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 miantain fences and gates, herbicide cynara (2 ind.) ASAP	134	39
Dudleya blochmaniae* ssp. *Brevifolia (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 fancing	146	44
	Skeleton Canyon	†	†	†	†	†	†	†	†	†	†	†
Dudleya variegata (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
Eryngium aristulatum* var. *parishii (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	†	†	†	†	†	†	†	†	†	†	†
Lessingia filaginifolia* var. *linifolia (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: Dudleya variegata **Common Name:** Variegated Dudleya

Site Name: Mission Trails Point 1 **Management Unit #:** TBD

Date: 5/19/09 **Management Regime:** TBD

Surveyors and Affiliation/Agency: Betsy Miller, City of San Diego, Park & Rec
Melea Logan, City of San Diego, Park & Rec

Species Found? [X] Yes [ ] No _____
If not, why (if reason known or suspected)?

Total No. Individuals: 5 [X] Exact [ ] Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 3x4 meter Units [ ] Exact (based on GPS mapping) [X] Estimate

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

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 [X] meters [ ] feet

Observation Location: 6309627.3055 1879705.912 [X] State Plane (feet) [ ] UTM

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: sparse coastal sage scrub

Landowner/Manager: City of San Diego Park + Recreation

Overall Site Quality** [ ] Very Good-Excellent [X] 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 doesn't appear to be affecting Dudleya. High cover Avena near Dudleya

Management Recommendation/s:
extend fence if trail impacts in future
weeding if Avena enters Dudleya area

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. #
Dudleya variegata	<1			* Bromus madritensis ssp. rubens	2		
Lotus scoparius	8			* Erodium sp.	10		
Isocoma arborea	1			* Centaurea melitensis	1		
Eriogonum fasciculatum	3			* Avena sp.	2		
Malosma laurina	3			* Brachypodium distachyon	5		
Ferocactus viridescens	1			Calystegia macrostegia	<1		
Nassella sp.	3			Selaginella cinerascens	1		
Deinandra fasciculata	1			Artemisia californica	<1		

IV. SITE PHOTOMONITORING

Camera type: Nikon Coolpix S560

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s
6309627.3055 1879705.914	NW, N, NE	1.1 m	~5° up	817-822	s/os/mscp

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

Panorama from the Southern edge of population, facing Northwest, North, Northeast.
Panorama location is 6309627.30 1879705.91 NAD83 State Plane California Zone 6 (feet)
Photos merged using ArcSoft Panorama Maker 4.

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

Scientific Name: Dudleya variegata | Common Name: Variegated Dudleya
Site Name: Mission Trails RP Pt 2 | Management Unit #: TBD
Date: 5/19/09 | Management Regime: TBD
Surveyors and Affiliation/Agency: Betsy Miller City of San Diego Park + Rec
Melea Logan City of San Diego Park + Rec

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

Total No. Individuals: 129 ☑ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: ____ ____ Units ☐ Exact (based on GPS mapping) ☐ Estimate

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: 1880131.61 6309244.57 ☑ State Plane (feet) ☐ UTM

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: sparse coastal sage scrub + non-native grassland

Landowner/Manager: City of San Diego Park + Recreation

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):
non-native grasses, although not within Dudleya area

Management Recommendation/s:
weed control if grasses enter Dudleya site

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. #
Dudleya variegata	1			* Brachypodium distachyon	1		
* Erodium sp.	20			Artemesia californica	1		
Deinandra fasciculata	1			Hazardia squarrosa	<1		
Eriogonum fasciculatum	1			Nassella sp.	1		
Lotus scoparius	5			Opuntia sp.	1		
Malosma laurina	5			Silagiella grieasens	1		
Ferocactus viridescens	1			* Bromus madritensis ssp. rubens	1		
* Avena sp.	2			* Brassica nigra	<1		

IV. SITE PHOTOMONITORING

Camera type: Nikon Coolpix S540

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s
1880126.82 6309229.82	SW, W, NW	1.1 m	down ~ 15°	809-812	S/os/mscp

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

Panorama from Northeastern edge of population, facing West, Northwest, North.
Panorama location is 6309627.31 1879705.91 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 variegata **Common Name:** Variegated Dudleya

Site Name: Mission Trails Point 3 **Management Unit #:**

Date: 5/19/09 **Management Regime:**

Surveyors and Affiliation/Agency: Betsy Miller, City of San Diego, Park & Rec
Meben Logan, City of San Diego, Park & Rec

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

Total No. Individuals: 66 ☑ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 5x10 meters (Units) ☐ Exact (based on GPS mapping) ☒ Estimate

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: +/- 61 ☒ meters ☐ feet

Observation Location: 6309578.77 1880426.963 ☒ State Plane (feet) ☐ UTM

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Sparse coastal sage scrub, non-native grassland

Landowner/Manager: City of San Diego Park & Recreation

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):
non-native grasses adjacent to Dudleya area

Management Recommendation/s:
implement weeding if grasses enter Dudleya area

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. #
Dudleya variegata	1		
Calochortus splendiens	1		
Lotus scoparius	8		
Malosma laurina	5		
Galium angustifolium	1		
* Avena sp.	7		
* Erodium sp.	3		
* Bromus madritensa ssp. rubens	1		
Eriophyllum confertiflorum	1		
* Vulpia myuros	1		
Opuntia sp.	1		
* Bromus hordeaceus	1		
Eriogonum fasciculatum	1		
* Brachypodium distachyon	5		

IV. SITE PHOTOMONITORING

Camera type: Nikon Coolpix 5560

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s
6309578.77 1880426.963	SW, S, SE	1.1 m	up ~ 5°	813-816	9/05/mscp

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

Panorama from Southwestern edge of population, facing Southeast, South, Southwest.
Panorama location is 6309578.77 1880426.96 NAD83 State Plane California Zone 6 (feet)
Photos merged using ArcSoft Panorama Maker 4.

Acknowledgments

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Betsy Miller, Biologist III
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Melea Logan, Open Space Intern