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July 2, 2012

427930.DI.DR

Mike Monasmith
Senior Project Manager
Systems Assessment & Facility Siting Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

Subject: Data Response, Set 2D-4
Hidden Hills Solar Electric Generating System (11-AFC-2)

Dear Mr. Monasmith:

On behalf of Hidden Hills Solar I, LLC; and Hidden Hills Solar II, LLC, please find attached an electronic copy of Data Response Set 2D-4 in partial response to Staff's Data Request Set 2D filed on February 3, 2012.

This data response set is being filed electronically. Please call me if you have any questions.

Sincerely,
CH2M HILL

A handwritten signature in blue ink, reading "John L. Carrier".

John L. Carrier, J.D.
Program Manager

Encl.

c: POS List
Project file

California Energy Commission
DOCKETED
11-AFC-2

TN # 69530

FEB 15 2013

Data Response Set 2D-4

Hidden Hills

Solar Electric Generating System

(11-AFC-2)



Application for Certification
Hidden Hills Solar I, LLC; and Hidden Hills Solar II, LLC

July 2012

With Technical Assistance from



Hidden Hills Solar Electric Generating System (HHSEGS)

(11-AFC-2)

**Data Response, Set 2D-4
(Response to Data Request 174)**

Submitted to the
California Energy Commission

Submitted by
**Hidden Hills Solar I, LLC; and
Hidden Hills Solar II, LLC**

July 2, 2012

With Assistance from
CH2MHILL
2485 Natomas Park Drive
Suite 600
Sacramento, CA 95833

Contents

Section	Page
Introduction	1
Biological Resources (174)	2

Introduction

Attached is the Hidden Hills Solar I, LLC, and Hidden Hills Solar II, LLC (collectively, “Applicant”) response to the California Energy Commission (CEC) Staff’s Data Request Number 174 for the Hidden Hills Solar Electric Generating System (HHSEGS) Project (11-AFC-2). The CEC Staff served this data request on March 9, 2012. Data Request Number 174 requires a brief status report or memo on the 2012 offsite botanical surveys, with botanical survey data submitted first, followed by the report. A two-step submittal was proposed to allow CEC staff earlier access to the survey data.

Biological Resources (174)

BACKGROUND – Off-site Surveys

During the public workshop on February 22, 2012, the applicant volunteered to conduct additional off-site surveys for the 10 special-status plant species found on the project site during the spring 2011 botanical surveys within the proposed project site (tn 63262: Data Response Set 1B-2, Attachment Data Request #63-1A, filed 12/30/2011). Additional off-site occurrences, if found, could improve staff's understanding of the broader range of these rare species in California, and allow staff to understand where additional occurrences are located which could possibly lessen the likelihood of significant impacts for some of the rarest species. Additional information on the size and integrity of the off-site occurrences, ownership, and management opportunities would allow staff to consider a full range of mitigation options. Given the timing of these additional field surveys, the results of these additional surveys will not necessarily be available for the Preliminary Staff Assessment, however, they will be fully considered in staff's Final Staff Assessment.

DATA REQUEST

174. Please submit a brief status report or memo on the spring 2012 surveys for the following 10 special status plant species: pink funnel-lily (*Androstephium breviflorum*), gravel milk-vetch (*Astragalus sabulonum*), Preuss' milk-vetch (*Astragalus preussii* var. *preussii*), Tidestrom's milk-vetch (*Astragalus tidestromii*), Wheeler's skeletonweed (*Chaetadelpa wheeleri*), purplenerve spring parsley (*Cymopterus multinervatus*), Pahrump Valley buckwheat (*Eriogonum bifurcatum*), Goodding's phacelia (*Phacelia pulchella* var. *gooddingii*), desert wing-fruit (*Selinocarpus nevadensis*), and Nye milk-vetch (*Astragalus nyensis*). The status report shall include a table of all new occurrences, copies of completed California Natural Diversity Database (CNDDDB) field forms for each special-status plant occurrence, and the new GPS data (and metadata). The status report shall be submitted no later than May 15th, 2012. A final spring 2012 Botanical Survey Report shall be submitted no later than June 15th, 2012. The final report shall include a brief discussion of the survey methods, maps of all occurrences at a scale identical to that used in the spring 2011 Botanical Resource Survey (1" = 2,400 feet), a table of new occurrences that includes information on the occurrence size and site quality, ownership, and management or restoration opportunities. Please include all GPS data (and metadata). If any new species are found, please provide species accounts and status codes.

Response: Completed California Natural Diversity Database (CNDDDB) field forms along with Global Positioning System (GPS) coordinates and other location-specific data from the 2012 spring site and off-site surveys were submitted to the California Natural Diversity Database (CNDDDB) on June 24, 2012, and are provided as an attachment to this response. Due to the weather conditions this year and large scope of area included in the surveys, surveys were not completed until mid-May. A survey report is currently being prepared that summarizes the survey methods and results, and will contain maps showing the location of the special-status plants observed during the offsite surveys. This report will be submitted in early to mid-August. A brief summary of the survey results is provided below.

The 2012 spring off-site surveys for special-status plants were conducted in the following locations:

- Pahrump Valley
- Stewart Valley
- Chicago Valley
- California Valley
- Shadow Valley (north and south of I-15)
- Mesquite Valley
- Mesquite Mountains
- Southern Nopah Range
- Kingston Wash
- Silurian Valley
- Salt Spring Hills
- Dumont Dunes area
- Shoshone-Tecopa area

The year 2012 has been very dry in the Mojave Desert, and this has influenced survey results. Despite the dry year, many localities of special-status plants were observed during the 2012 spring off-site surveys. As noted above, CNDDDB forms were prepared and submitted on June 24 to the CNDDDB. Once the CNDDDB maps the data using its one-quarter-mile buffer policy, these finds are expected to add many Element Occurrences (EOs) to the existing database.

Additional localities of the following special-status plants were identified in California during the offsite surveys:

- Preuss' milkvetch (*Astragalus preussii* var. *preussii*);
- Tidestrom's milkvetch (*Astragalus tidestromii*);
- Wheeler's skeletonweed (*Chaetadelpha wheeleri*) (identified using last year's skeletons);
- Torrey's joint-fir (*Ephedra torreyana*);
- Pahrump Valley buckwheat (*Eriogonum bifurcatum*); and
- Goodding's phacelia (*Phacelia pulchella* var. *gooddingii*) (identified using last year's skeletons).¹

No annual plants were observed in most of the survey areas, and some of the special-status species did not germinate or grow in 2012 due to the drought conditions. Habitat was searched for the pink-flowered androstephium (*Androstephium breviflorum*), Nye milkvetch (*Astragalus nyensis*), and gravel milkvetch (*Astragalus sabulonum*), but no additional localities were found. Known localities mapped in 2011 were also not found.

¹ This list only includes the species that were identified from the site.

CNDDB 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): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 4 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 75% flowering 25% 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)

Northeast Mojave Desert, Mesquite Valley, Quartz Road, 0.2 mile west of the intersection of Quartz Road and Stateline Road. North side of road (Inyo Co.)

County: Inyo County

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2604 ft

T 20N R 56E Sec 35, SE 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 48' 33.222" N Long 115° 39' 8.625" W

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):

Valley bottom, clay flats; light-colored silty soil with some calcareous gravel: Atriplex canescens, Suaeda moquinii, Stanleya pinnata, Lepidium fremontii, Atriplex confertifolia, Eriogonum bifurcatum, some Salsola sp., Sisymbrium altissimum. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Agriculture - alfalfa and turf grass in circular plots. Open space. Few scattered rural residences.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds. Agricultural area.

Comments: Collection: Andrew Sanders 40045, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 110 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 100% flowering 90% 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)

Northeast Mojave Desert, Mesquite Valley, Quartz Road, 0.4 mile west of the intersection of Quartz Road and Stateline Road. North side of road (Inyo Co.)

County: Inyo County

Landowner / Mgr.: Private?

Quad Name: West of Shenandoah Peak

Elevation: 2600 ft

T 20N R 56E Sec 35, SE 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 48' 33.047" N Long 115° 39' 13.698" W

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):

Valley bottom, clay flats; light-colored silty soil with some calcareous gravel: *Atriplex canescens*, *Suaeda moquinii*, *Stanleya pinnata*, *Lepidium fremontii*, *Atriplex confertifolia*, *Eriogonum bifurcatum*, *Salsola* sp., *Sisymbrium altissimum*, *Tamarix ramosissima*, *Bromus tectorum*. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Agriculture - alfalfa and turf grass in circular plots in area. Open space. Few scattered rural residences.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds. Agricultural area.

Comments: Collection: Andrew Sanders 40048, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 40 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 20% vegetative 80% flowering 80% 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)

Northeast Mojave Desert, Mesquite Valley, Quartz Road, 0.6 mile west of the intersection of Quartz Road and Stateline Road. Both sides of road (north is Inyo Co; south is San Bernardino Co)

County: Inyo County/San Bernardino Co

Landowner / Mgr.: Private?

Quad Name: West of Shenandoah Peak

Elevation: 2616 ft

T 20N R 56E Sec 35, SW 1/4 of SW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 48' 33.272" N Long 115° 39' 35.071" W

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):

Valley bottom, clay flats; light-colored silty soil with some calcareous gravel: *Atriplex canescens*, *Suaeda moquinii*, *Stanleya pinnata*, *Lepidium fremontii*, *Atriplex confertifolia*, *Eriogonum bifurcatum*, *Salsola* sp., *Sisymbrium altissimum*, *Tamarix ramosissima*, *Bromus tectorum*. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Agriculture - alfalfa and turf grass in circular plots in area. Open space. Few scattered rural residences.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds. Agricultural area.

Comments: Collection: Andrew Sanders 40049, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 3000+ Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 5% vegetative 95% flowering 95% 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)

Northeast Mojave Desert, Mesquite Valley, Paute Road, 0.1 mile north of the intersection of Paute Road and Tecopa Road.

County: San Bernardino Co

Landowner / Mgr.: Private?

Quad Name: West of Shenandoah Peak

Elevation: 2591 ft

T_{19N} R_{56E} Sec 2, 1/4 of SW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 47' 46.793" N Long 115° 39' 18.978" W

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):

Valley bottom, clay flats; light-colored silty soil: Atriplex canescens, Suaeda moquinii, Prosopis glandulosa, Eriogonum bifurcatum, Salsola sp. Population extends ca. 1000 ft west and 1000 ft east of Paute Rd. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Agriculture - alfalfa and turf grass in circular plots in area. Open space. Few scattered rural residences.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds. Agricultural area.

Comments: Collection: Andrew Sanders 40050, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 4000+ Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 5% vegetative 95% flowering 95% 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)

Northeast Mojave Desert, Mesquite Valley, Paute Road, 0.3-0.5 mile south of the intersection of Paute Road and Quartz Road. Population extends ca. 0.2 mile along Paute Road, mostly on east side of road.

County: San Bernardino Co

Landowner / Mgr.: Private?

Quad Name: West of Shenandoah Peak

Elevation: 2600 ft

T_{19N} R_{56E} Sec 2, 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR

Geographic (Latitude & Longitude) ☒

Coordinates: From: Lat 35° 48' 5.941" N Long 115° 39' 18.647" W To: Lat 35° 48' 16.837" N Long 115° 39' 19.013" W

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):

Valley bottom, clay flats; light-colored silty soil with fine cracks: Atriplex canescens, Suaeda moquinii, Prosopis glandulosa, Eriogonum bifurcatum, Salsola sp., Tamarix ramosissima, Sisymbrium altissimum. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Agriculture - alfalfa and turf grass in circular plots in area. Open space. Few scattered rural residences.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds. Agricultural area.

Comments: Collection: Andrew Sanders 40052, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

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

Total No. Individuals 5 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 80% vegetative 20% flowering 0% 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)

Northeast Mojave Desert, Mesquite Valley, Stateline Road, 0.2 mile northwest of Quartz Road.

County: Inyo County Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak Elevation: 2607 ft

T 20N R 12E Sec 35, 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 48' 37.646" N Long 115° 38' 59.776" W

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):

Valley bottom, clay flats; light-colored silty soil: in unpaved road: Atriplex confertifolia, Suaeda moquinii, Stanleya pinnata.

This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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. Scattered rural residences at distance, east, in Nevada.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly.

Comments: Collection: Howald 2844, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 38 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: 2847 UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 25% vegetative 75% flowering 75% 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)

Northeast Mojave Desert, Mesquite Valley, Stateline Road, 0.75 mile northwest of Quartz Road. Population extends into Nevada. Plants in NV not counted.

County: Inyo County

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2620 ft

T 20N R 12E Sec 35, 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 48' 59.497" N Long 115° 39' 30.542" W

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):

Valley bottom, clay flats; light-colored silty soil with fine cracks: at intersection of several unpaved road. Adjacent vegetation: *Atriplex confertifolia*, *Suaeda moquinii*, *Stanleya pinnata*, *Atriplex canescens*, *Eriogonum bifurcatum*. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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. Scattered rural residences at distance, east, in Nevada.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly.

Comments: Collection: Howald 2847, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Astragalus preussii preussii

Common Name: Preuss' milkvetch

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

Total No. Individuals ca. 200 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 10 % 75 % 90 %
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)

Northeast Mojave Desert, Mesquite Valley, Stateline Road, 1.3 to 1.6 miles northwest of Quartz Road. Population extends 0.3 mile along Stateline Rd. Also into NV. Plants in NV not counted.

County: Inyo County Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak Elevation: 2645 ft

T 20N R 12E Sec 34, 1/4 of NW 1/4, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T 20N R 12E Sec 27, SW 1/4 of SW 1/4, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 49' 17.880" N Long 115° 39' 54.871" W To: Lat 35° 49' 27.576" N Long 115° 40' 5.934" W

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):

Valley bottom, clay flats; light-colored silty soil with some calcareous gravel, also local areas of mounded wind-blown sand: Atriplex confertifolia, Suaeda moquinii, Stanleya pinnata, Atriplex canescens, Eriogonum bifurcatum, some Salsola sp. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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. Scattered rural residences at distance, east, in Nevada.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly.

Comments: Collections: Howald 2848 and 2849, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Astragalus preussii preussii

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals ca. 750 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 25 % 35 % 80 %
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)

Northeast Mojave Desert, Mesquite Valley, Stateline Road, 1.7 to 1.8 miles northwest of Quartz Road. Population extends 0.2 mile along Stateline Rd. Also extends into NV. Plants in NV not counted.

County: Inyo County

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2645 ft

T 20N R 12E Sec 27, _____ 1/4 of SE 1/4, Meridian: ☐ H ☐ M ☐ S

Source of Coordinates (GPS, topo. map & type): GPS

T 20N R 12E Sec 27, _____ 1/4 of SW 1/4, Meridian: ☐ H ☐ M ☐ S

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 49' 32.590" N Long 115° 40' 14.893" W To: Lat 35° 49' 39.091" N Long 115° 40' 21.016" W

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):

Valley bottom, clay flats; light-colored silty soil with some calcareous gravel: Atriplex confertifolia, Atriplex canescens, Suaeda moquinii, Stanleya pinnata, Lepidium fremontii, Eriogonum bifurcatum, some Salsola sp. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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. Scattered rural residences at distance, east, in Nevada.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly.

Comments: Collections: Howald 2850, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

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

Total No. Individuals 85 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 5% flowering 95% 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)

Northeast Mojave Desert, Mesquite Valley, unnamed unpaved road, 0.6 mile west of CA-NV state line, and ca. 2.0 miles north of Quartz Road.

County: Inyo County Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak Elevation: 2630 ft

T 20N R 12E Sec 27, SE 1/4 of SW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 49' 27.229" N Long 115° 40' 20.875" W

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):

Valley bottom, clay flats; silty soil, some sand. Atriplex canescens, Stipa hymenoides, Stanleya pinnata, Eriogonum bifurcatum.
This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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. Scattered rural residences at distance, east, in Nevada.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly.

Comments:

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/18/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Astragalus preussii preussii

Common Name: Preuss' milkvetch

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

Total No. Individuals 5,000+ Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 10 % 30 % 90 %
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)

Northeast Mojave Desert, western Mesquite Valley, Palm Road, ca. 1 mile east of its intersection with Kingston Road, extending ca. 0.75 mile north (see map).

County: San Bernardino County

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2560-2575 ft

T 19N R 12E Sec 22, _____ 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 45' 3.227" N Long 115° 40' 22.609" W To: Lat 35° 45' 39.474" N Long 115° 40' 12.919" W

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):

Western edge of valley bottom; soil sandy-silty, transition area between creosote bush scrub and shadscale scrub: *Larrea tridentata*, *Atriplex confertifolia*, *Atriplex polycarpa*, *Suaeda moquinii*, *Ephedra funerea*, *Krameria erecta*, *Lycium* sp., *Tidestromia oblongifolia*, *Sporobolus airoides*, *Opuntia ramosissima*. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Agriculture - alfalfa in circular plots. Open space. Few scattered rural residences.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds. Agricultural area.

Comments: Collections: Andrew Sanders 40054, 40058, 40059, UC Riverside Herbarium. At this locality, some young plants grow in alfalfa fields.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

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): 04/18/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Astragalus preussii preussii

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 1,000+ Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 100 % 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)

Northeast Mojave Desert, western Mesquite Valley, Road 20197, ca. 0.6 to 1 mile north of its intersection with Palm Road (see map).

County: San Bernardino County

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2564-2577 ft

T 19N R 12E Sec 22, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S

Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec 23, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 45' 28.837" N Long 115° 39' 50.691" W To: Lat 35° 45' 14.591" N Long 115° 39' 50.039" W

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):

Western edge of valley bottom; soil sandy-silty: Atriplex confertifolia, Suaeda moquinii, Prosopis glandulosa. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Agriculture - alfalfa in circular plots. Open space. Few scattered rural residences.

Visible disturbances: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds. Agricultural area.

Comments: Collections: Andrew Sanders 40066, UC Riverside Herbarium.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

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

Total No. Individuals 7 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 50% vegetative 0% flowering 50% 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)

Northeast Mojave Desert, southern Pahrump Valley, Rancho Road, ca. 1.7 miles north of its intersection with Old Spanish Trail Hwy.

County: Inyo County Landowner / Mgr.: Private

Quad Name: Nopah Peak Elevation: 2572 ft

T 22N R 10E Sec 20, 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 59' 43.152" N Long 115° 55' 34.535" W

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):

Valley bottom, light brown puffy silty soil, with small caliche gravel: Atriplex confertifolia, Gutierrezia microcephala, Ephedra torreyana, Stanleya pinnata, Lycium pallidum. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Unpaved road network.

Threats: None known.

Comments: Collection: Onkar Singh 2775, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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): 05/11/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 15 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 50% vegetative 0% flowering 50% 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)

Northeast Mojave Desert, northern Pahrump Valley, edge of BLM Nopah Range Wilderness, stateline road, ca. 0.5 southeast of its intersection with Hwy 178. Population continues east into NV. Plants in NV not counted.

County: Inyo County

Landowner / Mgr.: BLM Nopah Range Wilderness

Quad Name: Sixmile Spring

Elevation: 2480 ft

T 24N R 8E Sec 22, SW 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR

Geographic (Latitude & Longitude) ☒

Coordinates: Lat 36° 9' 40.955" N Long 116° 6' 4.950" W

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):

East edge of valley, light brown puffy silty soil: Atriplex confertifolia, Prosopis glandulosa, Chrysothamnus nauseosus, Lepidium fremontii, Stanleya pinnata. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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. Wilderness.

Visible disturbances: Unpaved road network.

Threats: None known.

Comments: Collection: Onkar Singh 2779, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/11/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

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

Total No. Individuals 7 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 75% vegetative 25% flowering 25% 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)

Northeast Mojave Desert, northern Pahrump Valley, stateline road, ca. southeast of its intersection with Hwy 178.

County: Inyo County Landowner / Mgr.: BLM

Quad Name: Nopah Peak Elevation: 2528 ft

T 23N R 9E Sec 20, 1/4 of 1/4, Meridian: H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec 29, 1/4 of 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 36° 6' 17.712" N Long 116° 1' 43.500" W

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):

Valley bottom, light brown puffy silty soil, with small calcareous gravel: Atriplex confertifolia, Prosopis glandulosa, Ambrosia dumosa, Gutierrezia microcephala, Ephedra torreyana, Stanleya pinnata, Lycium andersonii. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Unpaved road network.

Threats: None known.

Comments: Collection: Onkar Singh 2784, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/03/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Astragalus preussii preussii

Common Name: Preuss' milkvetch

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 2 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, HHSEGS Site, stateline road, ca. 1.7 miles northwest of its intersection with Old Spanish Trail Highway.

County: Inyo County

Landowner / Mgr.: Private

Quad Name: Calvada Springs

Elevation: 2647 ft

T 22N R 10E Sec 23, SW ¼ of SW ¼, Meridian: H ☐ M ☐ S ☐

Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H ☐ M ☐ S ☐

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 59' 27.077" N Long 115° 52' 51.760" W

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):

East edge of valley, sandy soil: Larrea tridentata, Ambrosia dumosa, Stipa hymenoides, Gutierrezia microcephala, Hilaria rigida, Atriplex confertifolia, Atriplex canescens, Atriplex polycarpa, Krameria erecta. This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds in area.

Comments: Collection: Andrew Sanders #40111, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 05/07/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus preussii preussii*

Common Name: Preuss' milkvetch

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: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 35% 65% 65%
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)

Northeast Mojave Desert, southern Pahrump Valley, Zircon Road, ca. 500 feet south of its intersection with the CA-NV stateline road.

County: Inyo County Landowner / Mgr.: Private
Quad Name: Calvada Springs Elevation: 2621 ft
T 22N R 10E Sec 22, NW ¼ of NW ¼, Meridian: H ☐ M ☐ S ☐
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H ☐ M ☐ S ☐
DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒
Coordinates: Lat 35° 59' 50.796" N Long 115° 53' 26.025" W
Source of Coordinates (GPS, topo. map & type): GPS
GPS Make & Model Trimble
Horizontal Accuracy < 1m meters/feet

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):

East edge of valley, sandy soil: Larrea tridentata, Ambrosia dumosa, Stipa hymenoides, Gutierrezia microcephala, Hilaria rigida.
This perennial is actively growing and flowering in a dry year. Plants are more common in open sites with less competition, such as roads and roadsides. Old plants have hard, woody rootcrown at/near soil surface.

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: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds in area.

Comments: Collection: Onkar Singh 2719, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/16/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Astragalus tidestromii

Common Name: Tidestrom's milkvetch

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

Total No. Individuals ca. 140 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☐ no ☒ unk.
Yes, Occ. # _____

Collection? If yes: see below UCR Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 50 % 30 % 30 %
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)

East Mojave Desert, Shadow Valley, Excelsior Mine Road, extending sporadically along road, both sides, from 1.8 to 3.0 miles north of intersection with Interstate Hwy 15.

County: San Bernardino

Landowner / Mgr.: BLM

Quad Name: Valley Wells

Elevation: 3673-3571 ft

T 16N R 12E Sec 22, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐

Source of Coordinates (GPS, topo. map & type): GPS

T 16N R 12E Sec 16, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐

GPS Make & Model Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1 m meters/feet

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

Coordinates: From: Lat 35° 27' 8.480" Long 115° 41' 6.116" To: Lat 35° 28' 40.127" Long 115° 42' 11.621"

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):

Very gradually rolling terrain in Shadow Valley, in gravelly soil along the road (some limestone), including areas where the roadside had been bladed. Larrea tridentata, Krameria erecta, Ambrosia dumosa, Gutierrezia microcephala and G. sarothrae, Hymenoclea salsola, Amsonia tomentosa, Chrysothamnus paniculatus, Lepidium fremontii, Yucca schidigera, Atriplex confertifolia, few Yucca brevifolia.

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: Wilderness/open space.

Visible disturbances: Paved road.

Threats: None. This species is prolific next to roads.

Comments: Andrew Sanders collection #40043, UCR Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: GANDA HHSEGS 2011 offsite report
☒ By another person (name): Andrew Sanders, UCR
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

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

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/16/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus tidestromii*

Common Name: Tidestrom's milkvetch

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

Total No. Individuals 3 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 100% vegetative 0% flowering 0% 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)

East Mojave Desert, Shadow Valley, Excelsior Mine Road, ca. 10.6 miles north of intersection with Interstate Hwy 15.

County: San Bernardino

Landowner / Mgr.: BLM wilderness (adjacent to road)

Quad Name: Pachalka Spring

Elevation: 3240 ft

T 17N R 12E Sec 8, 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 Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1 m meters/feet

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

Coordinates: Lat 35° 35' 6.347" Long 115° 43' 16.800"

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):

Very gradual slope at the north end of Shadow Valley, in gravelly soil along the road (some limestone). Larrea tridentata, Krameria erecta, Ambrosia dumosa, Gutierrezia microcephala and sarothrae, Hymenoclea salsola, Amsonia tomentosa.

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: Wilderness/open space.

Visible disturbances: Paved road.

Threats: None. This species is prolific next to roads.

Comments: Although these plants were vegetative, the stemless condition and the leaf characters are consistent with ASTI, and we found mature ASTI pods in the vicinity of these plants. We found several other ASTI locations along Excelsior Mine Rd.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: GANDA HHSEGS 2011 offsite report
☒ By another person (name): Andrew Sanders, UCR
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/16/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus tidestromii*

Common Name: Tidestrom's milkvetch

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

Total No. Individuals 18 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 100% vegetative 0% flowering 0% 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)

East Mojave Desert, Shadow Valley, Excelsior Mine Road, ca. 10.9 miles north of intersection with Interstate Hwy 15.

County: San Bernardino

Landowner / Mgr.: BLM

Quad Name: Pachalka Spring

Elevation: 3220 ft

T 17N R 12E Sec 5, 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 Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1 m meters/feet

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

Coordinates: Lat 35° 35' 16.683" Long 115° 43' 20.870"

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):

Very gradual slope at the north end of Shadow Valley, in sandy-gravelly soil along the road (some limestone). Larrea tridentata, Krameria erecta, Ambrosia dumosa, Gutierrezia microcephala and G. sarothrae, Hymenoclea salsola, Amsonia tomentosa, Grusonia parishii.

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: Wilderness/open space.

Visible disturbances: Paved road.

Threats: None. This species is prolific next to roads.

Comments: Although these plants were vegetative, the stemless condition and the leaf characters are consistent with ASTI. We found several other ASTI locations along Excelsior Mine Rd, including flowering and fruiting individuals.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: GANDA HHSEGS 2011 offsite report
☒ By another person (name): Andrew Sanders, UCR
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

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): 04/16/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus tidestromii*

Common Name: Tidestrom's milkvetch

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

Total No. Individuals 50 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 100% vegetative 0% flowering 0% 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)

East Mojave Desert, Shadow Valley, Excelsior Mine Road, ca. 11.4 miles north of intersection with Interstate Hwy 15.

County: San Bernardino

Landowner / Mgr.: BLM

Quad Name: Pachalka Spring

Elevation: 3204 ft

T 17N R 12E Sec 5, 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 Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1 m meters/feet

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

Coordinates: Lat 35° 35' 49.815" Long 115° 43' 35.378"

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):

Very gradual slope at the north end of Shadow Valley, in sandy-gravelly soil along the road (some limestone). Larrea tridentata, Krameria erecta, Ambrosia dumosa, Gutierrezia microcephala and G.sarothrae, Hymenoclea salsola, Yucca brevifolia.

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: Wilderness/open space.

Visible disturbances: Paved road.

Threats: None. This species is prolific next to roads.

Comments: Although these plants were vegetative, the stemless condition and the leaf characters are consistent with ASTI. We found several other ASTI locations along Excelsior Mine Rd, including flowering and fruiting individuals.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: GANDA HHSEGS 2011 offsite report
☒ By another person (name): Andrew Sanders, UCR
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

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): 04/16/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus tidestromii*

Common Name: Tidestrom's milkvetch

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

Total No. Individuals 20 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 100% vegetative 0% flowering 0% 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)

East Mojave Desert, Shadow Valley, off Cima Road, ca. 1 mile south, and 0.1 mile east of intersection with Interstate Hwy 15. Not on roadside.

County: San Bernardino

Landowner / Mgr.: Mojave Preserve

Quad Name: Valley Wells

Elevation: 3785 ft

T_{16N} R_{12E} Sec 35, NE? ¼ of _____ ¼, Meridian: H ☐ M ☐ S ☐

Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H ☐ M ☐ S ☐

GPS Make & Model Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1 m _____ meters/feet

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

Coordinates: Lat 35° 25' 53.692" Long 115° 39' 40.612"

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):

Very gradual slope at the southern end of Shadow Valley, in silty-sandy-gravelly soil (some limestone); small drainages in the vicinity. Yucca brevifolia, Larrea tridentata, Krameria erecta, Ambrosia dumosa, Krascheninnikovia lanata, Atriplex confertifolia.

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: Mojave Preserve/open space.

Visible disturbances: None.

Threats: None.

Comments: Although these plants were vegetative, the stemless condition and the leaf characters are consistent with ASTI, and we found mature ASTI pods in the vicinity of these plants.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: GANDA HHSEGS 2011 offsite report
☒ By another person (name): Andrew Sanders, UCR
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

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

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/19/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus tidestromii*

Common Name: Tidestrom's milkvetch

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

Total No. Individuals 22 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 100% vegetative 0% flowering 10% 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)

East Mojave Desert, Shadow Valley, Excelsior Mine Road, 19.5 miles north of intersection with Interstate Hwy 15.

County: San Bernardino

Landowner / Mgr.: BLM wilderness (adjacent to road)

Quad Name: East of Kingston Peak

Elevation: 3641 ft

T_{19N} R_{11E} 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 Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1 m _____ meters/feet

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

Coordinates: Lat 35° 42' 27.395" Long 115° 47' 29.852"

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):

Gentle southeast-facing slope, north end of Shadow Valley, in gravelly soil (some limestone), roadsides and in adjacent Mojave Desert scrub. Larrea tridentata, Menodora spinescens, Coleogyne ramosissima, Gutierrezia sp., Hymenoclea salsola, Eriogonum fasciculatum polifolium, Ephedra sp.

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: Paved road.

Threats: None. This species is prolific next to roads.

Comments: Although these plants were vegetative, the stemless condition and the leaf characters are consistent with ASTI, and we found mature pods at the base of several plants. We saw this species in flower and in fruit at known locations further south on Excelsior Mine Road.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: GANDA HHSEGS 2011 offsite report
☒ By another person (name): Andrew Sanders, UCR
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/19/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus tidestromii*

Common Name: Tidestrom's milkvetch

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

Total No. Individuals 3 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 100% vegetative 0% flowering 33% 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)

East Mojave Desert, Mesquite Mountains, Kingston Road, ca. 1 mile south of Winters Pass, and 5.7 miles northeast of intersection with Excelsior Mine Road.

County: San Bernardino

Landowner / Mgr.: BLM wilderness (adjacent to road)

Quad Name: Mesquite Mountain

Elevation: 3817 ft

T 18.5N R 12E Sec 32, 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 Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1 m meters/feet

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

Coordinates: Lat 35° 41' 24.848" Long 115° 42' 12.650"

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):

Saddle in Mesquite Mountains, in gravelly roadcut (some limestone). Yucca brevifolia, Yucca schidigera, Larrea tridentata, Encelia virginensis, Coleogyne ramosissima, Sphaeralcea ambigua, Eriogonum inflatum, etc.

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: Wilderness/open space.

Visible disturbances: Paved road.

Threats: None. This species is prolific next to roads.

Comments: Although these plants were vegetative, the stemless condition and the leaf characters are consistent with ASTI, and we found mature pods at the base of one plant.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: GANDA HHSEGS 2011 offsite report
☒ By another person (name): Andrew Sanders, UCR
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/21/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus tidestromii*

Common Name: Tidestrom's milkvetch

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

Total No. Individuals 1 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 100% 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)

East Mojave Desert, southern Pahrump Valley, BLM Pahrump Valley Wilderness, ca. 1 mile south of wilderness boundary, and 1.7 miles west of CA/NV line.

County: Inyo Landowner / Mgr.: BLM wilderness

Quad Name: Stump Springs Elevation: 2764 ft

T 21N R 11E Sec 20, 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 Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1 m meters/feet

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

Coordinates: Lat 35° 54' 46.507" N Long 115° 49' 40.046" W

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):

In shallow sandy drainage on lower edge of southwest-trending bajada at northeast base of Kingston Range. Larrea tridentata, Krameria erecta, Ambrosia dumosa, Krameria erecta.

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: Wilderness/open space.

Visible disturbances: None.

Threats: None.

Comments: This locality is based on one mature ASTI fruit. No plants were observed. Fruit could have been transported in wash. Small washes are typical habitat for ASTI in this area.

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): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/21/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Astragalus tidestromii*

Common Name: Tidestrom's milkvetch

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

Total No. Individuals 5 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 100% 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)

East Mojave Desert, southern Pahrump Valley, BLM Pahrump Valley Wilderness, ca. 1 mile south of wilderness boundary, and 1.7 miles west of CA/NV line.

County: Inyo Landowner / Mgr.: BLM wilderness

Quad Name: Stump Springs Elevation: 2746 ft

T 21N R 11E Sec 18, 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 Trimble GeoXT

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1 m meters/feet

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

Coordinates: Lat N 35° 55' 18.416" Long W 115° 49' 57.830"

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):

In shallow sandy drainages on lower edge of southwest-trending bajada at northeast base of Kingston Range. Larrea tridentata, Krameria erecta, Ambrosia dumosa, Krameria erecta.

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: Wilderness/open space.

Visible disturbances: None.

Threats: None.

Comments: This locality is based on five mature ASTI fruits. No plants were observed. Fruit could have been transported in wash. Small washes are typical habitat for ASTI in this area.

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): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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): 04/15/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Atriplex argentea longitrichoma*

Common Name: Pahrump silverscale

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

Total No. Individuals ca. 150,000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

Collection? If yes: 002 Chloe Scott - UCR Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Stewart Valley, ca. 0.5 mile west of California-Nevada state line, and ca. 1.5 miles north of Hwy 178.

County: Inyo

Landowner / Mgr.: BLM Resting Spring Wilderness

Quad Name: Stewart Valley

Elevation: 2464 ft

T 24N R 8E Sec 17, SE 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 36° 11' 0.772" N Long 116° 08' 27.512" W

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):

Valley bottom, near Stewart Dry Lake, clay flats, puffy silty lakebed clay soil: *Atriplex canescens*, *Phacelia parishii*, *Amsinckia* sp., *Phacelia fremontii*

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, wilderness.

Visible disturbances: None.

Threats: None.

Comments: Based on skeletons remaining from 2011. Skeletons had leaves, stems, and fruits recognizable as ATARL.

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): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

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 checked="" type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/21/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Chaetadelpa wheeleri*

Common Name: Wheeler's skeletonweed

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

Total No. Individuals 5 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, BLM Pahrump Valley Wilderness, ca. 0.5 mile south of northern boundary of BLM Pahrump Valley Wilderness and ca. 2 miles west of the California-Nevada state line.

County: Inyo County

Landowner / Mgr.: BLM - wilderness

Quad Name: Stump Springs

Elevation: 2836 ft

T 21N R 11E Sec 17, SW 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 55' 19.148" N Long 115° 49' 34.734" W

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):

Gradual northwest-facing slope, rocky outcrops, sandy soil: Larrea tridentata, Ambrosia dumosa, Ephedra sp., Lycium pallidum, Lepidium fremontii.

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: None.

Threats: None. No weeds observed in area.

Comments: Identification based on skeletons remaining from 2011. Skeletons look like those observed at known localities of CHWH. Skeletons identified by: 1) branching pattern, 2) light golden color, 3) receptacles still visible at tips of branches, 4) linear leaves still attached. Also, localities mapped in vicinity of this location in 2011.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Ephedra torreyana*

Common Name: Torrey's jointfir

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 126 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 100 % 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)

Northeast Mojave Desert, southern Pahrump Valley, many locations.

County: Inyo County

Landowner / Mgr.: BLM & Private

Quad Name: Calvada Springs/Mound Spring/Nopah Peak

Elevation: 2515-2620 ft

T 22N R 10E 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: See table of GPS coordinates. 54 pts taken offsite in Pahrump Valley.

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):

Mainly southern Pahrump Valley. Gradually sloping terrain, east to west, and south to north, toward valley bottom. Soil pale-colored, silty, flat or puffy; often with fine cracks and basalt and/or caliche microgravels. Atriplex confertifolia, Lycium pallidum, Lycium andersonii, Lycium cooperi, Lepidium fremontii, Stanleya pinnata, Gutierrezia microcephala, Ambrosia dumosa, Ephedra nevadensis, occasionally with few Larrea tridentata; Halogeton glomeratus, Salsola sp., esp. near Old Spanish Trail Hwy and rural residences.

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: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds in area.

Comments: Plants counted and mapped included only those with 3 leaves at nodes and mature female cones with characters of Ephedra torreyana.
There are thousands of additional 3-leaved plants that were vegetative or had male cones scattered in vicinity of mapped female plants.
These are also likely EPTO. Collections: Ann Howald #2853, 2854, 2855 UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey photo file
☒ By another person (name): Onkar Singh, Bill Clark, Josh Utter, Chloe Scott
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☒
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Ephedra torreyana*

Common Name: Torrey's jointfir

Species Found? ☒ Yes ☐ No If not, why? _____
Total No. Individuals 329 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: see below UC Riverside Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, all of HHSEGS Site was searched.

County: Inyo County Landowner / Mgr.: Private
Quad Name: Calvada Springs/Mound Spring Elevation: 2570-2647 ft
T 22N R 10E 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 Trimble
DATUM: **NAD27** ☐ **NAD83** ☐ **WGS84** ☒ Horizontal Accuracy < 1m meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ **OR** Geographic (Latitude & Longitude) ☒
Coordinates: See table of GPS coordinates. 87 pts taken within HHSEGS site.

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):

Mainly southwestern third of HHSEGS site, with a few plants on eastern boundary, along state line road. Gradually sloping terrain, east to west, toward valley bottom. Soil pale-colored, silty, flat or puffy; often with fine cracks and basalt and/or caliche microgravels. Atriplex confertifolia, Lycium pallidum, Lycium andersonii, Lycium cooperi, Lepidium fremontii, Stanleya pinnata, Gutierrezia microcephala, Ambrosia dumosa, Ephedra nevadensis, occasionally with few Larrea tridentata; Halogeton glomeratus, Salsola sp. in southwestern part of site, not along state line. Surveys conducted May 1-4 and 7, 2012.

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: Unpaved road network.

Threats: Use of unpaved roads by vehicles occurs regularly. Weeds in area.

Comments: Plants counted and mapped included only those with 3 leaves at nodes and mature female cones with characters of Ephedra torreyana.
There are thousands of additional 3-leaved plants that were vegetative or had male cones scattered in vicinity of mapped female plants.
These are also likely EPTO. Collections: Andrew Sanders #40112, 40125, 40126 and others, UC Riverside Herbarium

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey photo file
☒ By another person (name): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

	Slide	Print	Digital
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 checked="" type="checkbox"/>

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/15/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 250 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: 003 Chloe Scott - UCR Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Stewart Valley, near the California-Nevada state line, and ca. 1.5 miles north of Hwy 178.

County: Inyo Landowner / Mgr.: BLM

Quad Name: Stewart Valley Elevation: 2478 ft

T 24N R 8E Sec 17, NE ¼ of NE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 36° 11' 11.370" N Long 116° 08' 1.981" W

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):

Valley bottom, near Stewart Dry Lake, clay flats, puffy light brown silty lakebed clay soil: Atriplex canescens, Atriplex sp., Guilleinia lasiophylla

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: None.

Threats: None.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color. The western edge of a much larger population in Nevada.

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): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Eriogonum bifurcatum

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 7000+ Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: see below UCR Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Mesquite Valley, Quartz Road, locality extends from ca. 0.3-0.9 mile west of CA-NV border; both sides of road.

County: Inyo Co/San Bernardino County

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2609 ft

T 20N R 56E Sec 35, _____ 1/4 of S1/2 1/4, Meridian: ☐ H ☐ M ☐ S

Source of Coordinates (GPS, topo. map & type): GPS

T 19N R 56E Sec 2, _____ 1/4 of N1/2 1/4, Meridian: ☐ H ☐ M ☐ S

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 48' 33.487" N Long 115° 39' 8.192" W To: Lat 35° 48' 34.433" N Long 115° 39' 35.835" W

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):

Valley bottom, puffy light brown silty lakebed clay soil, some sand: Atriplex canescens, Atriplex confertifolia, Suaeda moquinii, Stanleya pinnata, Salsola sp., Sisymbrium altissimum.

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. Agriculture. Rural residences in distance, in NV.

Visible disturbances: Unpaved roads, agriculture nearby.

Threats: Agricultural development, weeds.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color. Andrew Sanders collection # 40046, UCR Herbarium.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Eriogonum bifurcatum

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 1.5 million Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Mesquite Valley, Tecopa Road, locality extends from ca. 2.5-2.9 mile west of CA-NV border; both sides of Tecopa Road.
(see map)

County: San Bernardino County

Landowner / Mgr.: Private?

Quad Name: West of Shenandoah Peak

Elevation: 2602 ft

T 19N R 12E Sec 3, _____ 1/4 of S1/2 1/4, Meridian: H ☐ M ☐ S ☐

Source of Coordinates (GPS, topo. map & type): GPS

T 19N R 12E Sec 10, _____ 1/4 of N1/2 1/4, Meridian: H ☐ M ☐ S ☐

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 47' 41.854" N Long 115° 40' 45.853" W To: Lat 35° 47' 40.993" N Long 115° 40' 21.777" W

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):

Valley bottom, light-colored silty clay soil, some sand: Atriplex confertifolia, Atriplex polycarpa, Sphaeralcea ambigua, Sporobolus airoides, Schismus arabicus, Salsola sp.

Low dunes nearby. ERBI extends to base of dunes.

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. Agriculture. Rural residences in distance.

Visible disturbances: Unpaved roads, agriculture nearby.

Threats: Agricultural development, weeds.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Eriogonum bifurcatum

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 1 million Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Mesquite Valley, Paute Road, locality extends from ca. 0.1-0.65 mile north its intersection with Tecopa Rd. Both sides Paute Rd. (see map)

County: San Bernardino County

Landowner / Mgr.: Private?

Quad Name: West of Shenandoah Peak

Elevation: 2592-2602 ft

T 19N R 56E? Sec 2, _____ 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 47' 45.572" N Long 115° 39' 19.027" W To: Lat 35° 48' 11.612" N Long 115° 39' 18.884" W

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):

Valley bottom, light-colored silty clay soil: Atriplex canescens, Suaeda moquinii, Prosopis glandulosa, Salsola sp.

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. Agriculture. Rural residences in distance.

Visible disturbances: Unpaved roads, agriculture nearby.

Threats: Agricultural development, weeds.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☒ By another person (name): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 2 million Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

Collection? If yes: see below UCR Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, Mesquite Valley, along Stateline Road, ERBI locality extends from ca. 0.2-2.7 miles northwest of the intersection of Stateline Rd and Quartz Rd. Population also extends east into NV.

County: Inyo Co

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2607-2652 ft

T 20N R 12E Sec 35, 1/4 of 1/4, Meridian: H ☐ M ☐ S ☐

Source of Coordinates (GPS, topo. map & type): GPS

T 20N R 12E Sec 28, 1/4 of 1/4, Meridian: H ☐ M ☐ S ☐

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 48' 37.974" N Long 115° 39' 1.699" W To: Lat 35° 50' 12.066" N Long 115° 41' 1.923" W

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):

Valley bottom, light brown silty soil, few areas of windblown low mounds of sand: Atriplex confertifolia, Suaeda moquinii, Atriplex canescens, Stanleya pinnata, Lepidium fremontii, Salsola sp. At northern end, ERBI becomes less dense, then pop ends as Larrea tridentata, Ambrosia dumosa, Lycium pallidum, Krameria erecta become dominant at slightly higher elev. Very large probably unpermitted trash dump area at north end of ERBI pop.

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. Rural residences in distance, in NV.

Visible disturbances: Unpaved roads.

Threats: Trash dump at north end-observed pickups w/ NV license plates bring large loads of household trash and furniture, incl. TVs to this spot.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color. Ann Howald collection # 2845, 2852, UCR Herbarium.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/17/2012

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California Native Species Field Survey Form

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Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 18,000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, Mesquite Valley, along unnamed unpaved road, ERBI locality extends from 0.25-0.8 mile south of its intersection with Stateline Road.

County: Inyo Co

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2641-2651 ft

T 20N R 12E Sec 27, 1/4 of 1/4, Meridian: H ☐ M ☐ S ☐

Source of Coordinates (GPS, topo. map & type): GPS

T 20N R 12E Sec 28, 1/4 of 1/4, Meridian: H ☐ M ☐ S ☐

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 49' 50.942" N Long 115° 40' 54.380" W To: Lat 35° 49' 29.752" N Long 115° 40' 54.551" W

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):

Valley bottom, light brown silty soil, some sand: Atriplex confertifolia, Suaeda moquinii, Atriplex canescens, Stanleya pinnata, Lycium pallidum, Lycium andersonii, Salsola sp.; Prosopis glandulosa thickets at a distance.
ERBI both sides of road.

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. Rural residences in distance, in NV.

Visible disturbances: Unpaved roads.

Threats: Weeds. Expansion of nearby trash dump. Agricultural development.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 2,000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Mesquite Valley, along unnamed unpaved road, ca. 1 mile north of Quartz Ave, and 0.35 mi west of CA-NV state line.

County: Inyo Co

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2634 ft

T 20N R 12E Sec 27, _____ 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 49' 26.962" N Long 115° 40' 21.789" W

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):

Valley bottom, sandy-silty soil: Atriplex canescens, Stanleya pinnata, Stipa hymenoides.

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. Rural residences in distance, in NV.

Visible disturbances: Unpaved roads.

Threats: Weeds.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/17/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 100 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Mesquite Valley, along unnamed unpaved road, ca. 0.4 mile north of Quartz Ave, and 0.5 mi west of CA-NV state line.

County: Inyo Co

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2608 ft

T 20N R 12E Sec 35, _____ 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 48' 55.285" N Long 115° 39' 48.794" W

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):

Valley bottom, sandy-silty soil: Atriplex confertifolia, Atriplex canescens, Suaeda moquinii, Stanleya pinnata.

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. Rural residences in distance, in NV.

Visible disturbances: Unpaved roads.

Threats: Weeds.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/20/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 500 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, Chicago Valley, ca. 1.25 miles east of Hwy 178 and ca. 1.1 miles west of Twelvemile Spring.

County: Inyo County Landowner / Mgr.: BLM

Quad Name: Twelvemile Spring Elevation: 2144 ft

T 22N R 7E Sec 12, _____ 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 36° 1' 12.624" N Long 116° 10' 27.466" W

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):

Valley bottom, gently mounded, puffy light-colored silty lakebed clay soil: Atriplex confertifolia, Suaeda moquinii, Isocoma acradenia, Atriplex phyllostegia, Stanleya pinnata, Lycium fremontii.

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: Unpaved roads in area.

Threats: None.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/20/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 1000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 100 % 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)

Northeast Mojave Desert, Chicago Valley, ca. 1.5 miles east of Hwy 178 and ca. 1.2 miles southwest of Twelvemile Spring.

County: Inyo County Landowner / Mgr.: BLM

Quad Name: Twelvemile Spring Elevation: 2144 ft

T 22N R 7E Sec 13, _____ 1/4 of NE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 36° 0' 42.207" N Long 116° 10' 17.245" W

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):

Valley bottom, gently mounded; puffy, light-colored silty lakebed clay soil: Atriplex confertifolia, Suaeda moquinii; Prosopis glandulosa in area; cryptogamic crust well-developed.

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: Unpaved roads in area.

Threats: None.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/20/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Eriogonum bifurcatum

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 37 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Chicago Valley, ca. 1.7 miles east and 0.2 mile north of the intersection of Hwy 178 and Chicago Valley Road.

County: Inyo County Landowner / Mgr.: BLM

Quad Name: Twelvemile Spring Elevation: 2116 ft

T 22N R 8E Sec 18, SW ¼ of SW ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 36° 0' 7.494" N Long 116° 10' 5.185" W

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):

Valley bottom, slightly mounded topography; pale brown silty lakebed clay soil, some small calcareous gravel, some small basalt gravel:
Atriplex confertifolia, Suaeda moquinii.

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: Unpaved roads in area.

Threats: None. No weeds observed in area.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 checked="" 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): 04/20/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Eriogonum bifurcatum

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 100 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Chicago Valley, ca. 1.5 miles east and 0.1 mile south of the intersection of Hwy 178 and Chicago Valley Road.

County: Inyo County Landowner / Mgr.: BLM

Quad Name: Twelvemile Spring Elevation: 2106 ft

T 22N R 7E Sec 24, NE ¼ of NE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 59' 56.159" N Long 116° 10' 17.005" W

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):

Valley bottom, slightly mounded topography; pale brown silty lakebed clay soil, some small calcareous gravel, some small basalt gravel:
Atriplex confertifolia, Suaeda moquinii, Larrea tridentata, Ambrosia dumosa.

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: Unpaved roads in area.

Threats: None. No weeds observed in area.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 checked="" type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<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): 04/21/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 7500 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☐ no ☒ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, ca. 0.5 mile south of Calvada Springs. (5 GPS pts taken)

County: Inyo County

Landowner / Mgr.: Private?

Quad Name: Calvada Springs

Elevation: 2610 ft

T 21N R 11E Sec 17, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S

Source of Coordinates (GPS, topo. map & type): GPS

T 21N R 11E Sec 3, _____ 1/4 of _____ 1/4, Meridian: ☐ H ☐ M ☐ S

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: Pt 002: Lat 35° 57' 20.120" N Long 115° 53' 56.837" W; Pt 003: Lat 35° 57' 19.963" N Long 115° 42.002" W
Pt 004: Lat 35° 57' 19.977" N Long 115° 53' 26.151" W; Pt 005: Lat 35° 57' 26.236" N Long 115° 53' 25.936" W

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):

Valley bottom, clay flats; light-colored silty soil with fine cracks: *Atriplex confertifolia*, *Lepidium fremontii*, *Stanleya pinnata*, *Gutierrezia microcephala*, *Atriplex canescens*, *Larrea tridentata*, *Salsola* sp., *Halogeton glomeratus*.

Pt 006: Lat 35° 57' 33.928" N Long 115° 53' 25.867" W

ERBI widely scattered over large area. Total population number likely much higher than we observed near roads.

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. Scattered rural residences in distance.

Visible disturbances: Unpaved road network.

Threats: Invasive weeds. Development if private land (not signed).

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color. A large population, mapped from road, both sides of roads.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/21/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Eriogonum bifurcatum

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 1000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, ca. 0.1 mile south of location on topo "Calvada Springs."

County: Inyo County

Landowner / Mgr.: Private?

Quad Name: Calvada Springs

Elevation: 2612 ft

T 21N R 11E Sec 34, SW ¼ of NE ¼, Meridian: ☐ H ☐ M ☐ S

Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S

GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 57' 55.708" N Long 115° 53' 25.799" W

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):

Valley bottom, clay flats; light-colored silty soil with fine cracks: Atriplex canescens, Larrea tridentata, Salsola sp., Halogeton glomeratus.

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. Scattered rural residences in distance.

Visible disturbances: Unpaved road network.

Threats: Invasive weeds. Development if private land (not signed).

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color. Both sides of road.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/21/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 1000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, ca. 0.7 mile south of Old Spanish Trail Hwy, and 0.1 mile west of Charleston View Rd.

County: Inyo County Landowner / Mgr.: Private?

Quad Name: Calvada Springs Elevation: 2602 ft

T 21N R 10E Sec 33, NE ¼ of SE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 57' 40.486" N Long 115° 54' 6.751" W - ERBI extends west 0.3 mile from this pt, both sides of road.

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):

Valley bottom, clay flats; light-colored silty soil: Larrea tridentata, Ambrosia dumosa, Gutierrezia sp., Lycium sp., Ephedra sp., Atriplex confertifolia, Lepidium fremontii, Hoffmannseggia glauca, Halogeton glomeratus.

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. Scattered rural residences in distance.

Visible disturbances: Unpaved road network.

Threats: Invasive weeds. Development if private land (not signed).

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color. Both sides of road.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/21/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 300 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, point taken at ca. 0.75 mile south of Old Spanish Trail Hwy, and 0.1 mile east of Hawk Rd.

County: Inyo County Landowner / Mgr.: Private?

Quad Name: Calvada Springs Elevation: 2585 ft

T 21N R 10E Sec 33, SW ¼ of SW ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 57' 38.529" N Long 115° 54' 55.993" W

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):

Valley bottom, clay flats; light-colored silty soil: Atriplex confertifolia, Lepidium fremontii, Lycium sp., Halogeton glomeratus.

ERBI distribution extends south of Old Spanish Trail Hwy, along Hawk Rd from about 0.2 to 0.8 mile south of OST Hwy. Pt was taken at southern end of this area. Patchy distribution of ERBI in this area.

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. Scattered rural residences in distance.

Visible disturbances: Unpaved road network.

Threats: Invasive weeds. Development if private land (not signed).

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color. Both sides of road.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/21/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 1000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, point taken at ca. 0.6 mile south of Old Spanish Trail Hwy, and 0.25 mile west of Hawk Rd.

County: Inyo County Landowner / Mgr.: Private?

Quad Name: Calvada Springs Elevation: 2596 ft

T 22N R 10E Sec 32, NW ¼ of SE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 57' 48.967" N Long 115° 55' 18.695" W

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):

Valley bottom, clay flats; light-colored silty soil: Atriplex confertifolia, Lepidium fremontii.

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. Scattered rural residences in distance.

Visible disturbances: Unpaved road network.

Threats: Invasive weeds. Development if private land (not signed).

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color. Both sides of road.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 04/22/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 20,000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, Mesquite Valley, west of Stateline Road, and north of Quartz Road. These points are western extensions of huge ERBI population that extends from ca. 0.2-2.7 miles northwest of the intersection of Stateline Rd and Quartz Rd. Population also extends east into NV.

County: Inyo Co

Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak

Elevation: 2600-2610 ft

T_{20N} R_{12E} Sec 35, 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Four pts: Lat 35° 48' 37.008" N Long 115° 39' 8.198" W; Lat 35° 48' 36.943" N Long 115° 39' 17.355" W;
Lat 35° 48' 47.073" N Long 115° 39' 17.166" W; Lat 35° 49' 0.318" N Long 115° 39' 38.074" W

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):

Valley bottom, puffy light-colored silty soil, fine cracks, small calcareous gravel: Atriplex confertifolia, Suaeda moquinii, Atriplex canescens, Stanleya pinnata, Lepidium fremontii, Lepidium montanum, Salsola sp.

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. Rural residences in distance, in NV.

Visible disturbances: Unpaved roads.

Threats: Weeds.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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): 04/22/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 3,000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Mesquite Valley, along unnamed unpaved east-west road that intersects Stateline Road ca. 0.75 mile northwest of its intersection with Quartz Road. Locality extends from 0.2-0.6 mile west of Stateline Rd.

County: Inyo Co Landowner / Mgr.: BLM?

Quad Name: West of Shenandoah Peak Elevation: 2615 ft

T 20N R 12E Sec 34, _____ 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Three pts: Lat 35° 49' 1.018" N Long 115° 39' 53.466" W; Lat 35° 49' 0.824" N Long 115° 40' 4.672" W;
Lat 35° 49' 2.884" N Long 115° 40' 9.337" W

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):

Valley bottom, puffy light-colored silty soil, fine cracks, and some mounds of light brown sand: *Atriplex confertifolia*, *Suaeda moquinii*, *Atriplex canescens*, *Stanleya pinnata*, *Lepidium fremontii*, *Lepidium montanum*, locally dense *Salsola* sp.

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. Rural residences in distance, in NV.

Visible disturbances: Unpaved roads.

Threats: Weeds.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/22/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 30 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, Mesquite Valley, along unnamed unpaved east-west road that intersects Stateline Road ca. 0.75 mile northwest of its intersection with Quartz Road. Locality is 0.2-0.6 mile west intersection with Cicchi Road.

County: Inyo Co

Landowner / Mgr.: Private?

Quad Name: West of Shenandoah Peak

Elevation: 2624 ft

T 20N R 12E Sec 33, SE 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 48' 59.862" N Long 115° 41' 1.126" W

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):

West edge of valley bottom, silty-sandy soil, near low dunes: *Atriplex canescens*, *Stanleya pinnata*.
ERBI widely scattered.

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. Rural residences in distance, in NV.

Visible disturbances: Unpaved roads.

Threats: Weeds.

Comments: Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/22/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 5500 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 100% 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)

Northeast Mojave Desert, Mesquite Valley, Cicchi Road, locality extends from 0.4-0.5 mile north of Tecopa Road; on west side of road only.

County: San Bernardino County

Landowner / Mgr.: Private?

Quad Name: West of Shenandoah Peak

Elevation: 2600 ft

T 19N R 56E Sec 4, NE 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: From Lat 35° 47' 59.403" N Long 115° 40' 56.155" W to Lat 35° 48' 3.616" N Long 115° 40' 55.784" W

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):

Valley bottom, clay flats, puffy light brown silty lakebed clay soil: Atriplex confertifolia, Atriplex polycarpa, Schismus arabicus, Salsola sp.

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: None.

Threats: None.

Comments: Population may extend further west. Identification based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: Hidden Hills 2011 survey reports
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 50 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, Ley Lane, ca. 0.1 mile east of the intersection of Garnet Rd and Ley Lane, and 0.3 mile north of Old Spanish Trail Hwy.

County: Inyo Landowner / Mgr.: BLM

Quad Name: Calvada Springs Elevation: 2585 ft

T 22N R 10E Sec 29, NW ¼ of SE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 32.477" N Long 115° 55' 27.358" W

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):

Valley bottom, light brown silty soil with fine cracks: *Atriplex confertifolia*, *Larrea tridentata*, *Lycium pallidum*, *Lycium andersonii*, *Ephedra torreyana*, *Salsola* sp., *Halogeton glomeratus*.

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: Unpaved road network.

Threats: Weeds.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 100 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, unnamed unpaved road, ca. 0.1 mile west of its intersection with Ranchos Avenue, and ca. 0.2 mile south of Old Spanish Trail Hwy.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2589 ft

T 22N R 10E Sec 32, NE ¼ of NW ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 12.672" N Long 115° 55' 37.893" W

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):

Valley bottom, light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium pallidum*, *Lycium andersonii*, *Ephedra torreyana*.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 500 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, unnamed unpaved road, ca. 0.1 mile east of its intersection with Ranchos Avenue, and ca. 0.25 mile south of Old Spanish Trail Hwy.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2589 ft

T 22N R 10E Sec 32, SE ¼ of NE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 6.259" N Long 115° 55' 27.653" W

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):

Valley bottom, light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium pallidum*, *Lycium andersonii*, *Gutierrezia microcephala*, *Ephedra nevadensis*.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 7 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, unnamed unpaved road, ca. 0.9 mile west of Quartz Avenue, and ca. 0.5 mile north of Old Spanish Trail Hwy. ERBI on north side of road.

County: Inyo Landowner / Mgr.: BLM

Quad Name: Calvada Springs Elevation: 2565 ft

T 22N R 10E Sec 29, NW 1/4 of SW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 45.321" N Long 115° 56' 1.002" W

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):

Valley bottom, light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium pallidum*, *Lycium andersonii*, *Bromus madritensis rubens*.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 100 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, unnamed unpaved road, ca. 0.75 mile west of Quartz Avenue, and ca. 0.5 mile north of Old Spanish Trail Hwy. ERBI on north side of road.

County: Inyo Landowner / Mgr.: BLM

Quad Name: Calvada Springs Elevation: 2568 ft

T 22N R 10E Sec 29, NE ¼ of NW ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 45.716" N Long 115° 55' 49.152" W

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):

Valley bottom, light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium pallidum*, *Lycium andersonii*, *Bromus madritensis rubens*.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 80 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, Quartz Rd, ca. 0.15 mile south of Old Spanish Trail Hwy.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2589 ft

T 22N R 10E Sec 32, NW 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 12.658" N Long 115° 55' 3.556" W

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):

Valley bottom, light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium pallidum*, *Lycium andersonii*, *Ephedra torreyana*, *Sphaeralcea ambigua*, *Gutierrezia microcephala*, *Hoffmannseggia glauca*, *Bromus madritensis rubens*.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☐ By another person (name): _____
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 250 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, Quartz Rd, ca. 0.4 mile south of Old Spanish Trail Hwy.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2598 ft

T 22N R 10E Sec 32, SE ¼ of NE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 56.689" N Long 115° 55' 2.753" W

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):

Valley bottom, light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium andersonii*, *Ephedra torreyana*, *Ambrosia dumosa*, *Gutierrezia microcephala*, *Bromus madritensis rubens*.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 200 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, Quartz Rd, ca. 0.5 mile south of Old Spanish Trail Hwy.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2591 ft

T 22N R 10E Sec 32, SE ¼ of NE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 57' 51.517" N Long 115° 55' 2.969" W

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):

Valley bottom, light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium andersonii*, *Ephedra torreyana*, *Ambrosia dumosa*, *Gutierrezia microcephala*, *Prosopis glandulosa*, *Bromus madritensis rubens*, *Salsola* sp.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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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: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 1000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, Quartz Rd, ca. 0.7 mile south of Old Spanish Trail Hwy.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2593 ft

T 22N R 10E Sec 32, NE ¼ of SE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 43.653" N Long 115° 55' 4.036" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: Atriplex confertifolia, Lepidium fremontii, Gutierrezia microcephala, Haolgeton glomeratus.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 5000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.25 mile south of Old Spanish Trail Hwy, and 0.75 mile west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2615 ft

T 22N R 10E Sec 33, NW ¼ of NW ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: From: Lat 35° 58' 6.684" N Long 115° 54' 47.593" W To: Lat 35° 58' 6.590" N Long 115° 54' 49.244" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lepidium fremontii*, *Gutierrezia microcephala*, *Ephedra nevadensis*, *Ephedra torreyana*, *Halogeton glomeratus*.

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. Rural residences to south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 500 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.3 mile south of Old Spanish Trail Hwy, and 0.75 mile west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2595 ft

T 22N R 10E Sec 33, SW ¼ of NW ¼, Meridian: ☐ H ☐ M ☐ S ☐ Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S ☐ GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 57' 56.747" N Long 115° 54' 48.023" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: Atriplex confertifolia, Lepidium fremontii, Gutierrezia microcephala, Stanleya pinnata, Ephedra nevadensis, Ephedra torreyana, Halogeton glomeratus.

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. Rural residences to south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 20,000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.5 mile south of Old Spanish Trail Hwy, and 0.75 mile west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2600 ft

T 22N R 10E Sec 33, SW 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 51.505" N Long 115° 54' 49.498" W

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):

Valley bottom, clay flats; light brown silty soil with small caliche gravels: Atriplex confertifolia, Lepidium fremontii, Lycium pallidum, Lycium andersonii, Stanleya pinnata, Ephedra nevadensis, Salsola sp.
ERBI especially dense in this location.

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. Rural residences to south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

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 checked="" type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 10 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.65 mile south of Old Spanish Trail Hwy, and 0.5 mile west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2599 ft

T 22N R 10E Sec 33, SE 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 46.454" N Long 115° 54' 30.341" W

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):

Valley bottom, clay flats; light brown silty soil with small caliche gravels: Atriplex confertifolia, Lepidium fremontii, Lycium pallidum, Lycium andersonii, Gutierrezia microcephala, Ephedra nevadensis, Larrea tridentata, Krameria erecta.

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. Rural residences at distance, south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 50 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.65 mile south of Old Spanish Trail Hwy, and 0.75 mile west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2589 ft

T 22N R 10E Sec 33, NW 1/4 of SW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 43.929" N Long 115° 54' 47.393" W

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):

Valley bottom, clay flats; light brown silty soil with small caliche gravels: Atriplex confertifolia, Lepidium fremontii, Lycium pallidum, Lycium andersonii, Gutierrezia microcephala, Ephedra nevadensis, Halogeton glomeratus, Bromus madritensis rubens.

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. Rural residences at distance, south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 20 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.45 mile south of Old Spanish Trail Hwy, and 0.5 mile west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2596 ft

T 22N R 10E Sec 33, SE 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 54.160" N Long 115° 54' 30.842" W

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):

Valley bottom, clay flats; light brown silty soil with small caliche gravels, some cryptogamic crust, some patches of desert pavement devoid of vegetation: Atriplex confertifolia, Lepidium fremontii, Ephedra nevadensis, Halogeton glomeratus.

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. Rural residences at distance, south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 100 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.35 mile south of Old Spanish Trail Hwy, and 0.5 mile west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2592 ft

T 22N R 10E Sec 33, SW ¼ of NE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 0.201" N Long 115° 54' 28.722" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: Tamarix ramosissima, Prosopis glandulosa, Atriplex polycarpa, Atriplex confertifolia, Lepidium fremontii, Ephedra nevadensis, Halogeton glomeratus.

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. Rural residences nearby, to east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area. Large stands of Tamarix, likely escaped from watered plantings at nearby residences.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 500 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.3 mile south of Old Spanish Trail Hwy, and 0.5 mile west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2585 ft

T 22N R 10E Sec 33, NE ¼ of NW ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 3.599" N Long 115° 54' 30.701" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: Tamarix ramosissima, Prosopis glandulosa, Atriplex polycarpa, Atriplex confertifolia, Lepidium fremontii, Ephedra nevadensis, Halogeton glomeratus.

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. Rural residences nearby, to east and north.

Visible disturbances: Unpaved road network.

Threats: Weeds in area. Large stands of Tamarix, likely escaped from watered plantings at nearby residences.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 300 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.5 mile south of Old Spanish Trail Hwy, and 1.5 miles west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2586 ft

T 22N R 10E Sec 32, _____ 1/4 of NE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 53.228" N Long 115° 55' 16.031" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: *Atriplex confertifolia*, *Astragalus lentiginosus fremontii*, *Hoffmannseggia glauca*.

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. Rural residences to south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh, Chloe Scott
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 75 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.3 mile south of Old Spanish Trail Hwy, and 1.5 miles west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2589 ft

T 22N R 10E Sec 32, _____ 1/4 of NE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 58' 2.000" N Long 115° 55' 16.340" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium pallidum*, *Lycium andersonii*

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. Rural residences to south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh, Chloe Scott
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 10 Subsequent Visit? ☐ yes ☒ no

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

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.65 mile south of Old Spanish Trail Hwy, and 1.5 miles west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2592 ft

T 22N R 10E Sec 32, 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 46.605" N Long 115° 55' 18.745" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: *Atriplex confertifolia*, *Lycium pallidum*, *Lycium andersonii*

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. Rural residences to south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh, Chloe Scott
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 1000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.85 mile south of Old Spanish Trail Hwy, and 1.4 miles west of Calvada Rd.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2594 ft

T 22N R 10E Sec 32, _____ 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 33.465" N Long 115° 55' 11.285" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: Atriplex confertifolia, Gutierrezia microcephala

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. Rural residences to south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh, Chloe Scott
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 15 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, along unnamed unpaved road, ca. 0.9 mile south of Old Spanish Trail Hwy, and 0.25 miles west of Calvada Rd.

County: Inyo

Landowner / Mgr.: Private

Quad Name: Calvada Springs

Elevation: 2615 ft

T 22N R 10E Sec 33, 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 57' 30.624" N Long 115° 53' 56.951" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: Atriplex confertifolia, Larrea tridentata, Gutierrezia sarothrae, Lycium pallidum, Stanleya pinnata, Halogeton glomeratus.

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. Rural residences to south and east.

Visible disturbances: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh, Chloe Scott
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 17 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Pahrump Valley, along Garnet Rd, ca. 1.3 miles north of Old Spanish Trail Hwy.

County: Inyo Landowner / Mgr.: Private

Quad Name: Calvada Springs Elevation: 2572 ft

T 22N R 10E Sec 20, 1/4 of SW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 59' 21.837" N Long 115° 55' 37.122" W

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):

Valley bottom, clay flats; light brown silty soil with fine cracks: Atriplex confertifolia, Lycium pallidum.

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: Unpaved road network.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Onkar Singh, Chloe Scott
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

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): 05/11/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 50,000 Subsequent Visit? ☒ yes ☐ no

Is this an existing NDDDB occurrence? 2 ☐ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, Stewart Valley, north of Hwy 178, ca. 0.3 mile west of the CA-NV state line.

County: Inyo Landowner / Mgr.: BLM

Quad Name: Sixmile Spring Elevation: 2486 ft

T 24N R 8E Sec 21, NE 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 36° 9' 57.530" N Long 116° 6' 55.218" W

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):

Rolling terrain, edge of valley bottom; brown puffy silty soil: Atriplex confertifolia, Atriplex canescens, Ambrosia dumosa, Lycium sp., Suaeda moquinii, Stanleya pinnata, Stephanomeria pauciflora, Lepidium fremontii, Bromus madritensis rubens.

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: Transmission line nearby.

Threats: Weeds

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Plant / animal ☐ Slide ☐ Print ☐ Digital
Habitat ☐ ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐ ☐

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): 05/11/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 5,000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, Pahrump Valley, stateline road, ca. 3.7 miles southeast of its intersection with Hwy 178.

County: Inyo Landowner / Mgr.: BLM

Quad Name: Nopah Peak Elevation: 2519 ft

T 23N R 9E Sec 28, SE ¼ of SE ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 36° 5' 37.875" N Long 116° 0' 52.399" W

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):

Valley bottom; light brown puffy silty soil with basalt microgravels: Atriplex confertifolia Ambrosia dumosa, Lycium andersonii, Suaeda moquinii, Stanleya pinnata, Lepidium fremontii, Krascheninnikovia lanata.

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: Unpaved road.

Threats: Weeds

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/11/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 1.5 million Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, northern Pahrump Valley, population extends from ca. 3.4-4.4 miles along the stateline road, southeast of the CA-NV state line. Pt taken at north end. This population extends for one mile along the stateline road, also east into NV. Estimate does not include NV plants.

County: Inyo Landowner / Mgr.: BLM

Quad Name: Sixmile Spring Elevation: 2508 ft

T_{24N} R_{8E} Sec 36, 1/4 of SE 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 36° 8' 2.616" N Long 116° 3' 57.094" W

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):

Valley bottom; pale brown puffy silty soil: Atriplex confertifolia, Chrysothamnus nauseosus, Lycium andersonii, Suaeda moquinii, Stanleia pinnata, Lepidium fremontii, scattered Prosopis glandulosa, Bromus madritensis rubens.

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: Unpaved road.

Threats: Weeds

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Chloe Scott, Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

	Slide	Print	Digital
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"/>

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/11/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals 1 million Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, northern Pahrump Valley, population extends from ca. 5.4-5.9 miles along the stateline road, southeast of its intersection with Hwy 178. Pt taken at north end. This population extends for 0.5 mile along the stateline road, also east into NV. Estimate does not include NV plants.

County: Inyo

Landowner / Mgr.: BLM

Quad Name: Nopah Peak

Elevation: 2521 ft

T 23N R 9E Sec 20, 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 36° 6' 47.213" N Long 116° 2' 19.974" W

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):

Valley bottom; pale brown silty soil with fine cracks, caliche microgravels: Atriplex confertifolia, Suaeda moquinii, scattered Prosopis glandulosa.

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: Unpaved road.

Threats: Weeds in area.

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Chloe Scott, Onkar Singh
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 800 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, California Valley, ca. 1.2 miles northeast of Tule Spring, and ca. 0.4 mile due east of Mesquite Valley Road.

County: Inyo Landowner / Mgr.: BLM South Nopah Wilderness

Quad Name: Tecopa Pass Elevation: 2357 ft

T 20N R 9E Sec NA, _____ 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m meters/feet

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

Coordinates: Lat 35° 49' 45.406" N Long 116° 2' 34.293" W

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):

Valley bottom; puffy light-colored silty soil with caliche microgravels: Atriplex confertifolia, Suaeda moquinii, Lycium andersonii, Ephedra funerea.
ERBI patchy in this area.

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. Wilderness.

Visible disturbances: None.

Threats: None

Comments: FIRST DOCUMENTATION OF ERBI IN CALIFORNIA VALLEY. Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

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 checked="" type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 500 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % vegetative 0 % flowering 0 % 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)

Northeast Mojave Desert, California Valley, ca. 0.95 mile northeast of Tule Spring, and ca. 0.5 mile due east of Mesquite Valley Road.

County: Inyo Landowner / Mgr.: BLM South Nopah Wilderness

Quad Name: Tecopa Pass Elevation: 2357 ft

T 20N R 9E Sec NA, _____ 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 49' 31.967" N Long 116° 2' 37.618" W

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):

Valley bottom; puffy light-colored silty soil with caliche microgravels: Atriplex confertifolia, Atriplex polycarpa, Suaeda moquinii, Ledium fremontii, Lycium andersonii, Ephedra funerea.
ERBI patchy in this area.

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. Wilderness.

Visible disturbances: None.

Threats: None

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucre, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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

Date of Field Work (mm/dd/yyyy): 05/10/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Eriogonum bifurcatum*

Common Name: Pahrump Valley buckwheat

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

Total No. Individuals ca. 50 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0 % 0 % 0 %
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)

Northeast Mojave Desert, California Valley, ca. 0.85 mile northeast of Tule Spring, and ca. 0.55 mile due east of Mesquite Valley Road.

County: Inyo Landowner / Mgr.: BLM South Nopah Wilderness

Quad Name: Tecopa Pass Elevation: 2339 ft

T 20N R 9E Sec NA, _____ 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy < 1m _____ meters/feet

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

Coordinates: Lat 35° 49' 23.215" N Long 116° 2' 39.990" W

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):

Valley bottom; puffy light-colored silty soil with caliche microgravels, and fine cracks: Atriplex confertifolia, Atriplex polycarpa, Suaeda moquinii, Ledium fremontii, Lycium andersonii, Ephedra funerea.

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. Wilderness.

Visible disturbances: None.

Threats: None

Comments: Based on skeletons remaining from 2011. Skeletons identified by: 1) small size, 2) flat-topped aspect, 3) branching pattern, 4) erect involucres, 5) black color.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: HHSEGS 2011 offsite survey report
☒ By another person (name): Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

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 ☐

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

Date of Field Work (mm/dd/yyyy): 04/15/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Phacelia parishii*

Common Name: Parish's phacelia

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

Total No. Individuals ca. 100,000 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # _____

Collection? If yes: 001 Chloe Scott - UCR Herbarium
Number Museum / Herbarium

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 0% vegetative 0% flowering 0% 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)

Northeast Mojave Desert, southern Stewart Valley, ca. 0.5 mile west of California-Nevada state line, and ca. 1.5 miles north of Hwy 178.

County: Inyo

Landowner / Mgr.: BLM Resting Spring Wilderness

Quad Name: Stewart Valley

Elevation: 2460 ft

T 24N R 8E Sec 17, SE 1/4 of NW 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 Trimble

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy < 1m meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR

Geographic (Latitude & Longitude) ☒

Coordinates: Lat 36° 11' 1.093" N Long 116° 08' 24.706" W

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):

Valley bottom, near Stewart Dry Lake, clay flats, puffy silty lakebed clay soil: Atriplex canescens, Atriplex argentea longitrichoma, Amsinckia sp., Phacelia fremontii.

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, wilderness.

Visible disturbances: None.

Threats: None.

Comments: Based on skeletons remaining from 2011. Skeletons have size, leaf, stem, inflorescence branching pattern, and sepals characteristic of PHPUG.

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): Andrew Sanders
☒ Other: Familiarity with plant from previous surveys.

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 checked="" type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<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): 04/13/2012

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Sclerocactus johnsonii*

Common Name: Johnson's pineapple cactus

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

Total No. Individuals ca. 100 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☒ no ☐ unk.
Yes, Occ. # _____

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

Reporter: Ann Howald, Garcia and Associates

Address: 210 Chestnut Avenue
Sonoma, CA 95476

E-mail Address: annhowald@vom.com

Phone: (707) 721-6120

Plant Information

Phenology: 95 % 5 % 0 %
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)

Northeast Mojave Desert, southern Nopah Range, Emigrant Pass on Old Spanish Trail Hwy, ca. 10 miles east of Tecopa.

County: Inyo Landowner / Mgr.: BLM Nopah Range Wilderness

Quad Name: North of Tecopa Pass Elevation: 2940 ft

T 21N R 9E Sec 30, SW ¼ of SW ¼, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: ☐ H ☐ M ☐ S GPS Make & Model Garmin eTrex Vista

DATUM: NAD27 ☐ NAD83 ☒ WGS84 ☐ Horizontal Accuracy < 5 m _____ meters/feet

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

Coordinates: Lat 35° 53' 09.2" Long -116° 03' 31.7"

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):

Rocky-bouldery ridge and adjacent steep, rocky, northwest- and southeast-facing slopes. Some limestone. Larrea tridentata, Ambrosia dumosa, Yucca schidigera, Ephedra nevadensis, Eriogonum inflatum, Stephanomeria pauciflora, Opuntia echinocarpa, Echinocactus polycephalus, Opuntia ramosissima, Ferocactus cylindraceus.

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, historic Old Spanish Trail passes through this area.

Visible disturbances: Unpaved 4WD road in vicinity.

Threats: EASY PLACE FOR CACTUS-NAPPERS TO REACH BY CAR IF THEY KNEW ABOUT IT. Only locality known from this quad.

Comments: LOCATION DATA SHOULD BE COMPLETELY SUPPRESSED, INCL QUAD NAME. GeoCache in vicinity. Many people stop here for the view and to see a portion of the Old Spanish Trail. Sclerocactus occurs near the unpaved 4WD road, as well as further up the slope. Contact Andrew Sanders at UC Riverside Herbarium for information on voucher specimen. Not in Consortium CA Herbaria.

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

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☒ Compared with photo / drawing in: GANDA HHSEGS 2011 offsite report
☒ By another person (name): Ann Howald, Bill Clark, Josh Utter
☒ Other: Familiarity with plant from previous surveys.

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☒

May we obtain duplicates at our expense? yes ☐ no ☐

Table 1. HHSEGS Special Status Plant Species Observed During April and May Surveys in 2012											
Species	Common Name	Number of Plants	USGS Quad	Latitude	Longitude	Lat_DMS	Long_DMS	Observer	Date Surveys Conducted	Survey Year	Habitat Type/Plant Associates
Astragalus preussii var. preussii	Preuss' milk-vetch	2	Calvada Springs	35.990854607	-115.881044360	35° 59' 27.077" N	115° 52' 51.760" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	6	Calvada Springs	35.997443453	-115.890562457	35° 59' 50.796" N	115° 53' 26.025" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	7	Calvada Springs	35.995319917	-115.926259805	35° 59' 43.152" N	115° 55' 34.535" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	15	Sixmile Spring	36.161376259	-116.101374925	36° 9' 40.955" N	116° 6' 4.950" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	7	Nopah Peak	36.104920130	-116.028750020	36° 6' 17.712" N	116° 1' 43.500" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	4	West of Shenandoah Pk	35.809228398	-115.652395806	35° 48' 33.222" N	115° 39' 8.625" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	110	West of Shenandoah Pk	35.809179737	-115.653804940	35° 48' 33.047" N	115° 39' 13.698" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	40	West of Shenandoah Pk	35.809242232	-115.659741946	35° 48' 33.272" N	115° 39' 35.071" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	3000	West of Shenandoah Pk	35.796331259	-115.655271648	35° 47' 46.793" N	115° 39' 18.978" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	2500	West of Shenandoah Pk	35.801650335	-115.655179655	35° 48' 5.941" N	115° 39' 18.647" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	1500	West of Shenandoah Pk	35.804677072	-115.655281335	35° 48' 16.837" N	115° 39' 19.013" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	5	West of Shenandoah Pk	35.810457105	-115.649937759	35° 48' 37.646" N	115° 38' 59.776" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	38	West of Shenandoah Pk	35.816526944	-115.658483884	35° 48' 59.497" N	115° 39' 30.542" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	100	West of Shenandoah Pk	35.821633335	-115.665242025	35° 49' 17.880" N	115° 39' 54.871" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	100	West of Shenandoah Pk	35.824326723	-115.668314952	35° 49' 27.576" N	115° 40' 5.934" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	250	West of Shenandoah Pk	35.825719405	-115.670803634	35° 49' 32.590" N	115° 40' 14.893" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	500	West of Shenandoah Pk	35.827525166	-115.672504488	35° 49' 39.091" N	115° 40' 21.016" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	85	West of Shenandoah Pk	35.824230324	-115.672465261	35° 49' 27.229" N	115° 40' 20.875" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	100	West of Shenandoah Pk	35.750896368	-115.672947061	35° 45' 3.227" N	115° 40' 22.609" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	5000	West of Shenandoah Pk	35.760965114	-115.670255330	35° 45' 39.474" N	115° 40' 12.919" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	3	West of Shenandoah Pk	35.758010159	-115.664080877	35° 45' 28.837" N	115° 39' 50.691" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus preussii var. preussii	Preuss' milk-vetch	1000	West of Shenandoah Pk	35.754053102	-115.663899825	35° 45' 14.591" N	115° 39' 50.039" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidestromii	Tidestrom's milk-vetch	100	Valley Wells	35.452355497	-115.685032278	35° 27' 8.480" N	115° 41' 6.116" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidestromii	Tidestrom's milk-vetch	40	Valley Wells	35.477813079	-115.703228101	35° 28' 40.127" N	115° 42' 11.621" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidestromii	Tidestrom's milk-vetch	3	Pachalka Spring	35.585096387	-115.721333245	35° 35' 6.347" N	115° 43' 16.800" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidestromii	Tidestrom's milk-vetch	18	Pachalka Spring	35.587967501	-115.722463986	35° 35' 16.683" N	115° 43' 20.870" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidestromii	Tidestrom's milk-vetch	50	Pachalka Spring	35.597170727	-115.726493949	35° 35' 49.815" N	115° 43' 35.378" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidestromii	Tidestrom's milk-vetch	20	Valley Wells	35.431581069	-115.661281228	35° 25' 53.692" N	115° 39' 40.612" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidestromii	Tidestrom's milk-vetch	22	East of Kingston Peak	35.707609847	-115.791625488	35° 42' 27.395" N	115° 47' 29.852" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms

Table 1. HHSEGS Special Status Plant Species Observed During April and May Surveys in 2012											
Species	Common Name	Number of Plants	USGS Quad	Latitude	Longitude	Lat_DMS	Long_DMS	Observer	Date Surveys Conducted	Survey Year	Habitat Type/Plant Associates
Astragalus tidiestromii	Tidiestrom's milk-vetch	3	Mesquite Mountains	35.690235628	-115.703513970	35° 41' 24.848" N	115° 42' 12.650" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidiestromii	Tidiestrom's milk-vetch	1	Stump Spring	35.912918617	-115.827790694	35° 54' 46.507" N	115° 49' 40.046" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Astragalus tidiestromii	Tidiestrom's milk-vetch	5	Stump Spring	35.921782224	-115.832730516	35° 55' 18.416" N	115° 49' 57.830" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Atriplex argentea longitrichoma	Pahrump orache	150000	Stewart Valley	36.183547846	-116.140975575	36° 11' 0.772" N	116° 8' 27.512" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Chaetadelpa wheeleri	Wheeler's skeletonweed	5	Stump Spring	35.921985677	-115.826314956	35° 55' 19.148" N	115° 49' 34.734" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.992569555	-115.920071522	35° 59' 33.250" N	115° 55' 12.257" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.992199231	-115.921266215	35° 59' 31.917" N	115° 55' 16.558" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.990661237	-115.921887531	35° 59' 26.380" N	115° 55' 18.795" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.988535757	-115.921728267	35° 59' 18.729" N	115° 55' 18.222" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.986477794	-115.922026646	35° 59' 11.320" N	115° 55' 19.296" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.989470954	-115.921011014	35° 59' 22.095" N	115° 55' 15.640" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	11	Calvada Springs	35.989441736	-115.919903254	35° 59' 21.990" N	115° 55' 11.652" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.990664299	-115.919884895	35° 59' 26.391" N	115° 55' 11.586" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.991744046	-115.919495814	35° 59' 30.279" N	115° 55' 10.185" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.992156325	-115.916522399	35° 59' 31.763" N	115° 54' 59.481" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.991155714	-115.915378360	35° 59' 28.161" N	115° 54' 55.362" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	6	Calvada Springs	35.990399658	-115.909653596	35° 59' 25.439" N	115° 54' 34.753" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.990024414	-115.910663731	35° 59' 24.088" N	115° 54' 38.389" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.989908347	-115.911649784	35° 59' 23.670" N	115° 54' 41.939" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.993387908	-115.920396834	35° 59' 36.196" N	115° 55' 13.429" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.993163216	-115.921042220	35° 59' 35.388" N	115° 55' 15.752" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.996458428	-115.921335984	35° 59' 47.250" N	115° 55' 16.810" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.988687523	-115.915282834	35° 59' 19.275" N	115° 54' 55.018" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.989231331	-115.916689059	35° 59' 21.233" N	115° 55' 0.081" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.990075331	-115.915424231	35° 59' 24.271" N	115° 54' 55.527" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	4	Calvada Springs	35.990021045	-115.913519651	35° 59' 24.076" N	115° 54' 48.671" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	8	Calvada Springs	35.979452924	-115.916805291	35° 58' 46.031" N	115° 55' 0.499" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	10	Calvada Springs	35.980116546	-115.916187024	35° 58' 48.420" N	115° 54' 58.273" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	14	Calvada Springs	35.980397090	-115.915116911	35° 58' 49.430" N	115° 54' 54.421" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms

Table 1. HHSEGS Special Status Plant Species Observed During April and May Surveys in 2012											
Species	Common Name	Number of Plants	USGS Quad	Latitude	Longitude	Lat_DMS	Long_DMS	Observer	Date Surveys Conducted	Survey Year	Habitat Type/Plant Associates
Ephedra torreyana	Torrey's Mormon-tea	13	Calvada Springs	35.980464558	-115.914149598	35° 58' 49.672" N	115° 54' 50.939" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	4	Calvada Springs	35.980877003	-115.912858676	35° 58' 51.157" N	115° 54' 46.291" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.980965288	-115.911667751	35° 58' 51.475" N	115° 54' 42.004" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.980535771	-115.910243422	35° 58' 49.929" N	115° 54' 36.876" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.979901983	-115.909391572	35° 58' 47.647" N	115° 54' 33.810" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.981966385	-115.910096723	35° 58' 55.079" N	115° 54' 36.348" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	4	Calvada Springs	35.981773190	-115.912202836	35° 58' 54.383" N	115° 54' 43.930" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	11	Calvada Springs	35.981952687	-115.914167483	35° 58' 55.030" N	115° 54' 51.003" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	15	Calvada Springs	35.981575989	-115.915426562	35° 58' 53.674" N	115° 54' 55.536" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	10	Calvada Springs	35.981128613	-115.916920368	35° 58' 52.063" N	115° 55' 0.913" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	6	Calvada Springs	35.982662971	-115.917059794	35° 58' 57.587" N	115° 55' 1.415" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.984225211	-115.916883662	35° 59' 3.211" N	115° 55' 0.781" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	5	Calvada Springs	35.985009721	-115.912057304	35° 59' 6.035" N	115° 54' 43.406" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.985330615	-115.910054942	35° 59' 7.190" N	115° 54' 36.198" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.983193094	-115.910738928	35° 58' 59.495" N	115° 54' 38.660" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.983427478	-115.912611343	35° 59' 0.339" N	115° 54' 45.401" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.984269475	-115.914465978	35° 59' 3.370" N	115° 54' 52.078" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	5	Calvada Springs	35.983200739	-115.915275002	35° 58' 59.523" N	115° 54' 54.990" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	9	Calvada Springs	35.979025794	-115.916333743	35° 58' 44.493" N	115° 54' 58.801" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	11	Calvada Springs	35.978846123	-115.914928148	35° 58' 43.846" N	115° 54' 53.741" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	15	Calvada Springs	35.978958566	-115.911862644	35° 58' 44.251" N	115° 54' 42.706" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	15	Calvada Springs	35.978731685	-115.909761006	35° 58' 43.434" N	115° 54' 35.140" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	5	Calvada Springs	35.977442467	-115.908952822	35° 58' 38.793" N	115° 54' 32.230" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.977535377	-115.912842784	35° 58' 39.127" N	115° 54' 46.234" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.977944293	-115.913976068	35° 58' 40.599" N	115° 54' 50.314" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	4	Calvada Springs	35.975589248	-115.917039066	35° 58' 32.121" N	115° 55' 1.341" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.975404829	-115.915804098	35° 58' 31.457" N	115° 54' 56.895" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	5	Calvada Springs	35.975285101	-115.914441038	35° 58' 31.026" N	115° 54' 51.988" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	11	Calvada Springs	35.974717360	-115.913962058	35° 58' 28.982" N	115° 54' 50.263" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms

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Species	Common Name	Number of Plants	USGS Quad	Latitude	Longitude	Lat_DMS	Long_DMS	Observer	Date Surveys Conducted	Survey Year	Habitat Type/Plant Associates
Ephedra torreyana	Torrey's Mormon-tea	7	Calvada Springs	35.974319458	-115.915092719	35° 58' 27.550" N	115° 54' 54.334" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	6	Calvada Springs	35.974118931	-115.916388676	35° 58' 26.828" N	115° 54' 58.999" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.994021035	-115.885870445	35° 59' 38.476" N	115° 53' 9.134" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.994772244	-115.886202793	35° 59' 41.180" N	115° 53' 10.330" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Mound Spring	36.001194316	-115.895626807	36° 0' 4.300" N	115° 53' 44.257" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.992103986	-115.882843166	35° 59' 31.574" N	115° 52' 58.235" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	9	Calvada Springs	35.979228046	-115.908075041	35° 58' 45.221" N	115° 54' 29.070" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.980039704	-115.905595382	35° 58' 48.143" N	115° 54' 20.143" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.979278053	-115.903330149	35° 58' 45.401" N	115° 54' 11.989" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	4	Calvada Springs	35.979926159	-115.901855224	35° 58' 47.734" N	115° 54' 6.679" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.979490982	-115.899878865	35° 58' 46.168" N	115° 53' 59.564" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.980644136	-115.905870370	35° 58' 50.319" N	115° 54' 21.133" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.981467861	-115.907972557	35° 58' 53.284" N	115° 54' 28.701" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.983673863	-115.899735383	35° 59' 1.226" N	115° 53' 59.047" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.982928837	-115.907220131	35° 58' 58.544" N	115° 54' 25.992" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.978228713	-115.899286208	35° 58' 41.623" N	115° 53' 57.430" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	9	Calvada Springs	35.978853061	-115.908315910	35° 58' 43.871" N	115° 54' 29.937" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	7	Calvada Springs	35.978643724	-115.905568372	35° 58' 43.117" N	115° 54' 20.046" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.977924043	-115.903838850	35° 58' 40.527" N	115° 54' 13.820" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.976914646	-115.901449895	35° 58' 36.893" N	115° 54' 5.220" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.976033574	-115.903112237	35° 58' 33.721" N	115° 54' 11.204" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.976640744	-115.904618721	35° 58' 35.907" N	115° 54' 16.627" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.977034548	-115.908315995	35° 58' 37.324" N	115° 54' 29.938" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.974636564	-115.906846482	35° 58' 28.692" N	115° 54' 24.647" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.974362692	-115.904754637	35° 58' 27.706" N	115° 54' 17.117" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.974354673	-115.900069812	35° 58' 27.677" N	115° 54' 0.251" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.974030010	-115.908209026	35° 58' 26.508" N	115° 54' 29.552" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.984538450	-115.897162978	35° 59' 4.338" N	115° 53' 49.787" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.986266739	-115.895925245	35° 59' 10.560" N	115° 53' 45.331" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms

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Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.985899059	-115.897298315	35° 59' 9.237" N	115° 53' 50.274" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	4	Calvada Springs	35.986479317	-115.899231928	35° 59' 11.326" N	115° 53' 57.235" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.988207890	-115.899147538	35° 59' 17.548" N	115° 53' 56.931" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.985123681	-115.890911826	35° 59' 6.445" N	115° 53' 27.283" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.989542376	-115.908264966	35° 59' 22.353" N	115° 54' 29.754" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.972431603	-115.926495298	35° 58' 20.754" N	115° 55' 35.383" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.974314601	-115.925325425	35° 58' 27.533" N	115° 55' 31.172" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	5	Calvada Springs	35.975384339	-115.926015215	35° 58' 31.384" N	115° 55' 33.655" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.975451785	-115.924390470	35° 58' 31.626" N	115° 55' 27.806" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.977576510	-115.925967888	35° 58' 39.275" N	115° 55' 33.484" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.978753829	-115.923312520	35° 58' 43.514" N	115° 55' 23.925" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.980808545	-115.925958139	35° 58' 50.911" N	115° 55' 33.449" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.982990101	-115.922649442	35° 58' 58.764" N	115° 55' 21.538" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.983878199	-115.925960442	35° 59' 1.962" N	115° 55' 33.458" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.985709906	-115.926063899	35° 59' 8.556" N	115° 55' 33.830" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.986116141	-115.928818889	35° 59' 10.018" N	115° 55' 43.748" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.971008151	-115.926586294	35° 58' 15.629" N	115° 55' 35.711" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.968128616	-115.921512840	35° 58' 5.263" N	115° 55' 17.446" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.970343196	-115.921429891	35° 58' 13.236" N	115° 55' 17.148" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.978949988	-115.934391882	35° 58' 44.220" N	115° 56' 3.811" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.978819894	-115.932953100	35° 58' 43.752" N	115° 55' 58.631" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.978397372	-115.930609619	35° 58' 42.231" N	115° 55' 50.195" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.979633311	-115.930353388	35° 58' 46.680" N	115° 55' 49.272" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.978742241	-115.928169308	35° 58' 43.472" N	115° 55' 41.410" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.980612995	-115.934922718	35° 58' 50.207" N	115° 56' 5.722" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.982263690	-115.935281817	35° 58' 56.149" N	115° 56' 7.015" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	5	Calvada Springs	35.983053625	-115.934822644	35° 58' 58.993" N	115° 56' 5.362" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.984476036	-115.934900661	35° 59' 4.114" N	115° 56' 5.642" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.985804432	-115.933211138	35° 59' 8.896" N	115° 55' 59.560" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms

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Ephedra torreyana	Torrey's Mormon-tea	7	Calvada Springs	35.971454865	-115.917665541	35° 58' 17.238" N	115° 55' 3.596" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.969605455	-115.916373860	35° 58' 10.580" N	115° 54' 58.946" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.968262940	-115.917688401	35° 58' 5.747" N	115° 55' 3.678" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.966662598	-115.917432689	35° 57' 59.985" N	115° 55' 2.758" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.964276055	-115.916863757	35° 57' 51.394" N	115° 55' 0.710" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.970753018	-115.914172318	35° 58' 14.711" N	115° 54' 51.020" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.968530759	-115.912618240	35° 58' 6.711" N	115° 54' 45.426" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	4	Calvada Springs	35.967317152	-115.913881984	35° 58' 2.342" N	115° 54' 49.975" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.990403038	-115.934198464	35° 59' 25.451" N	115° 56' 3.114" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.992486690	-115.934993698	35° 59' 32.952" N	115° 56' 5.977" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.994959851	-115.935426697	35° 59' 41.855" N	115° 56' 7.536" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Calvada Springs	35.998590329	-115.934913926	35° 59' 54.925" N	115° 56' 5.690" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.999784053	-115.935095407	35° 59' 59.223" N	115° 56' 6.343" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Calvada Springs	35.964151610	-115.903819068	35° 57' 50.946" N	115° 54' 13.749" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.966202108	-115.902593406	35° 57' 58.328" N	115° 54' 9.336" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.969953016	-115.902821717	35° 58' 11.831" N	115° 54' 10.158" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.991820048	-115.926166479	35° 59' 30.552" N	115° 55' 34.199" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Calvada Springs	35.993993294	-115.926317627	35° 59' 38.376" N	115° 55' 34.743" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	6	Calvada Springs	35.995221490	-115.926427899	35° 59' 42.797" N	115° 55' 35.140" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Mound Spring	36.000727764	-115.924423493	36° 0' 2.620" N	115° 55' 27.925" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Mound Spring	36.000314608	-115.928867328	36° 0' 1.133" N	115° 55' 43.922" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Mound Spring	36.008803686	-115.935051444	36° 0' 31.693" N	115° 56' 6.185" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	15	Nopah Peak	36.104486804	-116.028248113	36° 6' 16.152" N	116° 1' 41.693" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Nopah Peak	36.101984734	-116.024837041	36° 6' 7.145" N	116° 1' 29.413" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Nopah Peak	36.100060272	-116.021731084	36° 6' 0.217" N	116° 1' 18.232" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	1	Nopah Peak	36.096080420	-116.016815818	36° 5' 45.890" N	116° 1' 0.537" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	2	Nopah Peak	36.091047638	-116.011630473	36° 5' 27.771" N	116° 0' 41.870" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	3	Mound Spring	36.080842715	-115.997313007	36° 4' 51.034" N	115° 59' 50.327" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Ephedra torreyana	Torrey's Mormon-tea	4	Nopah Peak	36.098010425	-116.019606704	36° 5' 52.838" N	116° 1' 10.584" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms

Table 1. HHSEGS Special Status Plant Species Observed During April and May Surveys in 2012											
Species	Common Name	Number of Plants	USGS Quad	Latitude	Longitude	Lat_DMS	Long_DMS	Observer	Date Surveys Conducted	Survey Year	Habitat Type/Plant Associates
Ephedra torreyana	Torrey's Mormon-tea	2	Nopah Peak	36.093737748	-116.015293660	36° 5' 37.456" N	116° 0' 55.057" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	50	Calvada Springs	35.975687922	-115.924265988	35° 58' 32.477" N	115° 55' 27.358" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	100	Calvada Springs	35.970186537	-115.927192505	35° 58' 12.672" N	115° 55' 37.893" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	500	Calvada Springs	35.968405200	-115.924348092	35° 58' 6.259" N	115° 55' 27.653" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	7	Calvada Springs	35.979255788	-115.933611744	35° 58' 45.321" N	115° 56' 1.002" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	100	Calvada Springs	35.979365546	-115.930319935	35° 58' 45.716" N	115° 55' 49.152" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	80	Calvada Springs	35.970182729	-115.917654445	35° 58' 12.658" N	115° 55' 3.556" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	250	Calvada Springs	35.965746957	-115.917431436	35° 57' 56.689" N	115° 55' 2.753" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	200	Calvada Springs	35.964310400	-115.917491467	35° 57' 51.517" N	115° 55' 2.969" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1,000	Calvada Springs	35.962125781	-115.917787779	35° 57' 43.653" N	115° 55' 4.036" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	4,000	Calvada Springs	35.968523418	-115.913220182	35° 58' 6.684" N	115° 54' 47.593" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1,000	Calvada Springs	35.968497348	-115.913678826	35° 58' 6.590" N	115° 54' 49.244" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	500	Calvada Springs	35.965763041	-115.913339804	35° 57' 56.747" N	115° 54' 48.023" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	20,000	Calvada Springs	35.964306967	-115.913749519	35° 57' 51.505" N	115° 54' 49.498" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	50	Calvada Springs	35.962202533	-115.913164723	35° 57' 43.929" N	115° 54' 47.393" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	10	Calvada Springs	35.962903907	-115.908427977	35° 57' 46.454" N	115° 54' 30.341" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	20	Calvada Springs	35.965044445	-115.908567272	35° 57' 54.160" N	115° 54' 30.842" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	100	Calvada Springs	35.966722561	-115.907978417	35° 58' 0.201" N	115° 54' 28.722" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	500	Calvada Springs	35.967666435	-115.908528002	35° 58' 3.599" N	115° 54' 30.701" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	300	Calvada Springs	35.964785561	-115.921119851	35° 57' 53.228" N	115° 55' 16.031" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	75	Calvada Springs	35.967222217	-115.921205666	35° 58' 2.000" N	115° 55' 16.340" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	10	Calvada Springs	35.962945915	-115.921873553	35° 57' 46.605" N	115° 55' 18.745" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1,000	Calvada Springs	35.959295926	-115.919801372	35° 57' 33.465" N	115° 55' 11.285" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	15	Calvada Springs	35.958506595	-115.899152955	35° 57' 30.624" N	115° 53' 56.951" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	17	Calvada Springs	35.989399175	-115.926978289	35° 59' 21.837" N	115° 55' 37.122" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1.5 million	Sixmile Spring	36.134059939	-116.065859523	36° 8' 2.616" N	116° 3' 57.094" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1 million	Nopah Peak	36.113114770	-116.038881667	36° 6' 47.213" N	116° 2' 19.974" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	50,000	Sixmile Spring	36.165980650	-116.115338245	36° 9' 57.530" N	116° 6' 55.218" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	5,000	Nopah Peak	36.093849301	-116.014555369	36° 5' 37.857" N	116° 0' 52.399" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms

Table 1. HHSEGS Special Status Plant Species Observed During April and May Surveys in 2012											
Species	Common Name	Number of Plants	USGS Quad	Latitude	Longitude	Lat_DMS	Long_DMS	Observer	Date Surveys Conducted	Survey Year	Habitat Type/Plant Associates
Eriogonum bifurcatum	Pahrump Valley buckwheat	800	Tecopa Pass	35.829279332	-116.042859232	35° 49' 45.406" N	116° 2' 34.293" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	500	Tecopa Pass	35.825546483	-116.043782912	35° 49' 31.967" N	116° 2' 37.618" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	50	Tecopa Pass	35.823115288	-116.044441720	35° 49' 23.215" N	116° 2' 39.990" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	5000	West of Shenandoah Pk	35.799834136	-115.682265235	35° 47' 59.403" N	115° 40' 56.155" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	500	West of Shenandoah Pk	35.801004315	-115.682162185	35° 48' 3.616" N	115° 40' 55.784" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	250	Stewart Valley	36.186491597	-116.133883530	36° 11' 11.370" N	116° 8' 1.981" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	5000	West of Shenandoah Pk	35.809301926	-115.652275558	35° 48' 33.487" N	115° 39' 8.192" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	2000	West of Shenandoah Pk	35.809564771	-115.659954267	35° 48' 34.433" N	115° 39' 35.835" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1.5 million	West of Shenandoah Pk	35.794959533	-115.679403724	35° 47' 41.854" N	115° 40' 45.853" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	part of same population	West of Shenandoah Pk	35.794720155	-115.672715697	35° 47' 40.993" N	115° 40' 21.777" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1 million	West of Shenandoah Pk	35.795992128	-115.655285177	35° 47' 45.572" N	115° 39' 19.027" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	part of same population	West of Shenandoah Pk	35.803225471	-115.655245506	35° 48' 11.612" N	115° 39' 18.884" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	2 million	West of Shenandoah Pk	35.810548313	-115.650471855	35° 48' 37.974" N	115° 39' 1.699" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	part of same population	West of Shenandoah Pk	35.836684964	-115.683867563	35° 50' 12.066" N	115° 41' 1.923" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	8000	West of Shenandoah Pk	35.830817184	-115.681772309	35° 49' 50.942" N	115° 40' 54.380" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	10000	West of Shenandoah Pk	35.824931102	-115.681819706	35° 49' 29.752" N	115° 40' 54.551" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	2000	West of Shenandoah Pk	35.824156017	-115.672719251	35° 49' 26.962" N	115° 40' 21.789" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	100	West Shenandoah Pk	35.815356956	-115.663553797	35° 48' 55.285" N	115° 39' 48.794" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	500	Twelvemile Spring	36.020173219	-116.174296234	36° 1' 12.624" N	116° 10' 27.466" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1000	Twelvemile Spring	36.011724119	-116.171456817	36° 0' 42.207" N	116° 10' 17.245" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	37	Twelvemile Spring	36.002081704	-116.168106927	36° 0' 7.494" N	116° 10' 5.185" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	100	Resting Springs	35.998933082	-116.171390311	35° 59' 56.159" N	116° 10' 17.005" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	11	Calvada Springs	35.955588984	-115.899121299	35° 57' 20.120" N	115° 53' 56.837" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1000	Calvada Springs	35.955545377	-115.895000454	35° 57' 19.963" N	115° 53' 42.002" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1500	Calvada Springs	35.955549187	-115.890597365	35° 57' 19.977" N	115° 53' 26.151" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms

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Species	Common Name	Number of Plants	USGS Quad	Latitude	Longitude	Lat_DMS	Long_DMS	Observer	Date Surveys Conducted	Survey Year	Habitat Type/Plant Associates
Eriogonum bifurcatum	Pahrump Valley buckwheat	5000	Calvada Springs	35.957287763	-115.890537897	35° 57' 26.236" N	115° 53' 25.936" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	100	Calvada Springs	35.959424571	-115.890518678	35° 57' 33.928" N	115° 53' 25.867" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1000	Calvada Springs	35.965474463	-115.890499689	35° 57' 55.708" N	115° 53' 25.799" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1000	Calvada Springs	35.961245976	-115.901875373	35° 57' 40.486" N	115° 54' 6.751" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	300	Calvada Springs	35.960702370	-115.915553696	35° 57' 38.529" N	115° 54' 55.993" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1000	Calvada Springs	35.963601893	-115.921859666	35° 57' 48.967" N	115° 55' 18.695" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	5000	West of Shenandoah Pk	35.810279961	-115.652277185	35° 48' 37.008" N	115° 39' 8.198" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	5000	West of Shenandoah Pk	35.810261999	-115.654820805	35° 48' 36.943" N	115° 39' 17.355" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	5000	West of Shenandoah Pk	35.813075914	-115.654768390	35° 48' 47.073" N	115° 39' 17.166" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	5000	West of Shenandoah Pk	35.816755050	-115.660576011	35° 49' 0.318" N	115° 39' 38.074" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1000	West of Shenandoah Pk	35.816949571	-115.664851570	35° 49' 1.018" N	115° 39' 53.466" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1000	West of Shenandoah Pk	35.816895572	-115.667964509	35° 49' 0.824" N	115° 40' 4.672" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	1000	West of Shenandoah Pk	35.817467663	-115.669260282	35° 49' 2.884" N	115° 40' 9.337" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Eriogonum bifurcatum	Pahrump Valley buckwheat	30	West of Shenandoah Pk	35.816628410	-115.683645986	35° 48' 59.862" N	115° 41' 1.126" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms
Phacelia parishii	Goodding's phacelia	100000	Stewart Valley	36.183636827	-116.140196246	36° 11' 1.093" N	116° 8' 24.706" W	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms	See CNDDDB forms



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

**APPLICATION FOR CERTIFICATION
FOR THE *HIDDEN HILLS SOLAR ELECTRIC
GENERATING SYSTEM***

DOCKET NO. 11-AFC-02

PROOF OF SERVICE
(Revised 6/18/2012)

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DECLARATION OF SERVICE

I, Mary Finn, declare that on July 2, 2012, I served and filed copies of the attached Data Response, Set 2D-2, dated July 2, 2012. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at: www.energy.ca.gov/sitingcases/hiddenhills/index.html.

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(Check all that Apply)

For service to all other parties:

- ☒ Served electronically to all e-mail addresses on the Proof of Service list;
- ☐ Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "e-mail preferred."

AND

For filing with the Docket Unit at the Energy Commission:

- ☒ by sending an electronic copy to the e-mail address below (preferred method); **OR**
- ☐ by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

CALIFORNIA ENERGY COMMISSION – DOCKET UNIT
Attn: Docket No. 11-AFC-02
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.ca.gov

OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

- ☐ Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

California Energy Commission
Michael J. Levy, Chief Counsel
1516 Ninth Street MS-14
Sacramento, CA 95814
michael.levy@energy.ca.gov

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.



Mary Finn, CH2M Hill