

City of San Diego MSCP Rare Plant Monitoring: 2009 Summary Results

Species	Site Name	Population				Native		Non-Native		Management Recommendation's	Field Data Sht (pg.#)	Photo number
		Area (m ²) ¹	Area (ft ²) ¹	# Individuals	Percent cover	Number of Species ²	Percent Cover ^{2,3}	Number of Species	Percent Cover ³			
	Proctor Valley	3347.3	36018.0	150	1%	7	17%	7	98%	Continue to maintain fences and gates, herbicide cynara (2 ind.) ASAP	134	39
<i>Dudleya blochmaniae</i> ssp. <i>Brevifolia</i> (Short-Leaved Dudleya)	Carmel Mountain Obs. 1	450.0	4842.0	1142	0.5%	8	14%	4	4%	Maintain	138	40
	Carmel Mountain Obs. 2	250.0	2691.0	344	1.0%	12	46%	2	2%	Maintain fencing and educational kiosk	140	41
	Carmel Mountain Obs. 3	279.0	3000.0	1052	1.0%	13	27%	3	4%	Maintain fence and educational kiosk	142	42
	Crest Canyon North	158.0	1700.0	1200	1%	11	29%	2	2%	Contact nearby owner RE black cord	144	43
	Crest Canyon South	25.0	270.0	9	0.5%	10	14%	0	0%	Maintain fencing	146	44
	Skeleton Canyon	†	†	†	†	†	†	†	†	†	†	†
<i>Dudleya variegata</i> (Variegated Dudleya)	Black Mountain East	0.0	0.0	0	0%	9	25%	5	37%	Weeding	150	45
	East Elliot - Creek	0.0	0.0	0	0%	6	19%	4	32%	Monitor trail-fence if necessary, large scale weed control?	152	46
	East Elliot - Hilltop	10.0	108.0	57	1%	13	35%	2	2%	None	154	47
	East Elliot - Slope	500.0	5380.0	85	1.0%	5	14%	5	34%	Weed control if possible given remote location and steep terrain	156	48
	Goat Mesa (Spring Canyon)	802.6	8636.0	0	0%	9	21%	6	24%	None	158	49
	Lake Murray	0.0	0.0	0	0%	7	27%	4	16%	Weed if possible given difficult location-especially weed by trail	160	50
	Marron Valley	150.0	1614.0	1200	1%	12	15%	5	44%	Maintain existing signage	162	51
	Mercy Road	35.0	377.0	150	1%	9	18%	5	35%	None	166	52
	Mission Trails #1	12.0	130.0	5	1%	10	23%	5	18%	Extend fence if trail impacts in future, weeding if Avena enters Dudleya area	168	53
	Mission Trails #2	241.4	2598.0	129	1%	10	18%	5	25%	Weed control if grasses enter Dudleya site	170	54
	Mission Trails #3	50.0	358.0	66	1%	7	18%	6	18%	Weed control if grasses enter Dudleya site	172	55
	Navajo/Mission Gorge	8926.0	96044.0	1500	3%	11	18.0%	10	42%	Monitor weeds-weeding if necessary	174	56
	Otay Lakes	72702.0	782557.6	500		8	14%	3	101%	Weed control implemented 2007-2009	178	57
	Ocean View Hills	†	†	†	†	†	†	†	†	†	†	†
	Paradise Valley	†	†	†	†	†	†	†	†	†	†	†
	Santa Luz	10.0	108.0	24	1%	10	30%	4	22%	Weeding	180	58, 59
<i>Eryngium aristulatum</i> var. <i>parishii</i> (San Diego Button Celery)	Del Mar Mesa #1	1047.0	11266.0	4000	7%	18	26%	6	26%	Weeding in uplands	186	60
	Del Mar Mesa #2	3278.0	35284.0	350	7%	15	22%	6	21%	Continue to restrict access via fencing	190	61
	Del Mar Mesa #3	6351.2	68363.9	150000	15%	10	38%	3	3%	Remove Brassica, repair fence	194	62
	General Dynamics	266.8	2872.1	950	2%	15	27%	6	9%	Continue maintaing fence as needed	196	63
	Goat Mesa #1 (Spring Canyon)	293.0	3150.0	350	3%	6	11%	9	39%	Maintain perimeter fence, weed	200	64
	Goat Mesa #2 (Spring Canyon)	1930.7	20778.4	500	3%	6	25%	12	44%	Weeding	202	65
	Otay Lakes	†	†	†	†	†	†	†	†	†	†	†
<i>Lessingia filaginifolia</i> var. <i>linifolia</i> (Del Mar Sand Aster)	Carmel Mountain	1658.29	17843.2	100	1%	11	34%	4	6%	Monitor trail; fence/reroute as needed	206	66
	Crest Canyon #1	140	1506	450	13%	7	40%	4	6%	Remove ice plant; monitor trail and fence if expanding	208	67
	Crest Canyon #2	75	807	80	3%	12%	22%	3	3%	None	210	68
	Del Mar Mesa	†	†	†	†	†	†	†	†	†	†	†
	Overlook Park	3052	32842	1000	5%	11	22%	2	2%	Maintain fence	212	69

Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Dudleya brevifolia</u>		Common Name: <u>Short-leaved Dudleya</u>					
Site Name: <u>Carmel Mountain Supopulation 1</u>		Management Unit #: <u>TBA</u>					
Date: <u>5/5/09</u>		Management Regime: <u>TBA</u>					
Surveyors and Affiliation/Agency: <u>Ruby Miller City of San Diego Park + Rec</u> <u>Cira Washington City of San Diego Park + Rec</u>							
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No _____ If not, why (if reason known or suspected)?							
Total No. Individuals: <u>1142</u> <input checked="" type="checkbox"/> Exact <input type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)							
Population/Subpopulation Area: <u>450</u> <u>m²</u> <input type="checkbox"/> Exact (based on GPS mapping) <input checked="" type="checkbox"/> Estimate Units							
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously							
If yes: _____		Collector _____					
Collection Number _____		Museum/Herbarium _____					
I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION							
Accuracy of Coordinates/GPS Error: +/- <u><1</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet							
Observation Location: <u>6264028.7</u> <u>1920613.92</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM							
II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT							
Vegetation Community: <u>soil crusts, southern maritime chaparral</u>							
Landowner/Manager: <u>City of San Diego Park and Recreation Open Space</u>							
Overall Site Quality** <input checked="" type="checkbox"/> Very Good-Excellent <input type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input type="checkbox"/> Very Poor							
Surrounding land use: <u>open space</u>							
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>nearby trail does not appear to affect population</u>		Management Recommendation/s: <u>maintain</u>					
III. ASSOCIATED SPECIES							
List dominant, subdominant and invasive species in/near target species observation area/management unit. Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).							
Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Dudleya blochmanae</u> sp. <u>brevifolia</u>	<u><1</u>			<u>Holocarpha virgata</u>	<u><1</u>		
<u>Lepidium</u> sp.	<u><1</u>			* <u>Bomun madritensis</u> sp. <u>rubens</u>	<u>1</u>		
* <u>Erodium</u> sp.	<u><1</u>			<u>Cassula conata</u>	<u><1</u>		
<u>Selaginella selaginoides</u>	<u>7</u>			<u>Xylococcus bicolor</u>	<u>1</u>		
<u>Ferocactus viridescens</u>	<u>1</u>			* <u>Vulpia myuros</u>	<u><1</u>		
<u>Osmadenia tenella</u>	<u>1</u>						
<u>Eriogonum fasciculatum</u>	<u>2</u>						
* <u>Hypochaeris glabra</u>	<u><1</u>						
IV. SITE PHOTOMONITORING							
Camera type: <u>Nikon Coolpix S540</u>							
<u>6264028.67</u> <u>1920613.9</u>	<u>SW,W,NW,N</u>	<u>~50"</u>	<u>~10° down</u>	<u>759-744</u>	<u>5/05/09</u>	<u>MSCP</u>	
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s		
_____	_____	_____	_____	_____	_____		
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s		
_____	_____	_____	_____	_____	_____		
V. OTHER FIELD NOTES							
Other Field Notes/Comments: <u>highest densities in shade below shrubs</u>							

** Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 40. *Dudleya blochmaniae* spp. *brevifolia*
(Short-Leaved Dudleya)
Carmel Mountain Subpopulation # 1**



Panorama from Northwestern edge of population, Southwest, West, Northwest, North.
Panorama location is 6264028.67 1920613.92 NAD83 State Plane California Zone 6 (feet)
Photos merged using ArcSoft Panorama Maker 4.

Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name:	Dudleya brevifolia	Common Name:	Short-leaved Dudleya
Site Name:	Carmel Mountain Supopulation 2	Management Unit #:	TBA
Date:	5/5/09	Management Regime:	TBA
Surveyors and Affiliation/Agency:	Jody Miller City of San Diego Park + Rec Gina Washington City of San Diego Park + Rec		

Species Found? ☒ Yes ☐ No _____
 If not, why (if reason known or suspected)? _____

Total No. Individuals: 344 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 250 m² ☐ Exact (based on GPS mapping) ☒ Estimate
 Units _____

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously
 If yes: _____
 Collector _____ Collection Number _____ Museum/Herbarium _____

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet
 Observation Location: 6265696.7 1920365.46 ☒ State Plane (feet) ☐ UTM

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: soil creosote, & southern maritime chaparral
 Landowner/Manager: City of San Diego Park and Recreation Open Space

Overall Site Quality** ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):
nearby trail has been fenced

Management Recommendation/s:
maintain fencing + educational kiosk

III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.
 Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Dudleya blochmanii</i> sp. brevifolia	1			<i>Spergularia villosa</i>	<1		
<i>Aletrisoma fasciculata</i>	15			* <i>Gratiola multiflora</i> sp. rubens	<1		
<i>Delphinella cruescens</i>	20			<i>Mimulus aurantiacus</i>	<1		
<i>Eriogonum fasciculata</i>	2			<i>Xylococcus bicolor</i>	1		
<i>Holocarpha virgatula</i>	1			<i>Salvia mellifera</i>	1		
<i>Crassula bonata</i>	<1			* <i>Vulpia myuros</i>	1		
<i>Chorizanthe</i> sp.	<1			<i>Navarretia homata</i>	<1		
<i>Cardionema ramosissimum</i>	<1						

IV. SITE PHOTOMONITORING

Camera type: Nikon Coolpix 5540

<u>626596.736</u> <u>1920365.5</u>	<u>N, NE, E, SE</u>	<u>~53"</u>	<u>~10° down</u>	<u>755-758</u>	<u>5/6/09</u>
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

V. OTHER FIELD NOTES

Other Field Notes/Comments: _____

** Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 41. *Dudleya blochmaniae* spp. *brevifolia*
(Short-Leaved Dudleya)
Carmel Mountain Subpopulation # 2**



Panorama from Northeastern edge of population, North, Northeast, East, Southeast.
Panorama location is 6265696.74 1920365.46 NAD83 State Plane California Zone 6 (feet)
Photos merged using ArcSoft Panorama Maker 4.

Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <i>Dudleya brevifolia</i>		Common Name: Short-leaved Dudleya	
Site Name: Carmel Mountain Supopulation 3		Management Unit #: TBA	
Date: 5/6/09		Management Regime: TBA	
Surveyors and Affiliation/Agency: Roby Miller City of San Diego Open Space Cina Washington City of San Diego P&R			

Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If not, why (if reason known or suspected)?	
Total No. Individuals: 1052 <input type="checkbox"/> Exact <input checked="" type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)			
Population/Subpopulation Area: 3000 <input type="checkbox"/> Exact (based on GPS mapping) <input checked="" type="checkbox"/> Estimate			
		Units	
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously			
If yes:			
Collector	Collection Number	Museum/Herbarium	

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet

Observation Location: 6265528.1 1920724.12 ☒ State Plane (feet) ☐ UTM

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: cryptogamic crests, chaparral - southern maritime

Landowner/Manager: City of San Diego Park and Recreation Open Space

Overall Site Quality** ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): trail through center of population has been fenced, brushed	Management Recommendation/s: continue to maintain fences, educational kiosks
---	--

III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use * to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).*

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Dudleya blochmanii</i> ssp. <i>brevifolia</i>	1			<i>Rhus integrifolia</i>	3		
<i>Delphinella cinerascens</i>	7			<i>Xylococcus bicolor</i>	1		
<i>Eriogonum fasciculatum</i>	1			* <i>Valpura myuros</i>	2		
<i>Holocarpha virgata</i>	<1			* <i>Bromus madritensis</i> ssp. <i>rubens</i>	<1		
<i>Acaestema fasciculata</i>	5			* <i>Bromus hordeaceus</i>	<1		
<i>Salvia mellifera</i>	1			<i>Mimulus aurantiacus</i>	1		
<i>Malosma laurina</i>	1			<i>Eryophyllum confertiflorum</i>	1		
<i>Ferocactus viridescens</i>	<1			<i>Calochortus splendens</i>	<1		
				<i>Crassula ciliata</i>	<1		

IV. SITE PHOTOMONITORING

Camera type: Nikon Coolpix 3540

6265528.1 1920724.1	SI -SW-NW	50"	~ 10° down	751-754	5/6/09/MSCP
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

V. OTHER FIELD NOTES

Other Field Notes/Comments: DUB appears to grow well under dried branches placed along roadway - benefitting from increased shade, moisture?
 Roadrunner seen at point

** Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 42. *Dudleya blochmaniae* spp. *brevifolia*
(Short-Leaved Dudleya)
Carmel Mountain Subpopulation # 3**



Panorama from Southwestern edge of population, Southeast, South, Southwest, West, Northwest.
Panorama location is 6265528.09 1920724.12 NAD83 State Plane California Zone 6 (feet)
Photos merged using ArcSoft Panorama Maker 4.

Acknowledgments

The following staff assisted in the preparation of this report:

Betsy Miller, Biologist III

Jeanie Gaudette, Open Space Intern

Melea Logan, Open Space Intern