

*2012 Biological Monitoring Status Report
Crestridge Ecological Reserve and South Crest
Properties:*

Appendices



APPENDIX A

CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDDB) FORMS

Mail to:
 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 03/28/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thornmint

Species Found? Yes No If not, why? _____
 Total No. Individuals 6 Subsequent Visit? yes no
 Is this an existing NDDDB occurrence? no unk.
Yes, Occ. #
 Collection? If yes: _____
Number Museum / Herbarium

Reporter: Jessie Vinje
 Address: 1807 Esquire Glen
Escondido, Ca 92029
 E-mail Address: jessie.vinje@consbio.org
 Phone: (760) 445-3684

Plant Information

Phenology: 100% vegetative _____% flowering _____% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: The California Department of Fish and Game
 Quad Name: _____ Elevation: _____
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Apple iPhone
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
 Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
 Coordinates: 23°50'21" N; 116°52'22" W (Taken using an Apple iPhone)

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Plants located on a relatively steep slope (west facing). Clay soils (opening) in coastal sage scrub. Coastal sage scrub is not dense and native grasses, and forbs and non-native grasses and forbs occur throughout the area. Dominant plant: *Bromus madritensis*.
 Associates: *Plantago* spp., *Centaurea melitensis*, *Allium* spp., *Erodium cicutarium*, *Acmispon wrangelianus*, *Logfia gallica*, *Calystegia macrostegia*, *Harpagonella palmeri*, *Sonchus oleraceus*, *Lepidium nitidum*, *Aristida adscensionis*, *Chlorogalum parviflorum*, *Deinandra fasciculata*, and *Salvia apiana*.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Open space.

Visible disturbances:

Threats: Non-native forbs and grasses.

Comments: Hand-clipped and weeded all competitive plants out of this population, twice in 2012. Will continue to weed annually.

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____
 Compared with specimen housed at: _____
 Compared with photo / drawing in: _____
 By another person (name): _____
 Other: Knowledge of species.

Photographs: (check one or more)

	Slide	Print	Digital
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 05/08/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thornmint

Species Found? Yes No If not, why? _____

Total No. Individuals ~950 Subsequent Visit? yes no

Is this an existing NDDB occurrence? no unk. Yes, Occ. # _____

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Jessie Vinje

Address: 1807 Esquire Glen, Escondido, CA 92029

E-mail Address: jvinje74@gmail.com

Phone: (760) 445-3684

Plant Information

Phenology: _____% vegetative 90% flowering 10% fruiting

Animal Information

# adults	# juveniles	# larvae	# egg masses	# unknown
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
wintering	breeding	nesting	rookery	burrow site
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Endangered Habitats Conservancy

Quad Name: _____ Elevation: 1,466 ft.

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model Garmin GPS Map 60CSX

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 11 feet meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: N 32 degrees, 47'20.7. W 116 degrees, 51'55.9.

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:
Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):
 Open area in southern mixed chaparral. Occupied area is composed of 50-75% bare ground and rock. Soils are mapped as gabbro. Occurrence is on a steep slope with a southwest facing aspect. Dominant species: *Centaurea melitensis*. Associates: *Sonchus asper*, *Hirschfeldia incana*, *Gutierrezia* spp., *Erodium cicutarium*, *Acemispion glaber*, *Sonchus oleraceus*, *Deinandra fasciculata*, *Bromus madritensis*, *Eriophyllum confertifolium*, *Apiastrum angustifolium*, *Gastridium ventricosum*, *Harpagonella palmeri*, *Nolina interatta*, *Hedynois cretica*, *Brachypodium distachyon*, and *Festuca myuros*. Species in southern mixed chaparral: Dominant: *Adenostoma fasciculata*. Associates: *Rhamnus crocea*, *Hesperoyucca whipplei*, *Malosma laurina*, *Xylococcus bicolor*, and *Ceanothus tomentosus*.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Open space with a dirt road approximately 30 meters to the east of the occurrence.

Visible disturbances: _____

Threats: Non-native grasses and forbs. Possible threat is browsing by deer.

Comments: Hand weeded the Brachypodium distachyon out of the occurrence.

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____

Compared with specimen housed at: _____

Compared with photo / drawing in: _____

By another person (name): _____

Other: Familiar with the species.

Photographs: (check one or more)

Slide	Print	Digital
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

Mail to:
 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 05/08/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thornmint

Species Found? Yes No _____ If not, why? _____
 Total No. Individuals 185 Subsequent Visit? yes no
Is this an existing NDDB occurrence? _____ no unk.
 Yes, Occ. # _____
 Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Jessie Vinje
Address: 1807 Esquire Glen, Escondido, CA 92029
E-mail Address: jvinje74@gmail.com
Phone: (760) 445-3684

Plant Information

Phenology: _____% vegetative 50% flowering 50% fruiting

Animal Information

# adults	# juveniles	# larvae	# egg masses	# unknown
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
wintering	breeding	nesting	rookery	burrow site
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other				

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Endangered Habitats Conservancy
 Quad Name: _____ Elevation: 1,420 ft.
 T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS
 T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model Garmin GPS Map 60CSX
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 9 feet _____ meters/feet
 Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
 Coordinates: N 32 degrees, 47' 273. W 116 degrees, 51' 972.

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:
Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):
 Open area, forbland and/or coastal sage scrub with high native grass cover. Open area is located in southern mixed chaparral. Slightly sloping with a northwest facing aspect. Dominant species: *Acemispion glaber*. Associates: *Hirschfeldia incana*, *Gutierrezia* spp., *Deinandra fasciculata*, *Bromus madritensis*, *Centaurea melitenis*, *Sisyrinchium bellum*, *Stipa lepida*, *Hesperoyucca whipplei*, *Calochortus splendens*, *Plantago erecta*, and *Plantago* spp.. Species in southern mixed chaparral: Dominant: *Adenostoma fasciculata*, *Hesperoyucca whipplei*, *Rhamnus crocea*, *Stipa lepida*, and *Centaurea melitensis*.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor
 Immediate AND surrounding land use: Open space with a dirt road approximately 20 meters to the south of the occurrence.
 Visible disturbances:
 Threats: Non-native grasses and forbs. Possible threat is browsing by deer.
 Comments:

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____
 Compared with specimen housed at: _____
 Compared with photo / drawing in: _____
 By another person (name): _____
 Other: Familiar with the species.

Photographs: (check one or more)

Slide	Print	Digital
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 5/23/12

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Dudleya variegata

Common Name: Variiegated dudleya

Species Found? Yes No _____ If not, why? _____

Total No. Individuals 11 Subsequent Visit? yes no

Is this an existing NDDB occurrence? no unk. Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Jessie Vinje

Address: 1807 Esquire Glen
Escondido, CA 92029

E-mail Address: jvinje74@gmail.com

Phone: 760-445-3684

Plant Information

Phenology: _____% vegetative 100% flowering _____% fruiting

Animal Information

adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown _____
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Endangered Habitats Conservancy

Quad Name: _____ Elevation: 1,128 feet

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model Garmin GPS Map 60CSX

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 11 feet _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: N 32 degrees, 47'34.4. W 116 degrees 52'28.0.

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Non-native grassland. Plants are growing in relatively open areas in the grassland. Some plants are growing adjacent to a rock. The area is flat to slightly sloping. Western aspect. Dominant species: Brachypodium distachyon. Associate species: Stipa pulchra, Sisyrinchium bellum, Avena spp., Sonchus oleraceus, Calochortus splendens, Acmispon glaber, Artemisia californica, Hedynois cretica, Chlorogalum parviflorum, and Lessingia filaginifolia.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Open space with several dirt roads in the vicinity.

Visible disturbances:

Threats: Non-native grasses and forbs.

Comments: Little to no bare ground for this species. All areas almost completely covered with non-native grasses.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more)

Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX B

ACANTHOMINTHA ILICIFOLIA (SAN DIEGO
THORN MINT) INDEX PLOT FORMS

San Diego Regional Rare Plant Index Plot Survey Form

Scientific Name: *Acanthomintha ilicifolia* Common Name: San Diego Throatwort
 Site Name: Crestridge, ER Management Unit #:
 Date: 2/6/12 + 2/28/12 Management Regime:
 Reporter Name(s): Jessie Vinje Organization: Conservation Biology Institute
 Address: 1807 Esquivel Blvd Escondido CA 92029 E-mail: jessie.vinje@consbio.org
 Phone: 760-445-3684

Species Found? YES NO If not, known or suspected reason why:
 Total No. Individuals: 6 Exact Estimate (use orders of 10, 100, 1000 for estimates)
 Population/subpopulation Area: 2.5 (units: m²) GPS Other
 Collection (if not collected previously)? YES NO Collected Previously
 If Yes: Collector: _____ Collection Number: _____ Museum/Herbarium: _____

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION
 GPS Unit: Apple iPhone GPS Unit Error: ± _____ meters feet
 Location: x = 32° 50' 21" N y = 116° 52' 22" W state plane (ft) UTM (m)

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT
 Vegetation Community: Diegoan Coastal Sage Scrub
 Land Owner/Manager: California Department of Fish & Game
 Overall Site Quality (see scale on back): Very Good-Excellent Fair-Good Poor Very Poor
 Surrounding Land Use: Open Space

Disturbance (describe)	Spatial Extent	(% cover or units)	Management Recommendations
Non-native plants	~ 5% cover		Hand weed annually

III. ASSOCIATED SPECIES

List dominant, subdominant, and invasive species in/near target species index plot. Species=Scientific Name; Cover=% cover of species; Coll? - check if collected; Coll# - if submitted to herbarium note collection number(submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll#	Species	Cover	Coll?	Coll#
<i>Rumex crispus</i>	10			<i>Acanthomintha ilicifolia</i>	41		
<i>Plantago</i> spp.	5-7			<i>Lepidium nitidum</i>	41		
<i>Lentibularia deltoidea</i>	1			<i>Gratiola adscensionis</i>	41		
<i>Allium</i> spp.	1			<i>Chlorogalum proliferum</i>	41		
<i>Erodium cicutarium</i>	41			<i>Penstemon fasciculatus</i>	41		
<i>Brassica nigra</i>	41			<i>Salvia apica</i>	41		
<i>Aemispon thymifolius</i>	41						
<i>Logfia gallica</i>	41						
<i>Cheysia macrantha</i>	41						
<i>Harpephyllon palmeri</i>	41						
<i>Sonchus oleraceus</i>	41						

IV. SITE PHOTOMONITORING

Camera Type: Canon Powershot Lens Focal Length: _____
 x = 32° 50' 21" N y = 116° 52' 22" W $\theta = 7^\circ$ 3.5
 location (state plane, ft) direction (mag. N) height (ft) angle (unit) photo # file location(s)
 x = _____ y = _____
 direction (mag. N) height (ft) angle (unit) photo # file location(s)

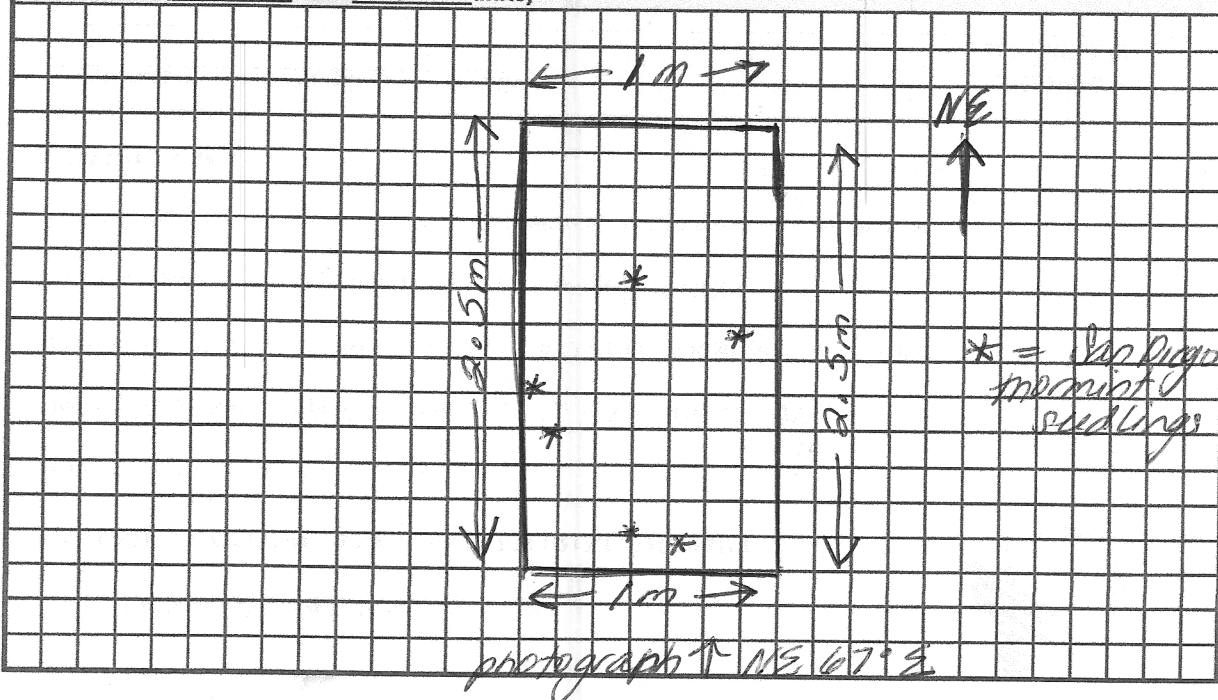
San Diego Regional Rare Plant Index Plot Survey Form

Overall Site Quality: Modified Trudgen & Keighery Vegetation Condition Scale	
Very Good to Excellent	80-100% Native Flora Composition
	Vegetation structure intact or nearly so
	Cover/abundance of weeds < 5%
	No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 5-20% any number of individuals
Poor	Possible minor signs of disturbance
	20-50% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 20-60% any number of individuals
Very Poor	Disturbance incidence high
	0-20% Native Flora Composition
	Vegetation Structure Disappeared
	Cover/abundance of weeds 60-80% any number of individuals
Very Poor	Disturbance incidence high

V. OTHER FIELD NOTES

Site visit conducted on 2/16/12 to hard wood edge
 all competitive plants in occupied habitat.
 Another site visit conducted on 3/29/12 to clip for
 a second time. Large increase (visual) in
Fristida abundance subsequent to clipping of
 competitive plants.

VI. SITE MAP (scale m units)



San Diego Regional Rare Plant Index Plot Survey Form

Scientific Name: *Acanthomintha ilicifolia* Common Name: San Diego Throramint
 Site Name: South Crest Management Unit #:
 Date: 5/15/12 Management Regime:
 Reporter Name(s): Jessie Vinje Organization: EHC
 Address: 1807 Esquivelen, Esc. 92029 E-mail: jessie.vinje@consbio.org
 Phone: 760-445-3684

Species Found? YES NO if not, known or suspected reason why:
 Total No. Individuals 950 Exact Estimate (use orders of 10, 100, 1000 for estimates)
 Population/subpopulation Area: 500 (units: ft²) GPS Other
 Collection (if not collected previously)? YES NO Collected Previously
 If Yes: _____
 Collector _____ Collection Number _____ Museum/Herbarium _____

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION
 GPS Unit: GPS map 6003 GPS Unit Error: \pm 11 ft meters feet
 Location: $x = \underline{32^{\circ}47'20.7}$ $y = \underline{116^{\circ}51'55.9}$ state plane (ft) UTM (m)

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT
 Vegetation Community: Chaparral (Chamise Chaparral)
 Land Owner/Manager: EHC
 Overall Site Quality (see scale on back): Very Good-Excellent Fair-Good Poor Very Poor
 Surrounding Land Use: Open Space

Disturbance (describe)	Spatial Extent	(% cover or units)	Management Recommendations
<u>Nonnative Plants</u>	<u>Intra area</u>	<u>10-15%</u>	<u>Hard weed</u>
<u>Herbivore</u>	<u>minimal</u>		<u>None</u>

III. ASSOCIATED SPECIES
 List dominant, subdominant, and invasive species in/near target species index plot. Species=Scientific Name; Cover=% cover of species; Coll? - check if collected; Coll# - if submitted to herbarium note collection number(submit to SDNHM unless otherwise noted). In occupied habitat only

Species	Cover	Coll?	Coll#	Species	Cover	Coll?	Coll#
<i>Centaurea melitensis</i>	10			<i>Acanthomintha ilicifolia</i>	20		
<i>Sonchus asper</i>	1			<i>Nolina interrata</i>	1		
<i>Throchfeldia incana</i>	1			<i>Acemispogon glaber</i>	1		
<i>Eradium cicutarium</i>	1			<i>Barnades barbata</i>	1		
<i>Sonchus oleraceus</i>	1			<i>Hedyotis cretica</i>	1		
<i>Barnades medietensis</i>	1			<i>Vulpia myuros</i>	1		
<i>Desmodium fasciculata</i>	1						
<i>Eriophyllum confertiflorum</i>	1						
<i>Apiastrum arisphaetolium</i>	1						
<i>Castrovillea microcarpum</i>	1						
<i>Hesperanthes patens</i>	1						
<i>Brachypodium distachyon</i>	1						

IV. SITE PHOTOMONITORING
 Camera Type: Canon Powershot Lens Focal Length: _____
 $x = \underline{32^{\circ}47'20''}$ $y = \underline{116^{\circ}51'55''}$ 78° E 3.5 ft
 location (state plane, ft) direction (mag. N) height (X ft / m) angle (unit) photo # file location(s)
 $x = \underline{32^{\circ}46'48''}$ $y = \underline{116^{\circ}53'34''}$ 284° W 3.5'
 location (state plane, ft) direction (mag. N) height (Y ft / m) angle (unit) photo # file location(s)

1 true north

San Diego Regional Rare Plant Index Plot Survey Form

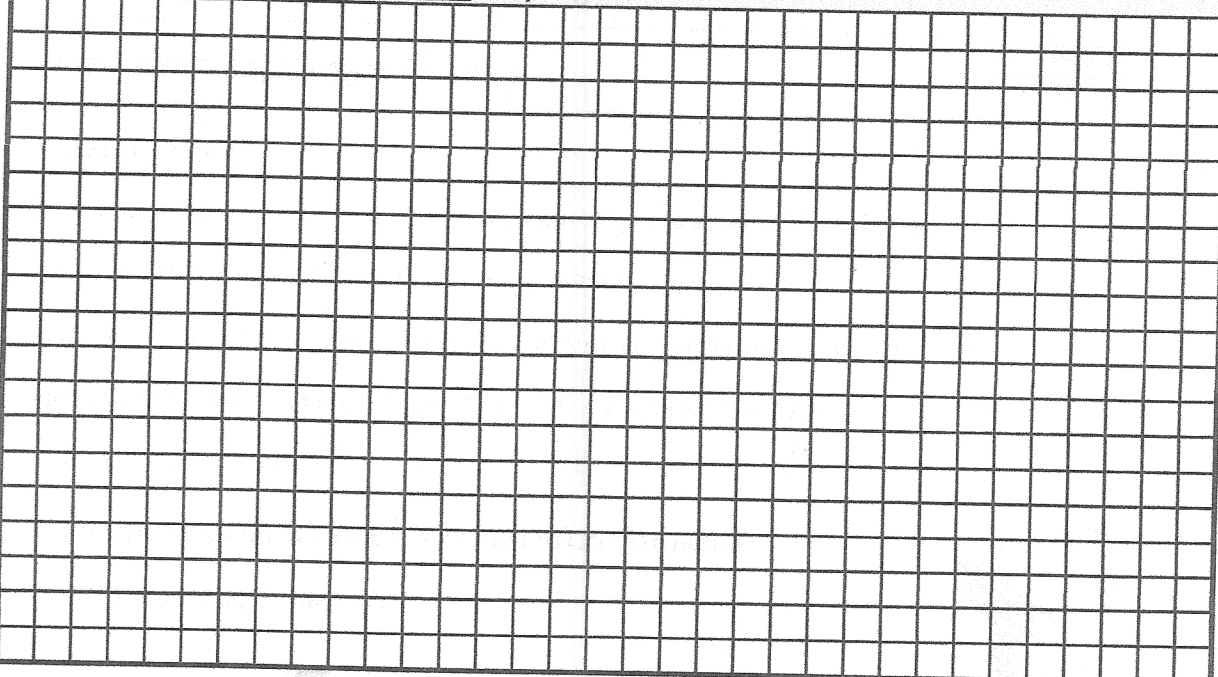
Overall Site Quality: Modified Trudgen & Keighery Vegetation Condition Scale

Very Good to Excellent	80-100% Native Flora Composition
	Vegetation structure intact or nearly so
	Cover/abundance of weeds < 5%
	No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 5-20% any number of individuals
	Possible minor signs of disturbance
Poor	20-50% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 20-60% any number of individuals
	Disturbance incidence high
Very Poor	0-20% Native Flora Composition
	Vegetation Structure Disappeared
	Cover/abundance of weeds 60-80% any number of individuals
	Disturbance incidence high

V. OTHER FIELD NOTES

Clay lens opening in chamise chaparral. 224'SW facing slope. Mapped as gabbro derived soils. Chaparral habitat surrounding the opening. *Adenostoma fasciculata* is dominant. Associates include: *Hesperoyucca whipplei*, *Rhamnus crocea*, *Malosma laurica*, *Lycium bibbier*, *Leonotis torentosis*, *Hazardia squarrosa*, *Rhus ovata*, *Nassella lepida*, & *Hypochaeris glabra*. Occupied habitat has 50-75% bare ground + rock. Elevation is 1,400ft. Hand weeded all *Brachypodium* 90% in flower when first found the pop. 10% in fruit

VI. SITE MAP (scale units)



San Diego Regional Rare Plant Index Plot Survey Form

Scientific Name: *Acanthomintha ilicifolia* Common Name: San Diego Thrombium
 Site Name: *Sage Crest* Management Unit #:
 Date: *5/15/12* Management Regime:
 Reporter Name(s): *Jessie Vigne* Organization: *CBI*
 Address: *1807 Esquivel St Escondido CA 92029* E-mail: *jessie.vigne@crossbio.org*
 Phone: *760-448-3684*

Species Found? YES NO If not, known or suspected reason why:
 Total No. Individuals *185* Exact Estimate (use orders of 10, 100, 1000 for estimates)
 Population/subpopulation Area: *75* (units: *ft²*) GPS Other
 Collection (if not collected previously)? YES NO Collected Previously
 If Yes: Collector _____ Collection Number _____ Museum/Herbarium _____

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION
 GPS Unit: _____ GPS Unit Error: ± _____ meters feet
 Location: x = *32°47'3"* y = *116°53'2"* state plane (ft) UTM (m)

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT
 Vegetation Community: *Open dry lens in non-native grassland / native forbland*
 Land Owner/Manager: *ZHL* *in chimney chaparral*
 Overall Site Quality (see scale on back): Very Good-Excellent Fair-Good Poor Very Poor
 Surrounding Land Use: *Open Space*

Disturbance (describe)	Spatial Extent	(% cover or units)	Management Recommendations
<i>Non-native plants</i>	<i>entire area</i>	<i>~15%</i>	<i>Hard weed</i>
<i>Deer browse</i>	<i>minimal</i>		<i>none</i>

III. ASSOCIATED SPECIES
 List dominant, subdominant, and invasive species in/near target species index plot. Species=Scientific Name; Cover=% cover of species; Coll? - check if collected; Coll# - if submitted to herbarium note collection number(submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll#	Species	Cover	Coll?	Coll#
<i>Centauria melitensis</i>	<i>5</i>			<i>Plantago arctica</i>	<i>41</i>		
<i>Acanthomintha ilicifolia</i>	<i>10-15</i>			<i>Eriogonum verticillatum</i>	<i>41</i>		
<i>Hypochaeris glabra</i>	<i>2-3</i>			<i>Lactuca serriola</i>	<i>41</i>		
<i>Plantago ssp.</i>	<i>4</i>			<i>Bromus maritimus</i>	<i>41</i>		
<i>Hieracium glaberrimum</i>	<i>41</i>			<i>Hirschfeldia incana</i>	<i>41</i>		
<i>Delphinium fasciculatum</i>	<i>1</i>			<i>Erigeron ssp.</i>	<i>41</i>		
<i>Stipa lepidota</i>	<i>41</i>			<i>Lessingia filiginifolia</i>	<i>41</i>		
<i>Sisyrinchium helveticum</i>	<i>41</i>						
<i>Euthieria sp.</i>	<i>1-2</i>						
<i>Acmispon glaber</i>	<i>2</i>						
<i>Apocynum androsaemifolium</i>	<i>41</i>						
<i>Sonchus oleraceus</i>	<i>41</i>						

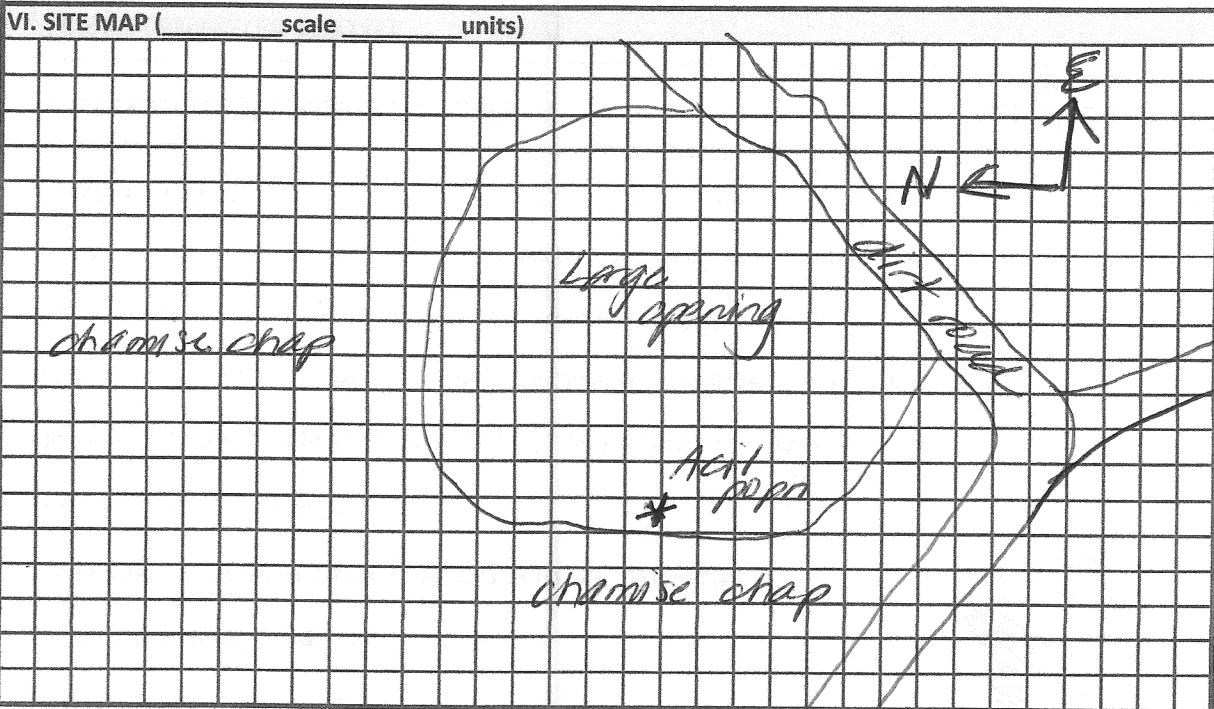
IV. SITE PHOTOMONITORING
 Camera Type: *Canon Powershot* Lens Focal Length: _____
 x = *32°47'3"* = *116°53'2"* *9 1/2* *2ft* *#1*
 location (state plane, ft) direction (mag. N) height (ft) angle (unit) photo # file location(s)
 y = _____ *true North*
 location (state plane, ft) direction (mag. N) height (ft) angle (unit) photo # file location(s)

San Diego Regional Rare Plant Index Plot Survey Form

Overall Site Quality: Modified Trudgen & Keighery Vegetation Condition Scale	
Very Good to Excellent	80-100% Native Flora Composition
	Vegetation structure intact or nearly so
	Cover/abundance of weeds < 5%
	No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 5-20% any number of individuals
	Possible minor signs of disturbance
Poor	20-50% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 20-60% any number of individuals
	Disturbance incidence high
Very Poor	0-20% Native Flora Composition
	Vegetation Structure Disappeared
	Cover/abundance of weeds 60-80% any number of individuals
	Disturbance incidence high

V. OTHER FIELD NOTES

Large area composed of native forbs + nonnative forbs. Some coastal sage scrub species too. Opening adjacent to chamise chaparral + an old dirt road. Population is located on the edge of the large opening adjacent to chamise chaparral.



APPENDIX C

PHOTOMONITORING LOG:

Acanthomintha ilicifolia (San Diego Thornmint)

Dudleya variegata (Variegated Dudleya)

Xanthisma junceum (Rush-like Bristleweed)

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 1: South Crest, ACIL_01. Looking uphill (east) from the bottom of the occurrence.



Photograph 2: South Crest, ACIL_01. Photograph looking downhill (west) from the top of the occurrence.

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 3: South Crest, ACIL_01. Note high percent cover of bare ground and San Diego thornmint.

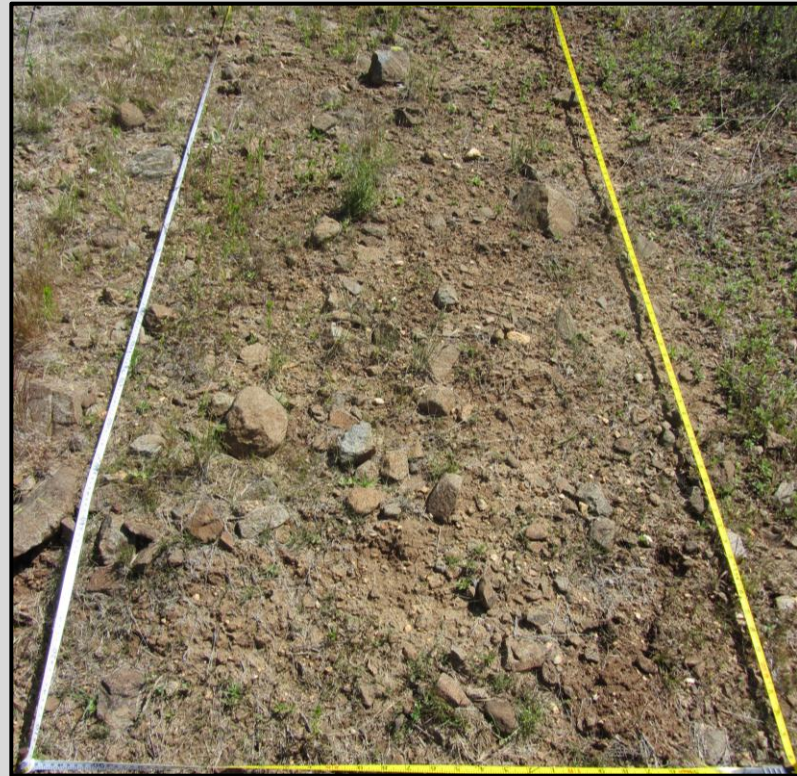


Photograph 4: South Crest, ACIL_02. Looking uphill (southeast) from bottom of occurrence.

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 5: South Crest, ACIL_02.



Photograph 6: Crestridge Ecological Reserve, occupied San Diego thornmint habitat.

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 7: Crestridge Ecological Reserve, San Diego thornmint seedling.

Dudleya variegata (Variegated dudleya)



Photograph 8: South Crest, Variegated dudleya.

Xanthisma junceum (Rush-like bristleweed)



Photograph 9: South Crest, Rush-like bristleweed.



Photograph 10: South Crest, Rush-like bristleweed (closeup).

APPENDIX D

PHOTOMONITORING LOG:

Ceanothus cyaneus (Lakeside Ceanothus)

Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-1)



CECY-1.3_2010



CECY-1.3_2011



CECY-1.3_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-1)



CECY-1.4_2010



CECY-1.4_2011



CECY-1.4_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-1)



CECY-1.5_2010



CECY-1.5_2011



CECY-1.5_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-1)



CECY-1.6_2010



CECY-1.6_2011



CECY-1.6_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-1)



CECY-1.7_2010



CECY-1.7_2011



CECY-1.7_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-2)



CECY-2.2_2010



CECY-2.2_2011



CECY-2.2_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-2)



CECY-2.3_2010



CECY-2.3_2011



CECY-2.3_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-2)



CECY-2.4_2010



CECY-2.4_2011



CECY-2.4_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-2)



CECY-2.5_2010



CECY-2.5_2011



CECY-2.5_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-2)



CECY-2.6_2010



CECY-2.6_2011



CECY-2.6_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-2)



CECY-2.7_2010



CECY-2.7_2011



CECY-2.7_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-2)



CECY-2.8_2010



CECY-2.8_2011



CECY-2.8_2012

Photomonitoring Dates

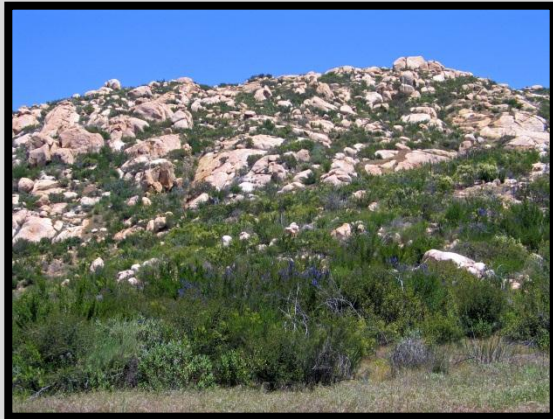
2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-3)



CECY-3.2_2010



CECY-3.2_2011



CECY-3.2_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-3)



CECY-3.3_2010



CECY-3.3_2011



CECY-3.3_2012

Photomonitoring Dates

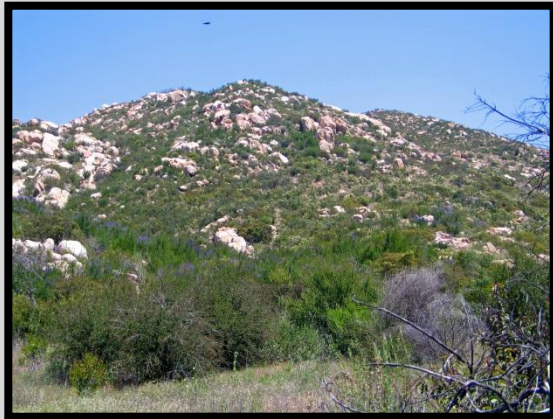
2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-3)



CECY-3.4_2010



CECY-3.4_2011



CECY-3.4_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-3)



CECY-3.5_2010



CECY-3.5_2011



CECY-3.5_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-4)



CECY-4.2_2010



CECY-4.2_2011



CECY-4.2_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-4)



CECY-4.3_2010



CECY-4.3_2011



CECY-4.3_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-4)



CECY-4.4_2010



CECY-4.4_2011



CECY-4.4_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-4)



CECY-4.5_2010



CECY-4.5_2011



CECY-4.5_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-4)



CECY-4.6_2010



CECY-4.6_2011



CECY-4.6_2012

Photomonitoring Dates

2010: May 6

2011: May 3

2012: May 8



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-5)



CECY-5.3_2010



CECY-5.3_2011



CECY-5.3_2012

Photomonitoring Dates

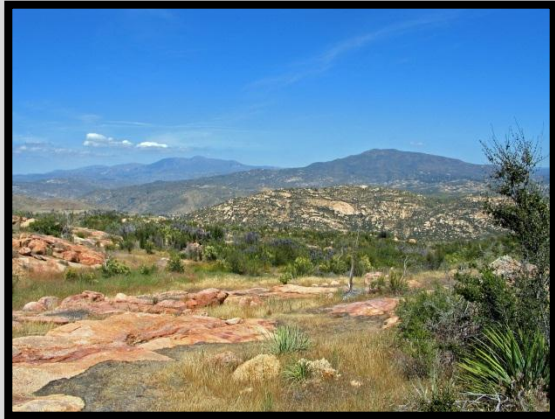
2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-5)



CECY-5.4_2010



CECY-5.4_2011



CECY-5.4_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-5)



CECY-5.5_2010



CECY-5.5_2011



CECY-5.5_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.3_2010



CECY-6.3_2011



CECY-6.3_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.4_2010



CECY-6.4_2011



CECY-6.4_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.5_2010



CECY-6.5_2011



CECY-6.5_2012

Photomonitoring Dates

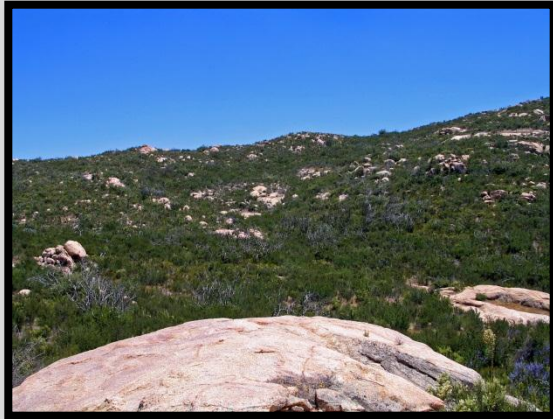
2010: May 26

2011: June 14

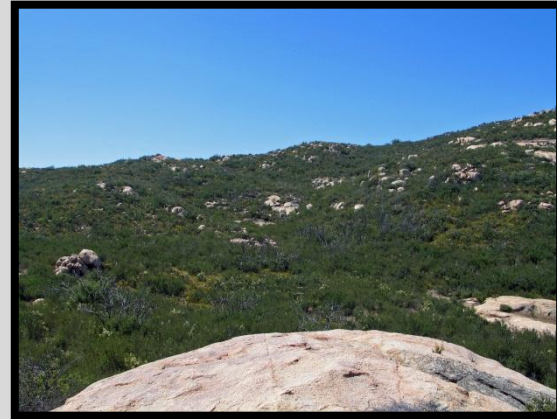
2012: May 24



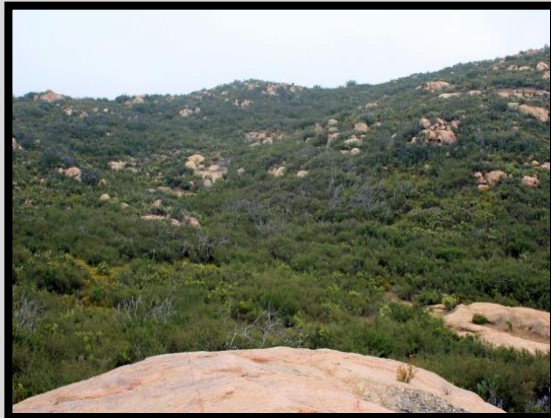
Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.6_2010



CECY-6.6_2011



CECY-6.6_2012

Photomonitoring Dates

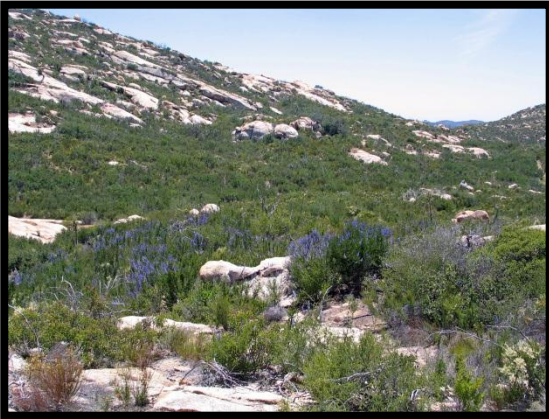
2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.7_2010



CECY-6.7_2011



CECY-6.7_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.8_2010



CECY-6.8_2011



CECY-6.8_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.9_2010



CECY-6.9_2011



CECY-6.9_2012

Photomonitoring Dates

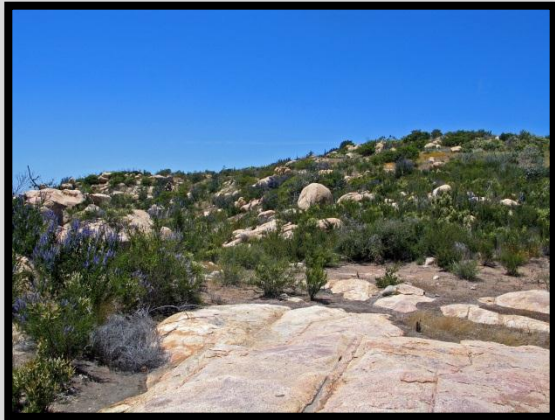
2010: May 26

2011: June 14

2012: May 24



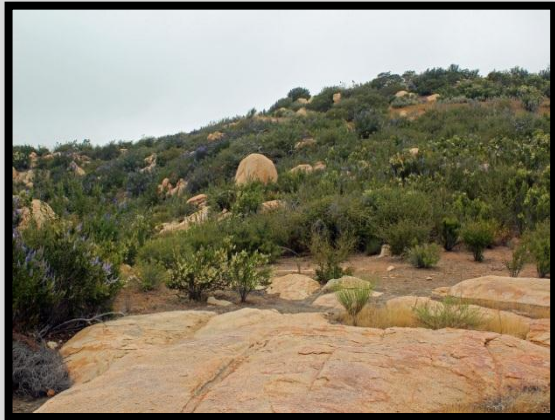
Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.10_2010



CECY-6.10_2011



CECY-6.10_2012

Photomonitoring Dates
2010: May 26
2011: June 14
2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.11_2010



CECY-6.11_2011



CECY-6.11_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



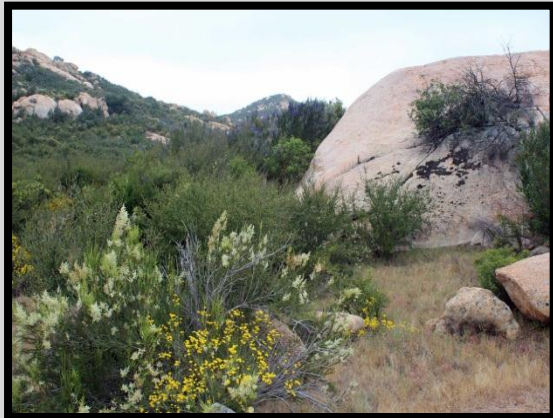
Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.12_2010



CECY-6.12_2011



CECY-6.12_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-6)



CECY-6.13_2010



CECY-6.13_2011



CECY-6.13_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-7)



CECY-7.4_2010



CECY-7.4_2011



CECY-7.4_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-7)



CECY-7.5_2010



CECY-7.5_2011



CECY-7.5_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-7)



CECY-7.6_2010



CECY-7.6_2011



CECY-7.6_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-7)



CECY-7.7_2010



CECY-7.7_2011



CECY-7.7_2012

Photomonitoring Dates

2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-7)



CECY-7.8_2010



CECY-7.8_2011



CECY-7.8_2012

Photomonitoring Dates

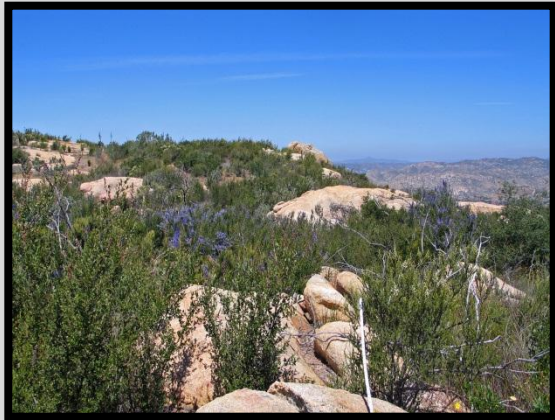
2010: May 26

2011: June 14

2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-7)



CECY-7.9_2010



CECY-7.9_2011

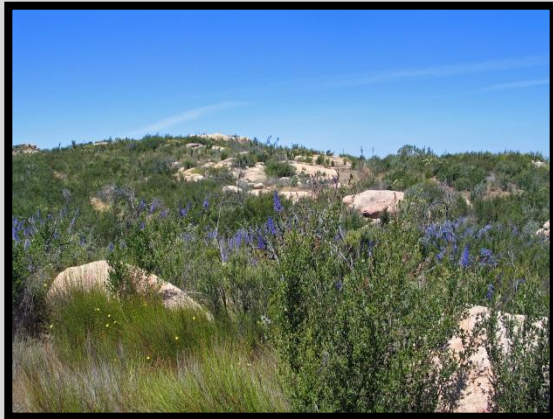


CECY-7.9_2012

Photomonitoring Dates
2010: May 26
2011: June 14
2012: May 24



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-7)



CECY-7.10_2010



CECY-7.11_2010



CECY-7.10_2011

Photomonitoring Dates
2010: May 26
2011: June 14
2012: No date



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-8)



CECY-8.4_2010



CECY-8.4_2011



CECY-8.5_2010



CECY-8.5_2011



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-8)



CECY-8.6_2010



CECY-8.6_2011



CECY-8.7_2010



CECY-8.7_2011



Ceanothus cyaneus (*Lakeside ceanothus*) (CECY-8)



CECY-8.8_2010



CECY-8.8_2011



APPENDIX E

NOLINA INTERRATA (DEHESA BEARGRASS) INDEX PLOT DATA

E.1 Index Plot Forms

E.2 Species Lists

San Diego Regional Rare Plant Index Plot Survey Form

Scientific Name: <i>Nolina interrata</i>	Common Name: <i>Dehesa Malina</i>
Site Name: <i>South Crest</i>	Management Unit #: <i>Plot #1</i>
Date: <i>5/2/12 + 5/23/12</i>	Management Regime:
Reporter Name(s): <i>Jessie Vinje</i>	Organization: <i>CBI</i>
Address: <i>1807 Esquivel Glen Escondido Ca 92029</i>	E-mail: <i>jessie.vinje@consbio.org</i>
	Phone: <i>760.445.3684</i>

Species Found? YES NO if not, known or suspected reason why: _____

Total No. Individuals _____ Exact Estimate (use orders of 10, 100, 1000 for estimates)

Population/subpopulation Area: *5000* (units: *m²*) GPS Other

Collection (if not collected previously)? YES NO Collected Previously

If Yes: _____

Collector _____ Collection Number _____ Museum/Herbarium _____

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

GPS Unit: _____ GPS Unit Error: ± _____ meters feet

Location: x = _____ y = _____ state plane (ft) UTM (m)

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *Chaparral + Coastal Sage Scrub*

Land Owner/Manager: *Endangered Habitats Conservancy*

Overall Site Quality (see scale on back): Very Good-Excellent Fair-Good Poor Very Poor

Surrounding Land Use: *Open space*

Disturbance (describe)	Spatial Extent	(% cover or units)	Management Recommendations
<i>Evidence of fire</i>	<i>entire plot</i>		<i>None-recovered well</i>
<i>Nonnative plants</i>	<i>" "</i>		<i>Could hand weed or use herbicide</i>
<i>Road-dirt</i>	<i>small < 1%</i>		<i>None-road not used</i>

III. ASSOCIATED SPECIES *See attachment*

List dominant, subdominant, and invasive species in/near target species index plot. Species=Scientific Name; Cover=% cover of species; Coll? - check if collected; Coll# - if submitted to herbarium note collection number(submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll#	Species	Cover	Coll?	Coll#
<i>See attachment</i>							

IV. SITE PHOTOMONITORING *6 photographs - see attachment*

Camera Type: *Canon Powershot SX230 HS* Lens Focal Length: _____

x= _____ y= _____

location (state plane, ft)	direction (mag. N)	height (ft_m)	angle (unit)	photo #	file location(s)
----------------------------	--------------------	---------------	--------------	---------	------------------

x= _____ y= _____

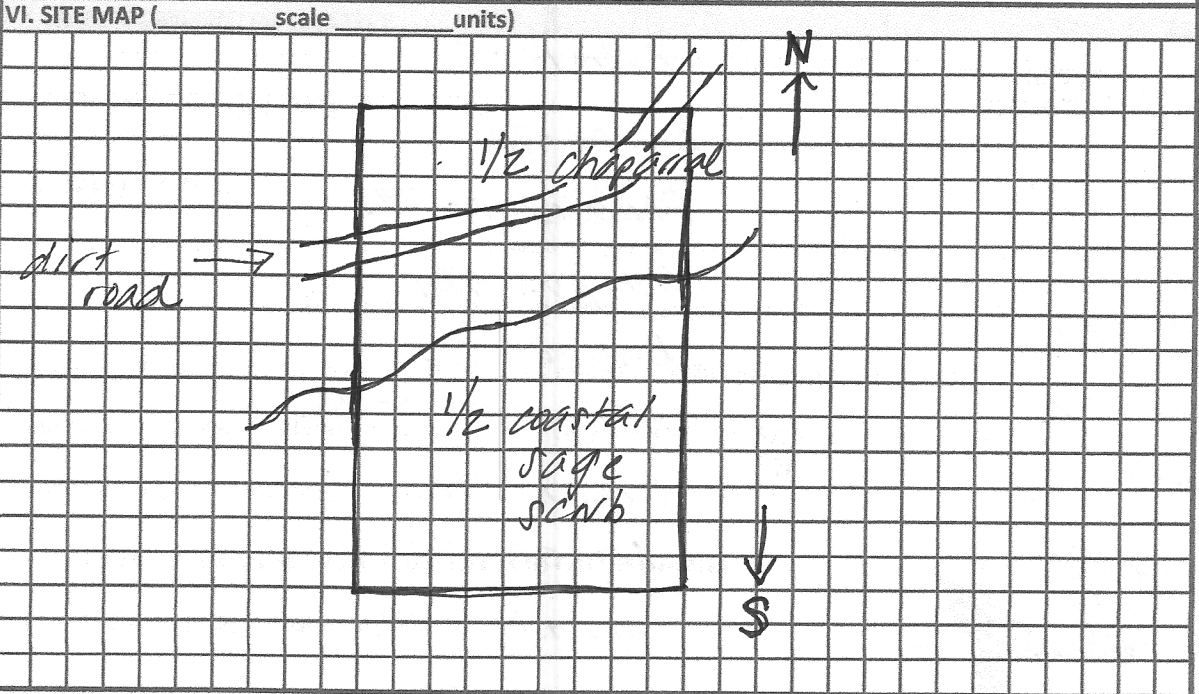
location (state plane, ft)	direction (mag. N)	height (ft_m)	angle (unit)	photo #	file location(s)
----------------------------	--------------------	---------------	--------------	---------	------------------

San Diego Regional Rare Plant Index Plot Survey Form

Overall Site Quality: Modified Trudgen & Keighery Vegetation Condition Scale	
Very Good to Excellent	80-100% Native Flora Composition
	Vegetation structure intact or nearly so
	Cover/abundance of weeds < 5%
	No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 5-20% any number of individuals
	Possible minor signs of disturbance
Poor	20-50% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 20-60% any number of individuals
	Disturbance incidence high
Very Poor	0-20% Native Flora Composition
	Vegetation Structure Disappeared
	Cover/abundance of weeds 60-80% any number of individuals
	Disturbance incidence high

V. OTHER FIELD NOTES

1/2 of the index plot (N 1/2) is flatter than the southern 1/2 of the index plot. The southern half is a south facing slope composed of *Bahiopsis laciniata*, *Artemisia californica*, & *Eriogonum fasciculatum*. The northern 1/2 is composed of more chaparral plant species & is more open. There is also a higher percent cover of non-native annual grasses & forbs in the northern 1/2 of the plot.



San Diego Regional Rare Plant Index Plot Survey Form

Scientific Name: <i>Nolina intercata</i>	Common Name: <i>Dehesa Nolina</i>
Site Name: <i>South Crest</i>	Management Unit #: <i>Plot #2</i>
Date: <i>5/22/12</i>	Management Regime:
Reporter Name(s): <i>Jessie Vinje</i>	Organization: <i>CBI</i>
Address: <i>1807 Esquivel Ln Escondido CA 92029</i>	E-mail: <i>jessie.vinje@consbio.org</i>
	Phone: <i>760.445.3684</i>

Species Found? YES NO If not, known or suspected reason why: _____

Total No. Individuals _____ Exact Estimate (use orders of 10, 100, 1000 for estimates)

Population/subpopulation Area: *5000* (units: *m²*) GPS Other

Collection (if not collected previously)? YES NO Collected Previously

If Yes: _____

Collector _____ Collection Number _____ Museum/Herbarium _____

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

GPS Unit: _____ GPS Unit Error: ± _____ meters feet

Location: x = _____ y = _____ state plane (ft) UTM (m)

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *Non-native grassland + coastal Sage scrub*

Land Owner/Manager: *Endangered Habitats Conservancy*

Overall Site Quality (see scale on back): Very Good-Excellent Fair-Good Poor Very Poor

Surrounding Land Use: *Open Space*

Disturbance (describe)	Spatial Extent	(% cover or units)	Management Recommendations
<i>Non-native grass</i>	<i>majority of plot</i>	<i>~70%</i>	<i>Restore portions or all of plot</i>
<i>erosion</i>	<i>scattered</i>	<i><1%</i>	<i>Sand or gravel bags</i>

III. ASSOCIATED SPECIES *See attachment*

List dominant, subdominant, and invasive species in/near target species index plot. Species=Scientific Name; Cover=% cover of species; Coll? - check if collected; Coll# - if submitted to herbarium note collection number(submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll#	Species	Cover	Coll?	Coll#
<i>See attachment</i>							

IV. SITE PHOTOMONITORING *7 photographs - See attachment*

Camera Type: *Canon Powershot SX230 HS* Lens Focal Length: _____

x= _____ y= _____

location (state plane, ft) direction (mag. N) height (ft_m) angle (unit) photo # file location(s)

x= _____ y= _____

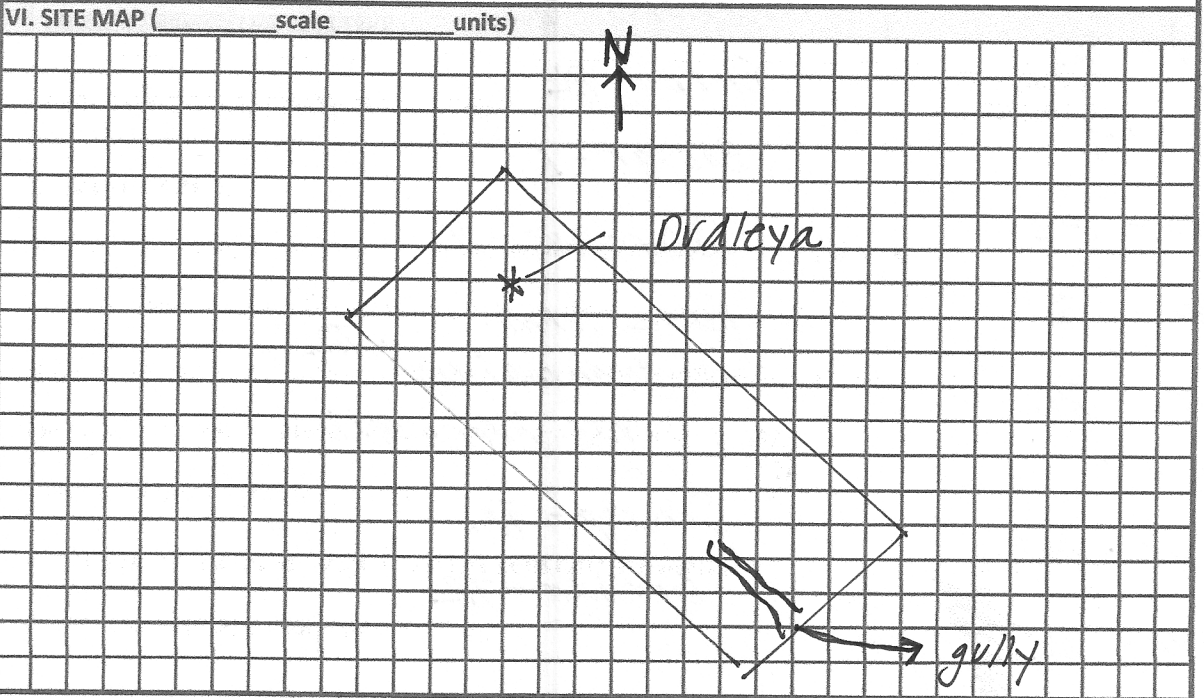
location (state plane, ft) direction (mag. N) height (ft_m) angle (unit) photo # file location(s)

San Diego Regional Rare Plant Index Plot Survey Form

Overall Site Quality: Modified Trudgen & Keighery Vegetation Condition Scale	
Very Good to Excellent	80-100% Native Flora Composition
	Vegetation structure intact or nearly so
	Cover/abundance of weeds < 5%
	No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 5-20% any number of individuals
	Possible minor signs of disturbance
Poor	20-50% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 20-60% any number of individuals
	Disturbance incidence high
Very Poor	0-20% Native Flora Composition
	Vegetation Structure Disappeared
	Cover/abundance of weeds 60-80% any number of individuals
	Disturbance incidence high

V. OTHER FIELD NOTES

1 *Nolina* was going to flower (inflorescence shooting up), but it was eaten by black beetles before it could flower. There is a small gully running through the southeastern portion of this plot and several *Nolina* plants are growing on the edge of the gully. We should put sand or gravel bags in the gully. *Dryas variegata* - 11 plants - are growing in the northern corner of this plot.



San Diego Regional Rare Plant Index Plot Survey Form

Scientific Name: <i>Nolina interrata</i>	Common Name: <i>Dehesa Nolina</i>
Site Name: <i>South Crest</i>	Management Unit #: <i>Plot #3</i>
Date: <i>5/22/12</i>	Management Regime:
Reporter Name(s): <i>Jessie Vinje</i>	Organization: <i>CBI</i>
Address: <i>1807 Esquire Glen Escorido Ca 92029</i>	E-mail: <i>jessie.vinje@consbio.org</i>
	Phone: <i>760.445.3684</i>

Species Found? YES NO if not, known or suspected reason why: _____

Total No. Individuals _____ Exact Estimate (use orders of 10, 100, 1000 for estimates)

Population/subpopulation Area: *5000* (units: *m²*) GPS Other

Collection (if not collected previously)? YES NO Collected Previously

If Yes: _____

Collector _____ Collection Number _____ Museum/Herbarium _____

I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

GPS Unit: _____ GPS Unit Error: ± _____ meters feet

Location: x = _____ y = _____ state plane (ft) UTM (m)

II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *Chaparral (3/4) CDS + nonnative grassland (1/4)*

Land Owner/Manager: *Endangered Habitats Conservancy*

Overall Site Quality (see scale on back): Very Good-Excellent Fair-Good Poor Very Poor

Surrounding Land Use: *Open Space*

Disturbance (describe)	Spatial Extent	(% cover or units)	Management Recommendations
<i>Non-native plants</i>	<i>entire but < 5%</i>	<i>2.5%</i>	<i>None, except weed in new thornscrub patch. Possibly weed in one Nolina patch too.</i>

III. ASSOCIATED SPECIES *See attachment*

List dominant, subdominant, and invasive species in/near target species index plot. Species=Scientific Name; Cover=% cover of species; Coll? - check if collected; Coll# - if submitted to herbarium note collection number(submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll#	Species	Cover	Coll?	Coll#
<i>See attachment</i>							

IV. SITE PHOTOMONITORING *7 photographs - See attachment*

Camera Type: _____ Lens Focal Length: _____

x= _____ y= _____

location (state plane, ft) direction (mag. N) height (ft) angle (unit) photo # file location(s)

x= _____ y= _____

location (state plane, ft) direction (mag. N) height (ft) angle (unit) photo # file location(s)

San Diego Regional Rare Plant Index Plot Survey Form

Overall Site Quality: Modified Trudgen & Keighery Vegetation Condition Scale

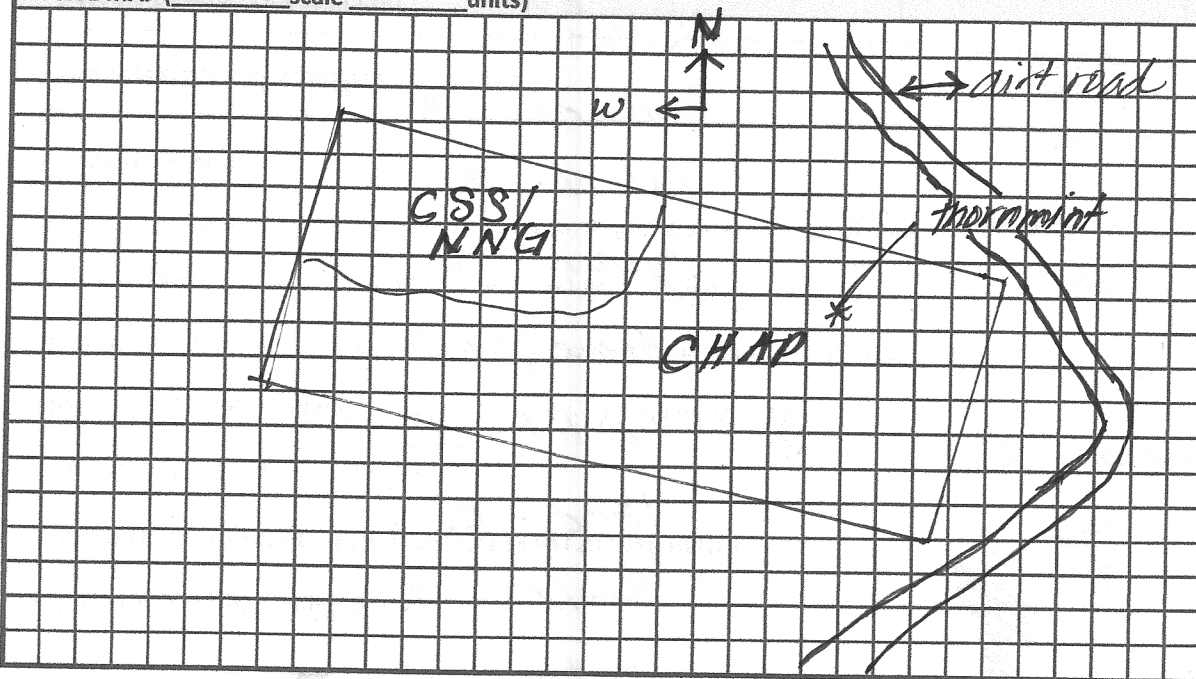
Very Good to Excellent	80-100% Native Flora Composition
	Vegetation structure intact or nearly so
	Cover/abundance of weeds < 5%
	No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 5-20% any number of individuals
	Possible minor signs of disturbance
Poor	20-50% Native Flora Composition
	Vegetation structure modified or somewhat modified
	Cover/abundance of weeds 20-60% any number of individuals
	Disturbance incidence high
Very Poor	0-20% Native Flora Composition
	Vegetation Structure Disappeared
	Cover/abundance of weeds 60-80% any number of individuals
	Disturbance incidence high

V. OTHER FIELD NOTES

Northwest 1/4 of the plot is CSS + non-native grassland. Rest of plot is chaparral. CSS = No line, Saal, Arca, Lesc, Gusa, + mala.

Theromint population in this plot.

VI. SITE MAP (_____ scale _____ units)



Species List + Percent cover (visual) of each species

Plot # 1		
Nolina interata - 2-3%	Selbig - TR	Maltas - TR
Hin - 4%	Sonok - TR	Clematis sp - TR
Porophyllum - 1%	Muhmic - 2	Oxalob - TR
Loggal - 3-4	Chlpar - TR	Hepnit - TR
Arca - 5	Gutsar - 2	Pellaea sp - TR
Rhacro - 1	Chamaescybe - TR	
Salapi - 2	Lotham - TR	
Gracif - 1	Bradist - 1	
Bromad - 3	Calapl - TR	
Cemc - 10	Diccap - TR	
Calymac - TR	BACSAR - TR	
mala - 2-3	Arebar - 1-2	
Yu Sch - TR	Mel Au - TR	
Grta - 1-2	Achnathrenm sp - TR	
Itypgla - 4	Vulmyu - 1	
Cnedum - 1-2	Brohor - TR	
Xanthisma - TR	Phacelia sp - TR	
Cryint - TR	Daupus TR1	
Hedcre - TR	Bratou - TR	
Galang - TR	Astragalus sp - TR	
Rhuora - 3	Urolin - TR	
Helicentrum ^{US} - 1-2	Stilcp - TR	
Deta - TR	Ariads - TR	
Bahlac - 8-10	Gosven - TR	
Kot sco - TR	Aripur - TR	
En cil - TR	Itazsu - TR	
	mirbac - TR	

Species List + Percent cover (visual) of each species
Plot #2

Deta - TR	Gricam - TR
Bradis - 50%	Allium sp - TR
Lestil - 2-3	Ericon - TR
Isomen - TR	Oveber - 1
Naspul - 5	Lon sub - TR
Naskep - 2	Clematis sp - TR
Hedcre - 1	Hazsgu - TR
Chlpar - TR	Diccap - TR
Arefat - 20%	Ambpsj - TR
Molint - 3	Hypgia - TR
Sistel - 1-2	Hetarb - TR
Salapi - 1	Rhacro - TR
mala - TR	Cirocc - TR
Galang - TR	Ers p - TR
Ceme - 1-2	Bacsar - 1
Lot sco - 1-2	Helicentus - TR
Lacser - TR	Funastum - TR
Sonole - TR	Cyanchoides - TR
Arca - 1	var. hartwegii
Cal mac - 1-2	Sonasp - TR
Dudvar - TR	Gut sar - TR
Fo vu - TR	
Ana ark - TR	

Species List and Percent Cover (visual) of each species

Plot #3

Adfa - 5	Heswhi - TR	Cryint - TR
Naham - TR	Bradis - 6-7	Robot - TR
Xylbic - 1	Rhacro - 1	
Eroconf - 3-4	Hozsgu - TR	
Kotsco - 2-3	Naslep - TR	
Defa - TR	Heacre - TR	
Nolint - 1-2	Vulmyu - 1	
Gnedum - 1	Salapi - 1	
Acil - TR	erouc - TR	
Czmc - 10	Sonasp - TR	
mala - 2-3	Gasven - TR	
Bromad - 5	Harpal - TR	
Logfal - 6-7	Rhuova - 1-2	
Hiin - TR	Sisbel - TR	
Anaarv - TR	Summex - TR	
Apiang - TR	CalSpl - TR	
Sool - TR	Apiang - TR	
Brohor - 1	Arenasp - 1	
Achnathenm - TR	Opu lit - TR	
Gutsar - 1-2	lsmc - TR	
Erfa - 1	Bahlac - TR	
Helsco - TR	Antout - TR	
Helianthus - 2-3	Clematis sp - TR	
Ceatom - 15-20%	mal f8 - TR	
Colymac - TR		

APPENDIX F

PHOTOMONITORING LOG:

Nolina interrata (Dehesa Beargrass)

Photos 1-2 Index Plots

Photos 13-21 Photopoints

Nolina interrata (Dehesa beargrass) Index Plots



Photograph 1: Northeast corner of Index Plot 1.



Photograph 2: Northwest corner of Index Plot 1.

Nolina interrata (*Dehesa beargrass*) Index Plots



Photograph 3: Southeast corner of Index Plot 1.



Photograph 4: Southwest corner of Index Plot 1.

Nolina interrata (Dehesa beargrass) Index Plots



Photograph 5: East corner of Index Plot 2.



Photograph 6: North corner of Index Plot 2.

Nolina interrata (Dehesa beargrass) Index Plots



Photograph 7: South corner of Index Plot 2.



Photograph 8: West corner of Index Plot 2.

Nolina interrata (Dehesa beargrass) Index Plots



Photograph 9: East corner of Index Plot 3.

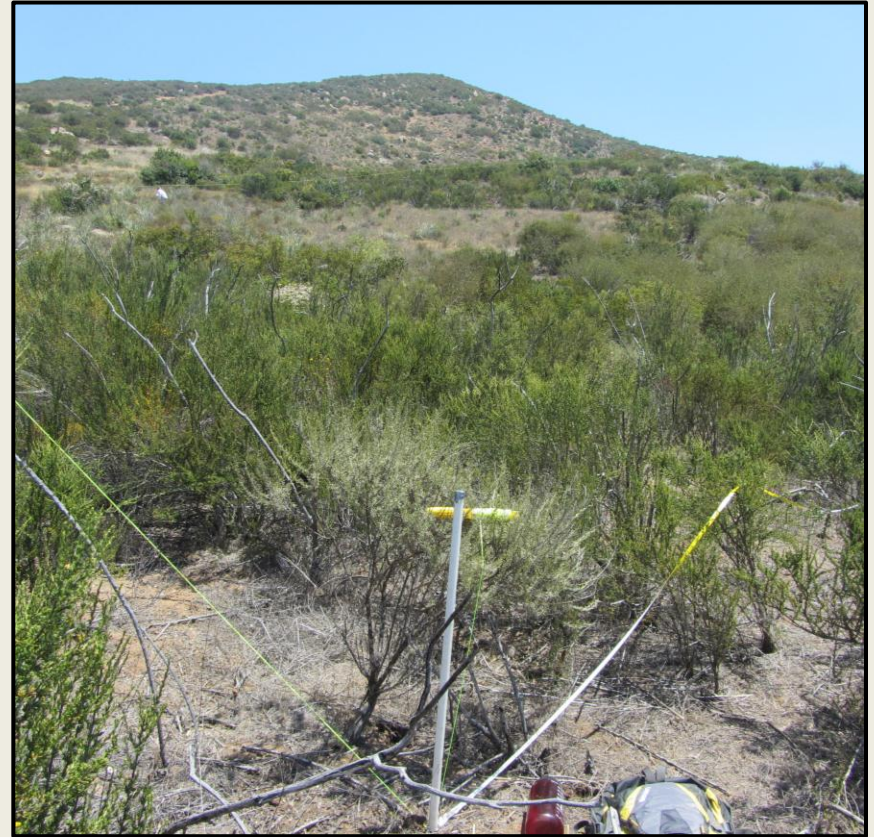


Photograph 10: North corner of Index Plot 3.

Nolina interrata (Dehesa beargrass) Index Plots

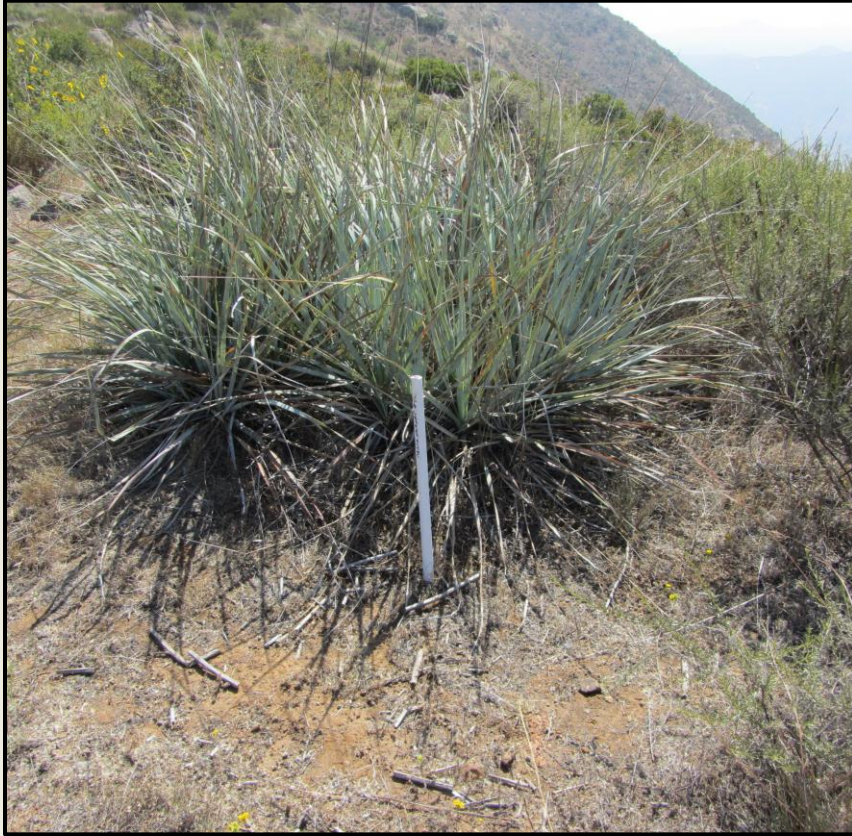


Photograph 11: South corner of Index Plot 3.



Photograph 12: West corner of Index Plot 3.

Nolina interrata (*Dehesa beargrass*) Photopoints

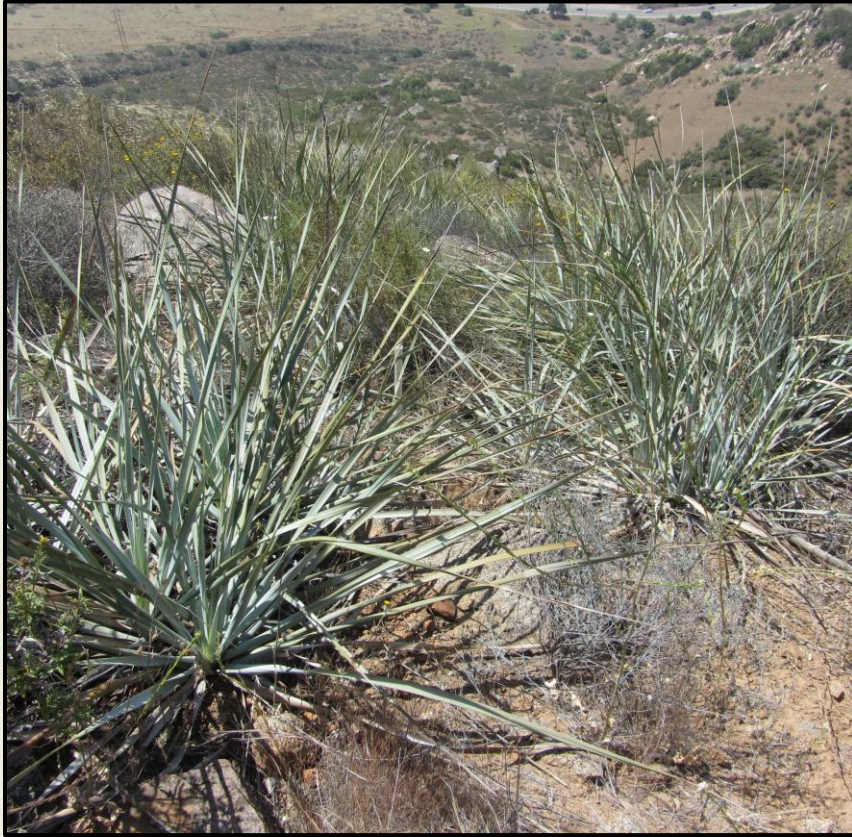


Photograph 13: Photopoint 1-A.



Photograph 14: Photopoint 1-B.

Nolina interrata (Dehesa beargrass) Photopoints



Photograph 15: Photopoint 1-C.



Photograph 16: Photopoint 2-A.

Nolina interrata (Dehesa beargrass) Photopoints



Photograph 17: Photopoint 2-B.



Photograph 18: Photopoint 2-C.

Nolina interrata (*Dehesa beargrass*) Photopoints



Photograph 19: Photopoint 3-A.



Photograph 20: Photopoint 3-B.

Nolina interrata (*Dehesa beargrass*) Photopoints



Photograph 21: Photopoint 3-C.

APPENDIX G

PHOTOMONITORING LOG:

Acanthomintha ilicifolia (San Diego Thornmint)
Weed Control, Crestridge Ecological Reserve

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 1: One-foot rebar marking quadrat corner.



Photograph 2: Quadrat formed by using tape measure to connect all four 1-foot rebar pieces at each corner. Note the presence of competitive plant cover.

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 3: Snips and scissors used for clipping.



Photograph 4: Clipping in bottom quarter of quadrat. Note: black pen in clipped area (red arrow) marks the thornmint seedling location in photographs 5 and 6.

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 5: San Diego thornmint seedling prior to clipping competitive plants.



Photograph 6: Same thornmint seedling in photograph 5 after clipping competitive plants.

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 7: Two-thirds of the quadrat has been clipped.



Photograph 8: Closeup of occupied thornmint habitat after clipping. Note: Palmer's grapplinghook and wild onion in photograph.

Acanthomintha ilicifolia (San Diego thornmint)



Photograph 9: Occupied thornmint habitat prior to clipping competitive plants.



Photograph 10: Occupied thornmint habitat after clipping competitive plants.