring) 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		
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: 0	
Vegetation Clearing: 1 if pres	ent, describe: 0	
Brush Manangement: 7 if pres	sent, describe: Targeted herbicide treatment	s and dethatching as part of invasive species removal effort.
ORV Activity: 1 if present, de	scribe: 0	
Evidence of Recent Fire: no Yea	ar Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
Other Disturbance: 1 if prese	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship and	weed treatments, evaluate seed	bulking project
VII. MANAGEMENT ACTIONS IN LAST YEAR		
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any p	plant or animal species to add to the CNDD	B)
California gnatcatcher, orange-thr	oated whiptail	
NOTES:		
Photo numbers 100-0736 - 100-02	739	

Acanthomintha ilicifolia (San Diego Thornmint) Dennery Ranch East

MSP Occurrence ID: ACIL_3DREA005 - 1





ACIL_6LPCA039-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/19/2018 Time Start: 9:25 Time End: 10:28
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 229 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 15.85 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: 0
Number of Plants in Circle: 228 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: 6
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 Accuracy: <1
Coordinates at Center of Plot: E: 483230.672872491 N: 3643281.38588468
Camera Type: Olympus Stylus TG 830 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_04192018
File Location: S: MSCP Files
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: 15 % Cover of Water: 0 % Cover of Vegetation: 33
Total % Cover: 105
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
Dead Standing Biomass? no Dead Standing Biomass Species: 0
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

ACIL_6LPCA039-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% 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	2
Adolphia californica - California adolphia	Native	Perennial	Shrub	6
Apiastrum angustifolium - mock parsley	Native	Annual	Herb	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	5
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	1
Convolvulus simulans - field bindweed	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	7
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	1
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Harpagonella palmeri - Palmer's grappling-hook	Native	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
Microseris douglasii - Douglas' silverpuffs	Native	Annual	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	1
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Salvia mellifera - black sage	Native	Perennial	Shrub	6
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	1
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

ACIL_6LPCA039-1 2018
MSP - RARE PLANT MONITORING DATA
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:3Trampling:1Erosion:1
Nonnative Woody Plants: 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: 0
Vegetation Clearing: 1 if present, describe: 0
Brush Manangement: 7 if present, describe: Targeted herbicide treatments and dethatching as part of invasive species removal effort.
ORV Activity: 1 if present, describe: 0
Evidence of Recent Fire: no Year Burned? 0
Trails: 2 if trails are present, are they authorized?
Type of Trail Use:
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:
Illegal Trail Use: 0
Other Disturbance: 1 if present, describe: 0
VI. MANAGEMENT RECOMMENDATIONS
Continue weed treatments to address BRDI and broad-leaf invasives
VII. MANAGEMENT ACTIONS IN LAST YEAR
Preserve stewardship, weed control
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)
none
NOTES:
100-560-100-562

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

MSP Occurrence ID: ACIL_6LPCA039 - 1



Acanthomintha ilicifolia - Los Penasquitos Canyon

Point 1 Area: 15.8 sq. m.

Point 3 Area: 0 sq. m.

Area 2018: 18.9 sq. m. Photopoint **SPECIES**

Acanthomintha illicifolia

Pop. Area 2000 - 2018 Max Area: 2062 sq. m. Min Area: 12 sq. m.

20 0 10 Meters Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017



Point 2

Area: 3.1 sq. m.



ACIL_6LPCA039-2	2018
MSP - RARE PLANT MONITORING DATA	
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, Priscilla Hare (intern) Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/19/2018 Time Start: 10:43 Time End: 15:13	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent	t.
Number of Plants in Mapped Extent: 12 Exact or Estimate? exact Uncertainty: very_low	
Area of Current Mapped Extent: 3.14 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: 0	
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 no	
Is Sampling Area Representative of Current Mapped Extent no Collection Taken? no 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	center
Collection Taken? no Collector: 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	
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: <1)18
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: <1	018 e).
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: WGS84 Coordinate System: Lat_long Coordinates at Center of Plot: E: 483244.348830081 N: 3643247.27991177 Camera Type: Olympus Stylus TG 830 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_041920 File Location: S: MSCP Files III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle)	018 e).
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: <1	018 e).
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: <1	018 e).
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: <1	018 e).
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: <1	018 e).
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING GPS Accurracy: <1	018 e).

ACIL_6LPCA039-2

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Adolphia californica - California adolphia	Native	Perennial	Shrub	3
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	8
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	3
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	2
Brassica nigra - black mustard	Nonnative	Annual	Herb	2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	7
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Deinandra sp tarplant	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
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	7
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb	0.2
Geranium carolinianum - Carolina geranium	Native	Annual	Herb	0.2
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb	1
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Lysimachia arvensis - scarlet pimpernel	Nonnative	Annual	Herb	0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb	0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Quercus berberidifolia - scrub oak	Native	Perennial	Tree	9
Reseda luteola - Dyer's mignonette	Nonnative	Perennial	Herb	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2

ACIL_6LPCA039-2		2018
MSP - RARE PLANT MONITORING D	ATA	
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurrent	nce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve; p	assive 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: 0	
Vegetation Clearing: 1 if pres	ent, describe: 0	
Brush Manangement: 7 if pre	sent, describe: Targeted herbicide treatment	s and dethatching as part of invasive species removal effort.
ORV Activity: 1 if present, de	scribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue weed treatments and pre	eserve stewardship	
VII. MANAGEMENT ACTIONS IN LAST YEAF	2	
Preserve stewardship, dethatching	and herbicide treatments to contro	I invasive species
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)
none		
NOTES:		
photo # 100-0563 to 100-0567		

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

MSP Occurrence ID: ACIL_6LPCA039 - 2



Acanthomintha ilicifolia - Los Penasquitos Canyon

Point 1 Area: 15.8 sq. m.

Point 3 Area: 0 sq. m.

Area 2018: 18.9 sq. m. Photopoint **SPECIES**

Acanthomintha illicifolia

Pop. Area 2000 - 2018 Max Area: 2062 sq. m. Min Area: 12 sq. m.

20 0 10 Meters Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017



Point 2

Area: 3.1 sq. m.



ACIL_6LPCA039-3 2018
MSP - RARE PLANT MONITORING DATA
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, Ninfa Negrete (intern), Priscilla Hare (intern) Other Surveyors: Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/19/2018 Time Start: 10:51 Time End: 11:28
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 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: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Low annual rainfall.
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 483192.642061952 N: 3643263.38084385
Camera Type: Olympus Stylus TG 830 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_04192018
File Location: S: MSCP Files
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: 5 % Cover of Litter: 15 % Cover of Water: 0 % Cover of Vegetation: 60
Total % Cover: 105
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): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? no Dead Standing Biomass Species: 0
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

ACIL_6LPCA039-3

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% 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	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	20
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Chlorogalum sp soap plant	Native	Perennial	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub	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	3
Salvia mellifera - black sage	Native	Perennial	Shrub	3
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2
ACIL_6LPCA039-3		2018		
--	---	--		
MSP - RARE PLANT MONITORING E	DATA			
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of		
Surround_LandUse Open space preserve; p	assive 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: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe: 0			
Vegetation Clearing: 1 if pres	ent, describe: 0			
Brush Manangement: 7 if pre	sent, describe: Targeted herbicide treatmen	ts and dethatching as part of invasive species removal effort.		
ORV Activity: 1 if present, de	scribe: 0			
Evidence of Recent Fire: no Ye	ar Burned? 0			
Trails: 2 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other: 0		
Illegal Trail Use: 0				
·	ent, describe: 0			
VI. MANAGEMENT RECOMMENDATIONS				
Continue weed control				
VII. MANAGEMENT ACTIONS IN LAST YEAR	2			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)		
		-,		
none				
NOTES:				
photo # 100-568 to 571				
L				

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

MSP Occurrence ID: ACIL_6LPCA039 - 3



Acanthomintha ilicifolia - Los Penasquitos Canyon

Point 1 Area: 15.8 sq. m.

Point 3 Area: 0 sq. m.

Area 2018: 18.9 sq. m. Photopoint **SPECIES**

Acanthomintha illicifolia

Pop. Area 2000 - 2018 Max Area: 2062 sq. m. Min Area: 12 sq. m.

20 0 10 Meters Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017



Point 2

Area: 3.1 sq. m.



ACIL_4MTRP021-1	2018
MSP - RARE PLANT MONITORING DATA	
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, Priscilla Hare (intern) Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/17/2018 Time Start: 15:44 Time End: 16:32	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent	
Number of Plants in Mapped Extent: 77 Exact or Estimate? exact Uncertainty: low	
Area of Current Mapped Extent: 15.96 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: 0	
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 % Fruiting: 1	
Evidence in Circle Plot (1-6): % Herbivory: 1 % Diseased: 1 % Stunted: 1	
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: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 493100.209134359 N: 3631939.2381971	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: same as plot center N: same as plot center	enter
Photo Direction: N,NE,E,SE Camera Height: 1.1 m Camera Angle -15 Photo Numbers: ACIL_4MTRP021_1_Photo1_041720	
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle	2)
% Cover of Bare Ground: 55 % Cover of Rock: 4 % Cover of Litter: 27 % Cover of Water: 0 % Cover of Vegetation:	
Total % Cover: 102	10
SANDAG 2012 Vegetation Alliance/Association Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatur Opuntia littoralis/Dudleya (edulis) Association	n-
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: 0	
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3	

ACIL_4MTRP021-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Chlorogalum sp 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
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub	2
lsocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
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	5
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub	0.2
Salvia mellifera - black sage	Native	Perennial	Shrub	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

ACIL_4MTRP021-1

MSP - RARE PLANT MONITORING DATA				
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)				

2018

monitoring) plus 10-m surrounding buffer.				
Surround_LandUse Open space preserve; p	assive 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: 0			
Vegetation Clearing: 7 if pres	ent, describe:			
Brush Manangement: 7 if pre-	sent, describe: Targeted herbicide treatment	nents and dethatching as part of invasive species removal effort.		
ORV Activity: 1 if present, de	scribe: 0			
Evidence of Recent Fire: no Ye	ar Burned? 0			
Trails: 2 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:		
Illegal Trail Use: 0				
Other Disturbance: 4 if present, describe:				
VI. MANAGEMENT RECOMMENDATIONS				
Continue ongoing restoration effor	ts - weed control, seed bulking	and supplemental seeding		
VII. MANAGEMENT ACTIONS IN LAST YEAR	2			
Preserve stewardship, weed contro	l, seed banking - seedlot saved	d at SD Zoo Seedbank		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CI	NDDB)		
CAGN heard and observed just ou	tside circle plot			
NOTES:				
photo # 100-0557 - 100-559				

Acanthomintha ilicifolia (San Diego Thornmint) Mission Trails Regional Park

MSP Occurrence ID: ACIL_MTRP021 - 1







41

formation which has b w Thomas Bros. Many

ACIL_30TLA012-1 2018
MSP - RARE PLANT MONITORING DATA
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 Other Surveyors: Olivia Koziel (consultant), Mark Berninger (SD Public Utilities), Talaya Rachels (consultant)
Affliation:City of San Diego Parks & Rec Open Space & City of San Diego Public Utilities
Survey Date: 5/3/2018 Time Start: 10:20 Time End: 11:14
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: Iow
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim exact
Current Extent Mapping Method: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Species not found since 2003 - possibly wiped out after 2003 fires.
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 508022.471984294 N: 3609621.13604253
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_05032018
File Location: S: MSCP Files
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: 5 % Cover of Litter: 30 % Cover of Water: 0 % Cover of Vegetation: 69 Total % Cover: 117
SANDAG 2012 Vegetation Alliance/Association Deinandra fasciculata Provisional Alliance// Deinandra fasciculata Association
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Deinandra fasciculata, Centaurea melitensis, Lepidium nitidum, Bloomeria clevelandii Deinandra fasciculata, Centaurea melitensis, Lepidium nitidum, Bloomeria
Dead Standing Biomass Cover Class (1-6): 4 Average Height of Dead Standing Biomass (cm): 40
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3

ACIL_3OTLA012-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb	0.2
Cressa truxillensis - spreading alkaliweed	Native	Perennial	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	1
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	65
Eryngium aristulatum var. parishii - San Diego button celery	Native	Annual	Herb	0.2
Hordeum murinum - mouse barley	Nonnative	Annual	Grass	0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb	0.2

ACIL_30TLA012-1		20	018
MSP - RARE PLANT MONITORING I	DATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	EXTENT - Assess threats within the occ	urrence's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; r	eservoir		
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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	esent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAI	R		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the C	NDDB)	
Horned lizard just outside circle pl	ot		_
	-		
NOTES:			
0			

Acanthomintha ilicifolia (San Diego Thornmint) **Otay Lakes** MSP Occurrence ID: ACIL_3OTLA012 - 1



Acanthomintha ilicifolia - Otay Lakes

Acanthomintha ilicifolia photopoint

Bloomeria clevelandii photopoint

Area 2018: 0 sq. m.

Photopoint

Pop. Area 2003 - 2018 Max Area: 10.7 sq. m. Min Area: 0 sq. m.







ACIL_4SASP025-1 2018
MSP - RARE PLANT MONITORING DATA
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 Other Surveyors: Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/19/2018 Time Start: 14:15 Time End: 15:13
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
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: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Low population/absent in recent years + very low annual rainfall.
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 491409.762895259 N: 3644837.96283302
Camera Type: Olympus Stylus TG 830 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_04192018
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 18 % Cover of Rock: 8 % Cover of Litter: 35 % Cover of Water: 0 % Cover of Vegetation: 42
Total % Cover: 103
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
Dead Standing Biomass? no Dead Standing Biomass Species: 0
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3

ACIL_4SASP025-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cove
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Adolphia californica - California adolphia	Native	Perennial	Shrub	3
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	8
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	3
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	2
Brassica nigra - black mustard	Nonnative	Annual	Herb	2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	7
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	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
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	7
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb	0.2
Geranium carolinianum - Carolina geranium	Native	Annual	Herb	0.2
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb	1
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Lysimachia arvensis - scarlet pimpernel	Nonnative	Annual	Herb	0.2
Melilotus albus - white sweetclover	Nonnative	Annual	Herb	0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Quercus berberidifolia - scrub oak	Native	Perennial	Tree	9
Reseda luteola - Dyer's mignonette	Nonnative	Perennial	Herb	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2

ACIL_4SASP025-1		2018
MSP - RARE PLANT MONITORING E	ATA	
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve; p	bassive 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: 0	
Vegetation Clearing: 1 if pres	sent, describe: 0	
Brush Manangement: 7 if pre	sent, describe: Targeted herbicide treatmen	ts and dethatching as part of invasive species removal effort.
ORV Activity: 1 if present, de	escribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
Other Disturbance: 1 if prese	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue weed control and preserv	ve stewardship actions	
VII. MANAGEMENT ACTIONS IN LAST YEAF	{	
Preserve stewardship and weed co	ontrol	
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)
none		
NOTES:		
Photos: 100-0580 to 100-0583		

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

MSP Occurrence ID: ACIL_4SASP025 - 1





ACIL_4SASP025-2	2018
MSP - RARE PLANT MONITORING DATA	
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, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/19/2018 Time Start: 14:10 Time End: 15:03	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
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: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Low population/absent in recent years + very low annual rainfall.	
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 no	
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 491379.370271383 N: 3644858.90305484	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle	e plot
Photo Direction: S,SW,W Camera Height: 1.1 m Camera Angle 5 Photo Numbers: ACIL_4SASP025_2_Photo1_041920	18
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 40 % Cover of Rock: 5 % Cover of Litter: 35 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 104	24
SANDAG 2012 Vegetation Alliance/Association Baccharis sarothroides Provisional Alliance// Baccharis sarothroides Association	
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 2	
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1	
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra, Baccharis sp., Rhamnus crocea	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 180	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

ACIL_4SASP025-2

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adolphia californica - California adolphia	Native	Perennial	Shrub	5
Apiastrum angustifolium - mock parsley	Native	Annual	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	3
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	3
Brassica nigra - black mustard	Nonnative	Annual	Herb	1
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	2
Convolvulus simulans - field bindweed	Native	Annual	Herb	1
Cuscuta occidentalis - chaparral dodder	Native	Annual	Herb	0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	1
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	0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	0.2
Geranium carolinianum - Carolina geranium	Native	Annual	Herb	0.2
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb	4
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb	0.2
Lysimachia arvensis - scarlet pimpernel	Nonnative	Annual	Herb	1
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	0.2
Rumex crispus - curly dock	Nonnative	Perennial	Herb	0.2

2018

ACIL_4SASP025-2

MSP - RARE PLANT MONITORING E	١٨٢٨	
		nce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve; p	assive 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: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe: 0	
Vegetation Clearing: 1 if pres	sent, describe: 0	
Brush Manangement: 7 if pre	sent, describe: Targeted herbicide treatmen	ts and dethatching as part of invasive species removal effort.
ORV Activity: 1 if present, de	escribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
Other Disturbance: 1 if prese	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship and	d weed treatments, evaluate seed	bulking project
VII. MANAGEMENT ACTIONS IN LAST YEAF	(
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)
none		
NOTES		
NOTES:		
photo # 100-576 to 100-579		

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

MSP Occurrence ID: ACIL_4SASP025 - 2





ACIL_4SASP025-3 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/19/2018 Time Start: 13:37 Time End: 14:07
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
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: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Low population/absent in recent years + very low annual rainfall.
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 491345.531779643 N: 3644835.72639538
Camera Type: Olympus Stylus TG 830 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_04192018
File Location: S: MSCP Files
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: 4 % Cover of Litter: 50 % Cover of Water: 0 % Cover of Vegetation: 25
Total % Cover: 104
SANDAG 2012 Vegetation Alliance/Association Quercus (berberidifolia × acutidens) Alliance and Association
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species: 0
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

ACIL_4SASP025-3

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adolphia californica - California adolphia	Native	Perennial	Shrub	6
Apiastrum angustifolium - mock parsley	Native	Annual	Herb	0.2
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	0.2
Convolvulus simulans - field bindweed	Native	Annual	Herb	1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb	0.2
Helminthotheca echioides - bristly oxtongue	Nonnative	Annual	Herb	8
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	0.2
Lysimachia arvensis - scarlet pimpernel	Nonnative	Annual	Herb	0.2
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb	0.2
Quercus berberidifolia - scrub oak	Native	Perennial	Tree	6
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Stachys sp hedgenettle	Native	Perennial	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2
Toxicoscordion venenosum - meadow deathcamas	Native	Perennial	Herb	0.2

ACIL_4SASP025-3			2018		
MSP - RARE PLANT MONITORING E	DATA				
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; p	bassive recreation				
Disturbances (Rank each as 1-6)					
Nonnative Forbs: 4	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: 0				
Vegetation Clearing: 1 if pres	sent, describe: 0				
Brush Manangement: 7 if pre	esent, describe: Targeted herbicide treatmen	ts and dethatching as part of invasive species removal effort.			
ORV Activity: 1 if present, de	escribe: 0				
Evidence of Recent Fire: no Ye	ear Burned? 0				
Trails: 1 if trails are present,	are they authorized? 0				
Type of Trail Use:					
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0			
Illegal Trail Use: 0					
Other Disturbance: 1 if prese	ent, describe: 0				
VI. MANAGEMENT RECOMMENDATIONS					
Continue preserve stewardship and	d weed treatments, evaluate seed	bulking project			
VII. MANAGEMENT ACTIONS IN LAST YEAR	2				
Preserve stewardship, weed treatr	nent				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal spacies to add to the CNDD	R)			
none					
NOTES:					
photo # 100-0572-100-0575					
L					

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

MSP Occurrence ID: ACIL_4SASP025 - 3





Acmispon prostratus Nuttall's Lotus



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ACPR_1DUTR005-1 2018
MSP - RARE PLANT MONITORING DATA
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, Ninfa Negrete (intern), other Other Surveyors: Jason Allen, Ashley Summerford (volunteer), Olivia Koziel (consultant) Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/29/2018 Time Start: 8:55 Time End: 0:00
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
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: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Low annual rainfall.
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 480325.568984979 N: 3624991.20371424
Camera Type: Olympus Stylus TG 830 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_05292018
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 26 % Cover of Rock: 15 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 59 Total % Cover: 110 10 10 10 10 10 10
SANDAG 2012 Vegetation Alliance/Association Encelia californica Alliance// Encelia californica-Artemisia californica 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? yes Dead Standing Biomass Species: Encelia californica, Melilotus indica, Brassica tournefortii, Salsola tragus, Isocoma menziesii, Glebionis coronaria
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 40
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 2 Gopher Activity: 3

ACPR_1DUTR005-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb	0.2
Encelia californica - California brittlebush	Native	Perennial	Shrub	55
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Heliotropium curassavicum - salt heliotrope	Native	Perennial	Herb	0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	4
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Melilotus indica - annual yellow sweetclover	Nonnative	Annual	Herb	0.2
Oncosiphon piluliferum - stinknet	Nonnative	Annual	Herb	0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb	0.2

ACPR_1DUTR005-1

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MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the oc	currence's maximum extent (cumulative extent over years of
Surround_LandUse Developed Regional Pa	rk	
Disturbances (Rank each as 1-6)		
Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1
Nonnative Grass: 2	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: 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: 0	
Vegetation Clearing: 1 if pres	ent, describe: 0	
Brush Manangement: 1 if pre	sent, describe: 0	
ORV Activity: 1 if present, de	scribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
	are they authorized?	
Type of Trail Use:		
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use:	ant describes 0	
·	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship and	d perform weed control as fun	ding is available
VII. MANAGEMENT ACTIONS IN LAST YEAR	2	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the (CNDDB)
none		
NOTES:		
Photos 0850 -0855, photo at cent	er	

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

MSP Occurrence ID: ACPR_1DUTR005 - 1



Acmispon Prostratus - Dune Triangle, Mission Bay



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ns information which has b ed by Thomas Rever M----

ACPR_1HOPO002-2 2018
MSP - RARE PLANT MONITORING DATA
Scientific Name: Acmispon prostratus Common Name: Nuttall's acmispon MSP Occurr. ID: ACPR_1HOP0002
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, Ninfa Negrete (intern), other Other Surveyors: Jason Allen, Ashley Summerford (volunteer), Olivia Koziel (consultant) Koziel (consultant) Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/29/2018 Time Start: 10:43 Time End: 11:03
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 5788 Exact or Estimate? exact Uncertainty: medium
Area of Current Mapped Extent: 3308.28 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: 0
Number of Plants in Circle: 564 Exact or Estimate? exact Uncertainty: Iow 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 Accuracy: <1
Coordinates at Center of Plot: E: 477383.726781026 N: 3624648.34698005
Camera Type: Olympus Stylus TG 830 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_05292018
File Location: S: MSCP Files
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: 0.2 % Cover of Litter: 6 % Cover of Water: 0 % Cover of Vegetation: 56
Total % Cover: 100.2
SANDAG 2012 Vegetation Alliance/Association Abronia latifolia-Ambrosia chamissonis Alliance// Ambrosia chamissonis-Abronia maritima-Cakile maritima Association
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Acmispon prostratus, Camissoniopsis cheiranthifolia, Salsola tragus
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

ACPR_1HOPO002-2

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Abronia umbellata - pink sand verbena	Native	Perennial	Herb	2
Acmispon prostratus - Nuttall's acmispon	Native	Annual	Herb	15
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	20
Camissoniopsis cheiranthifolia - beach suncup	Native	Perennial	Herb	12
Digitaria sanguinalis - hairy crabgrass	Nonnative	Annual	Grass	7
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb	0.2

2018
ACPR_1HOPO002-2			2018
MSP - RARE PLANT MONITORING E	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Developed Regional Par	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: 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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 7 if pre	sent, describe: Restoration and weed control	l as funding permits	
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 4 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship and	d weed control as funding permits		
VII. MANAGEMENT ACTIONS IN LAST YEAF	{		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)	
none			
NOTES:			
photos: 0856-08610			

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

MSP Occurrence ID: ACPR_1HOPO002 - 2





ACPR_1MAPO004-4	2018
MSP - RARE PLANT MONITORING DATA	
Scientific Name: Acmispon prostratus Common Name: Nuttall's acmispon MSP Occurr. ID: ACPR_1MAPO004	
Sample Point #: 4 CNDDB Elem. Occurr. #: EO28 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: Mission Bay - Mariner's Point - ACPR	
Surveyors: Sara Allen, Betsy Miller, Priscilla Hare (intern), Other Surveyors: 0	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/31/2018 Time Start: 14:33 Time End: 0:00	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped exten	t.
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 yes	
If not found, known or suspected reason:	
Number of Plants in Circle: 550 Exact or Estimate? estimate Uncertainty: high Circle Area (sq_m): 10	
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 1 % Fruiting: 5	
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: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 476988.334228512 N: 3624768.09915874	
Camera Type: Olympus Stylus TG 830 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_1MAPO004_4_Photo1_0531	0218
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circl	e).
% Cover of Bare Ground: 30 % Cover of Rock: 0 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation:	68
Total % Cover: 103	
SANDAG 2012 Vegetation Alliance/Association Lotus scoparius Alliance/Lotus scoparius Association	
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 1	
Average Thatch Depth (cm):1Thatch Depth Max (cm):0	
Dead Standing Biomass? no Dead Standing Biomass Species: 0	
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

ACPR_1MAPO004-4

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES				
Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Abronia umbellata - pink sand verbena	Native	Perennial	Herb	15
Acmispon prostratus - Nuttall's acmispon	Native	Annual	Herb	18
Ambrosia chamissonis - silver bur ragweed	Native	Perennial	Herb	20
Camissoniopsis cheiranthifolia - beach suncup	Native	Perennial	Herb	15

ACPR_1MAPO004-4			2018
MSP - RARE PLANT MONITORING D	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurrent	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Developed Regional Part	rk. Area is fenced off for nesting Least terns.		
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: 0		
Vegetation Clearing: 1 if pres	ent, describe: 0		
Brush Manangement: 7 if pre	sent, describe: San Diego Audubon hosted	volunteer events to remove iceplant and other nonnatives.	
ORV Activity: 1 if present, de	scribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
·	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship and	d continue to maintain area for terr	n nesting.	
VII. MANAGEMENT ACTIONS IN LAST YEAF	2		
Preserve stewardship, weed contro	ol, fence maintenance		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)	
California least terns nesting on sit	e		
NOTES:			
Full habitat assessment not comple	ted due to site being closed for lec	ast tern nesting.	

Acmispon prostratus (Nuttall's Acmispon) Mission Bay – Mariners Point Site

MSP Occurrence ID: ACPR_1MAPO004-4



Panorama from Northern edge of population, facing Southeast, South, Southwest. Panorama location is 6255570.10 1857963.18 NAD83 State Plane California Zone 6 (feet) Photos merged using ArcSoft Panorama Maker 4.

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

ACPR_1NMLA001-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Priscilla Hare (intern), Ninfa Negrete (intern), other Surveyors: Jason Allen, Ashley Summerford (volunteer)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/24/2018 Time Start: 13:48 Time End: 0:00
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 236 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 1502.34 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: 0
Number of Plants in Circle: 45 Exact or Estimate? exact Uncertainty: Iow Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 2 % Flowering: 6 % Dead: 1 % Fruiting: 2
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 Accuracy: <1
Coordinates at Center of Plot: E: 480670.218944951 N: 3625349.65768529
Camera Type: Olympus Stylus TG 830 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_1NMLA001_1_Photo1_05242018
File Location: S: MSCP Files
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: 4 % Cover of Litter: 30 % Cover of Water: 0 % Cover of Vegetation: 65 Total % Cover: 119
SANDAG 2012 Vegetation Alliance/Association Brassica(nigra) and Other Mustards Semi-Natural Stands Alliance and Association
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: Camissoniopsis cheiranthifolia, Brassica tournefortii, Stephanomeria diegensis, Glebionis coronaria
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 30
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

ACPR_1NMLA001-1

MSP - RARE PLANT MONITORING DATA

Stephanomeria diegensis - San Diego milk aster

V. ASSOCIATED SPECIES **Associated Species** Native or Nonnative? Annual or Perennial? Plant Form % Cover Acmispon prostratus - Nuttall's acmispon Native Annual Herb 6 0.2 Nonnative Annual Grass Avena barbata - slender oat Native Perennial 1 Baccharis sarothroides - desertbroom Shrub Brassica tournefortii - Asian mustard Nonnative Annual Herb 16 Bromus madritensis - compact brome Nonnative 0.2 Annual Grass Camissoniopsis cheiranthifolia - beach suncup Native Perennial Herb 40 Erigeron canadensis - Canada horseweed Native Annual 0.2 Herb Erodium botrys - longbeak stork's bill 2 Nonnative Annual Herb Erodium cicutarium - redstem stork's bill Nonnative Annual Herb 0.2 Erodium moschatum - Musky stork's bill Nonnative 0.2 Annual Herb Glebionis coronaria - crown daisy Nonnative Annual Herb 0.2 Heliotropium curassavicum - salt heliotrope Native Perennial Herb 0.2 Heterotheca grandiflora - telegraphweed Native 0.2 Annual Herb

Native

Annual

2018

0.2

Herb

ACPR_1NMLA001-1			2018	
MSP - RARE PLANT MONITORING D	ATA			
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of		
Surround_LandUse Freeway; Developed Re	egional Park			
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: 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: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe: 0			
Vegetation Clearing: 1 if pres	sent, describe: 0			
Brush Manangement: 5 if pre	sent, describe: San Diego Audubon hosted	volunteer events to remove iceplant and other nonnatives.		
ORV Activity: 1 if present, de	escribe: 0			
Evidence of Recent Fire: no Ye	ar Burned? 0			
Trails: 2 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use: 0				
·	ent, describe: 0			
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship and	d weed treatments as funding peri	nits		
VII. MANAGEMENT ACTIONS IN LAST YEAR	2			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	B)		
none				
NOTES:				
photos: 0844-0849				

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

MSP Occurrence ID: ACPR_1NMLA001 - 1





ACPR_1RRS0003-3 2018
MSP - RARE PLANT MONITORING DATA
Scientific Name: Acmispon prostratus Common Name: Nuttall's acmispon MSP Occurr. ID: ACPR_1RRS0003
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, Betsy Miller, other Other Surveyors: Jason Allen, Olivia Koziel (consultant), Ashley Summerford (volunteer) Summerford (volunteer)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/29/2018 Time Start: 14:13 Time End: 14:49
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 152 Exact or Estimate? exact Uncertainty: Iow
Area of Current Mapped Extent: 354.83 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: 0
Number of Plants in Circle: 1 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 1 % Dead: 6 % 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 Accuracy: <1
Coordinates at Center of Plot: E: 477981.014277906 N: 3624574.99896855
Camera Type: Olympus Stylus TG 830 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_1RRS0003_3_Photo1_05292018
File Location: S: MSCP Files
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: 25 % Cover of Litter: 10 % Cover of Water: 6 % Cover of Vegetation: 46 Total % Cover: 107 107 107 107 107 107
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): 2 Thatch Depth Max (cm): 2
Dead Standing Biomass? yes Dead Standing Biomass Species: Pennisetum setaceum, Brassica tournefortii
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 30
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

ACPR_1RRSO003-3

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES **Associated Species** Native or Nonnative? Annual or Perennial? Plant Form % Cover Brassica tournefortii - Asian mustard Nonnative Annual Herb 1 Bromus diandrus - ripgut brome Nonnative Annual 1 Grass Native 0.2 Cuscuta pacifica - saltmarsh dodder Annual Herb Distichlis spicata - saltgrass Native Perennial Grass 5 Perennial Frankenia salina - alkali seaheath Native 4 Herb Nonnative Glebionis coronaria - crown daisy Annual Herb 1 Heterotheca grandiflora - telegraphweed Native 0.2 Annual Herb Native 0.2 Jaumea carnosa - marsh jaumea Perennial Herb Limonium duriusculum - European sea lavender Nonnative Perennial Herb 0.2 0.2 Malva parviflora - cheeseweed mallow Nonnative Annual Herb Melilotus indica - annual yellow sweetclover Nonnative Annual Herb 0.2 Pennisetum setaceum - crimson fountaingrass Nonnative Perennial 33 Grass Native Salicornia pacifica - glasswort Perennial Herb 1 Nonnative 0.2 Salsola tragus - prickly Russian thistle Annual Herb Nonnative Schismus barbatus - common Mediterranean grass Annual Grass 0.2 Suaeda esteroa - estuary seablite Native Perennial Herb 0.2 Tribulus terrestris - puncture vine Nonnative Annual Herb 0.2

2018

ACPR_1RRSO003-3

2018

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM EXTENT - monitoring) plus 10-m surrounding buffer.	Assess threats within the occurren	ce's maximum extent (cumulative extent over years of
Surround_LandUse Developed Regional Park		
Disturbances (Rank each as 1-6)		
Nonnative Forbs: 3 Feral P	Pig Activity: 1	Altered Hydrology: 7
Nonnative Grass: 5 Tramp	ling: 3	Erosion: 1
Nonnative Woody Plants: 2 Vandal	lism: 1	Urban Runoff: 1
Competitive Native Plants: 1 Curren	t Grazing: 1	Slope Movement: 1
Dumping/Trash: 3 Histori	c Grazing: no	Soil Compaction: 1
Encampments: 1 Histori	c Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 4 if	present, describe: 0	
Vegetation Clearing: 1 if present, des	cribe: 0	
Brush Manangement: 1 if present, des	scribe: 0	
ORV Activity: 1 if present, describe:	0	
Evidence of Recent Fire: no Year Burne	ed? 0	
Trails: 2 if trails are present, are they	authorized?	
Type of Trail Use:		
	estrian: Dog:	Service Vehicles: Other:
Illegal Trail Use: 0		
Other Disturbance: 1 if present, desc	ribe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship and contro	ol pennesetum as funding pe	rmits
VII. MANAGEMENT ACTIONS IN LAST YEAR		
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any plant or a	animal species to add to the CNDDI	3)
Osprey, Peregrin falcon		
NOTES:		
0		

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.



ACPR_1SOSH006-6 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Ninfa Negrete (intern), Priscilla Hare (intern), other Surveyors: Jason Allen, Ashley Summerford (volunteer)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/24/2018 Time Start: 9:10 Time End: 9:56
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 100 Exact or Estimate? exact Uncertainty: Iow
Area of Current Mapped Extent: 426.71 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: 0
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 480365.793368859 N: 3625283.54052393
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: 3625259.8189 N: 480403.3567
Photo Direction: S,SW,W,NW Camera Height: 1.1 m Camera Angle -5 Photo Numbers: ACPR_1SOSH006_6_Photo1_05242018
File Location: S: MSCP Files
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: 4 % Cover of Litter: 22 % Cover of Water: 0 % Cover of Vegetation: 56 Total % Cover: 107
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: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? yes Dead Standing Biomass Species: Glebionis coronaria, Brassica tournefortii
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 35
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 4 Gopher Activity: 3

ACPR_1SOSH006-6

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	7
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb	7
Carpobrotus edulis - hottentot fig	Nonnative	Perennial	Herb	35
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Glebionis coronaria - crown daisy	Nonnative	Annual	Herb	7
Heliotropium curassavicum - salt heliotrope	Native	Perennial	Herb	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2

2018

ACPR_1SOSH006-6			2018
MSP - RARE PLANT MONITORING E	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce'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: 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: 1	Historic Grazing: no	Soil Compaction: 1	
Encampments: 2	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 1	if present, describe: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 5 if pre	sent, describe: San Diego Audubon hosted	volunteer events to remove iceplant and other nonnatives.	
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 2 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use: 0			
·	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship and	d continue weed control as funding	allows	
VII. MANAGEMENT ACTIONS IN LAST YEAF	{		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)	
none			
NOTES:			
0			

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

MSP Occurrence ID: ACPR_1SOSH006 - 6





Max Area: 15,970.4 sq. m. Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017 Min Area: 15.6 sq. m.

Meters



Ambrosia pumila San Diego Ambrosia



© City of San Diego 2015

AMPU_4KULA005-1	2018
MSP - RARE PLANT MONITORING DATA	
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, Ninfa Negrete (intern), Negrete (intern), Priscilla Hare (intern), other Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/17/2018 Time Start: 10:08 Time End: 10:59	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent	
Number of Plants in Mapped Extent: 32009 Exact or Estimate? estimate Uncertainty: medium	
Area of Current Mapped Extent: 6355.78 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: 0	
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: 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 no	
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 496996.340479677 N: 3633459.94818102	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: Same as plot center N: Same as plot center	enter
Photo Direction: NW,N,NE,E Camera Height: 1.1 m Camera Angle -5 Photo Numbers: AMPU_4KULA005_1_Photo1_04172	018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle	:).
% Cover of Bare Ground: 40 % Cover of Rock: 0.2 % Cover of Litter: 25 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 110.2	45
SANDAG 2012 Vegetation Alliance/Association Eriogonum fasciculatum Alliance and Association	
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: Brassica nigra	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 30	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 4 Gopher Activity: 2	

AMPU_4KULA005-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES **Associated Species** Native or Nonnative? Annual or Perennial? Plant Form % Cover Acmispon micranthus - San Diego bird's-foot trefoil Native Annual Herb 0.2 Native Perennial Shrub 0.2 Artemisia californica - coastal sagebrush Native Perennial 0.2 Baccharis sarothroides - desertbroom Shrub 0.2 Brassica nigra - black mustard Nonnative Annual Herb Nonnative 0.2 Bromus madritensis - compact brome Annual Grass Camissoniopsis bistorta - southern suncup Native Herb 0.2 Annual Distichlis spicata - saltgrass Native Perennial 0.2 Grass Eriogonum fasciculatum - Eastern Mojave buckwheat Native 20 Perennial Shrub Erodium botrys - longbeak stork's bill Nonnative Annual Herb 22 Nonnative 0.2 Erodium cicutarium - redstem stork's bill Annual Herb Festuca myuros - rattail fescue Nonnative Annual 0.2 Grass Nuttallanthus texanus - Texas toadflax Native Annual Herb 12 Native Perennial 0.2 Pseudognaphalium beneolens - cudweed Herb Pseudognaphalium californicum - ladies' tobacco Native Perennial 5 Herb Nonnative 0.2 Sonchus asper - spiny sowthistle Annual Herb

AMPU_4KULA005-1

MSP - RARE PLANT MONITORING D	ATA	
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurrer	nce's maximum extent (cumulative extent over years of
Surround_LandUse Campground, Residentia	al, Open space preserve	
Disturbances (Rank each as 1-6)		
Nonnative Forbs: 5	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: 2	if present, describe:	
Vegetation Clearing: 7 if pres	ent, describe:	
Brush Manangement: 7 if pres	sent, describe: Annual mowing and targeted	herbicide application to control invasive species.
ORV Activity: 1 if present, de	scribe: 0	
Evidence of Recent Fire: no Yea	ar Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0		
Illegal Trail Use: 0		
· · ·	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue annual mowing and targe	ted weed control	
VII. MANAGEMENT ACTIONS IN LAST YEAR		
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any p	plant or animal species to add to the CNDD	B)
none		
NOTES:		
photo # 100-0554 - 100-0556		

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

MSP Occurrence ID: AMPU_4KULA005-1





Bloomeria clevelandii San Diego Goldenstar



© City of San Diego, 2015

BLCL_4EAEL014-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, other Other Surveyors: Anna Tran, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/25/2018 Time Start: 9:33 Time End: 10:18
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 2773 Exact or Estimate? exact Uncertainty: Iow
Area of Current Mapped Extent: 26674.13 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: 0
Number of Plants in Circle: 7 Exact or Estimate? exact Uncertainty: Iow 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 Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 496319.156204192 N: 3635141.61877903
Camera Type: Olympus Stylus TG 830 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_1_Photo1_04252018
File Location: S: MSCP Files
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: 4 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 98
Total % Cover: 106
SANDAG 2012 Vegetation Alliance/Association Malosma laurina Alliance// Malosma laurina-Lotus scoparius Association
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 2
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 3
Dead Standing Biomass? yes Dead Standing Biomass Species: Centaurea melitensis, Acmispon glaber, Deinandra fasciculata
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: 3

BLCL_4EAEL014-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	4
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	6
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	35
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	20
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb	0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb	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	1
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	1
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	0.2
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub	1
Malosma laurina - laurel sumac	Native	Perennial	Shrub	12
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	8
Salvia apiana - white sage	Native	Perennial	Shrub	3
Sanicula arguta - sharp toothed snakeroot	Native	Perennial	Herb	0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

MSP - RARE PLANT MONITORING DATA V. THERATS ASSESSMENT IN MAXIMUM EXERTIT - Assess threats within the occurrence's maximum extent (cumulative extent over years of monitoring plus 10-em surrounding buffer. Surround LandUse [Open space preserver passive recreation, SDG&E access road Disturbances (Rank each as 1-6) Nonnative Forbs: 3 Feral Pig Activity: 1 Attered Hydrology: 1 Nonnative Grass: 7 Trampling: 1 Competitive Native Plants: 1 Current Grazing; in a Solid Compaction: 1 Encampments: 1 Historic Grazing; in a Soli Compaction: 1 Road Construction/Maintenance: 3 if present, describe: 0 Vegetation Clearing: 1 if present, describe: 0 ORV Activity: 1 if present, describe: 0 Vidence of Recent Fire: no Year Burned? 0 Trails: 2 if trails are present, are they authorized? Type of Trail Use: Hiking: Biking: Hiking: Biking: Equestritais: VI	BLCL_4EAEL014-1			2018
imonitoring) plus 10-m surrounding buffer. Surround_LandUse Open space preserve: passive recreation, SDG&E access road Disturbances (Rank each as 1-4) Nonnative Grass: 7 Nonnative Grass: 7 Trampling: 1 Erosion: 1 Nonnative Grass: 7 Trampling: 1 Erosion: 1 Nonnative Woody Plants: 8 Vandalism: 1 Urban Runoff: 1 Competitive Native Plants: 1 Current Grazing: 1 Stope Movement: 1 Dumping/Trash: 1 Historic Grazing: 1 Stope Movement: 1 Dumping/Trash: 1 Historic Agriculture: 1 Fuel Modification Zone/ Fire Break: 1 Road Construction/Maintenance: 3 if present, describe: 0 Fuel Modification Zone/ Fire Break: 1 Road Construction/Maintenance: 3 if present, describe: 0 ORV Activity: 1 if present, describe: 0 Vegetation Clearing: 1 if present, describe: 0 O ORV Activity: 1 if present, describe: 0 Viegetation Clearing: 2 if trails are present, are they authorized? Trails: 2 other: 1 if present, describe: 0 Viegetation Clearing: 1 if present, describe: 0 O Other: 1 if present, describe: 0 Viegetation Clearing: 1 if present, describe: 0 O	MSP - RARE PLANT MONITORING E	ATA		
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: 3 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 present, describe: 0 Brush Manangement: 1 if present, describe: 0 Evidence of Recent Fire: no Year Burned? 0 Trails: 2 if trails are present, are they authorized? Type of Trail Use: Hiking: Biking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evolucite feosibility of BRDI treatment on steep, remote slopes VII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:		XTENT - Assess threats within the occurr	ence's maximum extent (cumulative extent over years of	
Nonnative Forbs: 3 Feral Pig Activity: 1 Altered Hydrology: 1 Nonnative Grass: 7 Trampling: 1 Erosion: 1 Nonnative Woody Plants: 3 Vandalism: 1 Urban Runoff: 1 Competitive Native Plants: 1 Current Grazing: no Soil Compaction: 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: 0 0 0 Brush Manangement: 1 if present, describe: 0 0 0 0 Evidence of Recent Fire: no Year Burned? 0 0 0 0 1 if present, describe: 0 Other 1 if present, describe: 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Surround_LandUse Open space preserve; p	assive recreation, SDG&E access road		
Nonnative Grass: 7 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: 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 present, describe: 0 Vegetation Clearing: 1 if present, describe: 0 Evidence of Recent Fire: no Year Burned? 0 Trails: 2 if trails are present, are they authorized? Type of Trail Use: Other: 1 Hiking: Equestrian: 0 Dog: Service Vehicles: 0 Other: 1 Vit MANAGEMENT ACTIONS IN LAST YEAR Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR VII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none None NOTES:	Disturbances (Rank each as 1-6)			
Nonnative Woody Plants: 3 Vandalism: 1 Urban Runoff: 1 Competitive Native Plants: 1 Current Grazing: 1 Slope Movement: 1 Dumping/Trash: 1 Historic Grazing: mo Soil Compaction: 1 Encampments: 1 Historic Agriculture: mo Fuel Modification Zone/ Fire Break: 1 Road Construction/Maintenance: 3 if present, describe: Puel Modification Zone/ Fire Break: 1 Road Construction/Maintenance: 3 if present, describe: 0 Puel Modification Zone/ Fire Break: 1 Vegetation Clearing: 1 if present, describe: 0 Puel Modification Zone/ Fire Break: 1 Vegetation Clearing: 1 if present, describe: 0 Puel Modification Zone/ Fire Break: 1 Vegetation Clearing: 1 if present, describe: 0 Puel Modification Zone/ Fire Break: 1 Viset Cleare of Recent Fire: no Year Burned? 0 Puel Modification Zone/ Fire Break: 1 Type of Trail Use: Notes: Other: Other: Illegal Trail Use: 0 Other: Other: Other: Illegal Trail Use: 0 Other Cleasibility of BRDI treatment on steep, remote slopes Vit. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures Vit. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none <td>Nonnative Forbs: 3</td> <td>Feral Pig Activity: 1</td> <td>Altered Hydrology: 1</td> <td></td>	Nonnative Forbs: 3	Feral Pig Activity: 1	Altered Hydrology: 1	
Competitive Native Plants: Current Grazing: Slope Movement: Dumping/Trash: Historic Grazing: NOTES: Current Grazing: Current Grazing: Slope Movement: Slope Mo	Nonnative Grass: 7	Trampling: 1	Erosion: 1	
Dumping/Trash: 1 Historic Grazing: no Soil Compaction: 1 Encampments: 1 Historic Agriculture: no Fuel Modification Zone/ Fire Break: 1 Road ConstructionMaintenance: 3 if present, describe: 0 0 Vegetation Clearing: 1 if present, describe: 0 0 Brush Manangement: 1 if present, describe: 0 0 ORV Activity: 1 if present, describe: 0 0 ORV Activity: 1 if present, describe: 0 0 Trails: 2 if trails are present, are they authorized? 1 1 1 Type of Trail Use: 0 0 1 </td <td>Nonnative Woody Plants: 3</td> <td>Vandalism: 1</td> <td>Urban Runoff: 1</td> <td></td>	Nonnative Woody Plants: 3	Vandalism: 1	Urban Runoff: 1	
Encampments: 1 Historic Agriculture: no Fuel Modification Zone/ Fire Break: 1 Road Construction/Maintenance: 3 if present, describe: Vegetation Clearing: 1 if present, describe: Brush Manangement: 1 if present, describe: ORV Activity: 1 if present, describe: Type of Trail Use: 0 Other: Illegal Trail Use: 0 Other Other: UNAAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB	Competitive Native Plants: 1	Current Grazing: 1	Slope Movement: 1	
Road Construction/Maintenance: 3 if present, describe: Vegetation Clearing: 1 if present, describe: 0 Brush Manangement: 1 if present, describe: 0 ORV Activity: 1 if present, describe: 0 ORV Activity: 1 if present, describe: 0 Evidence of Recent Fire: no Year Burned? 0 Trails: 2 if trails are present, are they authorized? Trails: 7 Type of Trail Use: Biking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: 0 0 0 0 0 Other Disturbance: 1 if present, describe: 0 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes 1 1 VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures 1 VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none 1 NOTES: 1 1 1 1 1 1 OR 1 1	Dumping/Trash: 1	Historic Grazing: no	Soil Compaction: 1	
Vegetation Clearing: 1 if present, describe: 0 Brush Manangement: 1 if present, describe: 0 ORV Activity: 1 if present, describe: 0 Evidence of Recent Fire: no Year Burned? 0 Trails: 2 if trails are present, are they authorized? Trail Use: Hiking: Biking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: 0 0 Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stew ardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES: Image: Note Steep St	Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Brush Manangement: if present, describe: ORV Activity: if present, describe: ORV Activity: if present, describe: Evidence of Recent Fire: no Year Burned? if trails are present, are they authorized? Trails: 2 if trails are present, are they authorized? Type of Trail Use: Hiking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES: Inone	Road Construction/Maintenance: 3	if present, describe:		
ORV Activity: If present, describe: 0 Evidence of Recent Fire: no Year Burned? 0 Trails: 2 If trails are present, are they authorized? Type of Trail Use: Type of Trail Use: Biking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: 0 Other Disturbance: 1 If present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS VII. MANAGEMENT RECOMMENDATIONS VII. VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VII. Montastic Context of the CNDDB VII. VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) Inone NOTES:	Vegetation Clearing: 1 if pres	sent, describe: 0		
Evidence of Recent Fire: no Year Burned? 0 Trails: 2 if trails are present, are they authorized? Type of Trail Use: Hiking: Biking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none	Brush Manangement: 1 if pre	sent, describe: 0		
Trails: 2 if trails are present, are they authorized? Type of Trail Use: Biking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none	ORV Activity: 1 if present, de	escribe: 0		
Type of Trail Use: Hiking: Biking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: O Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:	Evidence of Recent Fire: no Ye	ar Burned? 0		
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other: Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES: Comparison of the comparison of t	Trails: 2 if trails are present,	are they authorized?		
Illegal Trail Use: 0 Other Disturbance: 1 If present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:				
Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:		Equestrian: Dog:	Service Vehicles: Other:	
VI. MANAGEMENT RECOMMENDATIONS Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:				
Evaluate feasibility of BRDI treatment on steep, remote slopes VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:	Other Disturbance: 1 if prese	ent, describe: 0		
VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:	VI. MANAGEMENT RECOMMENDATIONS			
Preserve stewardship, maintained trail closures VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:	Evaluate feasibility of BRDI treatm	ent on steep, remote slopes		
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES:	VII. MANAGEMENT ACTIONS IN LAST YEAR	2		
none NOTES:	Preserve stewardship, maintained	trail closures		
NOTES:	VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CND	DB)	
	none			
photos 100-0622 - 100-0626	NOTES:			
	photos 100-0622 - 100-0626			

Bloomeria clevelandii (San Diego Goldenstar) East Elliott # 1

MSP Occurrence ID: BLCL_4EAEL014 - 1





BLCL_4EAEL014-2	2018
MSP - RARE PLANT MONITORING DATA	
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, Betsy Miller, other Other Surveyors: Anna Tran, Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/25/2018 Time Start: 15:36 Time End: 16:14	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped exten	t.
Number of Plants in Mapped Extent: Exact or Estimate? exact Uncertainty: Iow	
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim exact	
Current Extent Mapping Method: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Low annual rainfall.	
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 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: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 495742.70383755 N: 3636055.84580862	
Camera Type: Olympus Stylus TG 830 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 O Photo Numbers: BLCL_4EAEL014_2_Photo1_04252	018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circl	e).
% Cover of Bare Ground: 30 % Cover of Rock: 47 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation:	
Total % Cover: 101	
SANDAG 2012 Vegetation Alliance/Association Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-Lotus scoparius 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? yes Dead Standing Biomass Species: Acmispon glaber, Deinandra fasciculata	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 10	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 3 Gopher Activity: 1	

BLCL_4EAEL014-2

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	3
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	12
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	2
Ceanothus tomentosus - woolyleaf ceanothus	Native	Perennial	Shrub	2
Chlorogalum sp soap plant	Native	Perennial	Herb	0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	1
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Lasthenia coronaria - royal goldfields	Native	Annual	Herb	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	0.2
Salvia mellifera - black sage	Native	Perennial	Shrub	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	0.2
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb	0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass	0.2
BLCL_4EAEL014-2	2018			
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MSP - RARE PLANT MONITORING DATA				
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurr monitoring) plus 10-m surrounding buffer.	rence's maximum extent (cumulative extent over years of			
Surround_LandUse Open space preserve; passive recreation, SDG&E access road				
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: 6 if present, describe:				
Vegetation Clearing: 1 if present, describe: 0				
Brush Manangement: 1 if present, describe: 0				
ORV Activity: 1 if present, describe: 0				
Evidence of Recent Fire: no Year Burned? 0				
Trails: 1 if trails are present, are they authorized? 0				
Type of Trail Use:				
Hiking: 0 Biking: 0 Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0			
Illegal Trail Use: 0				
Other Disturbance: 1 if present, describe: 0				
VI. MANAGEMENT RECOMMENDATIONS				
Contimue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNE)DB)			
none				
NOTES:				
Photo # 100-0627 - 100-0630				

Bloomeria clevelandii (San Diego Goldenstar) East Elliott # 2

MSP Occurrence ID: BLCL_4EAEL014 - 2





BLCL_4EAEL014-3 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, other Other Surveyors: Anna Tran, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/25/2018 Time Start: 16:20 Time End: 16:46
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: Exact or Estimate? Exact Uncertainty: Iow
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim exact
Current Extent Mapping Method: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Low annual rainfall.
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 495603.725973957 N: 3636475.27018264
Camera Type: Olympus Stylus TG 830 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_3_Photo1_04252018
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 36 % Cover of Rock: 30 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 33 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: 3 Thatch Cover:
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? yes Dead Standing Biomass Species: Adenostoma fasciculatum, Eriogonum fasciculatum, Acmispon glaber
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 20
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 3 Gopher Activity: 1

BLCL_4EAEL014-3

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	1
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	22
Bromus madritensis - compact brome	Nonnative	Annual	Grass	1
Chlorogalum sp soap plant	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	6
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Lasthenia coronaria - royal goldfields	Native	Annual	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb	0.2
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub	1

BLCL_4EAEL014-3			2018
MSP - RARE PLANT MONITORING D	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; p	assive recreation, SDG&E access road		
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: 2	if present, describe:		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 0 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Contimue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAR	{		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	B)	
none			
lione			
NOTES:			
phot taken from edge of circle; ph	oto # 100-0631 -100-0635		

Bloomeria clevelandii (San Diego Goldenstar) East Elliott # 3

MSP Occurrence ID: BLCL_4EAEL014 - 3





BLCL_4EAEL014-5	2018
MSP - RARE PLANT MONITORING DATA	
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, other Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/8/2018 Time Start: 12:09 Time End: 12:43	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent	t.
Number of Plants in Mapped Extent: Exact or Estimate? exact Uncertainty:	
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim exact	
Current Extent Mapping Method: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Low annual rainfall.	
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 no	
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accurracy: <1	
Coordinates at Center of Plot: E: 495356.274852526 N: 3635908.0359602	
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center	center
Photo Direction: SW,S,SE Camera Height: 1.1 m Camera Angle 0 Photo Numbers: BLCL_4EAEL014_5_Photo1_050820	018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle	e).
% Cover of Bare Ground: 30 % Cover of Rock: 40 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation:	28
Total % Cover: 103	
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	
Dead Standing Biomass? yes Dead Standing Biomass Species: Adenostoma fasciculatum, Acmispon glaber, Stephanomeria sp., Lep nitidum, Stipa lepida, unknown shrub	idium
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 40	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

BLCL_4EAEL014-5

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	6
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	12
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
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub	3
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb	0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	0.2
Helianthemum scoparium - Bisbee peak rushrose	Native	Perennial	Shrub	0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Pellaea mucronata - birdfoot cliffbrake	Native	Perennial	Fern	0.2
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Porophyllum gracile - slender poreleaf	Native	Perennial	Herb	0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Psilocarphus tenellus - slender woolly heads	Native	Annual	Herb	0.2
Quercus berberidifolia - scrub oak	Native	Perennial	Tree	1
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	1
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb	0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass	5
Unknown - bulb	Unknown	Unknown	Herb	0.2

BLCL_4EAEL014-5			2018
MSP - RARE PLANT MONITORING I	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurrent	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; p	bassive recreation, SDG&E access road		
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: 4	
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 1	if present, describe: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	esent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 4 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use:			
	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAR	2		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)	
none			
NOTES:			
photos on saras phone 20180508	_120713		

Bloomeria clevelandii (San Diego Goldenstar) East Elliott # 5

MSP Occurrence ID: BLCL_4EAEL014 - 5





BLCL_6LORI021-1	2018
MSP - RARE PLANT MONITORING DATA	
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, Betsy Miller, Priscilla Hare (intern) Other Surveyors: Jason Allen, Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/24/2018 Time Start: 14:35 Time End: 15:19	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 77 Exact or Estimate? exact Uncertainty: low	
Area of Current Mapped Extent: 97.90 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: 0	
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 no	
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 483770.614066572 N: 3642354.86924005	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle	e plot
Photo Direction: SW,W,NW,N Camera Height: 1.1 m Camera Angle 5 Photo Numbers: BLCL_6LORI021_1_Photo1_0424207	18
File Location: S: MSCP Files	
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: 40 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 106 106 106 106 106 106	35
SANDAG 2012 Vegetation Alliance/Association Adenostoma fasciculatum Alliance// Alliance level only	
Cover Classes (1-6) Cryptogamic Crust Cover: 2 Thatch Cover: 1	
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0	
Dead Standing Biomass? yes Dead Standing Biomass Species: Avena barbata, Deinandra fasciculata, Adenostoma fasciculatum	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 20	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

BLCL_6LORI021-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	7
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Brodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb	0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	3
Bromus madritensis - compact brome	Nonnative	Annual	Grass	1
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb	0.2
Crassula aquatica - Aquatic pygmy weed	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Deschampsia danthonioides - annual hairgrass	Native	Annual	Grass	0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Gastridium phleoides - nit grass	Nonnative	Annual	Grass	0.2
Hordeum marinum - seaside barley	Nonnative	Annual	Grass	3
Hypochaeris glabra - smooth cat's ear	Nonnative	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	18
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb	10
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2

|--|

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occ	urrence'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: 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: 0	
Vegetation Clearing: 1 if pres	ent, describe: 0	
Brush Manangement: 1 if pre	sent, describe: 0	
ORV Activity: 1 if present, de	scribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:] [_] _ [
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
·	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAF	2	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the C	NDDB)
none		
NOTES:		
Also point for BROR; photos 100-0	0618 - 100-0621; photo from	edge of circle

Bloomeria clevelandii (San Diego Goldenstar) Lopez Ridge MSP Occurrence ID: BLCL_6LORI021 - 1





BLCL_3MAVA005-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/26/2018 Time Start: 14:04 Time End: 0:00
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 2087 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 20760.56 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: 0
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: 5 % Dead: 1 % Fruiting: 5
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 Accuracy: <1
Coordinates at Center of Plot: E: 523213.696302829 N: 3603790.53802729
Camera Type: Olympus Stylus TG 830 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_1_Photo1_04262018
File Location: S: MSCP Files
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: 4 % Cover of Litter: 30 % Cover of Water: 0 % Cover of Vegetation: 60 Total % Cover: 102
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: 4
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 8
Dead Standing Biomass? yes Dead Standing Biomass Species: Centaurea melitensis, Eriophyllum confertiflorum, Galium angustifolium, Stipa pulchra, Gutierrezia californica, Hirschfeldia incana, Bloomeria clevelandii,
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 30
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	6
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub	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	12
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb	0.2
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb	1
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	16
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	3
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	0.2
Gastridium phleoides - nit grass	Nonnative	Annual	Grass	0.2
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub	6
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Malosma laurina - laurel sumac	Native	Perennial	Shrub	6
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	4
Salvia apiana - white sage	Native	Perennial	Shrub	3
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

BLCL_3MAVA005-1		:	2018
MSP - RARE PLANT MONITORING E	DATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurr	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: 4	Trampling: 1	Erosion: 1	
Nonnative Woody Plants: 6	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	sent, describe: 0		
Brush Manangement: 1 if pre	esent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship			
	-		
VII. MANAGEMENT ACTIONS IN LAST YEAF	{		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CND	DB)	
none			
NOTES:			
Photos 100-0657 - 100-0662			

Bloomeria clevelandii (San Diego Goldenstar) Marron Valley # 1

MSP Occurrence ID: BLCL_3MAVA005 - 1





Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

Min Area: 0 sq. m.



BLCL_3MAVA005-2	2018
MSP - RARE PLANT MONITORING DATA	
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, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/26/2018 Time Start: 13:04 Time End: 13:47	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 2087 Exact or Estimate? estimate Uncertainty: medium	
Area of Current Mapped Extent: 20760.56 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: 0	
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: Iow 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 no	
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accurracy: <1	
Coordinates at Center of Plot: E: 523345.95603092 N: 3603753.94062091	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: Same as plot center N: Same as plot center	enter
Photo Direction: SE,S,SW Camera Height: 1.1 m Camera Angle 5 Photo Numbers: BLCL_3MAVA005_2_Photo1_042620	18
File Location: S: MSCP Files	
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: 12 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 109	65
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): 3	
Dead Standing Biomass? yes Dead Standing Biomass Species: Stipa pulchra, Hirschfeldia incana, Avena sp., Centaurea melitensis, Gutierrezia californica, Unknown shrub	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 30	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3	

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	9
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	8
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
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	5
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	18
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Gutierrezia sarothrae - Broom snakeweed	Native	Perennial	Shrub	6
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb	2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	4
Malosma laurina - laurel sumac	Native	Perennial	Shrub	5
Salvia apiana - white sage	Native	Perennial	Shrub	5
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occur	rence'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: 6	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	sent, describe:	
Brush Manangement: 1 if pre	sent, describe:	
ORV Activity: 1 if present, de	escribe:	
Evidence of Recent Fire: no Ye	ar Burned?	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
·	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAR	2	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CN	DDB)
none		
NOTES:		
100-0652-100-0655		

Bloomeria clevelandii (San Diego Goldenstar) Marron Valley # 2

MSP Occurrence ID: BLCL_3MAVA005 - 2





Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

Min Area: 0 sq. m.



BLCL_3MAVA005-3 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/26/2018 Time Start: 10:02 Time End: 10:56
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 2087 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 20760.56 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: 0
Number of Plants in Circle: 166 Exact or Estimate? exact Uncertainty: Iow 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: 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 Accuracy: <1
Coordinates at Center of Plot: E: 523579.663004555 N: 3603641.55678987
Camera Type: Olympus Stylus TG 830 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_3_Photo1_04262018
File Location: S: MSCP Files
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: 36 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 45
Total % Cover: 104
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
Dead Standing Biomass? yes Dead Standing Biomass Species: Bloomeria clevelandii, Stipa pulchra, Hirshfeldia incana, Eriophyllum confertiflorum, Unknown shrub
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 30
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 4 Gopher Activity: 1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Apiastrum angustifolium - mock parsley	Native	Annual	Herb	0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	10
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	2
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb	0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	10
Centaurea melitensis - Maltese star-thistle	Nonnative	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	5
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb	2
Erodium moschatum - Musky stork's bill	Nonnative	Annual	Herb	0.2
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	1
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb	0.2
Hesperoyucca whipplei - chaparral yucca	Native	Perennial	Shrub	0.2
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb	1
lsocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Layia platyglossa - coastal tidytips	Native	Annual	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	0.2
Pentagramma triangularis - goldbeck fern	Native	Perennial	Fern	0.2
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass	0.2
Plantago erecta - California plantain	Native	Annual	Herb	5
Salvia apiana - white sage	Native	Perennial	Shrub	3
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	5

MSP - RARE PLANT MONITORING DATA 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
monitoring) plus 10-m surrounding buffer. Surround_LandUse Open space preserve Disturbances (Rank each as 1-6)
Disturbances (Rank each as 1-6)
Nonnative Forbs: 3 Feral Pig Activity: 1 Altered Hydrology: 1
Nonnative Grass:4Trampling:1Erosion:1
Nonnative Woody Plants: 6 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 present, describe:
Brush Manangement: 1 if present, describe:
ORV Activity: 1 if present, describe:
Evidence of Recent Fire: no Year Burned?
Trails: 1 if trails are present, are they authorized? 0
Type of Trail Use:
Hiking: 0 Biking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0
Illegal Trail Use: 0
Other Disturbance: 1 if present, describe: 0
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 at point
NOTES:
photos 100-0642 - 100-0647

Bloomeria clevelandii (San Diego Goldenstar) Marron Valley # 3

MSP Occurrence ID: BLCL_3MAVA005 - 3





Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

Min Area: 0 sq. m.



BLCL_3MAVA005-4	2018
MSP - RARE PLANT MONITORING DATA	
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, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/21/2018 Time Start: 11:05 Time End: 9:08	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 2087 Exact or Estimate? estimate Uncertainty: medium	
Area of Current Mapped Extent: 20760.56 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: 0	
Number of Plants in Circle: 76 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: 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	
Coordinates at Center of Plot: E: 523388.882290068 N: 3603735.88961476	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: Same as plot center N: Same as plot center	enter
Photo Direction: SW,W,NW,N Camera Height: 1.1 m Camera Angle 0 Photo Numbers: BLCL_3MAVA005_4_Photo1_042620)18
File Location: S: MSCP Files	
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: 7 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation:	84
Total % Cover: 104	
SANDAG 2012 Vegetation Alliance/Association Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatur Opuntia littoralis/Dudleya (edulia) Association	N-
Cover Classes (1-6) Cryptogamic Crust Cover: 2 Thatch Cover: 3	
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 7	
Dead Standing Biomass? yes Dead Standing Biomass Species: Silene gallica, Croton californicus, Bloomeria clevelandii, Calochortus Unknown shrub, Corethrogyne filaginifolia, Hirshfeldia incana, Avena	
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 15	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4	

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	3
Avena barbata - slender oat	Nonnative	Annual	Grass	3
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	0.2
Bloomeria clevelandii - San Diego goldenstar	Native	Perennial	Herb	0.2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	6
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb	0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2
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	60
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub	4
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb	1
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	3
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

MSP - RARE PLANT MONITORING DATA

2018

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 Altered Hydrology: 1 Feral Pig Activity: 1 Nonnative Grass: 4 Trampling: 1 Erosion: 1 Nonnative Woody Plants: 6 Vandalism: 1 Urban Runoff: 1 Competitive Native Plants: 1 Current Grazing: 1 Slope Movement: Dumping/Trash: 1 Historic Grazing: no Soil Compaction: 1 Fuel Modification Zone/ Fire Break: 1 Encampments: 1 Historic Agriculture: no Road Construction/Maintenance: 3 if present, describe: Vegetation Clearing: 1 if present, describe: if present, describe: Brush Manangement: 1 ORV Activity: 1 if present, describe: Evidence of Recent Fire: no Year Burned? Trails: 1 if trails are present, are they authorized? 0 Type of Trail Use: Biking: 0 Hiking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0 Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 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: Photos 100-0648 - 100-0651
Bloomeria clevelandii (San Diego Goldenstar) Marron Valley # 4

MSP Occurrence ID: BLCL_3MAVA005 - 4





Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

Min Area: 0 sq. m.



BLCL_4MTRP023-1 2018
MSP - RARE PLANT MONITORING DATA
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 Other Surveyors: 0
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/2/2018 Time Start: 13:27 Time End: 0:00
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: Exact or Estimate? Uncertainty: very_low
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim exact
Current Extent Mapping Method: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Species has not been found at this location 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: 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 no
Collection Taken? no Collector: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 492754.830788036 N: 3633950.61289793
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_4MTRP023_1_Photo1_0502018
File Location: S: MSCP Files
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: 17 % Cover of Water: 0 % Cover of Vegetation: 96 Total % Cover: 114.2
SANDAG 2012 Vegetation Alliance/Association Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-Lotus scoparius Association
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 5
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 3
Dead Standing Biomass? yes Dead Standing Biomass Species: Unknown shrub, Acmispon glaber, Nonnative annual grass, Stipa sp.
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: 3

BLCL_4MTRP023-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	10
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	9
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	4
Avena sp oat	Nonnative	Annual	Grass	1
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	50
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	1
Bromus madritensis - compact brome	Nonnative	Annual	Grass	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
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	10
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	3
Helianthemum scoparium - Bisbee peak rushrose	Native	Perennial	Shrub	0.2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	1
Sanicula arguta - sharp toothed snakeroot	Native	Perennial	Herb	0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	3

BLCL_4MTRP023-1			2018
MSP - RARE PLANT MONITORING I	DATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; p	passive recreation		
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: 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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	esent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if pres	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship; co	ntrol nonnative grasses and forms	as funding becomes available	
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:			
0			

Bloomeria clevelandii (San Diego Goldenstar) Mission Trails Regional Park

MSP Occurrence ID: BLCL_4MTRP023 - 1





BLCL_30TLA006-1 2018
MSP - RARE PLANT MONITORING DATA
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, other Other Surveyors: Mark Berninger (SD Public Utilities), Olivia Koziel (consultant), Talaya Rachels (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/3/2018 Time Start: 9:36 Time End: 0:00
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 1183 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 23012.27 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: 0
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 no
Collection Taken? no Collector: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 508064.947522314 N: 3609608.44088785
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_1_Photo1_05032018
File Location: S: MSCP Files
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: 2 % Cover of Litter: 35 % Cover of Water: 0 % Cover of Vegetation: 78
Total % Cover: 123
SANDAG 2012 Vegetation Alliance/Association Eriogonum fasciculatum Alliance and Association Savura Classes (1, ()) Crust Crus Crust Crust Crust Crust Crust Crust Crust C
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: Dienandra fasciculatum, Bloomeria clevelandii, Acmispon glaber, Lepidium nitidum
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 20
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3

BLCL_3OTLA006-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	1
Cressa truxillensis - spreading alkaliweed	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	10
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	64
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub	0.2
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb	0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass	0.2

BLCL_3OTLA006-1		:	2018
MSP - RARE PLANT MONITORING D	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; r	eservoir		
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: 3	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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
·	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAR)		
	1		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE)B)	
none			
NOTES:			
photo on Saras phone			

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

MSP Occurrence ID: BLCL_3OTLA006 - 1





BLCL_30TLA006-2 2018
MSP - RARE PLANT MONITORING DATA
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 Other Surveyors: Talaya Rachels (consultant), Olivia Koziel (consultant), Mark Berninger (SD Public Utilities)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/3/2018 Time Start: 11:32 Time End: 12:13
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 1183 Exact or Estimate? estimate Uncertainty: medium
Area of Current Mapped Extent: 23012.27 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: 0
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 507825.276160763 N: 3609610.16133581
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_3OTLA006_2_Photo1_05032018
File Location: S: MSCP Files
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: 6 % Cover of Litter: 30 % Cover of Water: 0 % Cover of Vegetation: 80 Total % Cover: 121
SANDAG 2012 Vegetation Alliance/Association Nassella pulchra 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? yes Dead Standing Biomass Species: Dienandra fasciculatum, Bloomeria clevelandii, Isocoma menziesii, Lepidium nitidum, Acmispon glaber
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 15
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3

BLCL_3OTLA006-2

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	1
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	4
Bromus madritensis - compact brome	Nonnative	Annual	Grass	6
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb	0.2
Cressa truxillensis - spreading alkaliweed	Native	Perennial	Herb	0.2
Cuscuta californica - California dodder	Native	Annual	Herb	22
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	4
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	43
Eryngium aristulatum var. parishii - San Diego button celery	Native	Annual	Herb	1
Hordeum murinum - mouse barley	Nonnative	Annual	Grass	0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Uropappus lindleyi - silver puffs	Native	Annual	Herb	0.2

BLCL_3OTLA006-2

0

MSP - RARE PLANT MONITORING DATA

2018

monitoring) plus 10-m surrounding buffer. Surround_LandUse Open space preserve; reservoir Disturbances (Rank each as 1-6) Nonnative Forbs: 5 Altered Hydrology: 1 Feral Pig Activity: 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: Dumping/Trash: 1 Historic Grazing: no Soil Compaction: 1 Fuel Modification Zone/ Fire Break: 1 Encampments: 1 Historic Agriculture: no if present, describe: 0 Road Construction/Maintenance: 1 Vegetation Clearing: 1 if present, describe: 0 if present, describe: 0 Brush Manangement: 1 ORV Activity: 1 if present, describe: 0 Evidence of Recent Fire: no Year Burned? 0 Trails: 1 if trails are present, are they authorized? 0 Type of Trail Use: Biking: 0 Hiking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0 Illegal Trail Use: 0 Other Disturbance: 0 if present, describe: 0 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) Tarantula just outside plot NOTES:

V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of

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

MSP Occurrence ID: BLCL_3OTLA006 - 2





Brodiaea filifolia Thread-leaved Brodiaea



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BRFI_6BMRA002-1 2018
MSP - RARE PLANT MONITORING DATA
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: Betsy Miller, other Other Surveyors: Carey Goldstein, Rob Wheeler, Byron Shoemaker
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/9/2018 Time Start: 14:24 Time End: 15:30
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 136 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 59.80 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: 0
Number of Plants in Circle: 3 Exact or Estimate? exact Uncertainty: Iow 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: 4 % 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 Accuracy: <1
Coordinates at Center of Plot: E: 489180.413672013 N: 3647875.76023714
Camera Type: Olympus Stylus TG 830 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: BRFI_6BMRA002_1_Photo1_05092018
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 18 % Cover of Rock: 1 % Cover of Litter: 25 % Cover of Water: 0 % Cover of Vegetation: 56
Total % Cover: 100
SANDAG 2012 Vegetation Alliance/Association Eriogonum fasciculatum Alliance and Association
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 3
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 3
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra, Centaurea melitensis, unkown plant
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 20
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4

BRFI_6BMRA002-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Avena barbata - slender oat	Nonnative	Annual	Grass	3
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	25
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Brodiaea filifolia - Thread-leaved brodiaea	Native	Perennial	Herb	0.2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb	4
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb	0.2
Cynara cardunculus - artichoke thistle	Nonnative	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	14
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb	1
Malosma laurina - laurel sumac	Native	Perennial	Shrub	7
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	1
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	1

BRFI_6BMRA002-1		2	2018
MSP - RARE PLANT MONITORING E	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	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: 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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 7 if pre	sent, describe: Weed management treatment	nts	
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 2 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue weed management treat	ments		
VII. MANAGEMENT ACTIONS IN LAST YEAR	2		
Preserve stewardship and weed m	anagement treatments		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)	
none			
NOTES:			
Photos 100-0731 - 100-0735			

Brodiaea filifolia (Threadleaf Brodiaea) Black Mountain Ranch

MSP Occurrence ID: BRFI_6BMRA002 - 1





Brodiaea orcuttii Orcutt's Brodiaea



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BROR_2NODR002-1	2018
MSP - RARE PLANT MONITORING DATA	
Scientific Name: Brodiaea orcuttii Common Name: Thread leaved brodiaea MSP Occurr. ID: BROR_2NODR002	7
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, Ninfa Negrete (intern) Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/30/2018 Time Start: 15:59 Time End: 0:00	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped exten	t.
Number of Plants in Mapped Extent: 0 Exact or Estimate? exact Uncertainty: Iow	
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim exact	
Current Extent Mapping Method: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Low annual rainfall.	
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 no	
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 481637.259220315 N: 3636487.97183779	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot	le plot
Photo Direction: NW,W,SW,S Camera Height: 1.1 m Camera Angle 10 Photo Numbers: BROR_2NODR002_1_Photo1_0430)2018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circl	e).
% Cover of Bare Ground: 18 % Cover of Rock: 5 % Cover of Litter: 45 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 102 102 102 102 102 102	34
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	
Dead Standing Biomass? yes Dead Standing Biomass Species: Eriogonum fasciculatum, Croton setigerus, unknown grass, Deinand fasciculatum	a
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 10	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

BROR_2NODR002-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Chamaesyce sp	Native	Annual	Herb	0.2
Cotula coronopifolia - common brassbuttons	Nonnative	Perennial	Herb	0.2
Crassula aquatica - Aquatic pygmy weed	Native	Annual	Herb	0.2
Croton setigerus - dove weed	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Deschampsia danthonioides - annual hairgrass	Native	Annual	Grass	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	11
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	12
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	8
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb	1
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass	0.2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2

2018

BROR_2NODR002-1

MSP - RARE PLANT MONITORING DATA

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 preserve	
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: 0	
Vegetation Clearing: 1 if present, describe: 0	
Brush Manangement: 1 if present, describe: 0	
ORV Activity: 1 if present, describe: 0	
Evidence of Recent Fire: no Year Burned? 0	
Trails: 2 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: 0	
VI. MANAGEMENT RECOMMENDATIONS	
Continue preserved stewardship; weed control for Dittrichia	
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserve stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CI	NDDB)
none	
NOTES:	
photos 100-0681 - 100-0685	

Brodiaea orcuttii (Orcutt's Brodiaea) Nobel Drive

MSP Occurrence ID: BROR_2NODR002 - 1





BROR_40ACR012-1	2018
MSP - RARE PLANT MONITORING DATA	
Scientific Name: Brodiaea orcuttii Common Name: Thread leaved 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: Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/10/2018 Time Start: 5:04 Time End: 18:27	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped exter	ıt.
Number of Plants in Mapped Extent: 79 Exact or Estimate? exact Uncertainty: low	
Area of Current Mapped Extent: 61.17 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: 0	
Number of Plants in Circle: 44 Exact or Estimate? exact Uncertainty: Iow Circle Area (sq_m): Iow	
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 Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 495436.80766656 N: 3634107.24496968	
Camera Type: Olympus Stylus TG 830 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_40ACR012_1_Photo1_051)2018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circ	le).
% Cover of Bare Ground: 13 % Cover of Rock: 30 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation Total % Cover: 105	: 61
SANDAG 2012 Vegetation Alliance/Association Salvia mellifera Alliance// Salvia mellifera-Malosma laurina Association	
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 2	
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 5	
Dead Standing Biomass? yes Dead Standing Biomass Species: Bromus diandrus, Xanthium strumarium	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 20	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

BROR_40ACR012-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon americanus - American bird's-foot trefoil	Native	Annual	Herb	0.2
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Acmispon micranthus - San Diego bird's-foot trefoil	Native	Annual	Herb	0.2
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb	0.2
wena barbata - slender oat	Nonnative	Annual	Grass	0.2
Bothriochloa barbinodis - cane bluestem	Native	Perennial	Grass	5
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	10
rassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Briza minor - little quakinggrass	Nonnative	Annual	Grass	0.2
rodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb	0.2
romus diandrus - ripgut brome	Nonnative	Annual	Grass	0.2
romus madritensis - compact brome	Nonnative	Annual	Grass	2
arduus pycnocephalus - Italian plumeless thistle	Nonnative	Annual	Herb	0.2
eanothus tomentosus - woolyleaf ceanothus	Native	Perennial	Shrub	5
entaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
erastium glomeratum - sticky mouseear chickweed	Nonnative	Annual	Herb	0.2
rassula connata - sand pygmyweed	Native	Annual	Herb	0.2
yperus eragrostis - tall flatsedge	Native	Perennial	Herb	0.2
igitaria sanguinalis - hairy crabgrass	Nonnative	Annual	Grass	2
riogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	1
rodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	3
estuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
estuca perennis - Italian rye grass	Nonnative	Annual	Grass	1
ieranium carolinianum - Carolina geranium	Native	Annual	Herb	0.2
edypnois cretica - Cretanweed	Nonnative	Annual	Herb	0.2
eteromeles arbutifolia - toyon	Native	Perennial	Shrub	3
ypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
uncus bryoides - moss rush	Native	Annual	Herb	0.2
uncus bufonius - toad rush	Native	Annual	Herb	0.2
uncus dubius - finger rush	Native	Perennial	Herb	1
amarckia aurea - goldentop grass	Nonnative	Annual	Grass	0.2
epidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
ogfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
ysimachia arvensis - scarlet pimpernel	Nonnative	Annual	Herb	0.2
lalacothamnus fasciculatus - Mendocino bushmallow	Native	Perennial	Shrub	0.2
lalosma laurina - laurel sumac	Native	Perennial	Shrub	8
ledicago polymorpha - burclover	Nonnative	Annual	Herb	0.2
limulus guttatus - seep monkeyflower	Native	Annual	Herb	0.2
seudognaphalium sp cudweed	Native	Perennial	Herb	0.2
alix lasiolepis - Arroyo willow	Native	Perennial	Tree	0.2

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Salvia mellifera - black sage	Native	Perennial	Shrub	20
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern	0.2
Silene gallica - common catchfly	Nonnative	Annual	Herb	0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2
Stemodia durantifolia - White woolly stemodia	Native	Perennial	Herb	0.2
Trifolium albopurpureum - Indian clover	Native	Annual	Herb	0.2
Xanthium strumarium - rough cockleburr	Native	Perennial	Shrub	0.2

BROR_40ACR012-1

MSP - RARE PLANT MONITORING DATA	
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within th monitoring) plus 10-m surrounding buffer.	e occurrence'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: 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: 0	
Vegetation Clearing: 1 if present, describe: 0	
Brush Manangement: 1 if present, describe: 0	
ORV Activity: 1 if present, describe: 0	
Evidence of Recent Fire: no Year Burned? 0	
Trails: 2 if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Biking: Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use: 0	
Other Disturbance: 1 if present, describe: 0	
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)
Photos 100-0744 - 100-0747	
NOTES:	

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

MSP Occurrence D: BROR_40ACR012 - 1



Brodiaea orcuttii - Oak Creek



Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017



BROR_6CACA015-1 201	18
MSP - RARE PLANT MONITORING DATA	
Scientific Name: Brodiaea orcuttii Common Name: Thread leaved 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, other Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/30/2018 Time Start: 10:27 Time End: 11:12	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 238 Exact or Estimate? exact Uncertainty: medium	
Area of Current Mapped Extent: 978.48 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: 0	
Number of Plants in Circle: 4 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	7
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 Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 485065.597749348 N: 3639960.58455295	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot	ot
Photo Direction: E,SE,S,SW Camera Height: 1.1 m Camera Angle -5 Photo Numbers: BROR_6CACA015_1_Photo1_04302018	8
File Location: S: MSCP Files	
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: 10 % Cover of Litter: 25 % Cover of Water: 0 % Cover of Vegetation: 36)
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: 5 Thatch Cover: 1	
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0	
Dead Standing Biomass? no Dead Standing Biomass Species: 0	
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	
BROR_6CACA015-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	8
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	2
Brodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb	0.2
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb	0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Crassula aquatica - Aquatic pygmy weed	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb	5
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	4
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	6
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	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	6
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb	3
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	1
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub	1
Zeltnera venusta - charming centaury	Native	Annual	Herb	0.2

BROR_6CACA015-1

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	ence's maximum extent (cumulative extent over years of
Surround_LandUse Residential; quarry; oper	n 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: 4	Historic Grazing: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 3
Road Construction/Maintenance: 1	if present, describe: 0	
Vegetation Clearing: 1 if pres	ent, describe: 0	
Brush Manangement: 3 if pre-	sent, describe: Some plants in brush mana	gement zone. Brush trimmings left in piles covering area where spe
ORV Activity: 1 if present, de	scribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
·	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship and	d perform invasive species remove	al/control as funding permits
VII. MANAGEMENT ACTIONS IN LAST YEAR	2	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CND	DB)
CAGN heard South of point		
NOTES:		
photos: 100-0668 - 100-0671; ph	noto point at edge of circle	

Brodiaea orcuttii (Orcutt's Brodiaea) **Carroll Canyon** MSP Occurrence ID: BROR_6CACA015 - 1





Pop. Area 2003 - 2018 Max Area: 4,863.29 sq. m. Min Area: 0 sq. m.



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BROR_6LORI018-1 2018
MSP - RARE PLANT MONITORING DATA
Scientific Name: Brodiaea orcuttii Common Name: Thread leaved 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, Betsy Miller, Priscilla Hare (intern) Other Surveyors: Jason Allen, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 4/24/2018 Time Start: 14:35 Time End: 15:19
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 26 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 44.32 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: 0
Number of Plants in Circle: 5 Exact or Estimate? exact Uncertainty: Iow 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: 6
Is Sampling Area Representative of Current Mapped Extent yes
Collection Taken? no Collector: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 483770.614446599 N: 3642354.87289778
Camera Type:Olympus Stylus TG 830Coordinates of Photo Point:E:At edge of circle plotN:At edge of circle plot
Photo Direction: SW,W,NW,N Camera Height: 1.1 m Camera Angle -5 Photo Numbers: BROR_6LORI018_1_Photo1_04242018
File Location: S: MSCP Files
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: 40 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 35 Total % Cover: 106
SANDAG 2012 Vegetation Alliance/Association Adenostoma fasciculatum Alliance// Alliance level only
Cover Classes (1-6) Cryptogamic Crust Cover: 2 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? yes Dead Standing Biomass Species: Avena barbata, Eriogonum fasciculatum, Adenostoma fasciculatum
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 20
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

BROR_6LORI018-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	7
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Brodiaea orcuttii - Orcutt's brodiaea	Native	Perennial	Herb	0.2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	3
Bromus madritensis - compact brome	Nonnative	Annual	Grass	1
Castilleja exserta - exserted Indian paintbrush	Native	Annual	Herb	0.2
Crassula aquatica - Aquatic pygmy weed	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Deschampsia danthonioides - annual hairgrass	Native	Annual	Grass	0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Gastridium phleoides - nit grass	Nonnative	Annual	Grass	0.2
Hordeum marinum - seaside barley	Nonnative	Annual	Grass	3
Hypochaeris glabra - smooth cat's ear	Nonnative	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	18
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb	10
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2

BROR_6LORI018-1			2018
MSP - RARE PLANT MONITORING I	АТА		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	EXTENT - Assess threats within the occurre	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: 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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	esent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAI	D		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE)B)	
none			
NOTES:			
Also point for Bloomeria cleveland	lii(none found in circle,); photos 1	00-0618 - 100-0621; photo from edge of cir	cle

Brodiaea orcuttii (Orcutt's Brodiaea) Lopez Ridge

MSP Occurrence ID: BROR_6LORI018 - 1





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



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COMAM3_1DOBE007-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Ninfa Negrete (intern), Priscilla Hare (intern), Other Surveyors: 0
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/31/2018 Time Start: 8:39 Time End: 9:36
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 7771 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 2749.75 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: 0
Number of Plants in Circle: 1038 Exact or Estimate? exact Uncertainty: Iow 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 Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 476696.742461811 N: 3624184.44067173
Camera Type:Olympus Stylus TG 830Coordinates of Photo Point:E:At edge of circle plotN:At edge of circle plot
Photo Direction: W,NW,N,NE Camera Height: 1.1 m Camera Angle -10 Photo Numbers: COMAM3_1DOBE007_1_Photo1_05312018
File Location: S: MSCP Files
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: 2 % Cover of Water: 0 % Cover of Vegetation: 82 Total % Cover: 104.2
SANDAG 2012 Vegetation Alliance/Association no results available
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species: 0
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

COMAM3_1DOBE007-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Chloropyron maritimum var. maritimum - Salt marsh bird's-beak	Native	Annual	Herb	3
Cuscuta pacifica - saltmarsh dodder	Native	Annual	Herb	0.2
Distichlis littoralis - shoregrass	Native	Perennial	Grass	10
Frankenia salina - alkali seaheath	Native	Perennial	Herb	7
Jaumea carnosa - marsh jaumea	Native	Perennial	Herb	11
Juncus acutus - spiny rush	Native	Perennial	Herb	0.2
Limonium californicum - California sea lavender	Native	Perennial	Herb	1
Limonium duriusculum - European sea lavender	Nonnative	Perennial	Herb	35
Salicornia pacifica - glasswort	Native	Perennial	Herb	5
Suaeda esteroa - estuary seablite	Native	Perennial	Herb	0.2
Triglochin maritima - seaside arrow grass	Native	Perennial	Herb	10

2018

COMAM3_1DOBE007-1			2018
MSP - RARE PLANT MONITORING E	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurrent	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Developed regional park	; dog beach; residential		
Disturbances (Rank each as 1-6)			
Nonnative Forbs: 5	Feral Pig Activity: 1	Altered Hydrology: 1	
Nonnative Grass: 2	Trampling: 3	Erosion: 1	
Nonnative Woody Plants: 1	Vandalism: 3	Urban Runoff: 3	
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: 0		
Vegetation Clearing: 1 if pres	ent, describe: 0		
Brush Manangement: 2 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	scribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 4 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Contimue preserve stewardship			
	N		
VII. MANAGEMENT ACTIONS IN LAST YEAR	{		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)	
none			
NOTES:			
Photos 0865-0868			

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

MSP Occurrence ID: COMAM3_1DOBE007 - 1





SanGIS 192

Cylindropunita californica var. *californica* Snake Cholla



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CYCA_2BPGC001-1 2018
MSP - RARE PLANT MONITORING DATA
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: Sara Allen, other Other Surveyors: Ed Christensen
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 7/10/2018 Time Start: 8:58 Time End: 9:26
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 8 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 724.16 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: 0
Number of Plants in Circle: 2 Exact or Estimate? exact Uncertainty: Iow 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 Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 486889.179658513 N: 3620938.54488658
Camera Type: Olympus Stylus TG 830 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_2BPGC001_1_Photo1_07102018
File Location: S: MSCP Files
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: 5 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 88
Total % Cover: 115
SANDAG 2012 Vegetation Alliance/Association Artemisia californica-Salvia mellifera 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? yes Dead Standing Biomass Species: Artemisia californica, Salvia melifera
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 40
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

CYCA_2BPGC001-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	4
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	42
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub	1
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub	3
Encelia californica - California brittlebush	Native	Perennial	Shrub	1
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	3
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	1
Pennisetum setaceum - crimson fountaingrass	Nonnative	Perennial	Grass	4
Salvia mellifera - black sage	Native	Perennial	Shrub	8
Yucca schidigera - Mojave yucca	Native	Perennial	Shrub	12

CYCA_2BPGC001-1			2018
MSP - RARE PLANT MONITORING D	DATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Developed regional part	k; golf course		
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: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 1	if present, describe: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship and	d remove pennesetum as funding p	ermits	
VII. MANAGEMENT ACTIONS IN LAST YEAR	{		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)	
none			
NOTES:			
	• • • •		
Photo #: 0892-0895; Photos take	n at center of circle plot		

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

MSP Occurrence ID: CYCA_2BPGC001 - 1





Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

SanGIS 198

CYCA_3GOME003-1 2018			
MSP - RARE PLANT MONITORING DATA			
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, other Other Surveyors: Olivia Koziel (consultant)			
Affliation: City of San Diego Parks & Rec Open Space			
Survey Date: 5/14/2018 Time Start: 13:45 Time End: 14:02			
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.			
Number of Plants in Mapped Extent: 83 Exact or Estimate? exact Uncertainty: low			
Area of Current Mapped Extent: 1658.70 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: 0			
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: very_low Circle Area (sq_m): 10	7		
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 no			
Collection Taken? no Collector: n/a Museum/Herbarium: n/a			
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING			
GPS Accuracy: <1			
Coordinates at Center of Plot: E: 499851.253722683 N: 3601571.57383959			
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: CYCA_3GOME003_1_Photo1_05142018			
File Location: S: MSCP Files			
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).			
% Cover of Bare Ground: 23 % Cover of Rock: 8 % Cover of Litter: 26 % Cover of Water: 0 % Cover of Vegetation: 45 Total % Cover: 102			
SANDAG 2012 Vegetation Alliance/Association Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association			
Cover Classes (1-6) Cryptogamic Crust Cover: 4 Thatch Cover: 1			
Average Thatch Depth (cm):1Thatch Depth Max (cm):0			
Dead Standing Biomass? yes Dead Standing Biomass Species: Salsola tragus, Deinandra fasciculata			
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 25			
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4			

CYCA_3GOME003-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Ambrosia chamissonis - silver bur ragweed	Native	Perennial	Herb	8
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	2
Atriplex pacifica - Davidson's saltbush	Native	Annual	Herb	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	3
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Encelia californica - California brittlebush	Native	Perennial	Shrub	1
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	0.2
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	3
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb	8
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	9
Simmondsia chinensis - jojoba	Native	Perennial	Shrub	11
Stipa lepida - foothill needle grass	Native	Perennial	Grass	0.2

CYCA_3GOME003-1

MSP - RARE PLANT MONITORING DATA

	SMENT IN MAXIMUM E m surrounding buffer.	XTENT - Assess threats within	the occurren	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	y Plants: 1	Vandalism: 1		Urban Runoff: 1	
Competitive Nativ	ve Plants: 1	Current Grazing: 1		Slope Movement: 1	
Dumping/Trash:	1	Historic Grazing: no		Soil Compaction: 1	
Encampments: 1	1	Historic Agriculture: no		Fuel Modification Zone/ Fire Break: 1	
Road Construction	on/Maintenance: 1	if present, describe: 0			
Vegetation Cleari	ng: 1 if pres	ent, describe: 0			
Brush Manangem	ent: 1 if pre	sent, describe: 0			
ORV Activity: 1	if present, de	scribe: 0			
Evidence of Rece	ent Fire: no Ye	ar Burned? 0			
Trails: 1	if trails are present,	are they authorized? 0			
Type of Trail Use:					
Hiking: 0	Biking: 0	Equestrian: 0 Do	g : 0	Service Vehicles: 0 Other: 0	
Illegal Trail U					
Other Disturbanc	·	ent, describe: 0			
VI. MANAGEMENT R	ECOMMENDATIONS				
Continue preserve stewardship					
VII. MANAGEMENT A	ACTIONS IN LAST YEAF	2			
Preserve stewardship					
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)					
none					
NOTES:					
0					

Cylindropuntia californica var. californica (Snake Cholla) Spring Canyon

MSP Occurrence ID: CYCA_3GOME003 - 1





Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

Min Area: 559.0 sq. m.



Deinandra conjugens Otay Tarplant



© City of San Diego, 2015

DEC013_3DERA020-1 2018			
MSP - RARE PLANT MONITORING DATA			
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, Priscilla Hare (intern) Other Surveyors: 0			
Affliation: City of San Diego Parks & Rec Open Space			
Survey Date: 5/22/2018 Time Start: 12:33 Time End: 13:08			
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.			
Number of Plants in Mapped Extent: 4 Exact or Estimate? exact Uncertainty: low			
Area of Current Mapped Extent: 3.13 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: 0			
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 no			
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a			
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING			
GPS Accuracy: <1			
Coordinates at Center of Plot: E: 497199.636911251 N: 3604700.86772811			
Camera Type: Olympus Stylus TG 830 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: Photos not on camera SD card			
File Location: S: MSCP Files			
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).			
% Cover of Bare Ground: 9 % Cover of Rock: 14 % Cover of Litter: 15 % Cover of Water: 0 % Cover of Vegetation: 70			
Total % Cover: 108			
SANDAG 2012 Vegetation Alliance/Association Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis Iaciniata 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? yes Dead Standing Biomass Species: Baccharis sarothroides, Artemisia californica, Brassica nigra, Encelia californica			
Dead Standing Biomass Cover Class (1-6): 3 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			

DECO13_3DERA020-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES **Associated Species** Native or Nonnative? Annual or Perennial? Plant Form % Cover Ambrosia chenopodiifolia - San Diego bur ragweed Native Perennial Shrub 0.2 Native Artemisia californica - coastal sagebrush Perennial Shrub 35 Native 0.2 Baccharis pilularis - coyotebrush Perennial Shrub Bahiopsis laciniata - torhleaf goldeneye Native Perennial Shrub 6 Nonnative 12 Bromus madritensis - compact brome Annual Grass Cylindropuntia prolifera - coastal cholla Native Shrub 0.2 Perennial Deinandra fasciculata - clustered tarweed Native 0.2 Annual Herb Encelia californica - California brittlebush Native 6 Perennial Shrub Eriogonum fasciculatum - Eastern Mojave buckwheat Native Perennial Shrub 0.2 Nonnative 0.2 Festuca myuros - rattail fescue Annual Grass Melilotus indica - annual yellow sweetclover Nonnative Annual Herb 0.2 Peritoma arborea - bladderpod spiderflower Native Perennial Shrub 1 Rosa minutifolia - small-leaved rose Native 0.2 Perennial Shrub Simmondsia chinensis - jojoba Native Perennial Shrub 5

2018

DECO13_3DERA020-1			2018
MSP - RARE PLANT MONITORING D	ATA		
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; r	esidential		
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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 5 if pre	sent, describe: Max extent includes brush m	nanagement zone near homes	
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAF	2		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)	
none			
NOTES:			
Photos 0802-0806			

Deinandra conjugens (Otay Tarplant) Dennery Ranch

MSP Occurrence ID: DECO13_3DERA020 - 1

Photo not available.



DECO13_3DREA021-1	2018		
MSP - RARE PLANT MONITORING DATA			
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: Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Olivia Koziel (consultant)			
Affliation: City of San Diego Parks & Rec Open Space			
Survey Date: 5/10/2018 Time Start: 13:58 Time End: 14:25			
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped exten	t.		
Number of Plants in Mapped Extent: 388 Exact or Estimate? exact Uncertainty: low			
Area of Current Mapped Extent: 3936.88 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: 0			
Number of Plants in Circle: 10 Exact or Estimate? exact Uncertainty: Iow 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: 6			
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: WGS84 Coordinate System: Lat_long			
Coordinates at Center of Plot: E: 497710.939267608 N: 3605050.48048161			
Camera Type: Olympus Stylus TG 830 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_3DREA021_1_Photo1_05	102018		
File Location: S: MSCP Files			
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circl	e).		
% Cover of Bare Ground: 35 % Cover of Rock: 30 % Cover of Litter: 35 % Cover of Water: 0 % Cover of Vegetation:	24		
Total % Cover: 124			
SANDAG 2012 Vegetation Alliance/Association Mediterranean California Naturalized Annual and Perennial Grassland SemiNatural Stands Alliance Association	and		
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 3			
Average Thatch Depth (cm):3Thatch Depth Max (cm):5			
Dead Standing Biomass? yes Dead Standing Biomass Species: Bromus madritensis, Centaurea melitensis, Plantago erecta, Unknow	n plant		
Dead Standing Biomass Cover Class (1-6): 4 Average Height of Dead Standing Biomass (cm): 20			
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1			

DECO13_3DREA021-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES Annual or Perennial? **Associated Species** Native or Nonnative? Plant Form % Cover Ambrosia chenopodiifolia - San Diego bur ragweed Native Perennial Shrub 0.2 0.2 Brassica nigra - black mustard Nonnative Annual Herb Nonnative 1 Bromus hordeaceus - soft brome Annual Grass Nonnative Bromus madritensis - compact brome Annual Grass 20 0.2 Centaurea melitensis - Maltese star-thistle Nonnative Annual Herb Deinandra conjugens - Otay tarplant Native Annual Herb 0.2 Deinandra fasciculata - clustered tarweed Native Annual Herb 0.2 Eriogonum fasciculatum - Eastern Mojave buckwheat Native 0.2 Perennial Shrub Isocoma menziesii - Menzies' goldenbush Native Perennial Shrub 0.2 Lysimachia arvensis - scarlet pimpernel Nonnative 0.2 Annual Herb Simmondsia chinensis - jojoba Native Perennial Shrub 3

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DECO13_3DREA021-1	021-1
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MSP - RARE PLANT MONITORING DATA

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; r	esidential		
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: 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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 3 if trails are present,	are they authorized?		
Type of Trail Use:			
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:	
Illegal Trail Use: 0			
Other Disturbance: 1 if present, describe: 0			
VI. MANAGEMENT RECOMMENDATIONS			
Clean up trash from old encampment, continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAF	2		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)			
none			
NOTES:			
Photo taken from center of circle p	lot		

Deinandra conjugens (Otay Tarplant) Dennery Ranch East

MSP Occurrence ID: DECO13_3DREA021 - 1




DECO13_3PRVA013-1	2018
MSP - RARE PLANT MONITORING DATA	
Scientific Name: Deinandra conjugens Common Name: Otay tarplant MSP Occurr. ID: DEC013_3PRVA013]
Sample Point #: 1 CNDDB Elem. Occurr. #: E027/29 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, Priscilla Hare (intern) Other Surveyors: 0	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/22/2018 Time Start: 10:05 Time End: 10:34	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped exten	t.
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: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Low annual rainfall.	
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 no	
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 506812.124235812 N: 3615039.30122839	
Camera Type: Olympus Stylus TG 830 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: Photos not on camera SD card	
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circl	e).
% Cover of Bare Ground: 9 % Cover of Rock: 1 % Cover of Litter: 15 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 103	78
SANDAG 2012 Vegetation Alliance/Association Nassella pulchra Alliance and Association	
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 5	
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 4	
Dead Standing Biomass? yes Dead Standing Biomass Species: Salsola tragus, Brassica tournefortii, Brachypodium distachyon, Cen	itaurea
melitensis	
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 25	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

DECO13_3PRVA013-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES **Associated Species** Native or Nonnative? Annual or Perennial? Plant Form % Cover Perennial Acmispon glaber - deerweed Native Shrub 2 Artemisia californica - coastal sagebrush Native Perennial Shrub 0.2 Nonnative 0.2 Avena sp. - oat Annual Grass Native Baccharis sarothroides - desertbroom Perennial Shrub 0.2 Nonnative 70 Brachypodium distachyon - purple false brome Annual Grass Brassica tournefortii - Asian mustard Nonnative 0.2 Annual Herb 0.2 Bromus madritensis - compact brome Nonnative Annual Grass 0.2 Centaurea melitensis - Maltese star-thistle Nonnative Annual Herb Deinandra fasciculata - clustered tarweed Native Annual Herb 0.2 Erodium botrys - longbeak stork's bill Nonnative Annual Herb 1 Erodium cicutarium - redstem stork's bill Nonnative Herb 0.2 Annual Gutierrezia californica - San Joaquin snakeweed Native Perennial Shrub 0.2 Native Isocoma menziesii - Menzies' goldenbush Perennial Shrub 1 Pseudognaphalium californicum - ladies' tobacco Native Perennial 0.2 Herb Salsola tragus - prickly Russian thistle Nonnative Annual Herb 1 Native Stipa pulchra - purple needle grass Perennial Grass 3

DECO13_3PRVA013-1		201
MSP - RARE PLANT MONITORING I	DATA	
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce'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: 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: 0	
Vegetation Clearing: 1 if pres	sent, describe: 0	
Brush Manangement: 1 if pre	esent, describe: 0	
ORV Activity: 1 if present, de	escribe: 0	
Evidence of Recent Fire: no Ye	ear Burned? 0	
Trails: 3 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 prese	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAR	3	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDI)B)
none		
none		
NOTES:		
photos 0798-0801; photo at cente	er of circle plot	

Deinandra conjugens (Otay Tarplant) Proctor Valley

MSP Occurrence ID: DECO13_3PRVA013 - 1

Photo not available.



Dicranostegia orcuttiana Orcutt's Bird's Beak



© City of San Diego, 2015

COOR7_3DREA007-1 2018
MSP - RARE PLANT MONITORING DATA
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, other Other Surveyors: Talaya Rachels (consultant), Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 6/20/2018 Time Start: 14:25 Time End: 14:58
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: Exact or Estimate? Exact Uncertainty: Iow
Area of Current Mapped Extent: 0.00 Area Units: sq_m Area Exact (GPS) or Estim exact
Current Extent Mapping Method: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Site is very dry due to lack of annual rainfall. Many Italian white snails observed on the site.
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 no
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: WGS84 Coordinate System: Lat_long
Coordinates at Center of Plot: E: 497743.368531505 N: 3605120.21928076
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_3DREA007_1_Photo1_06202018
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 45 % Cover of Rock: 0.2 % Cover of Litter: 23 % Cover of Water: 0 % Cover of Vegetation: 37 Total % Cover: 105.2 105.2 105.2 105.2 105.2 105.2 105.2
SANDAG 2012 Vegetation Alliance/Association Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata Association
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: Deinandra fasciculata, Brassica nigra, Centauria melitensis, Eriogonum fasciculatum, Dicranostegia orcuttiana, Peritoma arborea, Drittrichia
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: 4

COOR7_3DREA007-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

				01 O
Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	1
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	1
Cylindropuntia prolifera - coastal cholla	Native	Perennial	Shrub	5
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub	3
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub	17
Simmondsia chinensis - jojoba	Native	Perennial	Shrub	8
Stipa lepida - foothill needle grass	Native	Perennial	Grass	0.2

COOR7_3DREA007-1			2018
MSP - RARE PLANT MONITORING E	DATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; r	esidential		
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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 7 if pre	esent, describe: Dethatching and targeted he	rbicide treatments to control invasive grasses and forbs	
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship and	d continue to perform weed contro	l as needed	
	۰ ۲		
VII. MANAGEMENT ACTIONS IN LAST YEAF	1		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	B)	
none			
NOTES:			
Soil is very dry; lots of Italian whit	e snail shells scattered throughout s	site. Photos on SARA'S phone	

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

MSP Occurrence ID: COOR7_3DREA007 - 1



Dicranostegia orcuttiana - Dennery Ranch East



225

COOR7_30RVA001-1 2	2018
MSP - RARE PLANT MONITORING DATA	
Scientific Name: Dicranostegia orcuttiana Common Name: Orcutt's bird's-beak MSP Occurr. ID: COOR7_30RVA001	
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, other Other Surveyors: Talaya Rachels (consultant), Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 6/20/2018 Time Start: 9:19 Time End: 10:46	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 390 Exact or Estimate? exact Uncertainty: Iow	
Area of Current Mapped Extent: 90.34 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: 0	
Number of Plants in Circle: 101 Exact or Estimate? exact Uncertainty: Iow 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: 4 % Diseased: 1 % Stunted: 6	
Is Sampling Area Representative of Current Mapped Extent yes	
Collection Taken? no Collector: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 495812.419441089 N: 3605509.03468301	
Camera Type: Olympus Stylus TG 830 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: COOR7_3ORVA001_1_Photo1_0620	2018
File Location: S: MSCP Files	
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: 28 % Cover of Litter: 18 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 114 114 114 114 114 114	63
SANDAG 2012 Vegetation Alliance/Association Salix lasiolepis 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? yes Dead Standing Biomass Species: Baccharis sarothroides, Rhus integrifolia, Dicranostegia orcuttiana, Bromadritensis	mus
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	

COOR7_3ORVA001-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	5
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	9
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Dicranostegia orcuttiana - Orcutt's birds-beak	Native	Annual	Herb	0.2
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub	21
Dudleya pulverulenta - chalk dudleya	Native	Perennial	Herb	0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	2
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub	0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	1
Salvia apiana - white sage	Native	Perennial	Shrub	1
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	2
Toxicodendron diversilobum - poison oak	Native	Perennial	Shrub	0.2

2018

COOR7_3ORVA001-1

MSP - RARE PLANT MONITORING E	DATA	
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurrent	nce's maximum extent (cumulative extent over years of
Surround_LandUse Open space preserve; p	assive 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: 2	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: 0	
Vegetation Clearing: 4 if pres	ent, describe:	
Brush Manangement: 1 if pre	sent, describe: 0	
ORV Activity: 1 if present, de	scribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
Trails: 5 if trails are present, are they authorized?		
Type of Trail Use:		
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:		
Illegal Trail Use: 0		
Other Disturbance: 1 if present, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship and	d repair fencing along trail	
VII. MANAGEMENT ACTIONS IN LAST YEAF	2	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)
CAGN north of circle		
NOTES:		
photo taken in middle of the trail o	at edge of sample plot.	

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

MSP Occurrence ID: COOR7_3ORVA001 - 1





Dudleya brevifolia Short-Leaved Dudleya



© City of San Diego, 2016

DUBLB2_6CMPR001-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, other Other Surveyors: Olivia Koziel (consultant), Talaya, Rob, Melanie
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/16/2018 Time Start: 15:20 Time End: 15:57
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 275 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 84.53 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: 0
Number of Plants in Circle: 76 Exact or Estimate? exact Uncertainty: Iow 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: 2
Is Sampling Area Representative of Current Mapped Extent yes
Collection Taken? no Collector: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 479443.155292313 N: 3643889.47458025
Camera Type: iPhone 6s Coordinates of Photo Point: E: At edge of circle plot N:
Photo Direction: SW,W,NW,N Camera Height: 1.1 m Camera Angle -10 Photo Numbers: DUBLB2_6CMPR001_1_Photo1_05162018
File Location: S: MSCP Files
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: 25 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 53
Total % Cover: 100
SANDAG 2012 Vegetation Alliance/Association Adenostoma fasciculatum-Xylococcus bicolor Alliance and Association
Cover Classes (1-6) Cryptogamic Crust Cover: 5 Thatch Cover: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Plantago erecta, Deinandra fasciculata, Eriogonum fasciculatum
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 10
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	4
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	5
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Dudleya brevifolia - Short-leaved dudleya	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	4
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub	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	10
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Quercus dumosa - Nuttall's scrub oak	Native	Perennial	Shrub	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	29
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub	1

2018

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	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: no	Soil Compaction: 1
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1	if present, describe: 0	
Vegetation Clearing: 1 if pres	sent, describe: 0	
Brush Manangement: 1 if pre	sent, describe: 0	
ORV Activity: 1 if present, de	escribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
Trails: 3 if trails are present, Type of Trail Use:	are they authorized?	
Hiking: Biking:	Equestrian: Dog:	Service Vehicles: Other:
Illegal Trail Use: 0		
Other Disturbance: 1 if prese	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship		
VII. MANAGEMENT ACTIONS IN LAST YEAF	2	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDI)B)
Northern Harrier		
NOTES:		
Betsy's phone (emailed to Sara)		

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

MSP Occurrence ID: DUBLB2_6CMPR001 - 1



Dudleya brevifolia - Carmel Mountain Subpop 1



Pop. Area 2001 - 2018 Max Area: 313.3 sq. m. Min Area: 84.5 sq. m.

20 10 0 Meters Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

DIEGO

SanGIS

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This map

DUBLB2_6CMPR001-2 2018
MSP - RARE PLANT MONITORING DATA
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: Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/16/2018 Time Start: 13:15 Time End: 13:51
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 140 Exact or Estimate? exact Uncertainty: Iow
Area of Current Mapped Extent: 81.26 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: 0
Number of Plants in Circle: 96 Exact or Estimate? exact Uncertainty: Iow 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: 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: WGS84 Coordinate System: Lat_long
Coordinates at Center of Plot: E: 479936.35896033 N: 3643802.85317321
Camera Type: Olympus Stylus TG 830 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_2_Photo1_5162018
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 40 % Cover of Rock: 35 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 30.8 Total % Cover: 106.8 106.8 106.8 106.8 106.8 106.8
SANDAG 2012 Vegetation Alliance/Association Adenostoma fasciculatum Alliance// Adenostoma fasciculatum Southern Maritime Association
Cover Classes (1-6) Cryptogamic Crust Cover: 4 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? no Dead Standing Biomass Species: 0
Dead Standing Biomass Cover Class (1-6): 0 Average Height of Dead Standing Biomass (cm): 0
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	7
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Cardionema ramosissimum - sandcarpet	Native	Perennial	Herb	0.2
Chorizanthe polygonoides - knotweed spineflower	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	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	1
Eryngium aristulatum var. parishii - San Diego button celery	Native	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	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
Schismus barbatus - common Mediterranean grass	Nonnative	Annual	Grass	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	20
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb	0.2
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub	0.2

DUBLB2_6CMPR001-2			2018
MSP - RARE PLANT MONITORING D	DATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	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: no	Soil Compaction: 3	
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 1	if present, describe: 0		
Vegetation Clearing: 1 if pres	ent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	scribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
·	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Contimue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAF	8		
	-		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE	B)	
none			
NOTES:			
0			

Dudleya brevifolia (Short-Leaved Dudleya) Carmel Mountain Subpopulation # 2 MSP Occurrence ID: DUBLB2_6CMPR001 - 2





Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

Min Area: 26.54 sq. m.



DUBLB2_6CMPR001-3 2018				
MSP - RARE PLANT MONITORING DATA				
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, Betsy Miller, other Other Surveyors: JasonAllen, Olivia Koziel (consultant), Telaya Rachels contractor Rachels contractor				
Affliation: City of San Diego Parks & Rec Open Space				
Survey Date: 5/16/2018 Time Start: 14:02 Time End: 9:00				
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.				
Number of Plants in Mapped Extent: 4202 Exact or Estimate? exact Uncertainty: low				
Area of Current Mapped Extent: 880.76 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: 0				
Number of Plants in Circle: 267 Exact or Estimate? exact Uncertainty: Iow Circle Area (sq_m): 10				
Phenology in Circle Plot (1-6): % Vegetative: 1 % Flowering: 6 % Dead: 2 % 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 Accuracy: <1				
Coordinates at Center of Plot: E: 479902.638075917 N: 3643912.18918402				
Camera Type: Olympus Stylus TG 830 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 -10 Photo Numbers: DUBLB2_6CMPR001_3_Photo1_05162018				
File Location: S: MSCP Files				
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: 40 % Cover of Litter: 1 % Cover of Water: 0 % Cover of Vegetation: 33.6 Total % Cover: 109.6				
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): 3 Thatch Depth Max (cm): 5				
Dead Standing Biomass? yes Dead Standing Biomass Species: Deinandra fasciculata				
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 10				
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1				

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Chorizanthe polygonoides - knotweed spineflower	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Dudleya brevifolia - Short-leaved dudleya	Native	Perennial	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Navarretia hamata - hooked pincushionplant	Native	Annual	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Rhus integrifolia - lemonade berry	Native	Perennial	Shrub	18
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	10
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

2018

2018

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurr 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: 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: 0	
Vegetation Clearing: 1 if present, describe: 0	
Brush Manangement: 1 if present, describe: 0	
ORV Activity: 1 if present, describe: 0	
Evidence of Recent Fire: no Year Burned? 0	
Trails: 1 if trails are present, are they authorized? 0	
Type of Trail Use:	
Hiking: 0 Biking: 0 Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0	
Other Disturbance: 1 if present, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS	
Contimue 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	DDB)
none	
NOTES:	
100-0793-100-0797	

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

MSP Occurrence ID: DUBLB2_6CMPR001 - 3





DUBLB2_7CRCA003-1 2018
MSP - RARE PLANT MONITORING DATA
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: Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/16/2018 Time Start: 9:36 Time End: 10:32
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 2330 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 186.08 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: 0
Number of Plants in Circle: 1093 Exact or Estimate? exact Uncertainty: Iow 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: 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 Accuracy: <1
Coordinates at Center of Plot: E: 476329.867078253 N: 3646197.83191652
Camera Type: Olympus Stylus TG 830 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_1_Photo1_05162018
File Location: S: MSCP Files
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: 68
Total % Cover: 104
SANDAG 2012 Vegetation Alliance/Association Adenostoma fasciculatum Alliance// Adenostoma fasciculatum-(Eriogonum fasciculatum Artemisia californica salvia mellifera) Association
Cover Classes (1-6) Cryptogamic Crust Cover: 5 Thatch Cover: 1
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0
Dead Standing Biomass? yes Dead Standing Biomass Species: Eriogonum fasciculatum, unknown plant
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 15
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUBLB2_7CRCA003-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES **Associated Species** Native or Nonnative? Annual or Perennial? Adenostoma fasciculatum - chamise Native Perennial Native Perennial Artemisia californica - coastal sagebrush Bromus madritensis - compact brome Nonnative Annual Cneoridium dumosum - bush rue Native Perennial Dudleya brevifolia - Short-leaved dudleya Native Perennial Eł E

Ehrharta erecta - panic veldtgrass	Nonnative	Perennial	Grass	0.2
Eucrypta chrysanthemifolia - spotted eucrypta	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
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	7
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	40
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb	0.2
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub	5

% Cover

4

3

4

1

1

Plant Form

Shrub

Shrub

Grass

Shrub

Herb

DUBLB2_7CRCA003-1			2018
MSP - RARE PLANT MONITORING E	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; r	esidential		
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: 4	
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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship and	d continue to positively engage ne	arby property owners.	
VII. MANAGEMENT ACTIONS IN LAST YEAF	2		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)	
none			
NOTES:			
Nearby home has installed signs li	miting access - good job!		
Dudleya brevifolia (Short-Leaved Dudleya) Crest Canyon – Northern Subpopulation

MSP Occurrence ID: DUBLB2_7CRCA003 - 1







Pop. Area 2001 - 2018 Max Area: 186.0 sq. m. Min Area: 9.4 sq. m. 0 10 20 Meters

Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017



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DUBLB2_7CRCA003-2	2018
MSP - RARE PLANT MONITORING DATA	
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: Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/16/2018 Time Start: 8:21 Time End: 9:16	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent	i.
Number of Plants in Mapped Extent: 50 Exact or Estimate? exact Uncertainty: low	
Area of Current Mapped Extent: 13.77 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: 0	
Number of Plants in Circle: 50 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: 2	
Is Sampling Area Representative of Current Mapped Extent yes	
Collection Taken? no Collector: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accurracy: <1 GPS Accuracy Units: m Datum: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 476308.910390997 N: 3645983.75354875	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle	le plot
Photo Direction: SW,W,NW Camera Height: 1.1 m Camera Angle 10 Photo Numbers: DUBLB2_7CRCA003_2_Photo1_05	162018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circl	e).
% Cover of Bare Ground: 20 % Cover of Rock: 53 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation:	35
Total % Cover: 112	
SANDAG 2012 Vegetation Alliance/Association Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatu Opuntia littoralis/Dudleya (edulis) Association	m-
Cover Classes (1-6) Cryptogamic Crust Cover: 2 Thatch Cover: 1	
Average Thatch Depth (cm): 1 Thatch Depth Max (cm): 0	
Dead Standing Biomass? yes Dead Standing Biomass Species: Eriogonum fasciculatum, unknown shrub, Chlorogalum parviflorum	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 20	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

DUBLB2_7CRCA003-2

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	25
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2
Ceanothus verrucosus - Wart-stemmed ceanothus	Native	Perennial	Shrub	1
Chorizanthe polygonoides - knotweed spineflower	Native	Annual	Herb	0.2
Cneoridium dumosum - bush rue	Native	Perennial	Shrub	4
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	0.2
Dudleya brevifolia - Short-leaved dudleya	Native	Perennial	Herb	0.2
Dudleya lanceolata - lanceleaf liveforever	Native	Perennial	Herb	0.2
Hazardia squarrosa - sawtooth goldenbush	Native	Perennial	Shrub	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	1
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb	0.2
Salvia mellifera - black sage	Native	Perennial	Shrub	1
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	1
Spergularia bocconi - sand spurry	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2
Xylococcus bicolor - mission manzanita	Native	Perennial	Shrub	2

DUBL	B2	7CRCA003-2

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of		
Surround_LandUse Open space preserve; p	assive 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: 0			
Vegetation Clearing: 1 if pres	ent, describe: 0			
Brush Manangement: 1 if pre-	sent, describe: 0			
ORV Activity: 1 if present, de	scribe: 0			
Evidence of Recent Fire: no Ye	ar Burned? 0			
Trails: 4 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use: 0				
Other Disturbance: 1 if present, describe: 0				
VI. MANAGEMENT RECOMMENDATIONS				
Contimue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR	2			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)		
none				
NOTES:				
Photo numbers 100-0765 - 100-0	771			

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

MSP Occurrence ID: DUBLB2_7CRCA003 - 2





Dudleya variegata Variegated Dudleya



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DUVA_6BMRA020-1 2018
MSP - RARE PLANT MONITORING DATA
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 Occurrence Name: Black Mountain Ranch
Surveyors: Betsy Miller, other Other Surveyors: Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/2/2018 Time Start: 22:27 Time End: 22:53
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
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: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Not found for >10 years at this site
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 no
Collection Taken? no Collector: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: <1
Coordinates at Center of Plot: E: 487903.733632374 N: 3649729.74640765
Camera Type: Olympus Stylus TG 830 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_05022018
File Location: S: MSCP Files
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: 4 % Cover of Water: 0 % Cover of Vegetation: 97
Total % Cover: 109
SANDAG 2012 Vegetation Alliance/Association Salvia apiana Alliance// Salvia apiana-Artemisia californica Association
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 2
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 3
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra, Stipa pulchra, Deinandra fasciculata
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 40
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUVA_6BMRA020-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	5
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	0.2
Bloomeria crocea - common goldenstar	Native	Perennial	Herb	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	52
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb	0.2
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb	0.2
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb	0.2
Cynara cardunculus - artichoke thistle	Nonnative	Perennial	Herb	3
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	7
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	4
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	0.2
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb	1
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Salvia apiana - white sage	Native	Perennial	Shrub	6
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb	1
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	18

DUVA_6BMRA020-1		20	018
MSP - RARE PLANT MONITORING E	DATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	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: 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: 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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	esent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
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)	
CAGN (2 adults seen & heard)			
NOTES:			
Photos 100-0700 - 100-0703			

Dudleya variegata (Variegated Dudleya) Black Mountain East

MSP Occurrence ID: DUVA_6BMRA020 - 1





DUVA_4EAEL012-1	2018
MSP - RARE PLANT MONITORING DATA	
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 Recreation Department	
Preserve Name: Mission Trails Regional Pak Occurrence Name: East Elliot - Hilltop	
Surveyors: Sara Allen, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/8/2018 Time Start: 15:09 Time End: 0:00	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent	t.
Number of Plants in Mapped Extent: 33 Exact or Estimate? exact Uncertainty: Iow	
Area of Current Mapped Extent: 35.96 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: 0	
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 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: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 495392.920845487 N: 3636997.20262551	
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center	center
Photo Direction: SE,S,SW Camera Height: 1.1 m Camera Angle 0 Photo Numbers: DUVA_4EAEL012_1_Photo1_05082	2018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle	e).
% Cover of Bare Ground: 33 % Cover of Rock: 22 % Cover of Litter: 4 % Cover of Water: 0 % Cover of Vegetation:	
Total % Cover: 106	-
SANDAG 2012 Vegetation Alliance/Association Adenostoma fasciculatum-Xylococcus bicolor Alliance// Aden	lor-
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: Salvia mellifera, Hesperoyucca whipplei, Centaurea melitensis, Eriog	IONIIM
fasciculatum, unknown shrub	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 50	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 4 Gopher Activity: 1	

DUVA_4EAEL012-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	3
Adenostoma fasciculatum - chamise	Native	Perennial	Shrub	25
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	3
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	1
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Chorizanthe fimbriata - fringed spineflower	Native	Annual	Herb	0.2
Cuscuta californica - California dodder	Native	Annual	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	4
Hesperoyucca whipplei - chaparral yucca	Native	Perennial	Shrub	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	3
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb	0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	0.2
Porophyllum gracile - slender poreleaf	Native	Perennial	Herb	0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Quercus berberidifolia - scrub oak	Native	Perennial	Tree	5
Salvia mellifera - black sage	Native	Perennial	Shrub	6
Stipa lepida - foothill needle grass	Native	Perennial	Grass	0.2

DUVA_4EAEL012-1

MSP - RARE PLANT MONITORING DATA

2018

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 Altered Hydrology: 1 Feral Pig Activity: 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: Dumping/Trash: 1 Historic Grazing: no Soil Compaction: 1 Fuel Modification Zone/ Fire Break: 1 Encampments: 1 Historic Agriculture: no Road Construction/Maintenance: 1 if present, describe: 0 Vegetation Clearing: 1 if present, describe: 0 if present, describe: 0 Brush Manangement: 1 ORV Activity: 1 if present, describe: 0 Year Burned? 0 Evidence of Recent Fire: no Trails: 1 if trails are present, are they authorized? 0 Type of Trail Use: Biking: 0 Hiking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0 Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 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: Sara's phone

Dudleya variegata (Variegated Dudleya) East Elliott – Hilltop

MSP Occurrence ID: DUVA_4EAEL012 - 1





Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017

Min Area: 0 sq. m.





DUVA_4EAEL012-2	2018
MSP - RARE PLANT MONITORING DATA	
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, other Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/5/2018 Time Start: 12:13 Time End: 14:37	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped exter	nt.
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: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Species has not been found in max extent since 2004	
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 no	
Collection Taken? no Collector: n/a Museum/Herbarium: n/a	
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accuracy: <1	
Coordinates at Center of Plot: E: 495429.001011273 N: 3636824.74374072	
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot	center
Photo Direction: SW,W,NE Camera Height: 1.1 m Camera Angle 10 Photo Numbers: DUVA_4EAEL012_2_Photo1_0508	2018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circ	le).
% Cover of Bare Ground: 18 % Cover of Rock: 8 % Cover of Litter: 5 % Cover of Water: 0 % Cover of Vegetation Total % Cover: 107	: 76
SANDAG 2012 Vegetation Alliance/Association Salvia melifera Alliance// Salvia melifera-Malosma laurina 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, Dienandra fasciculata, Centaurea melitensis, unknow Calochortus sp., Isocoma mensezii, Salvia apiana	vn shrub,
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: 3	

DUVA_4EAEL012-2

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cove
Acmispon glaber - deerweed	Native	Perennial	Shrub	4
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	4
Avena fatua - wild oat	Nonnative	Annual	Grass	0.2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	9
Bromus madritensis - compact brome	Nonnative	Annual	Grass	15
Calochortus splendens - splendid mariposa lily	Native	Perennial	Herb	0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub	2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	1
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Juncus dubius - finger rush	Native	Perennial	Herb	3
Lathyrus vestitus var. alefeldii - San Diego pea	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	5
Pseudognaphalium stramineum - cottonbatting plant	Native	Perennial	Herb	0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	3
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb	0.2
Salvia apiana - white sage	Native	Perennial	Shrub	7
Salvia mellifera - black sage	Native	Perennial	Shrub	15
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	5

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DUVA_4EAEL012-2		201		
MSP - RARE PLANT MONITORING D	DATA			
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	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: 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: 3		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe: 0			
Vegetation Clearing: 1 if pres	ent, describe: 0			
Brush Manangement: 1 if pre	sent, describe: 0			
ORV Activity: 1 if present, de	scribe: 0			
Evidence of Recent Fire: no Ye	ar Burned? 0			
Trails: 3 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use: 0				
Other Disturbance: 1 if present, describe: 0				
VI. MANAGEMENT RECOMMENDATIONS				
Continue preserve stewardship and perform weed control for invasive grasses as funding permits				
VII. MANAGEMENT ACTIONS IN LAST YEAF	2			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDI)B)		
none				
NOTES:				
Photos on Sara's phone 20180508	3_135537			

Dudleya variegata (Variegated Dudleya) East Elliott – Creek

MSP Occurrence ID: DUVA_4EAEL012 - 2





DUVA_3GOME003-1 2018	
MSP - RARE PLANT MONITORING DATA	
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, other Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/14/2018 Time Start: 10:17 Time End: 0:00	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 85 Exact or Estimate? exact Uncertainty: low	
Area of Current Mapped Extent: 72.34 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: 0	
Number of Plants in Circle: 11 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: 5	
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: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 500079.111308833 N: 3601862.16999826	
Camera Type: Olympus Stylus TG 830 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_3GOME003_1_Photo1_05142018	
File Location: S: MSCP Files	
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: 12 % Cover of Litter: 22 % Cover of Water: 0 % Cover of Vegetation: 45	
Total % Cover: 101	
SANDAG 2012 Vegetation Alliance/Association Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis Iaciniata 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? yes Dead Standing Biomass Species: Deinandra fasciculata, Salsola tragus	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 35	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 2 Ground Squirrel Activity: 1 Gopher Activity: 1	

DUVA_3GOME003-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Ambrosia chenopodiifolia - San Diego bur ragweed	Native	Perennial	Shrub	1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	6
Cylindropuntia californica - snake cholla	Native	Perennial	Herb	1
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	9
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	1
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Psilocarphus brevissimus - woolly marble	Native	Annual	Herb	0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	12
Simmondsia chinensis - jojoba	Native	Perennial	Shrub	10
Stipa lepida - foothill needle grass	Native	Perennial	Grass	1

DUVA_3GOME003-1		20	018	
MSP - RARE PLANT MONITORING I	DATA			
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	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: no	Soil Compaction: 1		
Encampments: 1	Historic Agriculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1	if present, describe: 0			
Vegetation Clearing: 1 if pres	sent, describe: 0			
Brush Manangement: 3 if pre	esent, describe: Old road restored to vernal	000l.		
ORV Activity: 1 if present, de	escribe: 0			
Evidence of Recent Fire: no Ye	ear Burned? 0			
Trails: 1 if trails are present,	are they authorized? 0			
Type of Trail Use:				
Hiking: 0 Biking: 0 Dog: 0 Service Vehicles: 0 Other: 0				
Illegal Trail Use: 0				
Other Disturbance: 1 if present, describe: 0				
VI. MANAGEMENT RECOMMENDATIONS				
Contimue preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship and access control (fence installation)				
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)				
3 jack rabbits osbered east of point				
NOTES:				
Photo taken at center of circle plo	ł			

Dudleya variegata (Variegated Dudleya) Goat Mesa/Spring Canyon

MSP Occurrence ID: DUVA_3GOME003 - 1





Pop. Area 2003 - 2018 Max Area: 1,065.54 sq. m. Min Area: 37.0 sq. m.

10 20 0 Meters

Source: San GIS & City of San Diego Park & Rec Map Created By: Priscilla Hare 2017





DUVA_3MAVA004-1 2018	
MSP - RARE PLANT MONITORING DATA	
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: Sara Allen, Betsy Miller, Priscilla Hare (intern), other Other Surveyors: Jason Allen, Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 4/26/2018 Time Start: 14:56 Time End: 15:21	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 8789 Exact or Estimate? exact Uncertainty: low	
Area of Current Mapped Extent: 286.54 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: 0	
Number of Plants in Circle: 78 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: 6	
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	
Coordinates at Center of Plot: E: 523320.307214903 N: 3603772.14277079	
Camera Type: Olympus Stylus TG 830 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_3MAVA004_1_Photo1_04262018	
File Location: S: MSCP Files	
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: 3 % Cover of Litter: 25 % Cover of Water: 0 % Cover of Vegetation: 83	
Total % Cover: 116	
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: 4	
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 10	
Dead Standing Biomass? yes Dead Standing Biomass Species: Artemisia california, Croton californica, Stipa pulcra, Bloomeria clevelandii, Avena sp., Dudleya variegata, Silene gallica	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 10	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 4	

DUVA_3MAVA004-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	1
Avena sp oat	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	25
Crassula connata - sand pygmyweed	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	50
Gutierrezia californica - San Joaquin snakeweed	Native	Perennial	Shrub	0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Plantago erecta - California plantain	Native	Annual	Herb	1
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	5
Silene gallica - common catchfly	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

DL	JVA	3MA	VA	004-1

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Asse monitoring) plus 10-m surrounding buffer.	ss threats within the occurrence's maximum extent (cumulative extent over years of			
Surround_LandUse Open space preserve				
Disturbances (Rank each as 1-6)				
Nonnative Forbs: 3 Feral Pig Ac	tivity: 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 Gra	zing: 1 Slope Movement: 1			
Dumping/Trash: 1 Historic Gra	zing: no Soil Compaction: 1			
Encampments: 1 Historic Agr	iculture: no Fuel Modification Zone/ Fire Break: 1			
Road Construction/Maintenance: 2 if prese	ent, describe:			
Vegetation Clearing: 1 if present, describe	0			
Brush Manangement: 1 if present, describe	: 0			
ORV Activity: 1 if present, describe: 0				
Evidence of Recent Fire: no Year Burned?	0			
Trails: 1 if trails are present, are they authors	orized? 0			
Type of Trail Use:				
Hiking: 0 Biking: 0 Dog: 0 Service Vehicles: 0 Other: 0				
Illegal Trail Use: 0				
Other Disturbance: 1 if present, describe:	0			
VI. MANAGEMENT RECOMMENDATIONS				
Continur preserve stewardship				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any plant or anima	al species to add to the CNDDB)			
none				
NOTES:				
100-0663-100-0667				

Dudleya variegata (Variegated Dudleya) Marron Valley

MSP Occurrence ID: DUVA_3MAVA004 - 1





DUVA_4MERO014-1 2018	3
MSP - RARE PLANT MONITORING DATA	
Scientific Name: Dudleya variegata Common Name: Variegated dudleya MSP Occurr. ID: DUVA_4MER0014	
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: Betsy Miller, other Other Surveyors: 0	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/2/2018 Time Start: 14:58 Time End: 15:46	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 319 Exact or Estimate? exact Uncertainty: Iow	
Area of Current Mapped Extent: 82.75 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: 0	
Number of Plants in Circle: 251 Exact or Estimate? exact Uncertainty: Iow 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	
Coordinates at Center of Plot: E: 488705.446518853 N: 3645101.74771551	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: At edge of circle plot N: At edge of circle plot	ot
Photo Direction: SW,W,NW Camera Height: 1.1 m Camera Angle 5 Photo Numbers: DUVA_4MER0014_1_Photo1_05022018	
File Location: S: MSCP Files	
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: 30 % Cover of Litter: 2 % Cover of Water: 0 % Cover of Vegetation: 36	
Total % Cover: 103	
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): 3 Thatch Depth Max (cm): 4	
Dead Standing Biomass? yes Dead Standing Biomass Species: Isocoma mensezii, Chlorogalum parviflorum, Logfia gallica	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 40	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

DUVA_4MERO014-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	1
Adolphia californica - California adolphia	Native	Perennial	Shrub	1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	2
Bloomeria crocea - common goldenstar	Native	Perennial	Herb	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	4
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
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb	0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb	0.2
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	5
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	3
Lomatium dasycarpum - woollyfruit desertparsley	Nonnative	Perennial	Herb	3
Peritoma arborea - bladderpod spiderflower	Native	Perennial	Shrub	0.2
Salvia mellifera - black sage	Native	Perennial	Shrub	0.2
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	7
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb	0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass	10
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

DUVA_4MERO014-1

2018

MSP - RARE PLANT MONITORING DATA

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 A	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 Gr	azing: 1	Slope Movement: 1		
Dumping/Trash: 1 Historic G	razing: no	Soil Compaction: 1		
Encampments: 0 Historic Ag	griculture: no	Fuel Modification Zone/ Fire Break: 1		
Road Construction/Maintenance: 1 if pre	sent, describe: 0			
Vegetation Clearing: 1 if present, describ	e: 0			
Brush Manangement: 1 if present, descril	be: 0			
ORV Activity: 1 if present, describe: 0				
Evidence of Recent Fire: no Year Burned?	0			
Trails: 1 if trails are present, are they aut	horized? 0			
Type of Trail Use: Hiking: 0 Biking: 0 Equestria	an: 0 Dog: 0	Service Vehicles: 0 Other: 0		
Illegal Trail Use: 0				
Other Disturbance: 1 if present, describe	: 0			
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 calling up slope to north				
NOTES:				
Photos 100-0714 - 100-0717				
Dudleya variegata (Variegated Dudleya) Mercy Road

MSP Occurrence ID: DUVA_4MERO014 - 1





DUVA_4MTRP015-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Ninfa Negrete (intern), Priscilla Hare (intern), other Surveyors: Jason Allen, Talaya Rachels (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/1/2018 Time Start: 10:08 Time End: 14:18
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 129 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 36.08 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: 0
Number of Plants in Circle: 10 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 Accuracy: <1
Coordinates at Center of Plot: E: 493410.251889392 N: 3631511.36955762
Camera Type: Olympus Stylus TG 830 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 Photo Numbers: DUVA_4MTRP015_1_Photo1_05012018
File Location: S: MSCP Files
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: 23 % Cover of Litter: 3 % Cover of Water: 0 % Cover of Vegetation: 54 Total % Cover: 100
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): 2
Dead Standing Biomass? yes Dead Standing Biomass Species: Chlorogalum parviflorum, Acmispom glaber, Stipa pulchra, Logfia gallica, Deinandra fasciculata
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 20
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 2 Gopher Activity: 1

DUVA_4MTRP015-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub	1
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	6
Bromus madritensis - compact brome	Nonnative	Annual	Grass	4
Chlorogalum parviflorum - smallflower soap plant	Native	Perennial	Herb	0.2
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	20
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	6
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Melinis repens - natal grass	Nonnative	Perennial	Grass	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	1
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	12
Stipa pulchra - purple needle grass	Native	Perennial	Grass	1

DUVA_4MTRP015-1			2018	
MSP - RARE PLANT MONITORING D	ATA			
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of		
Surround_LandUse Open space preserve; p	assive 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: 0			
Vegetation Clearing: 1 if pres	ent, describe: 0			
Brush Manangement: 1 if pre	sent, describe: 0			
ORV Activity: 1 if present, de	scribe: 0			
Evidence of Recent Fire: no Ye	ar Burned? 0			
Trails: 2 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: Biking: Equestrian: Dog: Service Vehicles: Other:				
Illegal Trail Use: 0				
Other Disturbance: 1 if prese	ent, describe: 0			
VI. MANAGEMENT RECOMMENDATIONS				
Survey site for additional Melinis r	epens and treat as needed			
VII. MANAGEMENT ACTIONS IN LAST YEAR				
VII. MANAGEMENT ACTIONS IN LAST YEAR				
Preserve stewardship, Melinis repe	ens removal			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)		
none				
NOTES:				
0				

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

MSP Occurrence ID: DUVA_4MTRP015 - 1





DUVA_4MTRP015-2	2018
MSP - RARE PLANT MONITORING DATA	
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 (intern), Priscilla Hare (intern), other Other Surveyors: Talaya Rachels (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/1/2018 Time Start: 8:57 Time End: 0:00	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 302 Exact or Estimate? exact Uncertainty: low	
Area of Current Mapped Extent: 138.14 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: 0	
Number of Plants in Circle: 4 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: 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 III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING III. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING	
GPS Accurracy: <1 GPS Accuracy Units: m Datum: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 493288.226346998 N: 3631638.6583749	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: Same as plot center N: Sa	nter
Photo Direction: W,NW,N Camera Height: 1.1 m Camera Angle O Photo Numbers: DUVA_4MTRP015_2_Photo1_050120	
File Location: S: MSCP Files	710
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: 14 % Cover of Litter: 20 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 114 114 % Cover of Litter: 20 % Cover of Water: 0 % Cover of Vegetation:	12
SANDAG 2012 Vegetation Alliance/Association Artemisia californica-Eriogonum fasciculatum Alliance// Artemisia californica-Eriogonum fasciculatum)-
Malosma laurina Association	
Cover Classes (1-6) Cryptogamic Crust Cover: 3 Thatch Cover: 2	
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 2	
Dead Standing Biomass? yes Dead Standing Biomass Species: Acmispon glaber, annual grasses, Deinandra fasciculata	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 30	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 3	

DUVA_4MTRP015-2

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	1
Avena fatua - wild oat	Nonnative	Annual	Grass	0.2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	35
Bromus madritensis - compact brome	Nonnative	Annual	Grass	5
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Chlorogalum pomeridianum - soap plant	Native	Perennial	Herb	0.2
Corethrogyne filaginifolia - California sandaster	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	15
Ferocactus viridescens - San Diego barrel cactus	Native	Perennial	Shrub	0.2
Hazardia squarrosa - sawtooth goldenbush	Native	Perennial	Shrub	0.2
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	4
Osmadenia tenella - false rosinweed	Native	Annual	Herb	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	5
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb	0.2
Stipa lepida - foothill needle grass	Native	Perennial	Grass	0.2

DUVA_4MTRP015-2	2018
MSP - RARE PLANT MONITORING DATA	
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurre monitoring) plus 10-m surrounding buffer.	nce'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: 0	
Vegetation Clearing: 1 if present, describe: 0	
Brush Manangement: 1 if present, describe: 0	
ORV Activity: 1 if present, describe: 0	
Evidence of Recent Fire: no Year Burned? 0	
Trails: 1 if trails are present, are they authorized? 0	
Type of Trail Use:	
Hiking:0Biking:0Equestrian:0Dog:0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0	
Other Disturbance: 1 if present, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS	
Continue preserve stewardship and perform weed control for erosion	n and brachypodium
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserve stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDE)B)
none	
NOTES:	
photos: 100-0691 - 100-0694	

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

MSP Occurrence ID: DUVA_4MTRP015 - 2







DUVA_4MTRP015-3 2018
MSP - RARE PLANT MONITORING DATA
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: Betsy Miller, Sara Allen, Priscilla Hare (intern), Ninfa Negrete (intern), other Surveyors: Jason Allen
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/22/2018 Time Start: 14:40 Time End: 15:44
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 118 Exact or Estimate? exact Uncertainty: Iow
Area of Current Mapped Extent: 23.71 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: 0
Number of Plants in Circle: 94 Exact or Estimate? exact Uncertainty: Iow 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 Accuracy: <1
Coordinates at Center of Plot: E: 493384.242814741 N: 3631731.36272501
Camera Type: Olympus Stylus TG 830 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_05012018
File Location: S: MSCP Files
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: 14 % Cover of Litter: 14 % Cover of Water: 0 % Cover of Vegetation: 77 Total % Cover: 111
SANDAG 2012 Vegetation Alliance/Association Malosma laurina Alliance// Malosma laurina-Lotus scoparius Association
Cover Classes (1-6) Cryptogamic Crust Cover: 4 Thatch Cover: 3
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 3
Dead Standing Biomass? yes Dead Standing Biomass Species: Acmispon glaber, Pseudognaphalium sp., Logfia galicia, Stipa pulchra, Avena barbata
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 30
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUVA_4MTRP015-3

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cove
Acmispon glaber - deerweed	Native	Perennial	Shrub	7
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	4
Avena barbata - slender oat	Nonnative	Annual	Grass	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	31
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
Dichondra occidentalis - western ponysfoot	Native	Perennial	Herb	1
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
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
Lathyrus vestitus var. alefeldii - San Diego pea	Native	Annual	Herb	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	6
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	0.2
Plantago erecta - California plantain	Native	Annual	Herb	0.2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	8
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	1

DUVA_4MTRP015-3			2018
MSP - RARE PLANT MONITORING	DATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	EXTENT - Assess threats within the occurre	ence'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: 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: 0		
Vegetation Clearing: 1 if pre-	sent, describe: 0		
Brush Manangement: 1 if pre	esent, describe: 0		
ORV Activity: 1 if present, d	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 3 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 pres	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship, lo	ok into feasibility of weed control	at this site	
VII. MANAGEMENT ACTIONS IN LAST YEA	D		
	N		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDI	DB)	
none			
NOTES:			
0			

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

MSP Occurrence ID: DUVA_4MTRP015 - 3





DUVA_4NAVA016-1	2018
MSP - RARE PLANT MONITORING DATA	
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 Other Surveyors: 0	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/2/2018 Time Start: 14:57 Time End: 16:30	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped exten	ł.
Number of Plants in Mapped Extent: 176 Exact or Estimate? exact Uncertainty: medium	
Area of Current Mapped Extent: 14.33 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: 0	
Number of Plants in Circle: 2 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: 6	
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	
Coordinates at Center of Plot: E: 494474.167950892 N: 3629664.02282238	
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 O Photo Numbers: DUVA_4NAVA016_1_Photo1_0502	2018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circl	e).
% Cover of Bare Ground: 14 % Cover of Rock: 8 % Cover of Litter: 12 % Cover of Water: 0 % Cover of Vegetation: Total % Cover: 104 104 104 104 104 104	70
SANDAG 2012 Vegetation Alliance/Association Artemisia californica Alliance// Artemisia californica-Mimulus aurantiacus Association	
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 2	
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 2	
Dead Standing Biomass? yes Dead Standing Biomass Species: unknown shrub	
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: 1	

DUVA_4NAVA016-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	4
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	14
Bloomeria crocea - common goldenstar	Native	Perennial	Herb	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	15
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
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower	Native	Perennial	Shrub	23
Dudleya variegata - Variegated dudleya	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	3
Eriophyllum confertiflorum - golden yarrow	Native	Annual	Herb	0.2
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb	0.2
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	1
Logfia gallica - narrowleaf cottonrose	Nonnative	Annual	Herb	0.2
Lysimachia arvensis - scarlet pimpernel	Nonnative	Annual	Herb	0.2
Salvia mellifera - black sage	Native	Perennial	Shrub	1
Sanicula arguta - sharp toothed snakeroot	Native	Perennial	Herb	0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb	4
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	2

DUVA_4NAVA016-1

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MSP - RARE PLANT MONITORING DATA 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; residential 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: Dumping/Trash: 1 Historic Grazing: no Soil Compaction: 1 Fuel Modification Zone/ Fire Break: 1 Encampments: 1 Historic Agriculture: no Road Construction/Maintenance: 1 if present, describe: 0 Vegetation Clearing: 1 if present, describe: 0 if present, describe: Annual dethatch and targeted herbicide treatments to control invasive species. Brush Manangement: 2 ORV Activity: 1 if present, describe: 0 Year Burned? 0 Evidence of Recent Fire: no Trails: 1 if trails are present, are they authorized? 0 Type of Trail Use: Biking: 0 Hiking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0 Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS Continue preserve stewardship and targeted weed control efforts VII. MANAGEMENT ACTIONS IN LAST YEAR Preserve stewardship and targeted weed control to remove nonnative grasses VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB) none NOTES: 0

Dudleya variegata (Variegated Dudleya) Navajo/Mission Gorge

MSP Occurrence ID: DUVA_4NAVA016 - 1





DUVA_30TLA005-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller Other Surveyors: Jason Allen
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/7/2018 Time Start: 9:22 Time End: 0:00
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 787 Exact or Estimate? exact Uncertainty: medium
Area of Current Mapped Extent: 184.06 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: 0
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 507818.424938786 N: 3609505.23315236
Camera Type: Olympus Stylus TG 830 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 Photo Numbers: DUVA_3OTLA005_1_Photo1_05072018
File Location: S: MSCP Files
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: 20 % Cover of Litter: 35 % Cover of Water: 0 % Cover of Vegetation: 48
Total % Cover: 133
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): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Deinandra fasciculata, Lepidium nitidum, Chlorogalum parviflorum, Bloomeria clevelandii, unknown shrub, Isocoma menzesii, unknown forb
Dead Standing Biomass Cover Class (1-6): 4 Average Height of Dead Standing Biomass (cm): 40
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

DUVA_3OTLA005-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% 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
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	4
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	40
Isocoma menziesii - Menzies' goldenbush	Native	Perennial	Shrub	2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Microseris douglasii - Douglas' silverpuffs	Native	Annual	Herb	0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb	0.2
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	0.2

DUVA_30TLA005-1			2018
MSP - RARE PLANT MONITORING E	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; r	eservoir		
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: 3	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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if prese	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Contimue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAF	{		
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDE)B)	
none			
lione			
NOTES:			
photos 100-0718 - 100-0721			

Dudleya variegata (Variegated Dudleya) Otay Lakes

MSP Occurrence ID: DUVA_3OTLA005 - 1





DUVA_6SALU024-1	2018
MSP - RARE PLANT MONITORING DATA	
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: Betsy Miller, other Other Surveyors: Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 5/2/2018 Time Start: 11:31 Time End: 12:05	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped ex	tent.
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: Walked perimeter with GPS Species Found in Max Extent no	
If not found, known or suspected reason: Low annual rainfall.	
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 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: WGS84 Coordinate System: Lat_long	
Coordinates at Center of Plot: E: 487216.837485722 N: 3649927.34310804	
Camera Type: Olympus Stylus TG 830 Coordinates of Photo Point: E: Same as plot center N: Same as plot	olot center
Photo Direction: SW,W,NW Camera Height: 1.1 m Camera Angle -10 Photo Numbers: DUVA_6SALU024_1_Photo1_0	5022018
File Location: S: MSCP Files	
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius of	circle).
% Cover of Bare Ground: 40 % Cover of Rock: 15 % Cover of Litter: 15 % Cover of Water: 0 % Cover of Vegetat	ion: 33
Total % Cover: 103	
SANDAG 2012 Vegetation Alliance/Association Lotus scoparius Alliance and Association	
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 2	
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 5	
Dead Standing Biomass? yes Dead Standing Biomass Species: Deinandra fasciculata, Brassica nigra, unknown grass, unknown	shrub
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

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	8
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	3
Baccharis pilularis - coyotebrush	Native	Perennial	Shrub	0.2
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	10
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	5
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb	0.2
Datura wrightii - sacred thorn-apple	Native	Perennial	Herb	0.2
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	5
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Malacothamnus fasciculatus - Mendocino bushmallow	Native	Perennial	Shrub	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	1
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb	0.2
Sisyrinchium bellum - Western blue-eyed grass	Native	Perennial	Herb	0.2
Stipa pulchra - purple needle grass	Native	Perennial	Grass	0.2

Other: 0

DUVA_6SALU024-1

MSP - RARE PLANT MONITORING DATA

2018

monitoring) plus 10-m surrounding buffer. Surround_LandUse Open space preserve; residential Disturbances (Rank each as 1-6) Altered Hydrology: 1 Nonnative Forbs: 4 Feral Pig Activity: 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: Dumping/Trash: 1 Historic Grazing: no Soil Compaction: 1 Fuel Modification Zone/ Fire Break: 1 Encampments: 1 Historic Agriculture: no Road Construction/Maintenance: 1 if present, describe: 0 Vegetation Clearing: 1 if present, describe: 0 if present, describe: 0 Brush Manangement: 1 ORV Activity: 1 if present, describe: 0 Year Burned? 0 Evidence of Recent Fire: no Trails: 1 if trails are present, are they authorized? 0 Type of Trail Use: Biking: 0 Hiking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 VI. MANAGEMENT RECOMMENDATIONS

V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years of

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:

Photo 1: 100-0704 - 100-0708; Photo 2: 100-0709 - 100-0713

Dudleya variegata (Variegated Dudleya) Santa Luz West

MSP Occurrence ID: MSP Occurrence ID:



Dudleya variegata (Variegated Dudleya) Santa Luz East

MSP Occurrence ID: MSP Occurrence ID:





Erysimum ammophilum Coast wallflower



© City of San Diego, 2015

ERAM4_6DEMA001-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Priscilla Hare (intern) Other Surveyors: 0
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 3/8/2018 Time Start: 11:29 Time End: 12:12
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 190 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 78.58 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: 0
Number of Plants in Circle: 51 Exact or Estimate? exact Uncertainty: Iow 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: 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 Accuracy: <1
Coordinates at Center of Plot: E: 477818.041793127 N: 3647270.11791868
Camera Type: Olympus Stylus TG 830 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_03082018
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 18 % Cover of Rock: 0 % Cover of Litter: 20 % Cover of Water: 0 % Cover of Vegetation: 65
Total % Cover: 103
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
Dead Standing Biomass? yes Dead Standing Biomass Species: Artemisia palmeri, Artemisia californica, Scrophularia californica, Erysimum ammophilum
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 35
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 3 Gopher Activity: 1

ERAM4_6DEMA001-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb	8
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	27
Artemisia palmeri - San Diego sagewort	Native	Annual	Herb	2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	4
Bromus sp brome	Nonative	Annual	Grass	0.2
Croton californicus - California croton	Native	Perennial	Herb	4
Erysimum ammophilum - Coast wallflower	Native	Perennial	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	15
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb	2
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb	1
Nicotiana glauca - tree tobacco	Nonnative	Perennial	Shrub	4
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	2
Pseudognaphalium californicum - ladies' tobacco	Native	Perennial	Herb	0.2
Pterostegia drymarioides - woodland threadstem	Native	Annual	Herb	0.2
Salvia apiana - white sage	Native	Perennial	Shrub	1
Salvia mellifera - black sage	Native	Perennial	Shrub	0.2
Scrophularia californica - California figwort	Native	Perennial	Herb	4
Stephanomeria sp wire lettuce	Native	Annual	Herb	0.2
ERAM4_6DEMA001-1			2018	
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MSP - RARE PLANT MONITORING D	ATA			
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occur	rence's maximum extent (cumulative extent over years of		
Surround_LandUse Open space preserve; r	esidential			
Disturbances (Rank each as 1-6)				
Nonnative Forbs: 2	Feral Pig Activity: 1	Altered Hydrology: 1		
Nonnative Grass: 2	Trampling: 2	Erosion: 1		
Nonnative Woody Plants: 2	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: 4		
Road Construction/Maintenance: 1	if present, describe: 0			
Vegetation Clearing: 1 if pres	ent, describe: 0			
Brush Manangement: 1 if pre	sent, describe: 0			
ORV Activity: 1 if present, de	scribe: 0			
Evidence of Recent Fire: no Ye	ar Burned? 0			
Trails: 2 if trails are present,	are they authorized?			
Type of Trail Use:				
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0		
Illegal Trail Use: 0				
·	ent, describe: 0			
VI. MANAGEMENT RECOMMENDATIONS				
Treat tree tobacco				
VII. MANAGEMENT ACTIONS IN LAST YEAF	2			
Preserve stewardship				
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNI	DDB)		
CAGN heard/seen from 11:48-12	2:02 in circle plot			
NOTES:				
Reported illegal brush clearing to	code compliance			

Erysimum ammophilum (Coast Wallflower) North City West Observation

MSP Occurrence ID: ERAM4_6DEMA001 - 1





ERAM4_6GOCA003-1 2018	i
MSP - RARE PLANT MONITORING DATA	
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, Betsy Miller, Priscilla Hare (intern) Other Surveyors: 0	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 3/8/2018 Time Start: 14:57 Time End: 16:02	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 39 Exact or Estimate? exact Uncertainty: Iow	
Area of Current Mapped Extent: 26.26 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: 0	
Number of Plants in Circle: 35 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: 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	
Coordinates at Center of Plot: E: 479077.005234283 N: 3647584.80509605	
Camera Type: Olympus Stylus TG 830 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: ERAM4_6GOCA003_1_Photo1_03082018	3
File Location: S: MSCP Files	
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: 0 % Cover of Litter: 25 % Cover of Water: 0 % Cover of Vegetation: 55	
Total % Cover: 105	
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: 3 Thatch Cover: 2	
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 0	
Dead Standing Biomass? yes Dead Standing Biomass Species: Artemisia californica, Psudognaphalium sp., Ambrosia psilostachya, Erysimum ammophilum, Bromus sp., Acmispon glaber	
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 20	
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1	

ERAM4_6GOCA003-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	10
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb	3
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	22
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	7
Bromus sp brome	Nonative	Annual	Grass	3
Cardionema ramosissimum - sandcarpet	Native	Perennial	Herb	0.2
Chaenactis glabriuscula - yellow pincushion	Native	Annual	Herb	1
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2
Croton californicus - California croton	Native	Perennial	Herb	1
Cylindropuntia prolifera - coastal cholla	Native	Perennial	Shrub	0.2
Daucus pusillus - American wild carrot	Native	Annual	Herb	0.3
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	2
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Erysimum ammophilum - Coast wallflower	Native	Perennial	Herb	0.2
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	1
Salvia mellifera - black sage	Native	Perennial	Shrub	3
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	2

2018

ERAM4_6GOCA003-1	2018
MSP - RARE PLANT MONITORING DATA	
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; 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: 0	
Vegetation Clearing: 1 if present, describe: 0	
Brush Manangement: 1 if present, describe: 0	
ORV Activity: 1 if present, describe: 0	
Evidence of Recent Fire: no Year Burned? 0	
Trails: 3 if trails are present, are they authorized?	
Type of Trail Use:	
Hiking: Biking: Equestrian: Dog: Dog:	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0	
Other Disturbance: 1 if present, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS	
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)B)
CAGN heard at 3:40	
NOTES:	
0	

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.



ERAM4_7CRCA002-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, Priscilla Hare (intern) Other Surveyors: 0
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 3/8/2018 Time Start: 9:08 Time End: 10:09
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
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: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Low annual rainfall.
Number of Plants in Circle: 0 Exact or Estimate? exact Uncertainty: Iow 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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accuracy: <1
Coordinates at Center of Plot: E: 476222.586345246 N: 3646994.79725023
Camera Type: Olympus Stylus TG 830 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_03082018
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 45 % Cover of Rock: 0 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation: 55 Total % Cover: 108
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): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Ehrharta calycina, Corethrogyne filaginifolia, Artemisia californica
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 30
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

ERAM4_7CRCA002-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	5
Corethrogyne filaginifolia - California sandaster	Native	Perennial	Herb	0.2
Dudleya edulis - fingertips	Native	Perennial	Herb	0.2
Dudleya pulverulenta - chalk dudleya	Native	Perennial	Herb	0.2
Ehrharta calycina - perennial veldtgrass	Nonnative	Perennial	Grass	15
Encelia californica - California brittlebush	Native	Perennial	Shrub	3
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	5
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Malosma laurina - laurel sumac	Native	Perennial	Shrub	3
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb	2
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb	2
Osmadenia tenella - false rosinweed	Native	Annual	Herb	0.2
Pinus torreyana - torrey pine	Native	Perennial	Tree	1
Polypodium californicum - California polypody	Native	Perennial	Fern	4
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	1
Selaginella cinerascens - mesa spikemoss	Native	Perennial	Fern	1
Stipa coronata - crested needle grass	Native	Perennial	Grass	3

ERAM4_7CRCA002-1	2018
MSP - RARE PLANT MONITORING DATA	
V. THREATS ASSESSMENT IN MAXIMUM EXTENT - Assess threats within the occurrence's maximum extent (cumulative extent over years monitoring) plus 10-m surrounding buffer.	of
Surround_LandUse Open space preserve	
Disturbances (Rank each as 1-6)	
Nonnative Forbs: 3 Feral Pig Activity: 1 Altered Hydrology: 1	
Nonnative Grass:4Trampling:1Erosion:1	
Nonnative Woody Plants: 1 Urban Runoff: 1	
Competitive Native Plants: 1 Current Grazing: 1 Slope Movement: 1	
Dumping/Trash:1Historic Grazing:noSoil Compaction:1	
Encampments: 1 Historic Agriculture: no Fuel Modification Zone/ Fire Break: 1	
Road Construction/Maintenance: 1 if present, describe: 0	
Vegetation Clearing: 1 if present, describe: 0	
Brush Manangement: 1 if present, describe: 0	
ORV Activity: 1 if present, describe: 0	
Evidence of Recent Fire: no Year Burned? 0	
Trails: 1 if trails are present, are they authorized? 0	
Type of Trail Use:	
Hiking: 0 Biking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0	
Other Disturbance: 1 if present, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS	
Weed treatments recommended to control the spread of Ehrharta grass.	
VII. MANAGEMENT ACTIONS IN LAST YEAR	
Preserve stewardship	
VIII. CNDDB SPECIES DETECTED (list any plant or animal species to add to the CNDDB)	
California gnatcatcher calling at parking area on Racetrack View Dr and at survey point	
NOTES:	
0	

Erysimum ammophilum (Coast Wallflower) Crest Canyon

MSP Occurrence ID: ERAM4_7CRCA002 - 1





Monardella stoneana Jennifer's Monardella



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MOST_3MAVA002-1 2018
MSP - RARE PLANT MONITORING DATA
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, Betsy Miller, other Other Surveyors: Jason Allen, Talaya Rachels (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 6/19/2018 Time Start: 8:31 Time End: 0:00
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 51 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 188.44 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: 0
Number of Plants in Circle: 1 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 Accuracy: <1
Coordinates at Center of Plot: E: 524003.157506192 N: 3604434.49505271
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_07032018
File Location: S: MSCP Files
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: 6 % Cover of Water: 0 % Cover of Vegetation: 49 Total % Cover: 105 105 105 105 105 105 105
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): 3 Thatch Depth Max (cm): 5
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica tournefortii, Baccharis sarothroides, Bromus sp.
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 35
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 2 Gopher Activity: 1

MOST_3MAVA002-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cove
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb	2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	0.2
Avena fatua - wild oat	Nonnative	Annual	Grass	5
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	10
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub	4
Brassica tournefortii - Asian mustard	Nonnative	Annual	Herb	0.2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	10
Calystegia macrostegia - island false bindweed	Native	Perennial	Herb	0.2
Cuscuta occidentalis - chaparral dodder	Native	Annual	Herb	1
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	2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	9
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass	0.2
Funastrum cynanchoides - climbing milkweed	Native	Perennial	Herb	0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	0.2
Helianthemum scoparium - Bisbee peak rushrose	Native	Perennial	Shrub	0.2
Hirschfeldia incana - shortpod mustard	Nonnative	Perennial	Herb	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub	1
Malosma laurina - laurel sumac	Native	Perennial	Shrub	3
Mirabilis laevis - desert wishbone bush	Native	Perennial	Herb	0.2
Monardella stoneana - Jennifer's monardella	Native	Perennial	Herb	0.2
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	1

MOST_3MAVA002-1			2018
MSP - RARE PLANT MONITORING E	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	nce'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: 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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
·	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship			
VII. MANAGEMENT ACTIONS IN LAST YEAF	2]
Preserve stewardship			
rieserve siewardsnip			
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD)B)	
none			
NOTES:			
Photo taken at center of circle plot	t		

Monardella stoneana (Jennifer's Monardella) Marron Valley

MSP Occurrence ID: MOST_3MAVA002 - 1





MOST_30TLA005-1 2018
MSP - RARE PLANT MONITORING DATA
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: Sara Allen, other Other Surveyors: Olivia Koziel (consultant), Talaya Rachels (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 6/21/2018 Time Start: 9:30 Time End: 10:31
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
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: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Has not been found in max extent for the last few 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: 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 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: WGS84 Coordinate System: Lat_long
Coordinates at Center of Plot: E: 508228.952584053 N: 3609134.04495653
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_06212018
File Location: S: MSCP Files
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: 46 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 51 Total % Cover: 108
SANDAG 2012 Vegetation Alliance/Association Bahiopsis laciniata Artemesia californica-Eriogonum fasciculatum Alliance// Bahiopsis laciniata-Artemesia californica-Eriogonum fasciculatum Antemesia californica-Eriogonum fasciculatum-Malosma laurina Association
Cover Classes (1-6) Cryptogamic Crust Cover: 2 Thatch Cover: 2
Average Thatch Depth (cm): 3 Thatch Depth Max (cm): 7
Dead Standing Biomass? yes Dead Standing Biomass Species: Salsola tragus, Brassica nigra, Avena fatua, Centaurea melitensis, Eriogonum fasciculatum, Bromus madritensis, Amsinckia intermedia Salsola tragus, Brassica nigra, Avena fatua, Centaurea melitensis,
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 50
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 3 Gopher Activity: 1

MOST_3OTLA005-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	0.2
Amsinckia intermedia - common fiddleneck	Native	Annual	Herb	0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	1
Avena fatua - wild oat	Nonnative	Annual	Grass	2
Bahiopsis laciniata - torhleaf goldeneye	Native	Perennial	Shrub	2
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	24
Deinandra fasciculata - clustered tarweed	Native	Annual	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	3
Festuca myuros - rattail fescue	Nonnative	Annual	Grass	0.2
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub	1
Iva hayesiana - San Diego marsh elder	Native	Perennial	Shrub	14
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub	1
Malosma laurina - laurel sumac	Native	Perennial	Shrub	4
Marah macrocarpus - Cucamonga manroot	Native	Perennial	Herb	0.2
Muhlenbergia microsperma - littleseed muhly	Native	Annual	Grass	0.2
Myriopteris newberryi - Newberry's lip fern	Native	Perennial	Herb	0.2
Rumex crispus - curly dock	Nonnative	Perennial	Herb	0.2
Salsola tragus - prickly Russian thistle	Nonnative	Annual	Herb	0.2
Scrophularia californica - California figwort	Native	Perennial	Herb	0.2
Sisymbrium sp mustard	Nonnative	Annual	Herb	0.2
Tamarix sp tamarisk	Nonnative	Perennial	Tree	0.2

2018

MOST_3OTLA005-1

2018

MSP - RARE PLANT MONITORING DATA 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; reservoir Disturbances (Rank each as 1-6) Nonnative Forbs: 3 Altered Hydrology: 1 Feral Pig Activity: 1 Nonnative Grass: 5 Trampling: 1 Erosion: 1 Nonnative Woody Plants: 1 Vandalism: 1 Urban Runoff: 1 Competitive Native Plants: 3 Current Grazing: 1 Slope Movement: Dumping/Trash: 1 Historic Grazing: no Soil Compaction: 1 Fuel Modification Zone/ Fire Break: 1 Encampments: 1 Historic Agriculture: no Road Construction/Maintenance: 1 if present, describe: 0 Vegetation Clearing: 1 if present, describe: 0 if present, describe: 0 Brush Manangement: 1 ORV Activity: 1 if present, describe: 0 Evidence of Recent Fire: no Year Burned? 0 Trails: 1 if trails are present, are they authorized? 0 Type of Trail Use: Biking: 0 Hiking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0 Illegal Trail Use: 0 Other Disturbance: 1 if present, describe: 0 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 NOTES: 0

Monardella stoneana (Jennifer's Monardella) Otay Lakes

MSP Occurrence ID: MOST_3OTLA005 - 1







Photopoint

Pop. Area 2003 - 2018 Max Area: 7.98 sq. m. Min Area: 26 sq. m.





tains information which has bee ranted by Thomas Bros. Maps.



Monardella viminea Willowy Monardella



© City of San Diego, 2014

MOLIV_6FLCA007-1 2018
MSP - RARE PLANT MONITORING DATA
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, other Other Surveyors: Jason Allen, Olivia Koziel (consultant)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 6/5/2018 Time Start: 14:29 Time End: 15:06
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 73 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 314.18 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: 0
Number of Plants in Circle: 43 Exact or Estimate? exact Uncertainty: Iow 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 Accuracy: <1
Coordinates at Center of Plot: E: 483919.829819835 N: 3640200.98999437
Camera Type: Olympus Stylus TG 830 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_06052018
File Location: S: MSCP Files
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: 6 % Cover of Water: 0 % Cover of Vegetation: 67 Total % Cover: 108
SANDAG 2012 Vegetation Alliance/Association Salvia mellifera Alliance// Salvia mellifera-Eriogonum fasciculatum Association
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: Baccharis sarothroides, Psuedongaphalium sp., Acmispon glaber, Monardella viminea, Bromus sp., Foeniculum vulgare
Dead Standing Biomass Cover Class (1-6): 2 Average Height of Dead Standing Biomass (cm): 50
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 1 Gopher Activity: 1

MOLIV_6FLCA007-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Acmispon glaber - deerweed	Native	Perennial	Shrub	1
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	16
Bromus madritensis - compact brome	Nonnative	Annual	Grass	3
Encelia californica - California brittlebush	Native	Perennial	Shrub	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	40
Foeniculum vulgare - sweet fennel	Nonnative	Perennial	Herb	2
Monardella viminea - Willowy monardella	Native	Perennial	Herb	4
Pseudognaphalium beneolens - cudweed	Native	Perennial	Herb	0.2

MOLIV_6FLCA007-1			2018
MSP - RARE PLANT MONITORING D	ATA		
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: 3	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: 0		
Vegetation Clearing: 1 if pres	ent, describe: 0		
Brush Manangement: 1 if pre	sent, describe: 0		
ORV Activity: 1 if present, de	scribe: 0		
Evidence of Recent Fire: no Ye	ar Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if present, describe: 0			
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship and	d control weeds as funding permits		
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 seen and heard at point			
NOTES:			
Photos: 0888-0891; photo taken a	at plot center		

Monardella viminea (Willowy Monardella) Flanders Canyon

MSP Occurrence ID: MOLIV_6FLCA007 - 1





MOLIV_6LOCA004-1 2018
MSP - RARE PLANT MONITORING DATA
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, other Other Surveyors: Jason Allen, Olivia Koziel (consultant), Ashley Summerford (volunteer)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 6/5/2018 Time Start: 12:26 Time End: 13:15
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
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: Walked perimeter with GPS Species Found in Max Extent no
If not found, known or suspected reason: Has not been found at this location for several years. Low annual rainfall fall.
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 no
Collection Taken? no Collector: n/a Collection #: n/a Museum/Herbarium: n/a
II. SAMPLING AREA LOCATION AND SITE PHOTOMONITORING
GPS Accurracy: <1
Coordinates at Center of Plot: E: 483009.487296926 N: 3641648.23405956
Camera Type: Olympus Stylus TG 830 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_06052018
File Location: S: MSCP Files
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: 15 % Cover of Litter: 10 % Cover of Water: 0 % Cover of Vegetation: 76 Total % Cover: 103 103 103 103 103 103 103
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: 2
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Baccharis sarothroides, Eriogonum fasciculatum, Brassica nigra, Carduus pycnocephalus, Glebionis coronaria, Foeniculum vulgare
Dead Standing Biomass Cover Class (1-6): 3 Average Height of Dead Standing Biomass (cm): 40
Mammal Species Activity (categ. 1-4) Feral Pig Activity: 1 Ground Squirrel Activity: 2 Gopher Activity: 1

MOLIV_6LOCA004-1

MSP - RARE PLANT MONITORING DATA

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Ambrosia psilostachya - Cuman ragweed	Native	Perennial	Herb	0.2
Avena barbata - slender oat	Nonnative	Annual	Grass	0.2
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	5
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Brickellia californica - California brickellbush	Native	Perennial	Shrub	3
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	2
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	27
Carduus pycnocephalus - Italian plumeless thistle	Nonnative	Annual	Herb	0.2
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub	3
Cyperus eragrostis - tall flatsedge	Native	Perennial	Herb	0.2
Dichelostemma capitatum - bluedicks	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	12
Erodium cicutarium - redstem stork's bill	Nonnative	Annual	Herb	0.2
Euphorbia peplus - petty spurge	Nonnative	Annual	Herb	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
onicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub	1
Narah macrocarpus - Cucamonga manroot	Native	Perennial	Herb	0.2
Dpuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	2
Phacelia cicutaria - caterpillar phacelia	Native	Annual	Herb	1
Phalaris minor - littleseed canarygrass	Nonnative	Annual	Grass	0.2
Prunus ilicifolia - hollyleaf cherry	Native	Perennial	Shrub	18
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	1
Salvia apiana - white sage	Native	Perennial	Shrub	2
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2
Sonchus oleraceus - common sowthistle	Nonnative	Annual	Herb	0.2
Toxicodendron diversilobum - poison oak	Native	Perennial	Shrub	1

MOLIV_6LOCA004-1

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM EX monitoring) 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			
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: 3	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: 0		
Vegetation Clearing: 1 if prese	ent, describe: 0		
Brush Manangement: 1 if pres	sent, describe: 0		
ORV Activity: 1 if present, des	scribe: 0		
Evidence of Recent Fire: no Yea	ar Burned? 0		
	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if present, describe: 0			
VI. MANAGEMENT RECOMMENDATIONS			
Continue preserve stewardship and	d implement weed control as fundir	ng permits	
VII. MANAGEMENT ACTIONS IN LAST YEAR			
Preserve stewardship			
VIII. CNDDB SPECIES DETECTED (list any p	plant or animal species to add to the CNDD	B)	
CAGN			
NOTES:			
Photo: 0882-0887; Photo at center	r		

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

MSP Occurrence ID: MOLIV_6LOCA004 - 1





MOLIV_6LOCA004-2 2018
MSP - RARE PLANT MONITORING DATA
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, other Other Surveyors: Jason Allen, Olivia Koziel (consultant), Ashley Summerford (volunteer)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 6/5/2018 Time Start: 10:43 Time End: 11:32
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 6 Exact or Estimate? exact Uncertainty: Iow
Area of Current Mapped Extent: 54.37 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: 0
Number of Plants in Circle: 3 Exact or Estimate? exact Uncertainty: low Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 3 % 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 Accuracy: <1
Coordinates at Center of Plot: E: 483777.36208599 N: 3641805.30485667
Camera Type: Olympus Stylus TG 830 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_06052018
File Location: S: MSCP Files
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: 12 % Cover of Water: 0 % Cover of Vegetation: 79 Total % Cover: 102
SANDAG 2012 Vegetation Alliance/Association Baccharis sarothroides Provisional Alliance// Baccharis sarothroides Association
Cover Classes (1-6) Cryptogamic Crust Cover: 1 Thatch Cover: 1
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Brassica nigra, Baccharis sarothroides, Bromus madritensis
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: 2 Gopher Activity: 1
MOLIV_6LOCA004-2

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial? Plant Form		% 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	
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	18	
Brassica nigra - black mustard	Nonnative	Annual	Herb	13	
Brickellia californica - California brickellbush	Native	Perennial	Shrub	6	
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	0.2	
Bromus madritensis - compact brome	Nonnative	Annual	Grass	30	
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2	
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub	0.2	
Crassula connata - sand pygmyweed	Native	Annual	Herb	0.2	
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	9	
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	6	
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub	0.2	
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	1	
Monardella viminea - Willowy monardella	Native	Perennial	Herb	1	
Opuntia littoralis - coastal pricklypear	Native	Perennial	Shrub	2	
Phacelia cicutaria - caterpillar phacelia	Native	Annual	Herb	1	
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2	

MOLIV_6LOCA004-2		2018
MSP - RARE PLANT MONITORING E	DATA	
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurrent	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: 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: 0	
Vegetation Clearing: 1 if pres	ent, describe: 0	
Brush Manangement: 1 if pre	sent, describe: 0	
ORV Activity: 1 if present, de	scribe: 0	
Evidence of Recent Fire: no Ye	ar Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
·	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship and	d weed control as funding permits	
VII. MANAGEMENT ACTIONS IN LAST YEAF	2	
Preserve stewardship and invasive	weed control	
		-
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDD	В)
none		
NOTES:		
Photos: 0877-0881, photo taken c	it plot center	

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

MSP Occurrence ID: MOLIV_6LOCA004 - 2





MOLIV_6LOCA004-3 2018
MSP - RARE PLANT MONITORING DATA
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, other Other Surveyors: Jason Allen, Olivia Koziel (consultant), Ashley Summerford (volunteer) Summerford (volunteer) Summerford (volunteer)
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 6/5/2018 Time Start: 9:18 Time End: 10:22
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 3 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 0.69 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: 0
Number of Plants in Circle: 3 Exact or Estimate? exact Uncertainty: Iow Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 5 % Flowering: 3 % 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: WGS84 Coordinate System: Lat_long
Coordinates at Center of Plot: E: 484186.070838305 N: 3642089.44738071
Camera Type: Olympus Stylus TG 830 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_06052018
File Location: S: MSCP Files
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: 55 % Cover of Litter: 7 % Cover of Water: 0 % Cover of Vegetation: 48 Total % Cover: 112
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): 2 Thatch Depth Max (cm): 1
Dead Standing Biomass? yes Dead Standing Biomass Species: Baccharis sarothroides, Sonchus asper, Foeniculum vulgare, 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

MOLIV_6LOCA004-3

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial? Plant Form		% Cover	
Amaranthus albus - pigweed amaranth	Nonnative	Annual	Herb	0.2	
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	1	
Baccharis sarothroides - desertbroom	Native	Perennial	Shrub	20	
Brachypodium distachyon - purple false brome	Nonnative	Annual	Grass	1	
Brassica nigra - black mustard	Nonnative	Annual	Herb	3	
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	2	
Bromus madritensis - compact brome	Nonnative	Annual	Grass	0.2	
Carduus pycnocephalus - Italian plumeless thistle	Nonnative	Annual	Herb	0.2	
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2	
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub	18	
Clematis pauciflora - few flowered clematis	Native	Perennial	Herb	0.2	
Ehrharta erecta - panic veldtgrass	Nonnative	Perennial	Grass	0.2	
Erigeron canadensis - Canada horseweed	Native	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	1	
Glebionis coronaria - crown daisy	Nonnative	Annual	Herb	0.2	
Hedypnois cretica - Cretanweed	Nonnative	Annual	Herb	0.2	
lva hayesiana - San Diego marsh elder	Native	Perennial	Shrub	0.2	
Lactuca serriola - prickly lettuce	Nonnative	Annual	Herb	0.2	
Monardella viminea - Willowy monardella	Native	Perennial	Herb	1	
Sonchus asper - spiny sowthistle	Nonnative	Annual	Herb	0.2	
Stephanomeria sp wire lettuce	Native	Annual	Herb	0.2	
Stipa miliacea - smilo grass	Nonnative	Perennial	Grass	0.2	
Toxicodendron diversilobum - poison oak	Native	Perennial	Shrub	10	
Xanthium strumarium - rough cockleburr	Native	Perennial	Shrub	0.2	

MOLIV_6LOCA004-3

MSP - RARE PLANT MONITORING DATA

V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	XTENT - Assess threats within the occurre	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: 3	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: 0	
Vegetation Clearing: 1 if pres	sent, describe: 0	
Brush Manangement: 1 if pre	esent, describe: 0	
ORV Activity: 1 if present, de	escribe: 0	
Evidence of Recent Fire: no Ye	ear Burned? 0	
Trails: 1 if trails are present,	are they authorized? 0	
Type of Trail Use:		
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0
Illegal Trail Use: 0		
Other Disturbance: 1 if pres	ent, describe: 0	
VI. MANAGEMENT RECOMMENDATIONS		
Continue preserve stewardship an	d weed control efforts as funding	permits.
VII. MANAGEMENT ACTIONS IN LAST YEAR	2	
Preserve stewardship		
VIII. CNDDB SPECIES DETECTED (list any	plant or animal species to add to the CNDI)B)
none		
NOTES:		
Photos: 0872-0876; photo at cent	er of circle	

Monardella viminea (Willowy Monardella) Lopez Canyon – East of Bridge Observation # 3 MSP Occurrence ID: MOLIV_6LOCA004 - 3







MOLIV_4SYCA001-1	2018
MSP - RARE PLANT MONITORING DATA	
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, Betsy Miller, other Other Surveyors: Jason Allen, Olivia Koziel (consultant)	
Affliation: City of San Diego Parks & Rec Open Space	
Survey Date: 7/3/2018 Time Start: 9:05 Time End: 0:00	
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.	
Number of Plants in Mapped Extent: 52 Exact or Estimate? exact Uncertainty: low	
Area of Current Mapped Extent: 177.96 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: 0	
Number of Plants in Circle: 4 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: 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	
Coordinates at Center of Plot: E: 500841.101192531 N: 3642809.29289747	
Camera Type: Samsung Galaxy Note 8 Coordinates of Photo Point: E: Same as plot center N: Same as plot center	enter
Photo Direction: SE,S,SW Camera Height: 1.1 m Camera Angle 5 Photo Numbers: MOLIV_4SYCA001_1_Photo1_07032	2018
File Location: S: MSCP Files	
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: 30 % Cover of Litter: 8 % Cover of Water: 0 % Cover of Vegetation:	57
Total % Cover: 105	
SANDAG 2012 Vegetation Alliance/Association Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natural Stands Eriogon fasciculatum Alliance// Mediterranean California Naturalized Annual and Perennial Grassland Semi-Stands Eriogonum fasciculatum-salvia apiana Associat	
Cover Classes (1-6) Cryptogamic Crust Cover: 2 Thatch Cover: 3	
Average Thatch Depth (cm): 2 Thatch Depth Max (cm): 3	
Dead Standing Biomass? yes Dead Standing Biomass Species: Bromus sp., Avena fatua	
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: 1	

MOLIV_4SYCA001-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES

Associated Species	Native or Nonnative?	Annual or Perennial?	Plant Form	% Cover
Amsinckia menziesii - Menzies' fiddleneck	Native	Annual	Herb	0.2
Artemisia californica - coastal sagebrush	Native	Perennial	Shrub	5
Avena barbata - slender oat	Nonnative	Annual	Grass	8
Brassica nigra - black mustard	Nonnative	Annual	Herb	0.2
Bromus diandrus - ripgut brome	Nonnative	Annual	Grass	6
Bromus hordeaceus - soft brome	Nonnative	Annual	Grass	0.2
Bromus madritensis - compact brome	Nonnative	Annual	Grass	5
Centaurea melitensis - Maltese star-thistle	Nonnative	Annual	Herb	0.2
Cercocarpus minutiflorus - smooth mountain-mahogany	Native	Perennial	Shrub	2
Clematis pauciflora - few flowered clematis	Native	Perennial	Herb	0.2
Eriogonum fasciculatum - Eastern Mojave buckwheat	Native	Perennial	Shrub	9
Erodium botrys - longbeak stork's bill	Nonnative	Annual	Herb	3
Festuca perennis - Italian rye grass	Nonnative	Annual	Grass	0.2
Galium angustifolium - narrowleaf bedstraw	Native	Perennial	Herb	0.2
Heteromeles arbutifolia - toyon	Native	Perennial	Shrub	2
Hypochaeris glabra - smooth cat's ear	Nonnative	Annual	Herb	0.2
Lepidium nitidum - shining pepperweed	Native	Annual	Herb	0.2
Lonicera subspicata - southern honeysuckle	Nonnative	Perennial	Shrub	1
Malosma laurina - laurel sumac	Native	Perennial	Shrub	1
Monardella viminea - Willowy monardella	Native	Perennial	Herb	1
Prunus ilicifolia - hollyleaf cherry	Native	Perennial	Shrub	10
Pseudognaphalium beneolens - cudweed	Native	Perennial	Herb	0.2
Rhamnus crocea - spiny redberry	Native	Perennial	Shrub	1
Salvia apiana - white sage	Native	Perennial	Shrub	2
Selaginella bigelovii - Bigelow's spike moss	Native	Perennial	Fern	1
Silene gallica - common catchfly	Nonnative	Annual	Herb	0.2

2018

MOLIV_4SYCA001-1

MSP - RARE PLANT MONITORING DATA

Surround_LandUse Open space preserve Disturbances (Rank each as 1-6) Nonnative Forbs: 4 Feral Pig Activity: 1 Altered Hydrology: 6 Nonnative Grass: 4 Trampling: 1 Erosion: 5
Nonnative Forbs: 4 Feral Pig Activity: 1 Altered Hydrology: 6
Nonpativo Cross: 4
Nonnative Woody Plants: 1 Urban Runoff: 1
Competitive Native Plants: 1 Current Grazing: 1 Slope Movement: 1
Dumping/Trash:1Historic Grazing:noSoil Compaction:1
Encampments: 1 Historic Agriculture: no Fuel Modification Zone/ Fire Break: 1
Road Construction/Maintenance: 1 if present, describe: 0
Vegetation Clearing: 1 if present, describe: 0
Brush Manangement: 1 if present, describe: 0
ORV Activity: 1 if present, describe: 0
Evidence of Recent Fire:noYear Burned?0
Trails: 1 if trails are present, are they authorized? 0 Type of Trail Use: 0
Hiking: 0 Biking: 0 Equestrian: 0 Dog: 0 Service Vehicles: 0 Other: 0
Illegal Trail Use: 0
Other Disturbance: 1 if present, describe: 0
VI. MANAGEMENT RECOMMENDATIONS
Continue preserve stewardship and investigate feasibility of restoration actions to help stabilize stream channel
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:
Photo taken from center of circle plot.

Monardella viminea (Willowy Monardella) Sycamore Canyon

MSP Occurrence ID: MOLIV_4SYCA001 - 1





Rosa minutifolia Baja Rose



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ROMI80_3DENC001-1 2018
MSP - RARE PLANT MONITORING DATA
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, Priscilla Hare (intern) Other Surveyors: 0
Affliation: City of San Diego Parks & Rec Open Space
Survey Date: 5/22/2018 Time Start: 12:33 Time End: 13:08
I. OCCURRENCE STATUS - Assess # plants in both species-specific sampling area (typically 10-m radius circle) and in current mapped extent.
Number of Plants in Mapped Extent: 54 Exact or Estimate? exact Uncertainty: low
Area of Current Mapped Extent: 949.43 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: 0
Number of Plants in Circle: 9 Exact or Estimate? exact Uncertainty: Iow Circle Area (sq_m): 10
Phenology in Circle Plot (1-6): % Vegetative: 6 % Flowering: 1 % 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 Accuracy: <1
Coordinates at Center of Plot: E: 497199.636911251 N: 3604700.86772811
Camera Type: Olympus Stylus TG 830 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: Photos not on camera SD card
File Location: S: MSCP Files
III. HABITAT ASSESSMENT IN SAMPLING AREA - Assess habitat covariates within species-specific sampling area (typically 10-m radius circle).
% Cover of Bare Ground: 9 % Cover of Rock: 14 % Cover of Litter: 15 % Cover of Water: 0 % Cover of Vegetation: 70
Total % Cover: 108
SANDAG 2012 Vegetation Alliance/Association Simmondsia chinensis Alliance// Simmondsia chinensis-Bahiopsis laciniata 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? yes Dead Standing Biomass Species: Baccharis sarothroides, Artemisia californica, Brassica nigra, Encelia californica
Dead Standing Biomass Cover Class (1-6): 3 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

ROMI80_3DENC001-1

MSP - RARE PLANT MONITORING DATA

V. ASSOCIATED SPECIES **Associated Species** Native or Nonnative? Annual or Perennial? Plant Form % Cover Ambrosia chenopodiifolia - San Diego bur ragweed Native Perennial Shrub 0.2 Native Artemisia californica - coastal sagebrush Perennial Shrub 35 Native Shrub 0.2 Baccharis pilularis - coyotebrush Perennial Native Bahiopsis laciniata - torhleaf goldeneye Perennial Shrub 6 Nonnative 12 Bromus madritensis - compact brome Annual Grass Cylindropuntia prolifera - coastal cholla Native Shrub 0.2 Perennial Deinandra fasciculata - clustered tarweed Native 0.2 Annual Herb Encelia californica - California brittlebush Native 6 Perennial Shrub Eriogonum fasciculatum - Eastern Mojave buckwheat Native Perennial Shrub 0.2 Nonnative 0.2 Festuca myuros - rattail fescue Annual Grass Melilotus indica - annual yellow sweetclover Nonnative Annual Herb 0.2 Peritoma arborea - bladderpod spiderflower Native Perennial Shrub 1 Rosa minutifolia - small-leaved rose Native 0.2 Perennial Shrub Simmondsia chinensis - jojoba Native Perennial Shrub 5

2018

ROMI80_3DENC001-1			2018
MSP - RARE PLANT MONITORING I	ATA		
V. THREATS ASSESSMENT IN MAXIMUM E monitoring) plus 10-m surrounding buffer.	EXTENT - Assess threats within the occurre	nce's maximum extent (cumulative extent over years of	
Surround_LandUse Open space preserve; r	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: 0		
Vegetation Clearing: 1 if pres	sent, describe: 0		
Brush Manangement: 5 if pre	esent, describe: Max extent includes brush m	anagement zone near homes	
ORV Activity: 1 if present, de	escribe: 0		
Evidence of Recent Fire: no Ye	ear Burned? 0		
Trails: 1 if trails are present,	are they authorized? 0		
Type of Trail Use:			
Hiking: 0 Biking: 0	Equestrian: 0 Dog: 0	Service Vehicles: 0 Other: 0	
Illegal Trail Use: 0			
Other Disturbance: 1 if pres	ent, describe: 0		
VI. MANAGEMENT RECOMMENDATIONS			
Contimue 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:			
photos 0798-0801; photo at cent	er of circle plot		

Rosa minutifolia (Baja Rose) Dennery Ranch

MSP Occurrence ID: ROMI80_3DENC001 - 1

Photo not available.



Acknowledgments

The following staff assisted in the preparation of this report:

Betsy Miller, Senior Planner Sara Allen, Biologist III Jason Allen, Biologist II Diana Brand Ramirez, Management Intern Priscilla Hare, Management Intern Ninfa Negrete, Management Intern Ashley Summerford, Management Intern Olivia Koziel, Biological Consultant (Rocks Biological) Talaya Rachels, Biological Consultant (Helix Environmental) This page is intentionally left blank.

APPENDIX A

CITY OF SAN DIEGO RARE PLANT MONITORING: 2018 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	24-Apr	BYM, SA, PH, JA, OK	GPS, Photo, Habitat Assessment GPS, Photo, Habitat Assessment
			Dennery Canyon East	ACIL_3DREA005	10-May	BYM, PH, OK	, , ,
			Mission Trails Regional Park	ACIL_4MTRP021	17-Apr	SA, PH, OK	A. GPS, Photo, Habitat K. Assessment I. GPS, Photo, Habitat Assessment GPS, Photo, Habitat K. GPS, Photo, Habitat Assessment GPS, Photo, Habitat K. GPS, Photo, Habitat Assessment Assessment A. GPS, Photo, Habitat Assessment Assessment A. GPS, Photo, Habitat Assessment Assessment A. GPS, Photo, Habitat Assessment GPS, Photo, Habitat Assessment GPS, Photo, Habitat Assessment Assessment PH GPS, Photo, Habitat Assessment Assessment A, GPS, Photo, Habitat Assessment Assessment <
Acanthomintha ilicifolia (San Diego Thorn-mint)	First	Second	Otay Lakes	ACIL_3OTLA012	3-May	SA, OK, TR, MB	, , ,
			Penasquitos Canyon Obs. 1, 2, 3	ACIL_6LPCA039 - 1 ACIL_6LPCA039 - 2 ACIL_6LPCA039 - 3	19-Apr	BYM, SA, PH, JA, OK	, , ,
			Sabre Springs/Poway Obs. 1, 2, 3	ACIL_4SASP025 - 1 ACIL_4SASP025 - 2 ACIL_4SASP025 - 3	19-Apr	BYM, SA, PH, JA, OK	
			Dune Triangle (Site 5)	ACPR_1DUTR005 - 1	29-May	SA, NN, JA, OK, AS	
			Hospitality Point (Site 2)	ACPR_1HOPO002 - 2	29-May	SA, NN, JA, OK, AS	, ,
			Mariner's Point (Site 4)	ACPR_1MAPO004 - 4	31-May	May BYM, SA, PH GPS, Photo, Habitat Assessment	
Acmispon prostratus (Nuttall's lotus)	First	First	No Man's Land (Site 1)	ACPR_1NMLA001 - 1	24-May	BYM, SA, PH, NN, JA, AS	
			Rip Rap (Site 3)	ACPR_1RRSO003 - 3	29-May	SA, NN, JA, OK, AS	
			South Shores (Site 6)	South Shores (Site 6) ACPR_1SOSH006 - 6	24-May	BYM, SA, PH, NN, JA, AS	
Ambrosia pumila (San Diego Ambrosia)	First	Second	Mission Trails Regional Park	AMPU_4KULA005	17-Apr	SA, NN, PH, OK	
			East Elliott	BLCL_4EAEL014 - 1 BLCL_4EAEL014 - 2 BLCL_4EAEL014 - 3	25-Apr	BYM, SA, AT, OK	
			East Elliott	BLCL_4EAEL014 - 5	8-May	SA, OK	
Bloomeria clevelandii		Second Second	Lopez Ridge	BLCL_6LORI021	24-Apr	BYM, SA, PH, JA, OK	, , ,
Bloomeria clevelandii (San Diego Goldenstar)	Second		Marron Valley Obs. 1, 2, 3, 4	BLCL_3MAVA005 - 1 BLCL_3MAVA005 - 2 BLCL_3MAVA005 - 3 BLCL_3MAVA005 - 4	26-Apr	BYM, SA, PH, JA, OK	
			Mission Trails Regional Park	BLCL_4MTRP023	2-May	SA	
			Otay Lakes Obs. 1, 2	BLCL_3OTLA006 - 1 BLCL_3OTLA006 - 2	3-May	SA, OK, TR, MB	
Brodiaea filifolia (Thread-leaved Brodiaea)	Fourth	None	Black Mountain	BRFI_6BMRA002	9-May	BYM, CG, RW, BS	
Brodiaea orcuttii	Third	Second	Carroll Canyon	BROR_6CACA015	30-Apr	SA, OK	, , ,
(Orcutt's Brodiaea)	TIIIU	Scolla	Lopez Ridge	BROR_6LORI018	24-Apr	BYM, SA, PH, JA, OK	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	Third	Second	Nobel Drive	BROR_2NODR002	30-Apr	SA, NN, OK	GPS, Photo, Habitat Assessment
(Orcutt's Brodiaea)	Third	Second	Oak Creek (MTRP)	BROR_40ACR012	10-May	BYM, PH, OK	GPS, Photo, Habitat Assessment
Chloropyron maritimum ssp. maritimum (Salt-marsh Bird's Beak)	Second	First	Dog Beach	COMAM3_1DOBE007	31-May	BYM, SA, NN, PH	GPS, Photo, Habitat Assessment
Cylindropuntia californica	Second	Third	Spring Canyon	CYCA_3GOME003	14-May	SA, OK	GPS, Photo, Habitat Assessment
(Snake Cholla)	Second	Third	Balboa Golf Course	CYCA_2BPGC001	10-Jul	SA, EC	GPS, Photo, Habitat Assessment
			Dennery Ranch	DECO13_3DERA020	22-May	SA, PH	GPS, Photo, Habitat Assessment
Deinandra conjugens (Otay Tarplant)	First	First	Dennery Ranch East	DECO13_3DREA021	10-May	BYM, PH, OK	GPS, Photo, Habitat Assessment
			Proctor Valley	DECO13_3PRVA013	22-May	SA, PH	GPS, Photo, Habitat Assessment
Dicranostegia orcuttiana			Otay River Valley	COOR7_3ORVA001	20-Jun	SA, TR, OK	GPS, Photo, Habitat Assessment
(Orcutt's Bird's Beak)	First	First	Dennery Ranch East	COOR7_3DREA007	20-Jun	SA, TR, OK	GPS, Photo, Habitat Assessment
Dudley brevifolia			Carmel Mountain	DUBLB2_6CMPR001 - 1 DUBLB2_6CMPR001 - 2 DUBLB2_6CMPR001 - 3	16-May	BYM, SA, JA, TR, OK, RW, MF	GPS, Photo, Habitat Assessment
(Short Leaf Dudleya)	First	First	Crest Canyon North Obs. 1	DUBLB2_7CRCA003 - 1	16-May	BYM, PH, JA, OK	GPS, Photo, Habitat Assessment
			Crest Canyon South Obs. 2	DUBLB2_7CRCA003 - 2	16-May	BYM, PH, OK	GPS, Photo, Habitat Assessment
			Blk Mtn Park East	DUVA_6BMRA020	2-May	BYM, OK	GPS, Photo, Habitat Assessment
			East Elliott - Creek East Elliott - Hilltop	DUVA_4EAEL012 - 1 DUVA_4EAEL012 - 2	8-May	SA, PH, JA, OK	GPS, Photo, Habitat Assessment
			Goat Mesa/ Spring Canyon	DUVA_3GOME003	14-May	SA, OK	GPS, Photo, Habitat Assessment
			Marron Valley	DUVA_3MAVA004	26-Apr BYM, SA, PH, JA, OK	GPS, Photo, Habitat Assessment	
Dudleya variegata		First	Mercy Road	DUVA_4MERO014	2-May	BYM	GPS, Photo, Habitat Assessment
(Variegated Dudleya)			Mission Trails Regional Park Obs. 1, 2, 3	DUVA_4MTRP015 - 1 DUVA_4MTRP015 - 2 'DUVA_4MTRP015 - 3	1-May	BYM, SA, NN, PH, JA, TR	GPS, Photo, Habitat Assessment
			Navajo/Mission Gorge	DUVA_4NAVA016	2-May	SA	GPS, Photo, Habitat Assessment
			Otay Lakes	DUVA_30TLA005	7-May	BYM, SA, JA	GPS, Photo, Habitat Assessment
			Santa Luz	DUVA_6SALU024	2-May	BYM, OK	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
Erysimum ammophilum (Coast Wallflower)	Fourth	None	Crest Canyon	ERAM4_7CRCA002	8-Mar	BM, SA, PH	GPS, Photo, Habitat Assessment
			Gonzales Canyon	ERAM4_6GOCA003	8-Mar	BM, SA, PH	GPS, Photo, Habitat Assessment
			North City West OS/Overlook Park	ERAM4_6DEMA001	8-Mar	BM, SA, PH	GPS, Photo, Habitat Assessment
Monardella stoneana (Jennifer's Monardella)	Second	First	Marron Valley	MOST_3MAVA002	19-Jun	BYM, SA, JA, TR	GPS, Photo, Habitat Assessment
			Otay Lakes	MOST_30TLA005	21-Jun	SA, OK, TR	GPS, Photo, Habitat Assessment
<i>Monardella viminea</i> (Willowy Monardella)			Lopez Canyon Obs. 1, 2, 3	MOLIV_6LOCA004 - 1 MOLIV_6LOCA004 - 2 MOLIV_6LOCA004 - 3	5-Jun	SA, JA, OK, AS	GPS, Photo, Habitat Assessment
			Sycamore Canyon	MOLIV_4SYCA001	3-Jul	BYM, SA, JA, OK	GPS, Photo, Habitat Assessment
			Flanders Canyon	MOLIV_6FLCA007	5-Jun	SA, JA, OK	GPS, Photo, Habitat Assessment
Rosa minutifolia (Baja Rose)	First	Third	Dennery Ranch	ROMI80_3DENC001	22-May	SA, PH	GPS, Photo, Habitat Assessment

Survey Staff

BYM = Betsy Miller, Senior Planner

SA = Sara Allen, Biologist III

JA = Jason Allen, Biologist II

OK = Olivia Koziel, Biological Consultant (Rocks)

TR = Talaya Rachels, Biological Consultant (Helix)

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NN = Ninfa Negrete, Management Intern

CG = Carey Goldstein, Senior Park Ranger

RW = Rob Wheeler, Park Ranger

BS = Byron Shoemaker, Park Ranger

AS = Ashley Summerford, Volunteer

EC = Ed Christensen, Senior Park Ranger MF = Melanie Fontana