

Herpetological Survey for the Lawrence Livermore National Laboratory Site 300

Alameda County, California

Prepared For:

Lawrence Livermore National Security, LLC

Prepared By:



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2525 Warren Drive
Rocklin, California 95677

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CONTENTS

1.0	INTRODUCTION	1
1.1	Blainville's Horned Lizard	3
1.2	Northern California Legless Lizard	4
1.3	San Joaquin Coachwhip.....	4
2.0	MATERIALS AND METHODS	5
2.1	Quadrat Surveys	8
2.2	Microhabitat Surveys.....	10
2.3	Coverboard Sampling.....	10
2.4	Road Driving Surveys (Road Transects).....	10
2.5	Dirt Road/Firebreak Surveys (Walking Dirt Road Transects)	10
3.0	RESULTS.....	11
3.1	Quadrat Surveys	11
3.2	Microhabitat Surveys.....	13
3.3	Coverboard Sampling.....	13
3.4	Road Driving Surveys.....	13
3.5	Dirt Road/Firebreak Surveys.....	21
3.6	Potential Species	21
3.7	Constraints, Weather Conditions, and Survey Timing.....	21
3.7.1	Seasonal	22
3.7.2	Daily	22
4.0	FUTURE SURVEY RECOMMENDATIONS.....	22
4.1.1	Blainville's Horned Lizard	22
4.1.2	Northern California Legless Lizard.....	22
4.1.3	San Joaquin Coachwhip.....	23
5.0	POTENTIAL THREATS TO SPECIAL-STATUS HERPETOFAUNA AT SITE 300.....	23
6.0	CONCLUSION.....	23
7.0	LIST OF PREPARERS	24
8.0	REFERENCES.....	25

LIST OF FIGURES

Figure 1-1. Survey Location and Vicinity.....	2
Figure 3-1. Schematic 100' by 100' survey grid.....	9
Figure 3-2. Placement of 100' X 100' Survey Quadrants	14

Figure 3-3. San Joaquin Coachwhip Locations	15
Figure 3-4. Northern California Legless Lizard Locations.....	16
Figure 3-5. Placement of Microhabitat Survey Locations.....	17
Figure 3-6. Coverboard Locations	18
Figure 3-7. Driving Survey Routes	19
Figure 3-8. Blainville’s Horned Lizard Locations.....	20
Figure 3-9. Regression of Mass by Length for 15 Blainville’s Horned Lizards at Site 300.....	21

LIST OF TABLES

Table 2-1. Special-status Herpetofauna Species with Potential for Occurrence at Lawrence Livermore’s Site 300	5
Table 3-1. Species Documented During Herpetofauna Surveys at Lawrence Livermore Site 300.....	11

LIST OF ATTACHMENTS

- Attachment A - California Natural Diversity Database Herpetofauna Query: “Midway” and “Tracy” Quads
- Attachment B - Representative Site Photographs
- Attachment C - California Natural Diversity Database Reporting Forms
- Attachment D - Field Data Sheets
- Attachment E – Survey Data Spreadsheet (MS Excel)

LIST OF ACRONYMS AND ABBREVIATIONS

CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CNDDB	California Natural Diversity Database
LLNL	Lawrence Livermore National Laboratory
msl	Mean sea level
NRCS	Natural Resources Conservation Service
Site 300	LLNL’s Experimental Test Site
SVL	Snout-vent length
SSC	Species of Special Concern
SWEIS	Site-wide Environmental Impact Statement
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey

1.0 INTRODUCTION

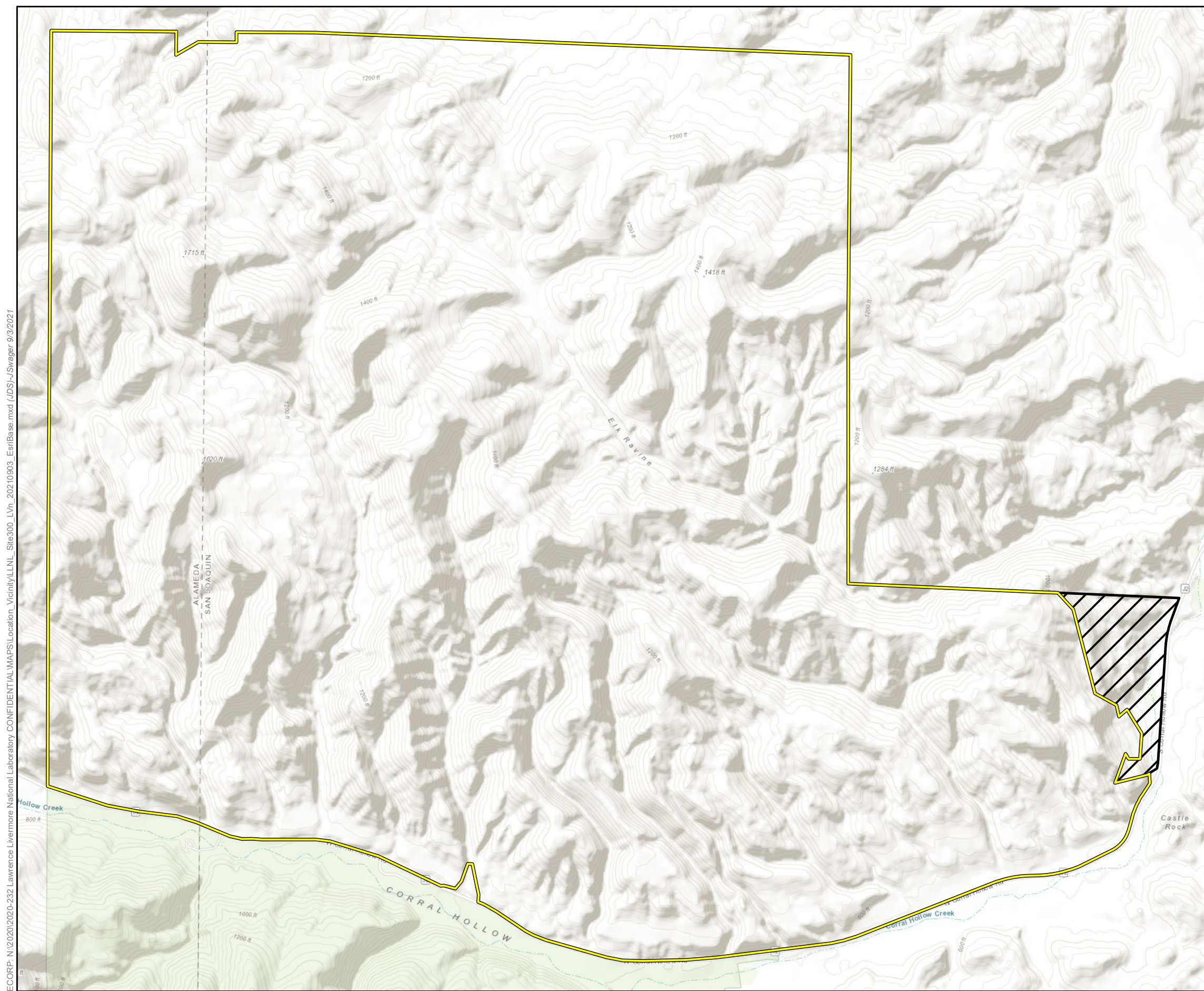
Pursuant to Subcontract Number B644180 between ECORP Consulting, Inc. (ECORP) and Lawrence Livermore National Security, LLC. (LLNS) at Lawrence Livermore National Laboratory (LLNL), ECORP conducted focused herpetological surveys at LLNL's Experimental Test Site (Site 300) during the spring of 2021. The results of these surveys will provide supporting information for a Site-wide Environmental Impact Statement (SWEIS). The herpetological surveys targeted three special-status reptile species including Blainville's (coast) Horned Lizard (*Phrynosoma blainvillii*), Northern California Legless Lizard (*Anniella pulchra*), and San Joaquin Coachwhip (*Masticophis flagellum ruddocki*) on the approximately 6,800-acre Site 300 in Alameda and San Joaquin counties. Special-status amphibian species were not targets of this survey effort.

The Site 300 property is located within both Alameda and San Joaquin counties, approximately eight miles (15 miles driving distance) east of the City of Livermore on the eastern slope of the California Coast Range in an area depicted in Sections 15-17, 20-22, 25-29, and Sections 33-35 of Township 03 South, Range 4 East (Mount Diablo Base and Meridian) on the "Midway, California" 7.5-minute topographic quadrangle (Figure 1-1). The approximate center of the Study Area is located at 37.654035° latitude and -121.535597° longitude within the San Joaquin Delta Watershed (Hydrologic Unit Code #18040003; Natural Resources Conservation Service [NRCS], USGS, and U.S. Environmental Protection Agency [USEPA] 2016). Elevation at the Project site is approximately 1300 feet above mean sea level (msl) but varies throughout the site. Two additional parcels located adjacent to the southeastern boundary of Site 300 were included in the study area: the approximately 100-acre Corral Hollow Ecological Reserve (owned by the California Department of Fish and Wildlife [CDFW]) and a small approximately 6.5 acre inholding of Department of Energy property within the Ecological Reserve which is considered a part of Site 300.

According to LLNL, Site 300 was established in 1955 as a non-nuclear explosives test facility to support Lawrence Livermore National Laboratory's national security mission. Only about 5 percent of the site has been developed for use as high-explosive test facilities and administrative buildings; the remainder is undisturbed, except for controlled burning. Rolling hills characterize the northern portion of Site 300, while the southern part consists of steep, deep canyons.

Surveys for special-status herpetofauna were previously conducted in 2002 in preparation for the 2005 LLNL Site-Wide Environmental Impact Statement (Swaim Biological Consulting 2002). Two types of traps which were used in the 2002 surveys: funnel traps and pitfall traps were both used in conjunction with drift fences, with funnel traps aimed at capturing snakes and pitfall traps aimed at documenting horned lizards and legless lizards (Swaim Biological Consulting 2002). Visual encounter surveys (Crump and Scott 1994) were also performed on roadways and between trapping sites. The 2002 surveys documented the presence of targeted species, including San Joaquin Coachwhip, Alameda Whipsnake (*Masticophis lateralis euryxanthus*), and Northern California Legless Lizard.

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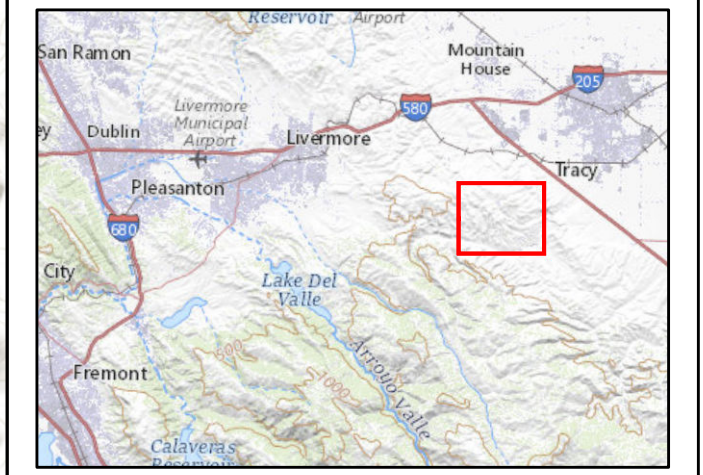
Map Features

Site 300 Study Area - 6,798.4 ac.

CDFW Corral Hollow Ecological Reserve - 99.9 ac.

Alameda County, CA and San Joaquin County, CA
§15-17, §20-22, §25-29, §33-35, T.03S, R.04E, MDBM
Latitude (NAD83): 37.654035°
Longitude (NAD83): -121.535597°
Watershed: San Joaquin Delta (18040003)

Sources: ESRI, USGS, LLNL



ECORP conducted surveys for targeted reptiles (Blainville's Horned Lizard, Northern California Legless Lizard, and San Joaquin Coachwhip) across Site 300 by incorporating some methods from the previous survey along with some additional techniques to provide updated background information for the new SWEIS. (Trapping was not performed. However, a variety of methods were employed to provide the best opportunity to document target species, to assess associated herpetofauna species on-site, and provide a repeatable study framework for future documentation efforts.

All three target reptile species are considered Species of Special Concern (SSC) by CDFW due to range-wide numerical declines and habitat loss. Documenting presence and distribution of the three aforementioned species presents a challenge to surveyors, albeit for different reasons (e. g. crypsis, microhabitats, and species-specific behaviors).

1.1 Blainville's Horned Lizard

Blainville's horned lizard is a relatively large (to 105 millimeter in snout-vent length (SVL)), dorsoventrally flattened, rounded lizard found historically from Redding, California, to Baja, Mexico (Jennings and Hayes 1994, Thomson et al. 2016). Formally considered the coast horned lizard (*P. coronatum*), the species has gone through a long period of taxonomic instability (Jennings and Hayes 1994; Montanucci, 2004, Leaché et al. 2009). Blainville's Horned Lizard is a member of the family Phrynosomatidae, a group of largely carnivorous lizards that once comprised part of the much larger family Iguanidae (now split into several smaller families) (Pough et al. 2001). This diurnal species can occur within a variety of habitats including scrubland, annual grassland, valley-foothill woodlands and coniferous forests, though it is most common along lowland desert sandy washes and chaparral (Stebbins 2003). In the Central Valley, the species ranges from southern Tehama County southward. In the Sierra Nevada it occurs from Butte County south to Tulare County, and in the Coast Ranges it occurs from Sonoma County south into Baja California (California Department of Fish and Game [CDFG] 1988). It occurs from sea level to 8,000 feet msl and an isolated population occurs in Siskiyou County (Stebbins 2003).

Like all horned lizards, Blainville's Horned Lizard is adorned with pointed and keeled scales, head spines, and parallel lateral fringes of scales, all of which serve to dissuade predators and aid in crypsis (Sherbrooke 2003). This is a ground-dwelling lizard which does not use vertical structure except where it shades the ground (Stebbins and McGinnis 2012).

Blainville's Horned Lizard is found in open microhabitats such as sandy washes with scattered shrubs or firebreaks in chaparral, where they forage for ants, small beetles and other insects (Jennings and Hayes 1994). Horned lizards (*Phrynosoma*) are native ant specialists and daily activities are centered on above ground activity patterns of ants, with lizards active generally in mornings and later in the afternoon in the summer. They generally emerge from hibernation in March or April and are active until September or later. Mating takes place in April through early May (Jennings and Hayes 1994), and an average of 12 (but up to 21) eggs are laid from April to June (Stebbins and McGinnis 2012). Intromission is achieved via a unique venter- to venter- position during copulation (Tollestrup 1981). Hatchlings 25 – 27 millimeter in length emerge from July through September (Stebbins and McGinnis 2012). Periods of daily or seasonal inactivity are spent within rodent burrows or underneath the soil or surface objects (CDFG 1988).

Blainville's Horned Lizard is considered a SSC by the CDFW and has undergone declines throughout California attributable to fragmentation and habitat destruction, predation by free-ranging pets, the invasion of non-native ants and their displacement of native harvester ants (Suarez et al. 2000, Suarez and Case 2002), and historic overcollection for pets and as stuffed display items (Jennings 1987). This species relies on crypsis for predator avoidance whereby they remain immobile and try not to be noticed rather than fleeing for safety. Stebbins and McGinnis (2012) make the point that this predator avoidance strategy may be incompatible with the mechanized means by which habitats might be converted into vineyards, other agriculture, and housing, for example.

Blainville's horned lizards are very cryptic and difficult to observe, relying on background-matching colors and a broken body line to blend into a substrate. As such, visual encounter surveys for horned lizards are often challenging.

1.2 Northern California Legless Lizard

The Northern California Legless Lizard is one of five species of legless lizard in California (Papenfuss and Parham 2013). All California legless lizards are considered SSC. They are not listed under state or federal endangered species acts.

Although lacking legs, the legless lizards (*Anniella*) are decidedly lizards as evidenced by the presence of eyelids, which are lacking in all snakes. Like snakes, however, these species lack external ear openings. The Northern California Legless Lizard has the largest range of all California *Anniella*, ranging from sites in and around Antioch, in the east bay, south to northern San Luis Obispo County (Thomson et al. 2016). Two disjunct segments of this species range occur: one in the eastern foothills of Tulare and Fresno counties, and another at the western edge of the Antelope Valley in Kern and Los Angeles Counties. A large area of undetermined species status connects those populations to areas occupied by Southern Sierra Legless Lizard (*A. campi*), Bakersfield Legless Lizard (*A. grinnelli*), Temblor Legless Lizard (*A. alexanderae*), and Southern California Legless Lizard (*A. stebbinsi*). Although not recognized by taxonomists, a melanistic form of *A. pulchra* exists in Monterey Bay.

Northern California Legless Lizards are secretive and fossorial. They are only surface-active when temperatures are mild and moisture is high. Legless Lizards are found in specialized habitats including sandy, arable, and moist soils; often in leaf litter around bush lupine (*Lupinus* sp.) and other shrubs. They have small home ranges and are active at cooler temperatures than other co-occurring lizards.

1.3 San Joaquin Coachwhip

The San Joaquin Coachwhip is a California SSC but is not listed pursuant to the federal or California endangered species acts. The San Joaquin Coachwhip is found in dry, open areas (e. g. grassland and saltbush scrub [Jennings and Hayes 1994]) in the western San Joaquin Valley from Contra Costa County, south along the west side of the San Joaquin Valley to the Grapevine in Kern County and west to the inner South Coast Ranges. Isolated populations have been identified in the Sutter Buttes (Hayes and Cliff 1982) and Colusa County (Thomson et al. 2016). San Joaquin Coachwhip populations have declined throughout much of their historical range due to loss of habitat associated with agricultural and urban development.

The San Joaquin Coachwhip, like other *M. flagellum* subspecies, maintains a higher active body temperature than many other snakes (Brattstrom 1965). It will not emerge from its burrow until temperatures reach 28° C; therefore, it does not emerge from the burrow until late in the season (April/May) and late in the day (Hammerson 1977). This snake uses mammal burrows for refuge and for nesting sites. The San Joaquin Coachwhip feeds on lizards, small birds, and small mammals and may eat carrion (Jennings and Hayes, 1994). This species needs large, open areas with little tree cover (Morafka and Banta 1976), and mating occurs in May, with oviposition occurring in June or July (Jennings and Hayes 1994).

The San Joaquin Coachwhip is a relatively long, slender, active-foraging colubrid snake. Coachwhips are very active and have very large home ranges. Surveying for and documenting this species presents very different problems from the above lizard species. Detectability is often low where present because they are only active during the warmest parts of the day in late spring and summer, and they can be very wary and quick to flee.

2.0 MATERIALS AND METHODS

Several methods were employed during the 2021 survey, including Quadrat Surveys, Microhabitat Surveys, Coverboard Sampling, Road-driving Surveys, and Dirt Road/Firebreak Surveys. For all surveys, starting and ending times, starting ambient and ground temperatures, percent cloud cover, and estimated wind speed were documented. Surveys were conducted during daylight hours only. Detailed descriptions of methodology by survey type are provided below. While Blainville's Horned Lizard, Northern Legless Lizard, and San Joaquin Coachwhip were the three target species, a running species list of all reptiles and amphibians was compiled during the survey and general locations were recorded for commonly encountered species. In preparation for surveys, a list of potentially occurring special-status herpetofauna was assembled for reference (Table 3-1; Attachment A).

Table 2-1. Special-status Herpetofauna Species with Potential for Occurrence at Lawrence Livermore's Site 300

Common Name (Scientific Name)	Status			Notes	Documented Onsite	Reference
	ESA	CESA	Other Status			
Amphibians						
California Tiger Salamander (Central California Distinct Population Segment) <i>(Ambystoma californiense)</i>	FT	CT	SSC	Uses vernal pools, other wetlands for breeding and adjacent grassland or oak woodlands. Needs underground refuge (e.g., ground squirrel and/or gopher burrows). Largely terrestrial as adults.	Yes	California Department of Fish and Wildlife (CDFW) 2021, Paterson and Woollett 2014

Table 2-1. Special-status Herpetofauna Species with Potential for Occurrence at Lawrence Livermore's Site 300

Common Name (Scientific Name)	Status			Notes	Documented Onsite	Reference
	ESA	CESA	Other Status			
Western Spadefoot <i>(Spea hammondi)</i>	-	-	SSC	A California near-endemic species of vernal pools, swales, wetlands and adjacent grasslands throughout the Central Valley south through San Diego into northern Baja.	Yes	CDFW 2021, Paterson and Woollett 2014
Foothill Yellow-legged Frog West/Central Coast Clade <i>(Rana boylei)</i>	-	CE	SSC	A species of low to middle elevation (to approx. 5000 ft elevation) creeks, streams, and rivers. Associated with rock/cobble/bedrock substrates and an open canopy, and generally absent or at low abundance where introduced predators exist. The West/Central Coast Clade is considered Endangered by CDFW. California Natural Diversity Database (CNDDDB) Element Occurrence #835 documented at Carnegie SVRA documented in 2014. LLNL Site 300 appears to lack habitat for this species.	No	CDFW 2021
California Red-legged Frog <i>(Rana draytonii)</i>	FT	-	SSC	Found in lowlands or foothills, usually in lentic waters with dense shrubby or emergent riparian vegetation. Adults must have aestivation habitat to endure summer dry down.	Yes	CDFW 2021, Paterson and Woollett 2014

Table 2-1. Special-status Herpetofauna Species with Potential for Occurrence at Lawrence Livermore's Site 300

Common Name (Scientific Name)	Status			Notes	Documented Onsite	Reference
	ESA	CESA	Other Status			
Northwestern/ Southwestern Pond Turtle (<i>Actinemys marmorata</i> , <i>A. pallida</i>)	-	-	SSC	California's only extant native freshwater turtles, confusion exists regarding whether specimens in the East and South Bay Area are Northern, Southern or hybrid pond turtles. Both species have the same conservation status under CDFW, however.	Yes	CDFW 2021, Paterson and Woollett 2014
Blainville's Horned Lizard (<i>Phrynosoma blainvillii</i>)	-	-	SSC	Formerly wide-spread in lower-elevation California and found in a wide variety of habitats, often in lower elevation areas with loose, friable soils and scattered low bushes. Also occurs in Sierra Nevada foothills. Needs open areas for basking, but with bushes and shaded areas for cover. A dietary specialist on native harvester ants (<i>Pogonomyrmex</i> sp.).	Yes	CDFW 2021, Paterson and Woollett 2014. Current study 2021
Northern California Legless Lizard (<i>Anniella pulchra</i>)	-	-	SSC	The most widespread of California's <i>Anniella</i> species. Occurs in sandy or loose soils under sparse vegetation from Antioch, California south-coastally to Ventura. Bush lupine is often an indicator plant, and two melanistic populations are known.	Yes	CDFW 2021, Swaim 2002, Paterson and Woollett 2014. Current study 2021

Table 2-1. Special-status Herpetofauna Species with Potential for Occurrence at Lawrence Livermore's Site 300

Common Name (Scientific Name)	Status			Notes	Documented Onsite	Reference
	ESA	CESA	Other Status			
California Glossy Snake <i>(Arizona elegans occidentalis)</i>	-	-	SSC	Occurs from eastern San Francisco Bay Area south to northwestern Baja California. Inhabits arid scrub, rocky washes, grasslands, and chaparral (Stebbins and McGinnis 2012).	Yes	CDFW 2021, L. Paterson pers. comm. 2021. Current study 2021
Alameda Whipsnake <i>(Masticophis lateralis euryxanthus)</i>	FT	CT	-	A snake of chaparral, grassland, and scrub habitats, including adjacent woodlands. Found mostly on rocky south-facing slopes. Needs some vertical shrub cover.	Yes	CDFW 2021, Swaim 2002, Paterson and Woollett 2014. Current study 2021
San Joaquin Coachwhip <i>(Masticophis flagellum ruddocki)</i>	-	-	SSC	Occurs in open, dry, usually flat habitats in Valley Grassland and Saltbush Scrub with little to no shrub cover in the San Joaquin Valley. An active foraging dietary generalist. Isolated population occurs in Sutter Buttes.	Yes	CDFW 2021, Swaim 2002, Paterson and Woollett 2014. Current 2021 study

Status Codes:

FESA	Federal Endangered Species Act
CESA	California Endangered Species Act
CT	CESA- or NPPA-listed, Threatened
CE	CESA or NPPA listed, Endangered
SSC	CDFW Species of Special Concern (CDFW, updated July 2021)

2.1 Quadrat Surveys

For Quadrat Surveys (Fedewa 2013), a series of 100' X 100' survey grids (10,000 feet² = 0.23 acre) was developed in geographic information system and overlain across a map of LLNL. Two-hundred and forty-nine (249) "Primary" grids were placed in areas thought to represent suitable habitat for the three target herpetofauna species. Another 216 "Secondary" grids were located in presumed lesser-quality, potential habitat. Some grids of both categories were subsequently removed during the review process (at the request of LLNL) due to proximity to rare plant populations or secured, inaccessible areas. Field

verification of plotted grids sometimes revealed accessibility issues due to steep terrain, or a lack of presumed habitat for target species. Grids were then established in the field based on site-specific characteristics to better sample on-the-ground conditions.

At each grid, a corner was chosen and a 100' X 100' grid (marked with string) was overlaid on the ground and secured at the corners with tent stakes (Figure 3-1, Attachment A). Grids tended to be oriented such that sides were oriented in north, south, east, west cardinal directions, but when placed in narrow or small habitat patches were oriented to better capture the most habitat/microhabitat within a grid. Grids were then often subdivided into 4 50' X 50' grids to facilitate sampling by observers (Figure 3-1).

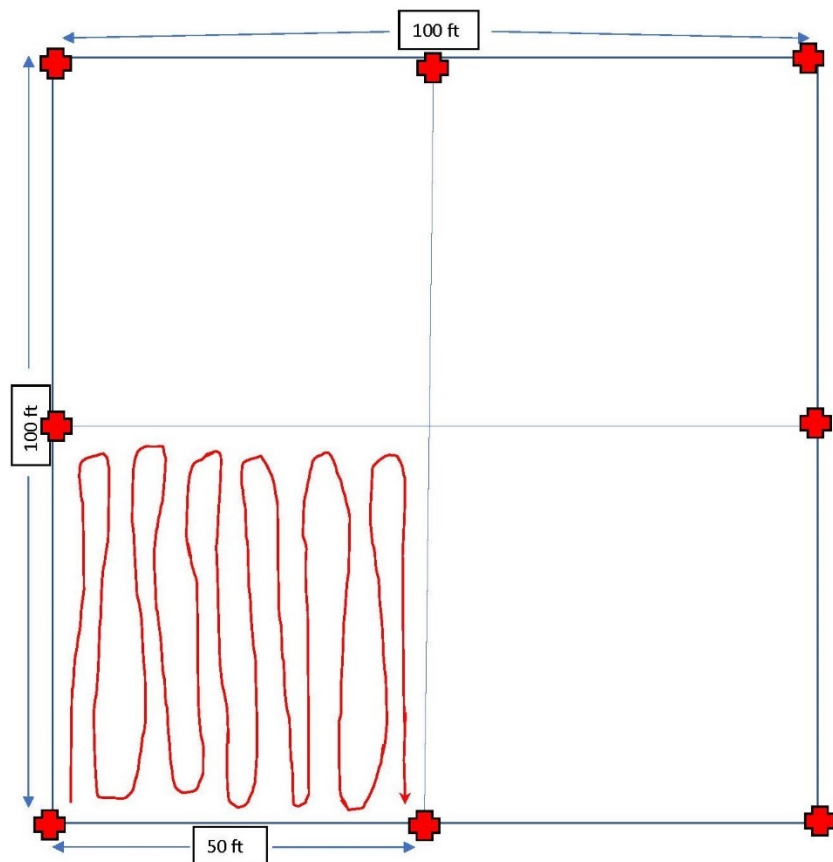


Figure 3-1. Schematic 100' by 100' survey grid.

Two or three surveyors then started at differing corners within the grid and systematically searched all enclosed area within for target and non-target species. Potato rakes and snake hooks were then used to sift and rake through soil and leaf litter (Kuhn et al. 2005). Other surface debris (downed wood, debris, large rocks) was overturned and looked beneath. Depending on habitat and soil type, soils were raked to differing depths characterized as shallow, medium, and deep. Sandy, friable soils were raked to deeper depths than hardpacked clay or bedrock, and care was taken not to disturb living plant root systems. Flashlights and mirrors were used to illuminate dark holes, nooks, and crannies for observation. All sign of target and non-target reptile and amphibian species were documented during surveys including live or dead animals, shed skin, and scat. Global Positioning System coordinates were recorded for all

observations, and definitive shed skins were collected. Start time, end time, ambient and ground temperature, weather conditions (including time since last precipitation), and cloud cover were recorded for each survey, as well as the coordinates (UTM-WGS 84 datum) of one corner of a grid. Habitat was generally characterized, especially with relevance to the three target reptile species. Representative photos are included as Attachment B.

Tent stakes marked the corners and 50' positions and surveyor's string was fastened from corner to corner to demarcate a grid on the ground. Surveyors then walked transects through the entire grid while attempting 100 percent survey coverage and subsequently raked the entire grid in search of target species.

2.2 Microhabitat Surveys

While conducting Quadrant Surveys (above), Area-constrained Searches (Todd 2012) also targeted other microhabitats in areas that might provide suitable habitat or microhabitats for target species.

Microhabitats included rock outcrops, dry drainages, and basins with unique vegetation assemblages. As with Quadrant Surveys, all areas within a identified microhabitats were searched systematically while recording species and sign observed (Todd 2013).

2.3 Coverboard Sampling

Coverboard Sampling is a common technique employed during herpetofauna surveys (Mills et al. 2013). Sixteen arrays of six coverboards (96 total coverboards) each were deployed in representative habitats across Site 300. Coverboards (2' x 2' pieces of 3/8" plywood) were laid on February 19, 2021 and allowed to weather before surveys started and coverboards were initially checked. During each coverboard check, scheduled at 2- to 4-week intervals, herpetofauna found under boards were identified to species.

2.4 Road Driving Surveys (Road Transects)

Every mobilization to and from a survey site or repositioning within Site 300 was treated as a Road Survey (Andrews 2013). Roads were driven slowly (<25 miles/hour) while searching for reptiles. Primary targets during road surveys were San Joaquin Coachwhip, but other snakes were recorded when found. Lizards (especially *Sceloporus occidentalis* and *Uta stansburiana*) were commonly observed at road edges but were not recorded.

2.5 Dirt Road/Firebreak Surveys (Walking Dirt Road Transects)

An additional technique employed to target Blainville's Horned Lizard was Dirt Road/Firebreak Surveys. Surveys were conducted by slowly walking a section of dirt road or firebreak and searching for horned lizards and sign (scat).

3.0 RESULTS

3.1 Quadrat Surveys

Sixty-three quadrat surveys were conducted during the weeks of March 30, April 15, April 27, May 3, and June 1, for a total of 14.5 total acres of quadrat surveys (Figure 3-2).

Two or three surveyors performed surveys at each quadrat that ranged from 25 minutes to 100 minutes, for an average survey time of 54.9 minutes/survey and total survey effort of 58.6 hours. The target species San Joaquin Coachwhip was documented in two quadrants (P37, P105). No live San Joaquin Coachwhips were documented during surveys; however, two partial but definitive shed skins were documented and collected from two locales within the survey area. The locations of these occurrences and additional records for San Joaquin Coachwhip are shown in Figure 3-3. CNDDDB Reporting Forms are included as Attachment C. Field data sheets are included as Attachment D. An Excel file of field survey data is included as Attachment E.

Northern California Legless Lizards were documented in one quadrat (P57b); both found under the same Black Sage (*Salvia mellifera*) bush. Both lizards were small in size, with one adult (125 mm total length) and one juvenile (100 mm total length). The location of these individuals as well as additional records are represented in Figure 3-4 and representative photographs are provided in Attachment B. Nine other reptile and amphibian species were documented during Quadrat Surveys (Table 4-1).

Table 3-1. Species Documented During Herpetofauna Surveys at Lawrence Livermore Site 300.

Species	Location	Documentation Method	Sign	Photographed
California Toad (<i>Anaxyrus boreas halophilus</i>)	North of Quadrat S216	Microhabitat Surveys,	Animal	No
Coast Range Fence Lizard (<i>Sceloporus occidentalis bocourtii</i>)	Ubiquitous around dwellings and rocks outcrops	Quadrats, Microhabitat Surveys, Incidental	Animal	Yes
Western Side-blotch Lizard (<i>Uta stansburiana elegans</i>)	Ubiquitous across non-developed parts of the site	Quadrats, Microhabitat Surveys, Incidental	Animal	Yes
San Francisco (Northern) Alligator Lizard (<i>Elgaria coerulea coerulea</i>)	Coverboard 1	Coverboard	Animal	No
California (Southern) Alligator Lizard (<i>Elgaria multicarinata multicarinata</i>)	Coverboard 11, Quadrats P7, P99, P84, P72b, P24, P50	Coverboard, Incidental, Microhabitat Survey, Quadrats	Animal	Yes

Table 3-1. Species Documented During Herpetofauna Surveys at Lawrence Livermore Site 300.

Species	Location	Documentation Method	Sign	Photographed
Skilton's (Western) Skink <i>(Plestiodon skiltonianus skiltonianus)</i>	Coverboard 1, P99	Coverboard, Quadrats	Animal	No
Variegated (Gilbert's) Skink <i>(Plestiodon gilberti cancellosus)</i>	P99b	Quadrats	Animal	Yes
California (Western) Whiptail <i>(Aspidoscelis tigris munda)</i>	P57d, P57e, P84	Quadrats	Animal	No
Blainville's Horned Lizard <i>(Phrynosoma blainvillii)</i>		Driving Surveys, Walking Road Surveys, Microhabitat Surveys	Animal	Yes
Northern Legless Lizard <i>(Anniella pulchra)</i>	Quadrat P57b	Quadrats	Animal	Yes
Pacific Gopher Snake <i>(Pituophis catenifer catenifer)</i>	Sitewide	Driving Surveys, Walking Road Surveys	Animal	Yes
California Glossy Snake <i>(Arizona elegans occidentalis)</i>	Corral Hollow Ecological Preserve	Microhabitat Surveys	Shed skin	No
California Night Snake <i>(Hypsiglena ochrorhyncha nuchalata)</i>	Quadrat P38	Quadrats	Animal	Yes
Western Yellow-bellied Racer <i>(Coluber constrictor mormon)</i>	Quadrat P84b	Quadrats	Shed skin	No
Alameda Whipsnake <i>(Masticophis lateralis euryxanthus)</i>	The Oasis (dead individual, documented by LLNL staff)	Incidental	Animal (dead)	Yes
San Joaquin Coachwhip	Quadrats P37, P105	Quadrats	Shed skin	Yes

Table 3-1. Species Documented During Herpetofauna Surveys at Lawrence Livermore Site 300.

Species	Location	Documentation Method	Sign	Photographed
<i>(Masticophis flagellum ruddocki)</i>				
Northern Pacific Rattlesnake <i>(Crotalus oreganus oreganus)</i>	Facility-wide	Quadrats, Microhabitat Surveys, Walking Road Surveys, Incidental	Animal	Yes

3.2 Microhabitat Surveys

Five hours of microhabitat surveys were performed, primarily in rock outcrops and dry linear drainages, but also in a detention basin and an *Eriogonum*-dominated landscape (Figure 3-5). Linear microhabitats (primarily dry washes) averaged 39 ft in width, and 740 ft in length, comprising 42.4 acres of surveys. The 5.2 hours of surveys averaged 45 minutes per survey. Side-blotch Lizards, Western Fence Lizards, one Southern Alligator Lizard, one California Toad, and 9 Northern Pacific Rattlesnakes were documented during surveys.

Area-constrained microhabitat surveys were conducted in 7.2 acres of rock outcrops and other unique microhabitats, for a total of 5.0 hours of survey time. Side-blotch lizards, fence lizards, California whiptail lizards (*Aspidoscelis tigris munda*), one Pacific Gopher Snake (*Pituophis catenifer catenifer*), three Northern Pacific Rattlesnakes, and one California Glossy Snake (shed skin) were documented during surveys.

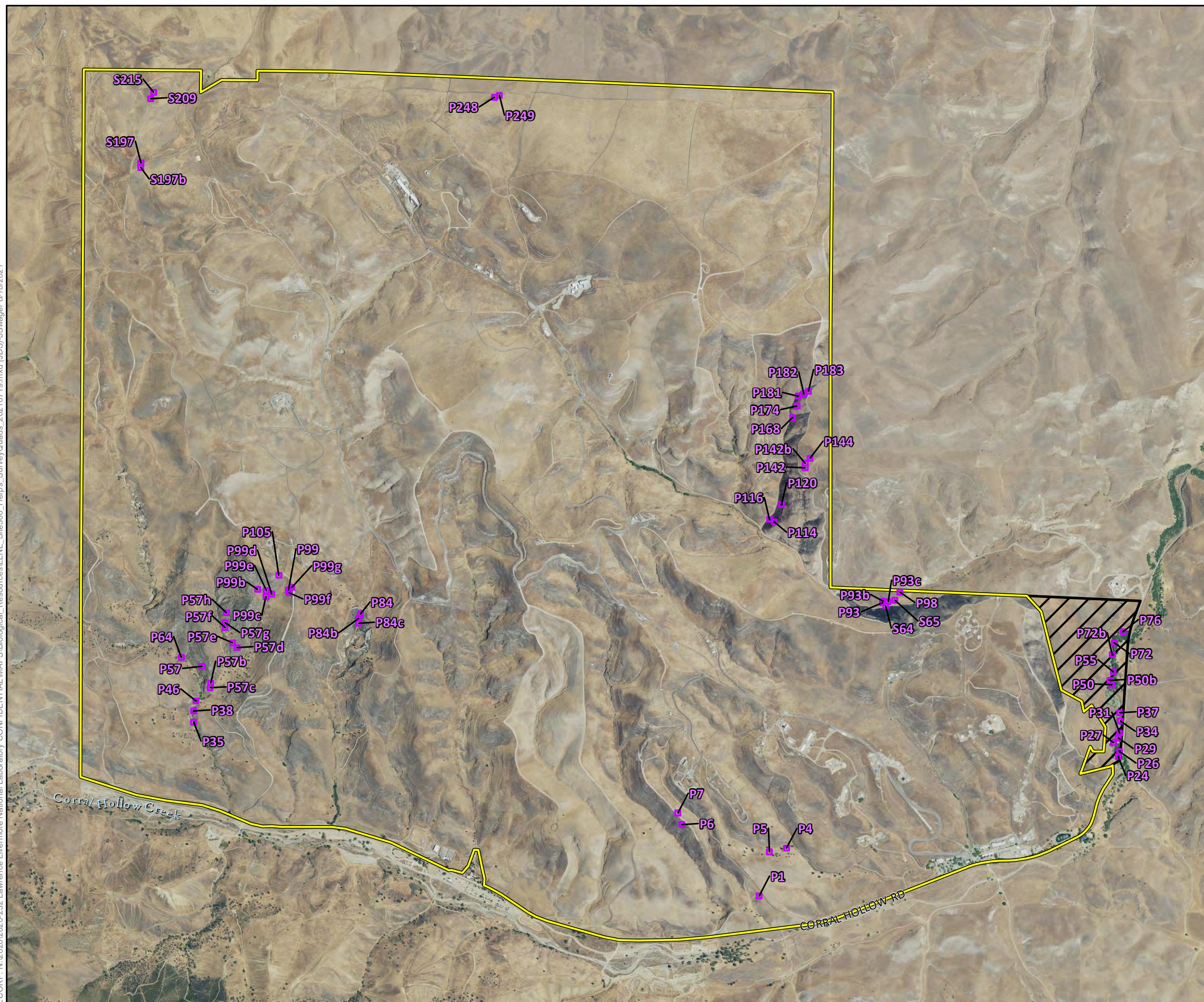
3.3 Coverboard Sampling

Sixteen coverboard arrays of six 2' X 2' coverboards were laid on 19 February 2021 (Figure 3-6). Coverboards were then checked three times, at monthly intervals at end of March/early April, end of April/early May, and early June. By date, Coverboard 11 yielded a Southern Alligator Lizard on April 2, Coverboard 16 harbored one Western Fence Lizard and one Side-blotch Lizard on April 14, Coverboard 12 yielded a Side-blotch Lizard on April 16 and Coverboard 1 had both a Northern Alligator Lizard and a Western Skink on April 29. All other coverboard checks were negative.

3.4 Road Driving Surveys

More than 86 miles of road surveys were conducted while traversing the Site 300 facility (Figure 3-7). One Blainville's Horned Lizard was documented during road surveys (Figure 3-8), and Pacific Gopher Snakes and Northern Pacific Rattlesnakes were also observed.

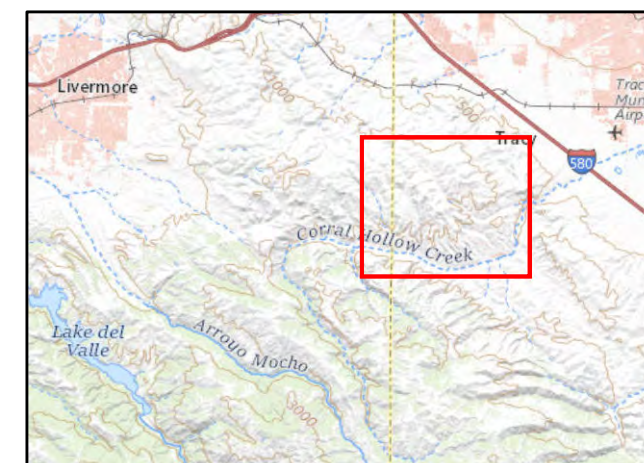
ECORP: N:\2020\2020-232 Lawrence Livermore National Laboratory CONFIDENTIAL\MAPS\Biological Resources\LLNL_Site300_Heps_SurveyQuads_20210719.mxd (JDS)-JSwager 8/10/2021



Map Features

- Site 300 Study Area
- CDFW Corral Hollow Ecological Reserve
- Reptile Survey 100'x100' Quads

Sources: ESRI, USGS, LLNL, NAIP (2020)



Map Date: 8/10/2021

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

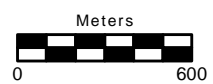
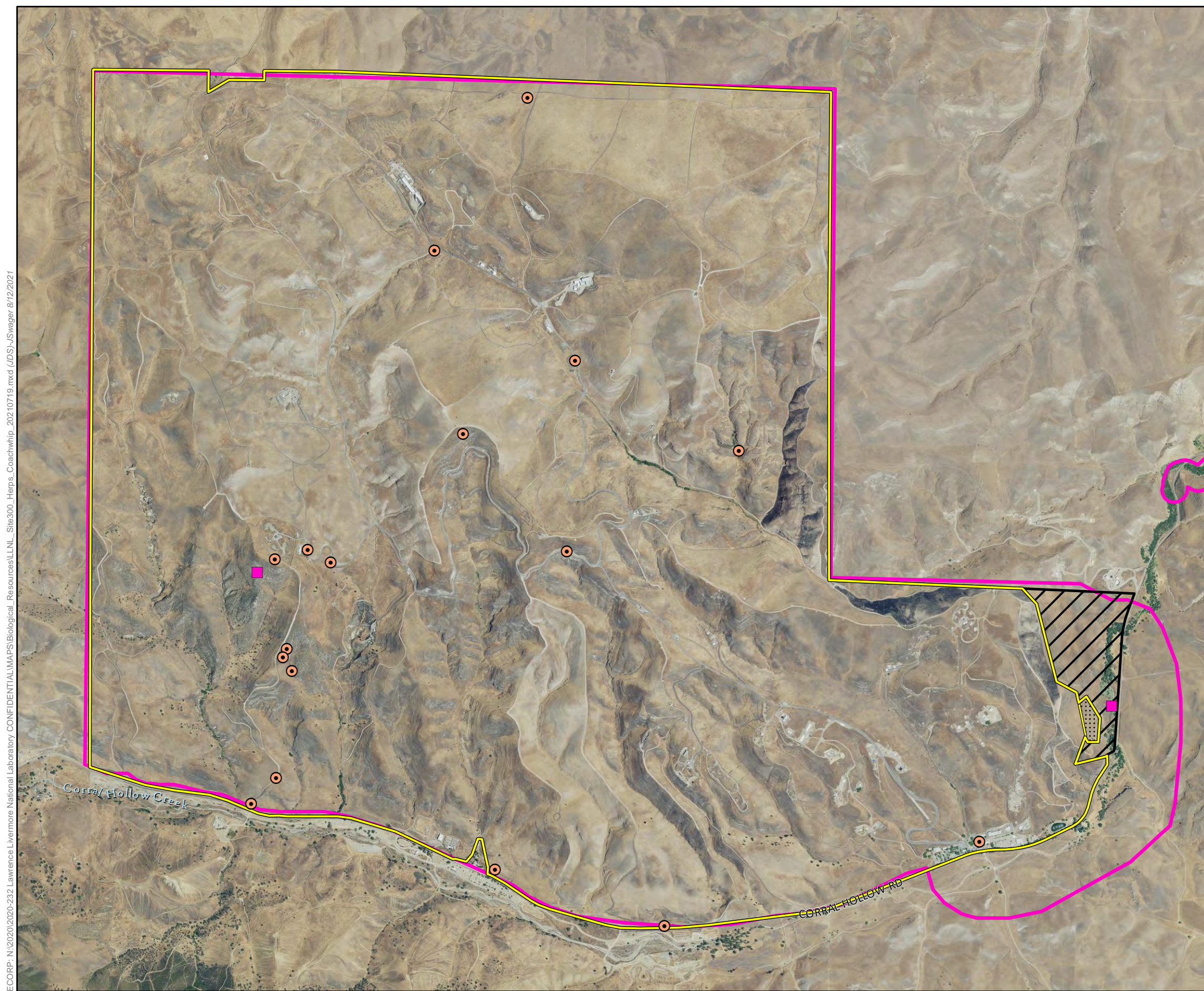


Figure 3-2. Placement of 100'x100' Survey Quadrants
2020-232 Lawrence Livermore National Laboratory

ECORP: N:\2020\2020-232 Lawrence Livermore National Laboratory CONFIDENTIAL\MAPS\Biological Resources\LLNL_Site300_Heps_Coachwhip_20210719.mxd (JDS)-J.Swager 8/12/2021



Map Features

- Site 300 Study Area
- CDFW Corral Hollow Ecological Reserve

2002 Survey Results

- San Joaquin Coachwhip (*Masticophis flagellum ruddocki*)

2021 Survey Results

- San Joaquin Coachwhip (shed skin) (*Masticophis flagellum ruddocki*)

CNDDDB Records

- San Joaquin Coachwhip (*Masticophis flagellum ruddocki*)

CNDDDB version 07/2021. Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.

Sources: ESRI, USGS, CDFW, LLNL, Swaim Biological, NAIP (2020)

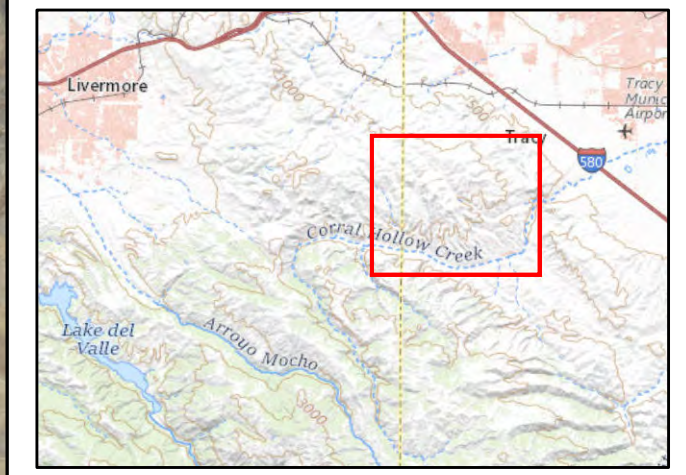
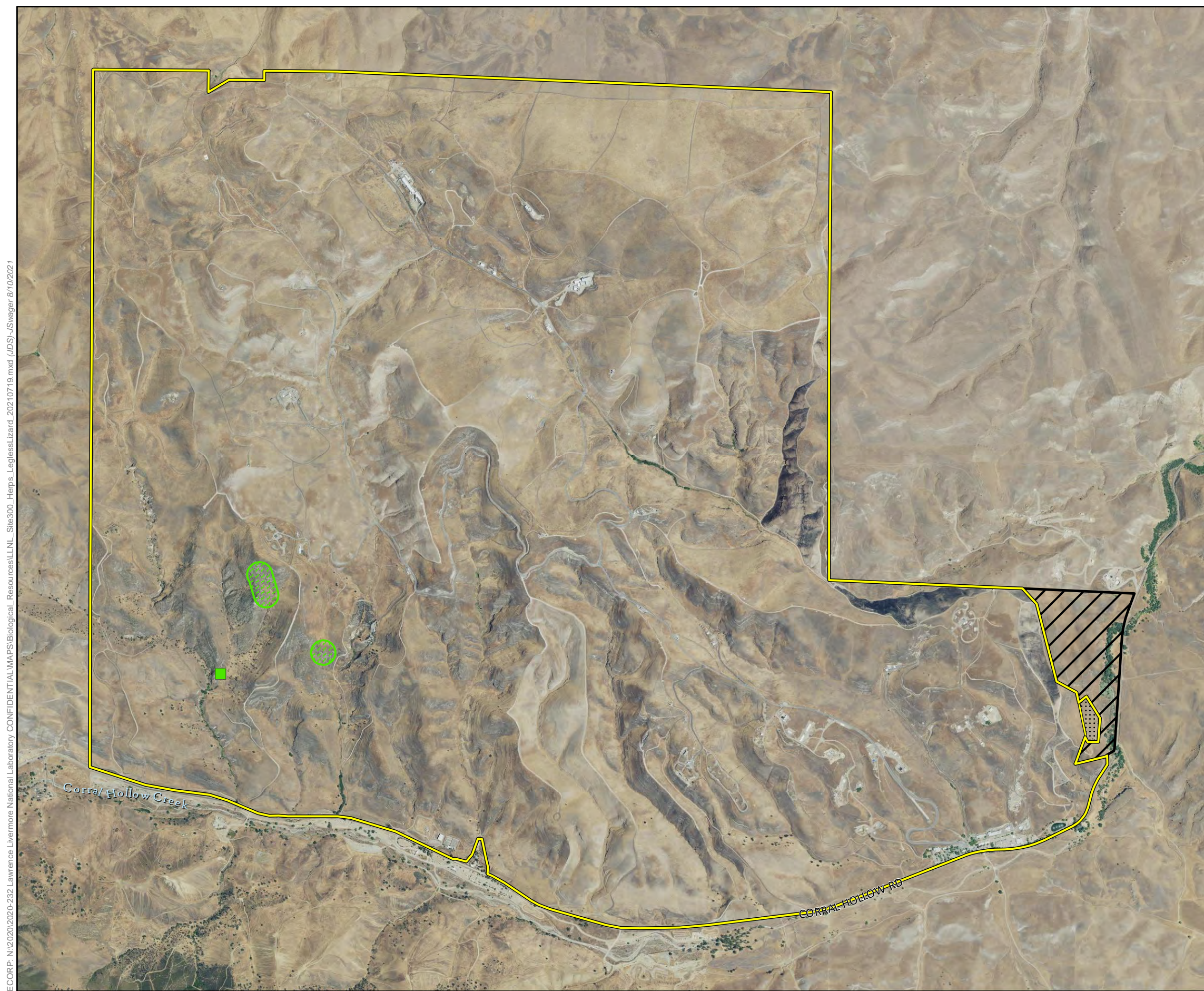


Figure 3-3. San Joaquin Coachwhip Locations

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Map Features

- Site 300 Study Area
- CDFW Corral Hollow Ecological Reserve

2021 Survey Results

- Northern California Legless Lizard (*Anniella pulchra*)

CNDDDB Records

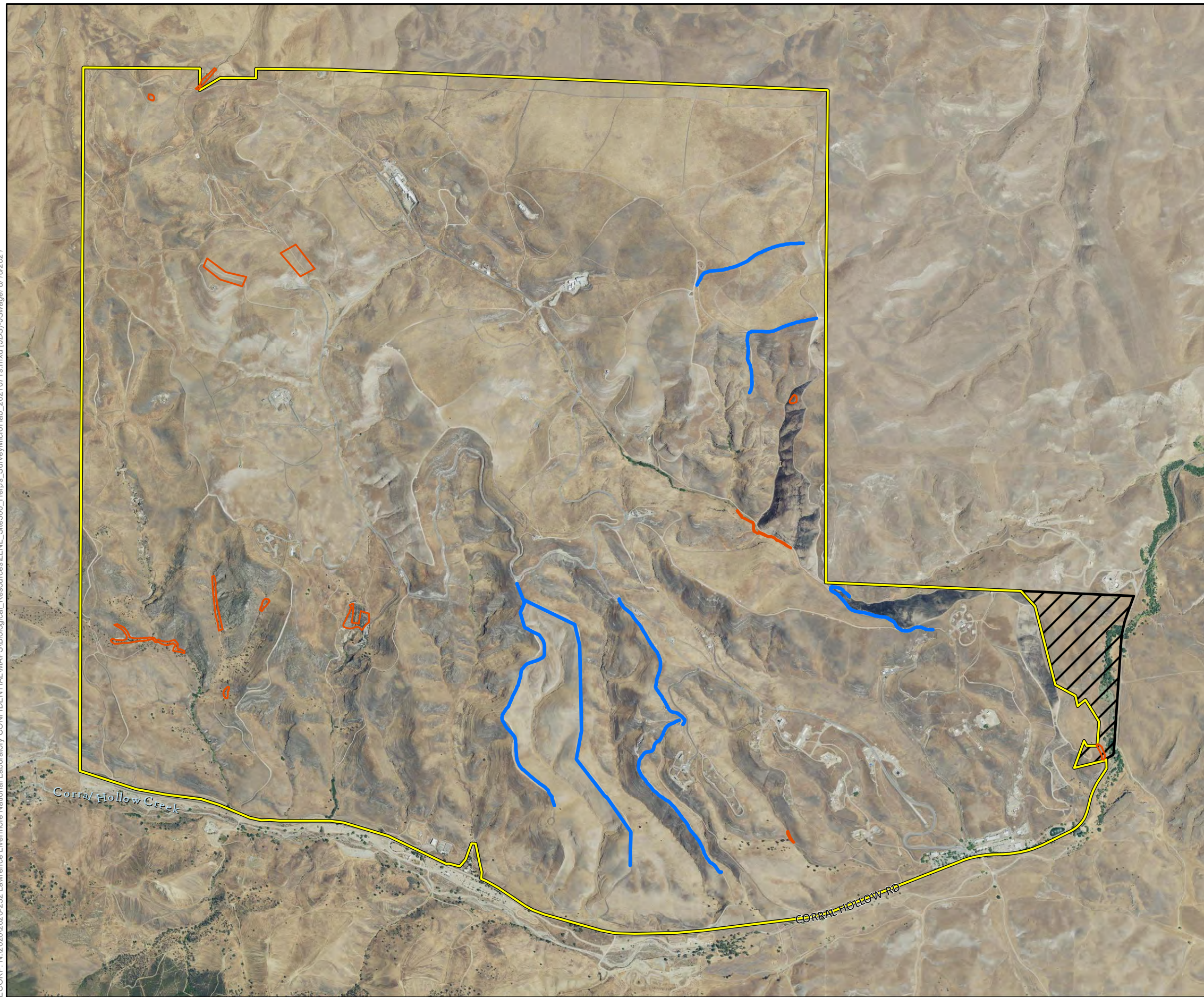
- Northern California Legless Lizard (*Anniella pulchra*)

CNDDDB version 07/2021. Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.

Sources: ESRI, USGS, CDFW, LLNL, NAIP (2020)

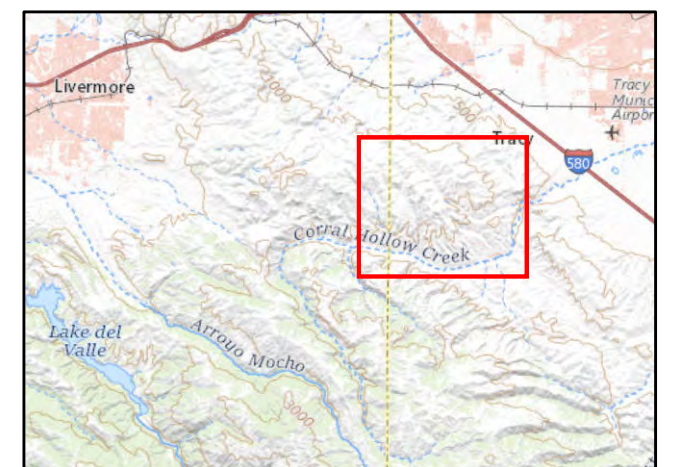
Figure 3-4. Northern California Legless Lizard Locations
2020-232 Lawrence Livermore National Laboratory

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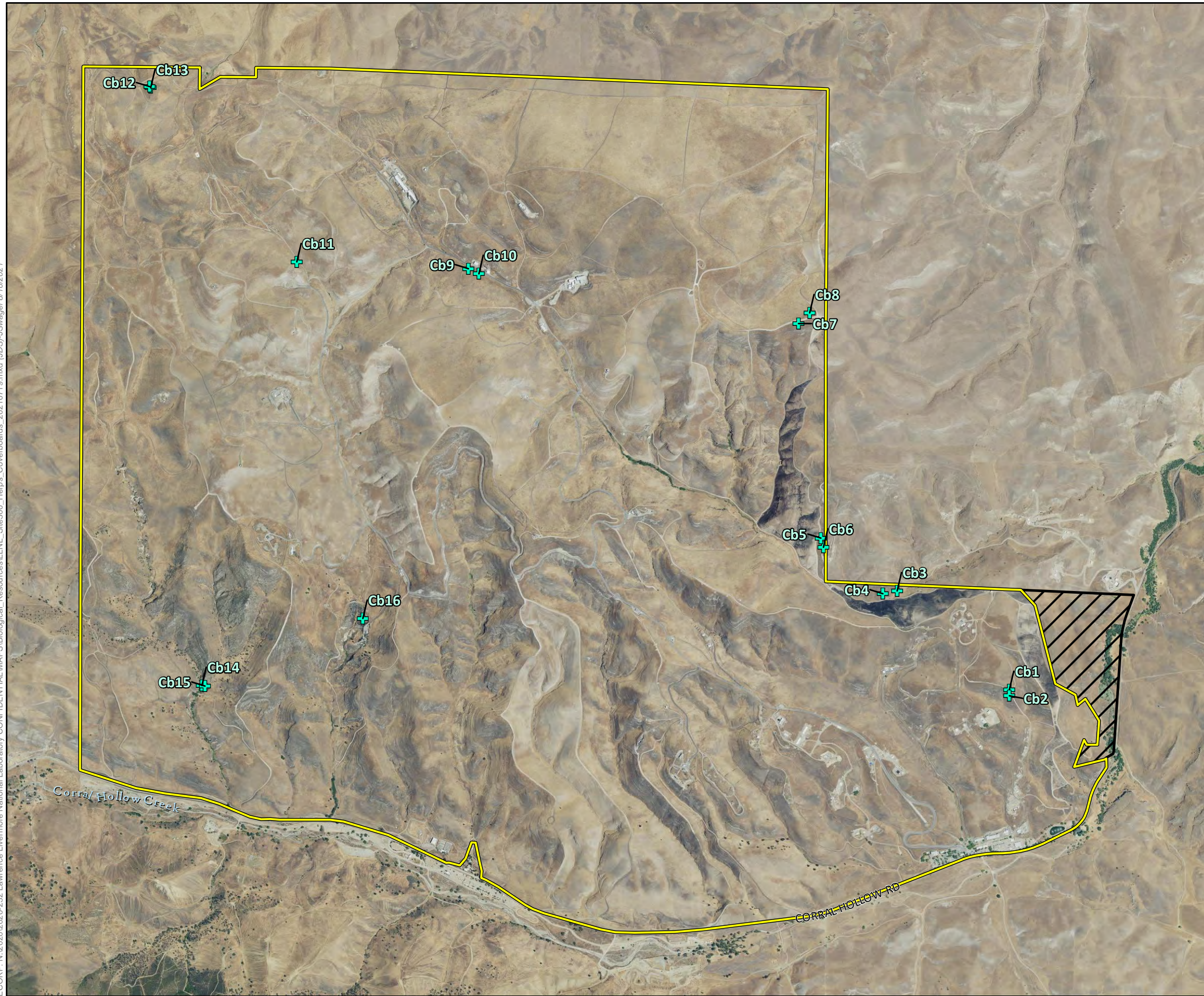


- Map Features**
- Site 300 Study Area
 - CDFW Corral Hollow Ecological Reserve
 - Dirt Road/Firebreak Survey
 - Microhabitat Survey

Sources: ESRI, USGS, LLNL, NAIP (2020)



ECORP: N:\2020\2020-232 Lawrence Livermore National Laboratory CONFIDENTIAL\MAPS\Biological Resources\LLNL_Site300_Heps_Coverboards_20210719.mxd (JDS)-Jswager 8/10/2021



Map Features

- Site 300 Study Area
- CDFW Corral Hollow Ecological Reserve
- Coverboard Location

Sources: ESRI, USGS, LLNL, NAIP (2020)

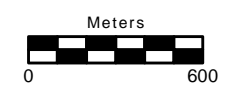
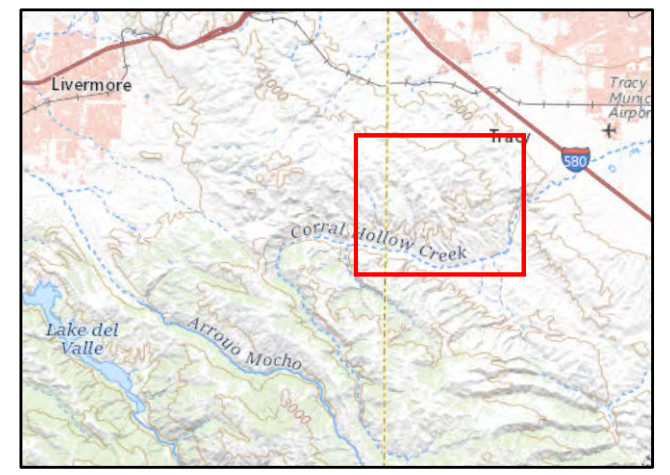
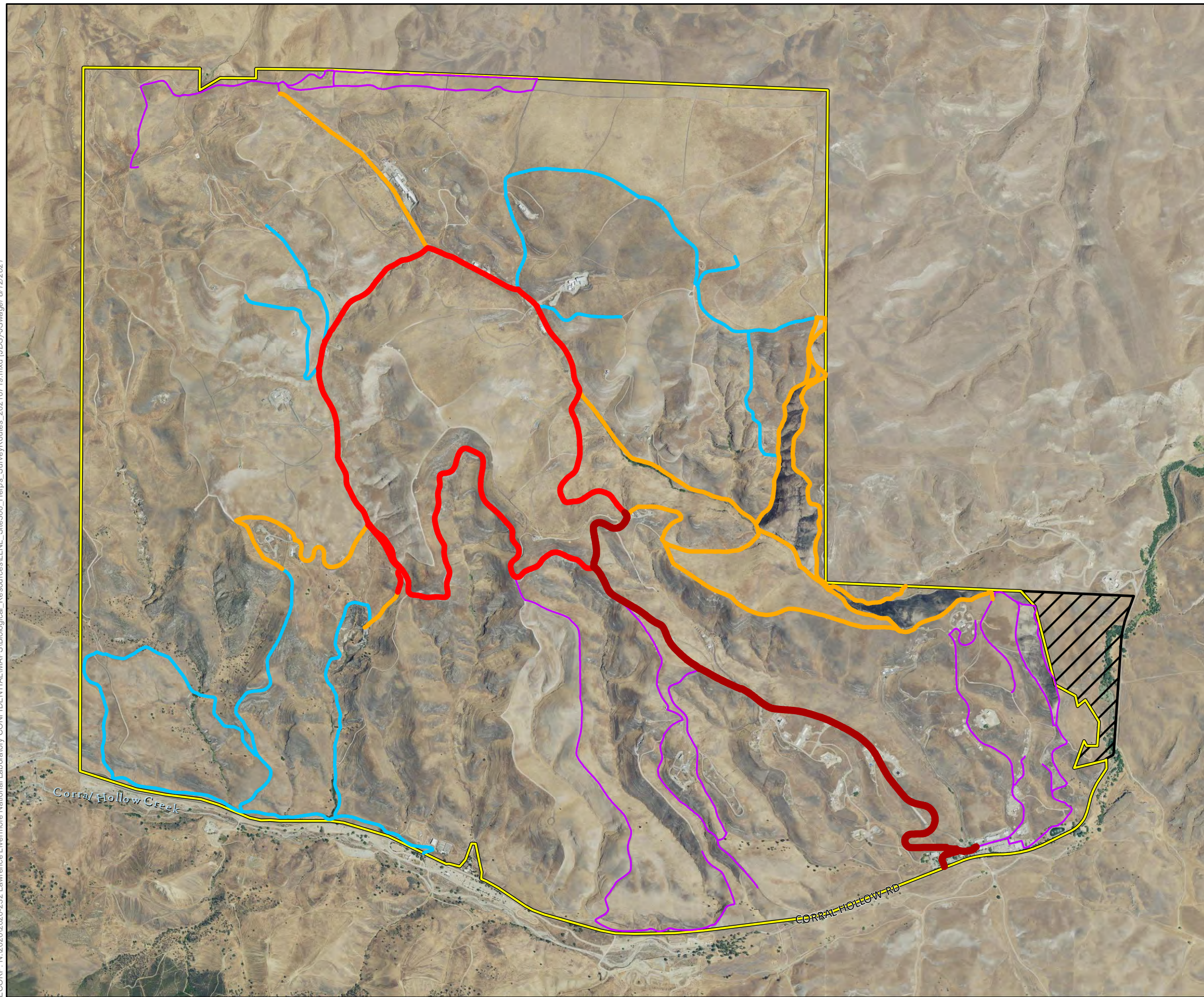


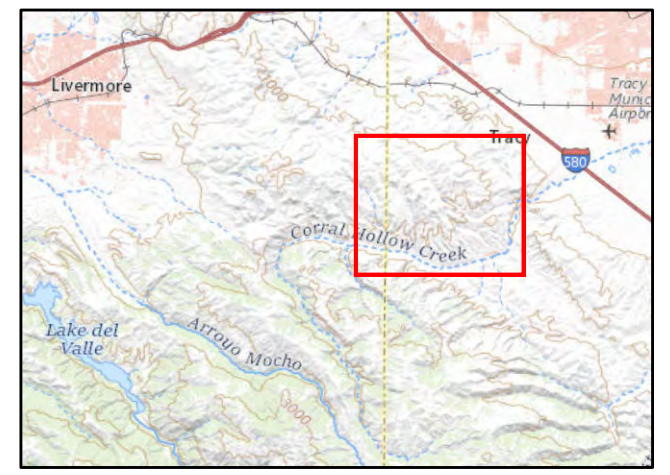
Figure 3-6. Coverboard Locations
2020-232 Lawrence Livermore National Laboratory

ECORP: N:\2020\2020-232 Lawrence Livermore National Laboratory CONFIDENTIAL\MAPS\Biological Resources\Site300_Heps_SurveyRoutes_20210719.mxd (JDS)-Jswager 8/12/2021

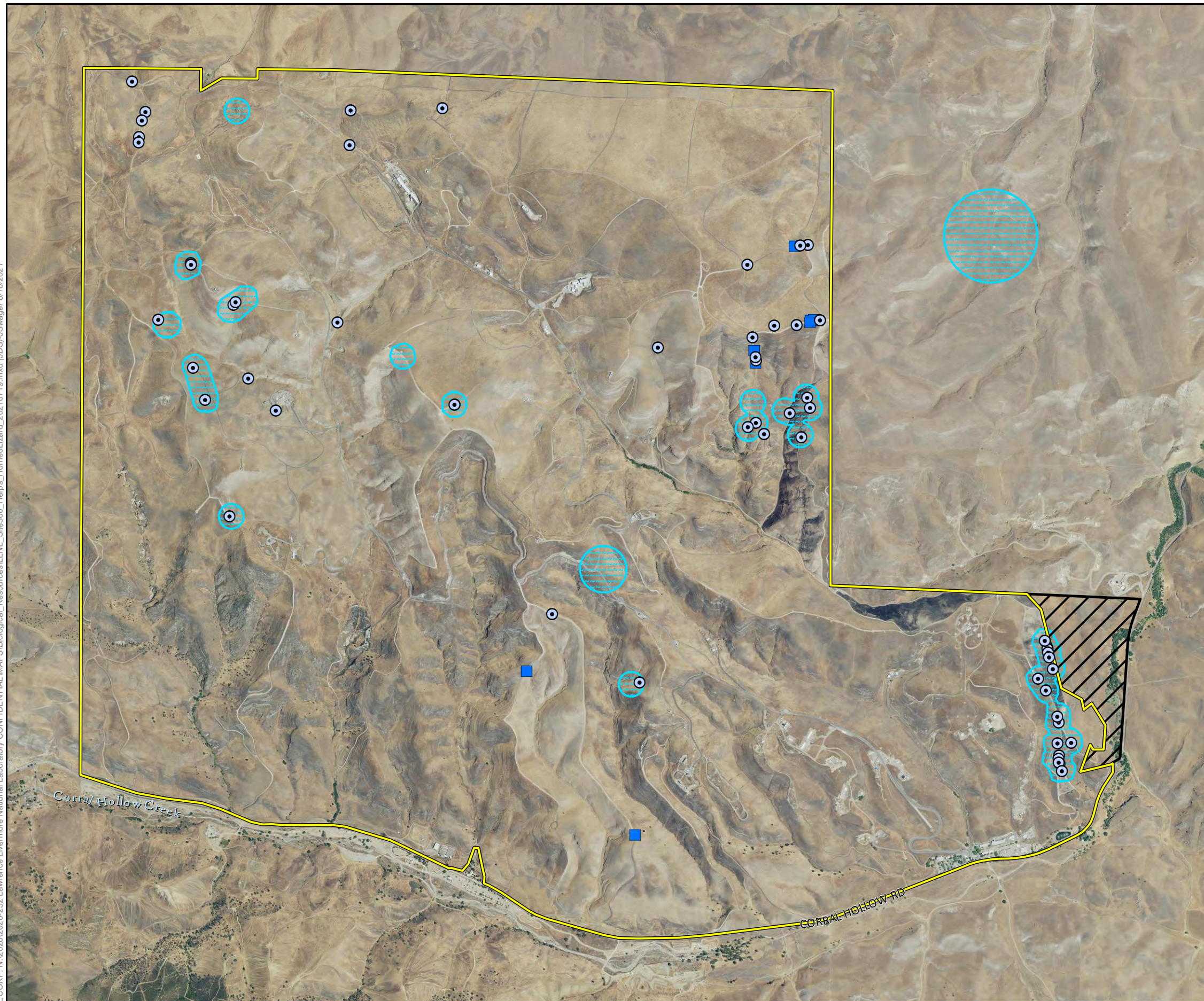


- Map Features**
- Site 300 Study Area
 - CDFW Corral Hollow Ecological Reserve
- Road Survey Routes**
- Most Traveled
 -
 -
 - Least Traveled

Sources: ESRI, USGS, LLNL, NAIP (2020)



ECORP: N:\2020\2020-232 Lawrence Livermore National Laboratory CONFIDENTIAL\MAPS\Biological Resources\LLNL_Site300_Horns_HornedLizard_20210719.mxd (JDS)-JSwager 8/10/2021



Map Features

- Site 300 Study Area
- CDFW Corral Hollow Ecological Reserve

2021 Survey Results

- Coast Horned Lizard (*Phrynosoma blainvillii*)

Previous Survey Results (2002-2020)

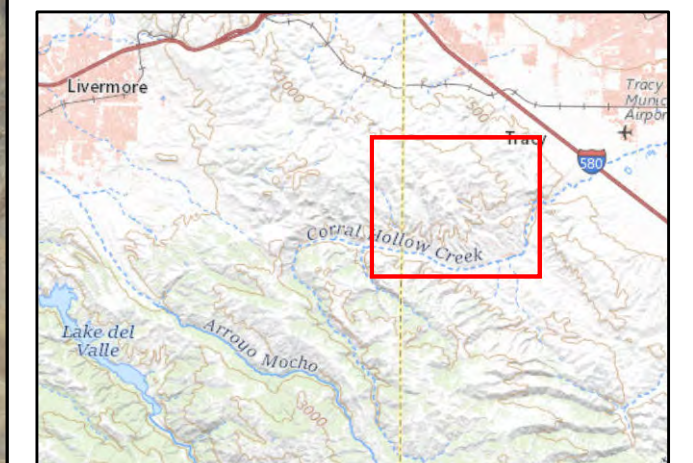
- Coast Horned Lizard (*Phrynosoma blainvillii*)

CNDDDB Records

- Coast Horned Lizard (*Phrynosoma blainvillii*)

CNDDDB version 07/2021. Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.

Sources: ESRI, USGS, CDFW, LLNL, NAIP (2020)



3.5 Dirt Road/Firebreak Surveys

Nine walking Dirt Road/Firebreak surveys were conducted in April and May, for a total of 5.6 miles averaging 26 feet wide and encompassing 161.0 acres. Sixteen Blainville's Horned Lizards were documented during surveys (Figure 3-8). The first horned lizard documented was found opportunistically during a driving survey (see above) on April 1, 2021. Subsequently on April 2, walking Dirt Road/Firebreak surveys were employed at suitable habitat. A mix of young (small) and older adults were documented, indicating a naturally functioning population (Figure 3-9). Locations of other records for Blainville's Horned Lizard from previous years are also included in Figure 3-8.

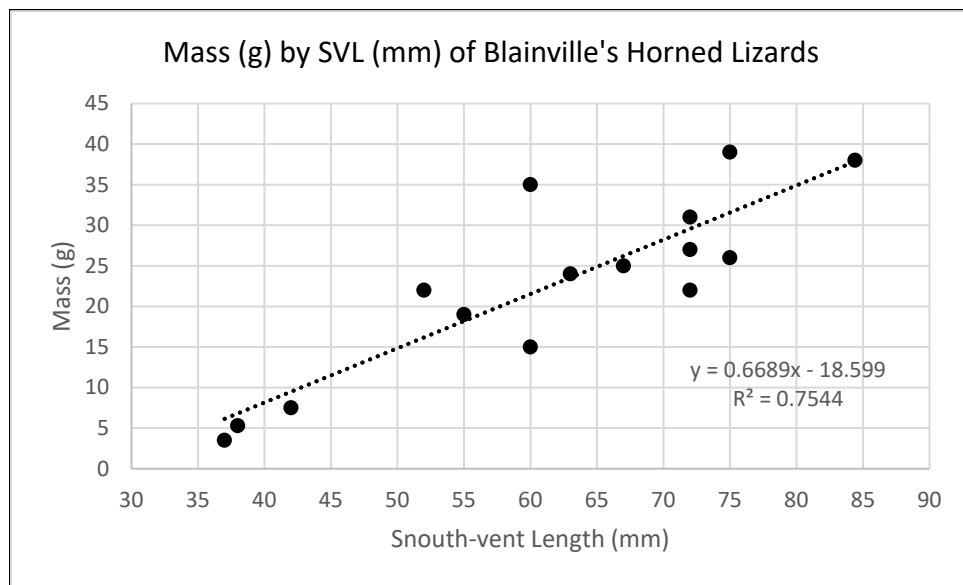


Figure 3-9. Regression of Mass by Length for 15 Blainville's Horned Lizards at Site 300.

3.6 Potential Species

Species not documented during surveys but known or possibly present at Site 300 include California Tiger Salamander (*Ambystoma californiense*), California Slender Salamander (*Batrachoseps attenuatus*), Arboreal Salamander (*Aneides lugubris*), Ensatina (*Ensatina eschscholtzii*) (habitat appears lacking), American Bullfrog (*Lithobates catesbeianus*), California red-legged frog (*Rana draytonii*), Sierra Chorus Frog (*Pseudacris regilla*), Western Sagebrush Lizard (*Sceloporus graciosus gracilis*), California Black-headed Snake (*Tantilla planiceps*), Sharp-tailed Snake (*Contia tenuis*), Long-nosed Snake (*Rhinocheilus lecontei*), California king snake (*Lampropeltis getula*), Pacific Ring-necked Snake (*Diadophis punctatus amabilis*), California Red-sided Gartersnake (*Thamnophis sirtalis infernalis*), Diablo Range Gartersnake (*T. atratus zaxanthus*), and Coast Gartersnake (*T. elegans terrestris*).

3.7 Constraints, Weather Conditions, and Survey Timing

Several limitations, including seasonal and daily timing of surveys, current weather patterns and others possibly impacted the results of surveys.

3.7.1 Seasonal

Surveys may have occurred somewhat late in the year relative to activity patterns for Northern California Legless Lizards and the lower-than-average rainfall experienced during the 2020-2021 rain season. As stated above, *Anniella* is a fossorial species with physiological constraints that restrict it to surface activity during periods of high humidity and moderate warmth. As such, surveys are generally more effective during early spring when winter rainfall has saturated soils (Bury and Balgooyen 1976; Miller 1944). As the dry mid-spring through summer months progress, legless lizards become more nocturnal and burrow deeper into loose soil.

3.7.2 Daily

The lack of night-time surveys precluded the ability to document highly nocturnal herpetofauna, including California Tiger Salamander (*Ambystoma californiense*), Western Spadefoot (*Spea hammondi*), Long-nosed Snake (*Rhinocheilus lecontei*), and California kingsnake (*Lampropeltis getula*). As well, *Anniella* are known to forage above ground at night (Stebbins 1985; Germano and Morafka 1996), and nocturnal surveys for this species in appropriate habitats may be a fruitful survey methodology for future efforts. Although other nocturnal species were not the focus of these surveys, if future efforts wish to compile an accurate and complete list of herpetofauna species present, nocturnal sampling should be incorporated. Nocturnal road driving, searches of rock outcrops, and surveys of springs and hydric areas would all be techniques for consideration.

4.0 FUTURE SURVEY RECOMMENDATIONS

4.1.1 Blainville's Horned Lizard

Walking transects along dirt roads and firebreaks was found to be a highly effective method to survey for Blainville's Horned Lizards when active. However, activity periods for these lizards are notoriously unpredictable, although they may be correlated with native harvester ant (*Messor* and *Pogonomyrmex* sp.) activity periods (Suarez et al. 2000). Future surveys might focus on quantifying timing of harvester ant activity, followed immediately by pedestrian or All-Terrain Vehicles surveys of dirt roads. Theoretically, if harvester ant activity is documented, horned lizard surveys in appropriate habitat should have the best possibility of determining horned lizard presence and abundance.

4.1.2 Northern California Legless Lizard

Quadrat surveys were shown to be an appropriate technique for Northern California Legless Lizards, with a few caveats. First, seasonal timing is important. Our surveys were relatively late in the season for *Anniella*, and soil temperature and humidity were often suboptimal for detection. Future surveys should front-load the effort into late winter/early spring as ground moisture from winter rainfall is still high. Secondly, much of Site 300 is not ideal habitat. Heavy clay soils and bedrock dominate much of the site. Future surveys should target sandy soils, often within *Salvia/Lupinus* or *Eriogonum*-dominated plant communities. It appears that all records to date of legless lizards at Site 300 are within soil type 276: Wisflat-Arburua-San Timoteo complex soils, 50-75 percent slopes (NRCS 2021). Future dedicated surveys

for *Anniella* should prioritize a variety of methods and timing (including nocturnal surveys) within this and related soil types. Raking soils is an effective way of unearthing *Anniella* when close to the surface, but surveys should be conducted before surface thermal limits are reached such that legless lizards are not too deep in substrates to document.

4.1.3 San Joaquin Coachwhip

Although the methods employed here documented San Joaquin Coachwhip in two locations through shed skins, live animals were not observed. Given enough time and some luck, road driving, quad searches, and microhabitat searches would eventually document live animals. However, a trapping regime consisting of drift fences and funnel traps appears to be the most time-effective manner in which to document numbers of live coachwhips (Mitrovich et al. 2009; Swaim Biological Consulting 2002). Regardless, the large expanse of preserved and fire-managed lands afforded by Site 300 and neighboring properties appears to provide ideal habitat for this species, as indicated by numerous records throughout the site.

5.0 POTENTIAL THREATS TO SPECIAL-STATUS HERPETOFAUNA AT SITE 300

In general, passive and active facility management appears to be neutral or beneficial for native herpetofauna at Site 300. Frequent low-intensity grassland burns on-site decrease the buildup of thatch and reduce the risk of uncontrolled high-temperature grassfires. Regular maintenance of firebreaks and dirt roads prevents intrusion of dense, weedy plants and appears to help maintain native harvester ants, favoring the persistence of a healthy horned lizard population. Lack of heavily traveled roads through and around areas of chaparral and coastal scrub helps minimize the potential impact of facility activities on highly mobile Alameda Whipsnakes and San Joaquin Coachwhips. In addition, the lack of active management for California Ground Squirrels (*Otospermophilus beecheyi*) helps maintain subterranean retreats for herpetofauna, including, San Joaquin Coachwhip (Ernst and Ernst 2003), Blainville's Horned Lizard (Gerson 2011), and other herpetofauna.

One insidious and potentially damaging impact, especially to fossorial herpetofauna such as Northern Legless Lizards and skinks is the destructive foraging activities of feral pigs (*Sus scrofa*). Many grasslands and rock outcrop areas throughout Site 300 were noted where destructive digging and wallowing resulted in damaged habitat and loosened topsoil. In addition to potential habitat impacts, predation on ground-dwelling herpetofauna has been documented and is a growing concern for threatened herpetofauna (Jolley et al. 2010; McClure et al 2018; Risch et al. 2021).

6.0 CONCLUSION

A combination of survey methods including Coverboards, Quadrant Surveys, Road Transects, Walking Dirt Road/Firebreak Transects, and Microhabitat Surveys, were used to document three focal herpetofauna species and other species as encountered. All three target species were documented, as well as 14 other species. A combination of approaches was necessary to target animals ranging from highly secretive and fossorial to alert, diurnally active species.

7.0 LIST OF PREPARERS

- Eric Stitt, Senior Biologist/Herpetologist
- Pete Balfour, Principal Biologist

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LIST OF ATTACHMENTS

Attachment A - California Natural Diversity Database Herpetofauna Query: "Midway" and "Tracy" Quads

Attachment B - Representative Site Photographs

Attachment C - California Natural Diversity Database Reporting Forms

Attachment D - Field Data Sheets

Attachment E – Survey Data Spreadsheet (MS Excel)

ATTACHMENT A

California Natural Diversity Database Herpetofauna
Query: "Midway" and "Tracy" Quads

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDDB@wildlife.ca.gov

For Office Use Only

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

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

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: Anniella pulchra

Common Name: Northern Legless Lizard

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

Total No. Individuals: 2 Subsequent Visit? ☒ Yes ☐ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk. Yes, Occ. # _____

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

Reporter: Eric Stitt

Address: 2525 Warren Drive

Rocklin, CA 95677

E-mail Address: estitt@ecorpconsulting.com

Phone: 916-768-9137

Plant Information

Phenology:

% vegetative _____ % flowering _____ % fruiting _____

Animal Information

1 1
adults # juveniles # larvae # egg masses # unknown
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

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

Lawrence Livermore Lab, Site 300

County: Alameda/San Joaquin

Landowner / Mgr: US Department of Energy

Quad Name: Midway, Tracy

Elevation: 1020 ft

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

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

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

GPS Make & Model: Garmin GPSmap 64sx

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒

Horizontal Accuracy: 5 m meters/feet

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

Coordinates: 627236 m E x 4167245 m N

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):

2 individuals documented during dedicated site-wide surveys in April, May and June 2021.

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: US Dept. of Energy lands, preserved as an experimental test site

Visible disturbances: None in vicinity of individuals found

Threats: Firebreak maintenance

Comments: Site is buffered from outside threats (off-road vehicle use, uncontrolled fire, heavy grazing) due to establishment as a US DOE site. Regular controlled burns are undertaken and firebreaks regularly maintained, which provide foraging and basking habitat.

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

- ☒ Keyed (cite reference): Stebbins 2003 Western Reptiles and Amphibians
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

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

For Office Use Only

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

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

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: Phrynosoma blainvilli

Common Name: Blainville's Horned Lizard

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

Total No. Individuals: 16 Subsequent Visit? ☒ Yes ☐ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk. Yes, Occ. # _____

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

Reporter: Eric Stitt

Address: 2525 Warren Drive
Rocklin, CA 95677

E-mail Address: estitt@ecorpconsulting.com

Phone: 916-768-9137

Plant Information

Phenology:

% vegetative % flowering % fruiting

Animal Information

13 3
adults # juveniles # larvae # egg masses # unknown
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

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

Lawrence Livermore Lab, Site 300

County: Alameda/San Joaquin Landowner / Mgr: US Department of Energy

Quad Name: Midway, Tracy Elevation: 850-1450 ft

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

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model: Garmin GPSmap 64sx

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☒ Horizontal Accuracy: 5 m meters/feet

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

Coordinates: 630670 m E X 4169543 m N

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):

16 individuals documented during site-wide surveys in April, May and June 2021. Several locations on the base- GPS coordinates are from 9 observations on April 02, 2021.

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: US Dept. of Energy lands, preserved as an experimental test site

Visible disturbances: Firebreak maintenance, minimal off-road traffic

Threats: Firebreak maintenance

Comments: Site is buffered from outside threats (off-road vehicle use, uncontrolled fire, heavy grazing) due to establishment as a US DOE site. Regular controlled burns are undertaken and firebreaks regularly maintained, which provide foraging and basking habitat. Native harvester ants (Pogonomyrmex) present throughout site.

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

- ☒ Keyed (cite reference): Stebbins 2003 Western Reptiles and Amphibians
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

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

ATTACHMENT B

Representative Site Photographs



Photo 1. 2' x 2' coverboard, 2-19-2021.



Photo 2. Coverboard #16 laid among *Eriogonum*, 2-19-2021.



Photo 3. Coverboard #13 laid among annual grasses and *Lupinus*, 2-19-2021.



Photo 4. Quadrat survey at grid #P144. 3-30-2021.





Photo 5. Quadrat survey at grid P116 showing string demarcating survey area 3-31-2021.



Photo 6. Adult Blainville's Horned Lizard, 4-4-2021



Photo 7. Showing temporary marking technique, ventral mark with Sharpie, on BHL #1, 4-4-2021.



Photo 8. Horned lizard scat, 4-5-2021.





Photo 9. Night snake, Quadrat #P38, 4-13-2021.



Photo 10. Blainville's Horned Lizard Habitat 4-14-2021



Photo 11. Side-blotched Lizard, 4-15-2021.



Photo 12. Northern Pacific Rattlesnake *in situ*, characteristic of most rattlesnakes documented during surveys, 4-15-2021.





Photo 13. Partial San Joaquin Coachwhip shed near Quadrant #P105, 4-16-2021.



Photo 14. Detail of soil at Quadrant #P99 showing deep, loose and loamy sand, 4-16-2021



Photo 15. Two Northern Legless Lizards captured at Quadrat P57b, 5-6



Photo 16. Behavior upon release; immediately burrowing into loose





Photo 17. Overview of habitat at Quadrat #P57b showing Black Sage and California Sagebrush, 5-6-2021.



Photo 18. Showing raking technique under Black Sage, 5-6-2021



Photo 19. Survey Quadrant #P57g on hillside, 5-7-2021.



Photo 20. Quadrant survey (Quad #P76) in CDFW Corral Hollow



California Natural Diversity Database Reporting Forms



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS />(Midway (3712165)< OR />Tracy (3712164))
< AND />Taxonomic Group< IS />(Amphibians< OR />Reptiles)

Map Index Number: 99722 **EO Index:** 6271
Key Quad: Midway (3712165) **Element Code:** AAAAA01181
Occurrence Number: 128 **Occurrence Last Updated:** 2016-04-20

Scientific Name: *Ambystoma californiense pop. 1* **Common Name:** California tiger salamander - central California DPS
Listing Status: **Federal:** Threatened **Rare Plant Rank:**
State: Threatened **Other Lists:** CDFW_WL-Watch List
CNDDDB Element Ranks: **Global:** G2G3 IUCN_VU-Vulnerable
State: S2S3

General Habitat: LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.
Micro Habitat: NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed: 2015-07-01 **Occurrence Type:** Natural/Native occurrence
Last Survey Date: 2015-07-01 **Occurrence Rank:** Good
Owner/Manager: PVT **Trend:** Unknown
Presence: Presumed Extant

Location: SOUTH OF MOUNTAIN HOUSE CREEK, FROM 0.8 MI ENE TO 0.8 MI SE OF REDMOND CUT AND 2.3 TO 3.0 MI SW OF MOUNTAIN HOUSE.

Detailed Location: 1994 DETECTION AT NORTHMOST POND. 2015 DETECTIONS AT SOUTHMOST 3 PONDS.

Ecological: STOCK PONDS SURROUNDED BY ANNUAL GRASSLAND UPLANDS WITH SMALL MAMMAL BURROWS. CALIFORNIA RED-LEGGED FROG LARVAE ALSO FOUND IN NORTHMOST POND. AREA USED FOR CATTLE GRAZING AND WIND ENERGY FACILITY.

Threats: POSSIBLE THREAT FROM CATTLE GRAZING (1994).

General: >100 LARVAE OBSERVED ON 27 APRIL 1994. 10S OF DISPERSING SUBADULTS (AND NUMEROUS LARVAE IN E-MOST POND) OBSERVED JUN-JUL 2015.

PLSS: T02S, R03E, Sec. 26, NE (M) **Accuracy:** specific area **Area (acres):** 23
UTM: Zone-10 N4176616 E622644 **Latitude/Longitude:** 37.72861 / -121.60824 **Elevation (feet):** 460

County Summary: Alameda **Quad Summary:** Midway (3712165)

Sources:
ALL94F0007 ALLABACK, M. (BIOSEARCH WILDLIFE SURVEYS) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1994-04-27
ELL15F0006 ELLWOOD, T. (CH2M HILL) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2015-07-19
ELL15F0010 ELLWOOD, T. (CH2M HILL) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2015-07-01
ELL15F0011 ELLWOOD, T. (CH2M HILL) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2015-07-01



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	25036	EO Index:	9152
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	179	Occurrence Last Updated:	2020-11-09

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2015-07-01	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2015-07-01	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
2.7 AIR MILES ESE OF THE JUNCTION OF NORTH FLYNN ROAD AND INTERSTATE 580, EAST OF LIVERMORE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF A BERMED STOCK RESERVOIR, 80-90 FEET IN DIAMETER. WATER IS UP TO 4 FEET DEEP, CLEAR, AND 50% OPEN; 25% TYPHA AND 25% CAREX/ELODEA COVERAGE. POND MARGIN W/ DENSE GRASS AND RUSH COVER; ADJACENT UPLAND IS GRAZED GRASSLAND.

Threats:
THREATENED BY A PROPOSED LANDFILL EXPANSION PROJECT AS OF 1993.

General:
4 LARVAE FOUND ON 14 APRIL 1993. DOZENS OF SUBADULTS DISPERSING FROM BREEDING POND FOUND ON 1 JUL 2015.

PLSS:	T02S, R03E, Sec. 35, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4175031 E622456	Latitude/Longitude:	37.71436 / -121.61064	Elevation (feet):	500

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

ELL15F0004	ELLWOOD, T. (CH2M HILL) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2015-07-01
MOR93F0028	MORI, B. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1993-04-14
MOR93U0007	MORI, B. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-001051] 1993-06-16



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	17087	EO Index:	9778
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	183	Occurrence Last Updated:	2015-06-18

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2008-04-15	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2008-04-15	Occurrence Rank:	Excellent
Owner/Manager:	DPR-CARNEGIE SVRA, DOE, UNK	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ALONG PORTIONS OF TESLA AND CORRAL HOLLOW ROADS (BENCH MARKS 830, 693, 700, 539), BETWEEN TRACY AND LIVERMORE.

Detailed Location:
1987: 1 MI E OF ALA-SJQ CO LINE. 1995: APPROX 0.25 MI WEST BM 539. 1996: LOCATION GIVEN ONLY AS "T3S, R4E, SEC 35 (SITE 300, FEDERAL RESERVATION) 'SONG POND.'" 2006 & 2008: SECTOR OFFICE POND JUST E OF BM 830.

Ecological:
DETECTIONS MADE BY DRIVING ROAD ON RAINY NIGHTS. HABITAT CONSISTED OF GRASSLAND/RIPARIAN MIX BETWEEN CORRAL HOLLOW CREEK & ADJACENT FARMLANDS. VERNAL POOLS NEARBY. EPHEMERAL POND (1995).

Threats:
THREATENED BY ORV ACTIVITY IN PARK AND VEHICLES COLLISIONS ON CORRAL HOLLOW ROAD.

General:
SPECIMENS COLLECTED IN 1982, 1983, 1987, 1990, AND 2002. 10 ADULTS OBSERVED AND 1 FOUND DEAD-ON-ROAD IN 1989. 5 FOUND DOR IN 1992. 4 OBSERVED IN 1995. 1 COLLECTED (MRJ #1347) IN 1998. 1 SEEN IN 2006. 5 SEEN IN 2008.

PLSS:	T03S, R04E, Sec. 33 (M)	Accuracy:	non-specific area	Area (acres):	347
UTM:	Zone-10 N4166225 E628145	Latitude/Longitude:	37.63423 / -121.54767	Elevation (feet):	700

County Summary:	Quad Summary:
Alameda, San Joaquin	Midway (3712165)



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Sources:

AND89F0004	ANDERSON, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1989-08-10
BEE89F0005	BEEMAN, G.A. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1989-11-25
BOU87S0005	BOUNDY, J. & A. FORD - CAS #187409 COLLECTED FROM CORRAL HOLLOW RD, 0.5 MI E OF COUNTY LINE 1987-01-03
ELY02F0001	ELY, E. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2002-05-05
ELY02S0001	ELY, F. - CAS #223879, COLLECTED FROM CORRAL HOLLOW RD, 0.15 RD MILE EAST OF ALAMEDA-SAN JOAQUIN COUNTY LINE. 2002-05-20
JEN98F0015	JENNINGS, M.R. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1998-01-27
MAC83S0006	MACEY, J.R. - MVZ #227093 & 227094 COLLECTED 0.3 MI W OF THE SAN JOAQUIN COUNTY LINE ON CORRAL HOLLOW RD 1983-12-24
MAC83S0007	MACEY, J.R. - MVZ #227104 COLLECTED FROM CORRAL HOLLOW RD, 0.5 MI E ALAMEDA COUNTY LINE 1983-12-24
MAC83S0008	MACEY, J.R. - MVZ #227105 COLLECTED FROM CORRAL HOLLOW RD, 0.7 MI E ALAMEDA COUNTY LINE 1983-12-24
MUL89F0012	MULLEN, D.A. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1989-11-25
MUL92F0002	MULLEN, D.A. & G.A. BEEMAN (EIP ASSOCIATES) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1992-11-14
SEI82S0002	SEIB, R. - MVZ #176807 & 176808 COLLECTED 8.5-9.0 MI W I-580, CORAL HOLLOW RD. 1982-02-15
SHA89R0002	SHAFFER, B. ET AL. - THE STATUS OF THE CALIFORNIA TIGER SALAMANDER AT THE LAWRENCE LIVERMORE NATIONAL LABORATORY 1989-09-27
SIN90S0001	SINCLAIR, T. - MCZ #A-115239 & A-115240 COLLECTED AT CORRAL HOLLOW RD. 6.7 MI. W. OF HIGHWAY 580 1990-02-10
SIN90S0002	SINCLAIR, T. - MVZ #229411 COLLECTED AT CORRAL HOLLOW RD., 4.6 MI E HWY. 580 1990-02-08
SWO07F0009	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2007-03-22
SWO08F0001	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2008-04-15
VIN87S0006	VINDUM, J. - CAS #162110 COLLECTED FROM CORRAL HOLLOW RD, 1.85 MI E OF SAN JOAQUIN-ALAMEDA COUNTY LINE 1987-02-10
VIN87U0001	VINDUM, J.V. - TABULAR REPORT OF SPECIMENS COLLECTED UNDER PERMIT #0407. 1987-02-10
WOO95F0012	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-03-08
WOO97R0001	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002407] NEAR LAWRENCE LIVERMORE NATIONAL LAB SITE 300, 1996-1997. 1997-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	17093	EO Index:	9779
Key Quad:	Altamont (3712166)	Element Code:	AAAAA01181
Occurrence Number:	184	Occurrence Last Updated:	2016-06-03

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2001-03-04	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2001-03-04	Occurrence Rank:	Fair
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ALONG TESLA ROAD AND A SMALL PORTION OF GREENVILLE ROAD, SOUTHEAST OF LIVERMORE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF OPEN, GRAZED GRASSLAND WITH NEARBY CREEKS AND PONDS. 2014 AERIAL PHOTO SHOWS THAT MUCH OF THE WESTERN HALF OF THIS EO HAS BEEN DEVELOPED OR CONVERTED TO VINEYARDS.

Threats:
THREATENED BY DEVELOPMENT, CONVERSION TO VINEYARDS, OVER-GRAZING BY CATTLE AND TRAFFIC ON THE ROADS DURING MIGRATION.

General:
4 COLLECTED ON 15 MAR 1977. 5 COLLECTED 14 FEB 1982. 7 COLLECTED 15 FEB 1982 (UMMZ #173503-9). 4 COLLECTED 24 DEC 1983. ABOUT 15 OBSERVED 25 NOV 1989 - 3 FEB 1990. AT LEAST 2 OBS 4 MAR 2001.

PLSS:	T03S, R03E, Sec. 21 (M)	Accuracy:	non-specific area	Area (acres):	834
UTM:	Zone-10 N4168309 E617473	Latitude/Longitude:	37.65444 / -121.66824	Elevation (feet):	1,000

County Summary:	Quad Summary:
Alameda	Midway (3712165), Altamont (3712166)



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Sources:

BEE89F0005	BEEMAN, G.A. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1989-11-25
MAC83S0010	MACEY, J.R. - MVZ #227095, 227096 & 227097 COLLECTED 4.2 MI W OF THE SAN JOAQUIN CO LINE ON CORRAL HOLLOW RD 1983-12-24
MAC83S0011	MACEY, J.R. - MVZ #227098 COLLECTED 6.9 MI W OF THE SAN JOAQUIN CO LINE ON CORRAL HOLLOW RD 1983-12-24
SEI82S0004	SEIB, R. - SEIB #8403 MVZ #176802 COLLECTED 2-4 MI E (ON TESSLA ROAD) OF MINES RD 1982-02-14
SEI82S0005	SEIB, R. - SEIB #8404 MVZ #176803 COLLECTED 2-4 MI E (ON TESSLA ROAD) OF MINES RD 1982-02-14
SEI82S0006	SEIB, R. - SEIB #8405 MVZ #176804 COLLECTED 2-4 MI E (ON TESSLA ROAD) OF MINES RD 1982-02-14
SEI82S0007	SEIB, R. - SEIB #8406 MVZ #176805 COLLECTED 2-4 MI E (ON TESSLA ROAD) OF MINES RD 1982-02-14
SEI82S0008	SEIB, R. - SEIB #8407 MVZ #176806 COLLECTED 2-4 MI E (ON TESSLA ROAD) OF MINES RD 1982-02-14
SWE77S0006	SWEET, S. ET AL. - MVZ #170988 COLLECTED FROM TESLA RD AT CREST OF PASS INTO CORRAL HOLLOW 4.1 MI W SAN JOAQUIN COUNTY LINE 1977-03-15
SWE77S0007	SWEET, S. & J. CADLE - MVZ #144958 COLLECTED FROM TESLA RD., 2.8 MI W CORRAL HOLLOW 1977-03-15
SWE77S0008	SWEET, S. & J. CADLE - MVZ #144959 COLLECTED FROM TESLA RD., 1.2 MI W CORRAL HOLLOW 1977-03-15
SWE77S0009	SWEET, S. & J. CADLE - MVZ #144960 COLLECTED FROM TESLA RD., 4.0 MI W CREST CORRAL HOLLOW 1977-03-15
TAY01F0004	TAYLOR, D.J. - FIELD SURVEY FORM FOR RANA DRAYTONII, AMBYSTOMA CALIFORNIENSE & SPEA HAMMONDII 2001-03-04
UMM02S0001	UNIVERSITY OF MICHIGAN, MUSEUM OF ZOOLOGY - PRINTOUT OF CALIFORNIA TIGER SALAMANDER COLLECTIONS 2002-06-25



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	17089	EO Index:	13984
Key Quad:	Altamont (3712166)	Element Code:	AAAAA01181
Occurrence Number:	203	Occurrence Last Updated:	2020-12-18

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2016-04-11	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2016-04-11	Occurrence Rank:	Fair
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.7 MI OF DYER RD FROM ALTAMONT PASS RD NORTH, AND 7.75 MI OF ALTAMONT PASS RD FROM GREENVILLE RD EAST TO MIDWAY RD.

Detailed Location:
MAPPED FEATURE REPRESENTS ROAD SURVEYS & SURVEYS OF DITCHES/CREEKS ADJACENT TO ROADS, & 3 BREEDING PONDS (SW 1/4 1/4 SEC 17; SW 1/4 SEC 20, SE 1/4 SEC 24). DETECTIONS OFTEN OF SALAMANDERS MIGRATING ACROSS ROADS OR FOUND DEAD ON ROAD.

Ecological:
OPEN, GRAZED GRASSLAND WITH NEARBY CREEKS & PONDS. ALTAMONT CREEK IS BROAD & SLOW MOVING RESEMBLING INUNDATED WETLANDS. SURROUNDED BY NON-NATIVE GRASSLAND, LANDFILL, & WIND FARMS.

Threats:
HEAVY COMMUTER TRAFFIC AND GARBAGE TRUCKS (= DEAD ON ROAD). WIDENING OF ROAD. CATTLE GRAZING. WIND ENERGY PRODUCTION.

General:
OBSERVED IN 1975. COLLECTED IN 1981, 1987, 1992, 1999, AND 2001. ADULTS AND LARVAE FOUND IN 1989. LARVAE IN 1992 & 1993. SEVERAL DEAD & ALIVE ADULTS IN 1995. FOUND DOR IN 2001, 2002, & 2003. LARVAE IN 2011 AND EGGS IN 2012. 1 LARVA IN 2016.

PLSS:	T02S, R03E, Sec. 22 (M)	Accuracy:	non-specific area	Area (acres):	777
UTM:	Zone-10 N4178381 E620283	Latitude/Longitude:	37.74482 / -121.63475	Elevation (feet):	549

County Summary:	Quad Summary:
Alameda	Midway (3712165), Altamont (3712166), Clifton Court Forebay (3712175), Byron Hot Springs (3712176)



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Sources:

BEE89F0005	BEEMAN, G.A. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1989-11-25
BOU87S0001	BOUNDY, J. & A. FORD - CAS #187405 COLLECTED FROM ALTAMONT, S END OF DYER RD 1987-01-03
BOU87S0002	BOUNDY, J. & A. FORD - CAS #187407 COLLECTED FROM ALTAMONT 1987-01-03
BRO80U0001	BRODE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GEOGRAPHIC REFERENCE CARD CATALOG OF SPECIMENS AND FIELD NOTE RECORDS COMPILED BY JOHN BRODE (DFG) 1980-XX-XX
ELY01F0005	ELY, E. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2001-02-19
ELY01S0001	ELY, F. ET AL. - CAS #218616 COLLECTED FROM ALTAMONT PASS RD, 4.1 MI W (BY RD) OF GRANT LINE RD 2001-02-19
ELY03F0002	ELY, E. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2003-12-29
ELY81S0001	ELY, F. - CAS #153485 COLLECTED FROM ALTAMONT PASS, DYER ROAD 1981-01-23
ELY81S0002	ELY, F. - CAS #153498 COLLECTED FROM ALTAMONT PASS, DYER RD 1981-01-23
ELY92S0001	ELY, F. - CAS #185392 COLLECTED FROM DYER RD, 0.1 MI N OF INTERSECTION WITH ALTAMONT PASS RD 1992-02-14
ELY93F0061	ELY, E. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE (CALIFORNIA TIGER SALAMANDER) 1993-04-20
ELY96U0001	ELY, F. - REPORT OF SPECIMENS COLLECTED [SC-002297] 1996-XX-XX
ELY99S0001	ELY, F. ET AL. - CAS #208077 COLLECTED FROM ALTAMONT PASS RD, 2.5 MI E (BY RD) OF DYER RD 1999-02-06
GIO11F0001	GIOLLI, M. (ENVIRONMENTAL SCIENCE ASSOCIATES) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2011-03-24
GIO12F0001	GIOLLI, M. (ENVIRONMENTAL SCIENCE ASSOCIATES) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2012-12-19
HAI16F0002	HAIRE, J. & K. MOZUMDER (ICF INTERNATIONAL, INC.) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2016-04-11
HAI18U0002	HAIRE, J. (JONES AND STOKES ASSOCIATES) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-005452] 2018-04-04
LAC94U0001	LACY, T. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-000472] 1994-10-17
LSA94R0001	LSA ASSOCIATES, INC. - CALIFORNIA TIGER SALAMANDER DISTRIBUTION, 1994 SURVEY RESULTS PREPARED FOR SIGNATURE PROPERTIES 1994-12-17
LYN95F0001	LYNCH, S. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-09
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LYN95F0003	LYNCH, S. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-26
LYN95F0004	LYNCH, S. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-09
LYN95F0005	LYNCH, S. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-09
LYN95F0006	LYNCH, S. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-09
LYN95F0007	LYNCH, S. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-09
LYN95F0008	LYNCH, S. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-09
LYN95U0001	LYNCH, S. (MONK AND ASSOCIATES, INC.) - MEMO REGARDING SUBMITTED CALIFORNIA NATIVE SPECIES FIELD SURVEY FORMS FOR CALIFORNIA TIGER SALAMANDER AT ALTAMONT PASS ROAD 1995-04-25
MON95F0001	MONK, G. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-04
MON95F0002	MONK, G. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-01-04
MYE89F0019	MYERS, S. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1989-XX-XX
MYE93U0001	MYERS, S. (JONES AND STOKES ASSOCIATES) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-000699] 1993-07-XX
SWA02F0004	SWAIM, K. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2002-12-13
VIN87S0003	VINDUM, J. - CAS #162101 COLLECTED FROM ALTAMONT PASS RD, 2.2 MI W OF ALTAMONT PASS RD AND GRANT LINE RD JCT 1987-02-02
VIN87S0004	VINDUM, J. - CAS #162102 COLLECTED FROM ALTAMONT PASS RD, 2.2 MI W OF ALTAMONT PASS RD AND GRANT LINE RD JCT 1987-02-02
VIN87U0001	VINDUM, J.V. - TABULAR REPORT OF SPECIMENS COLLECTED UNDER PERMIT #0407. 1987-02-10



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	23735	EO Index:	19237
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	223	Occurrence Last Updated:	2020-11-02

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	1993-04-14	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1993-04-14	Occurrence Rank:	Good
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
2.6 AIR MILES ESE OF THE JUNCTION OF NORTH FLYNN ROAD AND INTERSTATE 580, EAST OF LIVERMORE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF A STOCK RESERVOIR LOCATED IN A SHALLOW CREEK CHANNEL ON THE VALLEY FLOOR. WATER ABOUT 3.5 INCHES DEEP AND TEA-COLORED. TYPHA, CAREX, AND OTHER AQUATIC VEGETATION ABUNDANT. ADJACENT UPLAND IS GRAZED ANNUAL GRASSLAND.

Threats:
THREATENED BY A PROPOSAL TO USE THIS SITE FOR LANDFILL.

General:
10 LARVAE FOUND ON 14 APR 1993.

PLSS:	T02S, R03E, Sec. 35, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4174593 E622168	Latitude/Longitude:	37.71045 / -121.61398	Elevation (feet):	650

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

MOR93F0002	MORI, B. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1993-04-14
MOR93U0007	MORI, B. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-001051] 1993-06-16



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	45881	EO Index:	45881
Key Quad:	Tracy (3712164)	Element Code:	AAAAA01181
Occurrence Number:	454	Occurrence Last Updated:	2001-09-10

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	1992-02-10	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1992-02-10	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
5.4 MILES SSW OF TRACY, SOUTH OF INTERSTATE 580.

Detailed Location:
ALONG CORRAL HOLLOW ROAD, 6.6 ROAD MILES EAST OF THE ALAMEDA-SAN JOAQUIN COUNTY LINE.

Ecological:

Threats:

General:
CAS #183179, ADULT MALE COLLECTED 10 FEB 1992 BY M.R. JENNINGS.

PLSS:	T03S, R05E, Sec. 19, NW (M)	Accuracy:	1/10 mile	Area (acres):	0
UTM:	Zone-10 N4169839 E635290	Latitude/Longitude:	37.66577 / -121.46604	Elevation (feet):	342

County Summary:	Quad Summary:
San Joaquin	Tracy (3712164)

Sources:
CAS01S0002 CALIFORNIA ACADEMY OF SCIENCES - 1990-2000 CAS HERPETOLOGY HOLDINGS (INCLUDES STANFORD UNIVERSITY COLLECTIONS) FOR AMBYSTOMA CALIFORNIENSE 2001-02-14



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	53683	EO Index:	53683
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	619	Occurrence Last Updated:	2020-12-03

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2016-04-11	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2016-04-11	Occurrence Rank:	Fair
Owner/Manager:	PVT-MOUNTAIN HOUSE GOLF COURSE	Trend:	Unknown
Presence:	Presumed Extant		

Location:
0.3 MILE NORTH OF ALTAMONT PASS ROAD, 0.9 MILE NW OF I-580 AT GRANT LINE RD, E OF LIVERMORE.

Detailed Location:
POND WAS DEWATERED DURING GOLF COURSE CONSTRUCTION (BUT REMAINED AS A FUNCTIONING POND AFTER GOLF COURSE WAS COMPLETED). GOLF COURSE WAS COMPLETED IN 2006, BUT CLOSED IN 2008.

Ecological:
HABITAT CONSISTED OF A NATURAL POND THAT WAS SURROUNDED BY OPEN, HILLY, NON-NATIVE GRASSLAND; SOME BURROWS REMAIN AROUND THE POND AND WERE PROTECTED BY FENCING. AERIAL IMAGERY SHOWS ROAD WAS BUILT THROUGH POND, TURNING IT INTO 2 PONDS.

Threats:
GOLF COURSE CONSTRUCTION

General:
~75 LARVAE OBSERVED DURING SUMMER (JUL-AUG) 2003. 1 DIP NETTED AND RELEASED ON 11 APR 2016.

PLSS:	T02S, R03E, Sec. 24, NW (M)	Accuracy:	1/10 mile	Area (acres):	18
UTM:	Zone-10 N4178954 E623585	Latitude/Longitude:	37.74955 / -121.59717	Elevation (feet):	332

County Summary:	Quad Summary:
Alameda	Midway (3712165), Clifton Court Forebay (3712175)

Sources:

BEN03F0003	BENDIX, J. (MOAIC ASSOCIATES) - FIELD SURVEY FORM FOR AMBYSTOMA (TIGRINUM) CALIFORNIENSE 2003-XX-XX
HAI18U0002	HAIRE, J. (JONES AND STOKES ASSOCIATES) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-005452] 2018-04-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	51850	EO Index:	55967
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	653	Occurrence Last Updated:	2004-07-01

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	1998-XX-XX	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1998-XX-XX	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW CREEK, 0.8 MILE SOUTH OF TESLA ROAD, 9 MILES ESE OF LIVERMORE.

Detailed Location:
SITE DESIGNATED AS "POND 3".

Ecological:

Threats:

General:
CTS DOCUMENTED AS BREEDING HERE IN 1998. NO OTHER INFORMATION GIVEN.

PLSS:	T03S, R03E, Sec. 26, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4166415 E622809	Latitude/Longitude:	37.63667 / -121.60809	Elevation (feet):	890

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
DPR98D0001 CALIFORNIA DEPARTMENT OF PARKS & RECREATION - SHAPEFILE WITH THE MAPPED LOCATIONS OF KNOWN CTS BREEDING PONDS IN CARNEGIE SVRA IN 1998. 1998-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	55955	EO Index:	55971
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	654	Occurrence Last Updated:	2004-07-01

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	1998-XX-XX	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1998-XX-XX	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CARNEGIE SVRA. PONDS 2A AND 2B. JUST EAST OF CORRAL HOLLOW CREEK. ABOUT 1.3 MILES SOUTH OF TESLA RD.

Detailed Location:

Ecological:

Threats:

General:
CTS DOCUMENTED AS BREEDING HERE IN 1998. NO OTHER INFORMATION GIVEN.

PLSS:	T03S, R03E, Sec. 35, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4165445 E622612	Latitude/Longitude:	37.62795 / -121.61048	Elevation (feet):	1,500

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
DPR98D0001 CALIFORNIA DEPARTMENT OF PARKS & RECREATION - SHAPEFILE WITH THE MAPPED LOCATIONS OF KNOWN CTS BREEDING PONDS IN CARNEGIE SVRA IN 1998. 1998-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	40431	EO Index:	55972
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	655	Occurrence Last Updated:	2008-07-21

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2008-05-23	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2008-05-23	Occurrence Rank:	Good
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.7 MILES WNW OF MITCHELL SHAFT AT HETCH HETCHY AQUEDUCT, 1 MI SOUTH OF TESLA (1.2 MI SW OF BM 830), LIVERMORE.

Detailed Location:
CARNEGIE SVRA PONDS 1A & 1B.

Ecological:
BLUE OAK WOODLANDS AND GRAZED ANNUAL GRASSLAND. NON-RIDING PORTION OF STATE VEHICULAR RECREATION AREA.

Threats:
General:
CTS DOCUMENTED AS BREEDING HERE IN 1998; NO OTHER INFORMATION GIVEN. 3 LARVAE OBSERVED ON 23 MAY 2008.

PLSS:	T03S, R03E, Sec. 36, SW (M)	Accuracy:	specific area	Area (acres):	8
UTM:	Zone-10 N4165149 E623529	Latitude/Longitude:	37.62517 / -121.60014	Elevation (feet):	1,900

County Summary:	Quad Summary:
Alameda	Cedar Mtn. (3712155), Midway (3712165)

Sources:

DPR98D0001	CALIFORNIA DEPARTMENT OF PARKS & RECREATION - SHAPEFILE WITH THE MAPPED LOCATIONS OF KNOWN CTS BREEDING PONDS IN CARNEGIE SVRA IN 1998. 1998-XX-XX
SWO08F0011	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2008-05-23



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	55957	EO Index:	55973
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	656	Occurrence Last Updated:	2008-08-04

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2007-03-21	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2007-03-21	Occurrence Rank:	Fair
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.25 MILES NORTH OF HETCH HETCHY AQUEDUCT & 1 MILE SOUTH OF TESLA/CORRAL HOLLOW RD.

Detailed Location:
CARNEGIE SRA POND #4, "LUCKY FIND POND."

Ecological:
SEDIMENT POND SURROUNDED BY BLUE OAD WOODLAND AND ANNUAL GRASSLAND. NON-RIDING PORTION OF STATE VEHICULAR RECREATION AREA.

Threats:
POSSIBLY THREATENED BY CATTLE GRAZING.

General:
CTS DOCUMENTED AS BREEDING HERE IN 1998; NO OTHER INFORMATION GIVEN. 1 BREEDING CONDITION ADULT FOUND ON 21 MAR 2007.

PLSS:	T03S, R03E, Sec. 36, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4165588 E623749	Latitude/Longitude:	37.62909 / -121.59757	Elevation (feet):	1,900

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

DPR98D0001	CALIFORNIA DEPARTMENT OF PARKS & RECREATION - SHAPEFILE WITH THE MAPPED LOCATIONS OF KNOWN CTS BREEDING PONDS IN CARNEGIE SVRA IN 1998. 1998-XX-XX
SWO07F0006	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2007-03-21



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	55958	EO Index:	55974
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	657	Occurrence Last Updated:	2004-07-01

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	1998-XX-XX	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1998-XX-XX	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CARNEGIE SVRA, POND 12. ALONG AN UNNAMED TRIBUTARY TO CORRAL HOLLOW CR. 0.2 MI SOUTH OF TESLA RD.

Detailed Location:

Ecological:

Threats:

General:
CTS DOCUMENTED AS BREEDING HERE IN 1998. NO OTHER INFORMATION GIVEN.

PLSS:	T03S, R04E, Sec. 30, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4166348 E624917	Latitude/Longitude:	37.63578 / -121.58421	Elevation (feet):	900

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
DPR98D0001 CALIFORNIA DEPARTMENT OF PARKS & RECREATION - SHAPEFILE WITH THE MAPPED LOCATIONS OF KNOWN CTS BREEDING PONDS IN CARNEGIE SVRA IN 1998. 1998-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	55959	EO Index:	55975
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	658	Occurrence Last Updated:	2008-07-02

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2008-05-23	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2008-05-23	Occurrence Rank:	Good
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
0.9 MILE SE OF BENCH MARK 830, JUST WEST OF MITCHELL RAVINE, SOUTH OF TESLA/CORRAL HOLLOW RD, LIVERMORE.

Detailed Location:
CARNEGIE SVRA POND #5.

Ecological:
BLUE OAK WOODLAND WITH ANNUAL GRASSLAND. NON-RIDING PORTION OF STATE VEHICULAR RECREATION AREA.

Threats:
POSSIBLY THREATENED BY CATTLE GRAZING.

General:
CTS DOCUMENTED AS BREEDING HERE IN 1998; NO OTHER INFORMATION GIVEN. 12 LARVAE OBSERVED ON 23 MAY 2008.

PLSS:	T03S, R04E, Sec. 31, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4165786 E625375	Latitude/Longitude:	37.63066 / -121.57911	Elevation (feet):	833

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

DPR98D0001	CALIFORNIA DEPARTMENT OF PARKS & RECREATION - SHAPEFILE WITH THE MAPPED LOCATIONS OF KNOWN CTS BREEDING PONDS IN CARNEGIE SVRA IN 1998. 1998-XX-XX
SWO08F0006	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2008-05-23



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	55960	EO Index:	55976
Key Quad:	Cedar Mtn. (3712155)	Element Code:	AAAAA01181
Occurrence Number:	659	Occurrence Last Updated:	2016-09-09

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2009-06-04	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2009-06-04	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
FROM 0.8 MI W TO 1.1 MI WNW OF MITCHELL SHAFT & 1.2 TO 1.6 MI SE OF TESLA (SITE), S OF TESLA/CORRAL HOLLOW RD.

Detailed Location:
FROM NW: CARNEGIE SVRA POND #6 "LONE OAK," CARNEGIE SVRA POND #7 "TROUGH POND," ALLABACK SITE "CONNOLLY 01."

Ecological:
ANNUAL GRASSLAND AND BLUE OAK SAVANNAH; STEEP HILLSIDES. N-MOST 2 POOLS ON NON-RIDING SECTION OF STATE VEHICULAR RECREATION AREA; S-MOST POOL ON PRIVATE RANCH.

Threats:
THREATENED BY GRAZING CATTLE DRINKING AND DEFECATING IN POND.

General:
CTS DOCUMENTED AS BREEDING IN SVRA PONDS IN 1998; NO OTHER INFORMATION GIVEN. DETECTED IN POND #7, 1999. 3 LARVAE FOUND IN POND #7, 2006. 12 LARVAE DETECTED IN CONNOLLY 01 POND ON 19 MAY & UNKNOWN # ON 4 JUN 2009.

PLSS:	T03S, R04E, Sec. 31, SE (M)	Accuracy:	specific area	Area (acres):	18
UTM:	Zone-10 N4164845 E624682	Latitude/Longitude:	37.62227 / -121.58713	Elevation (feet):	1,800

County Summary:	Quad Summary:
Alameda	Cedar Mtn. (3712155), Midway (3712165)

Sources:

ALL11D0001	ALLABACK, M. (BIOSEARCH ASSOCIATES) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-000024] 2011-12-19
DPR98D0001	CALIFORNIA DEPARTMENT OF PARKS & RECREATION - SHAPEFILE WITH THE MAPPED LOCATIONS OF KNOWN CTS BREEDING PONDS IN CARNEGIE SVRA IN 1998. 1998-XX-XX
SCH09D0002	SCHWEITZER, J. (VOLLMAR CONSULTING) - GIS DATA FROM RANA DRAYTONII AND AMBYSTOMA CALIFORNIENSE SURVEYS AT CONNOLLY RANCH 2009-XX-XX
SWO06F0001	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2006-06-02



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	55968	EO Index:	55984
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	664	Occurrence Last Updated:	2008-11-25

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2001-02-19	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2001-02-19	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
PATTERSON PASS ROAD, 3.2 ROAD MILES WEST OF THE ALAMEDA-SAN JOAQUIN COUNTY LINE.

Detailed Location:

Ecological:

Threats:
ROAD MORTALITY.

General:
1 DOR FEMALE COLLECTED AT NIGHT ON THE ROAD. FRESH KILL AT 1930 HOURS. DEPOSITED IN CAL ACADEMY (CAS #218617).

PLSS:	T03S, R03E, Sec. 12 (M)	Accuracy:	non-specific area	Area (acres):	34
UTM:	Zone-10 N4171974 E623545	Latitude/Longitude:	37.68666 / -121.59880	Elevation (feet):	1,035

County Summary:	Quad Summary:
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Alameda	Midway (3712165)
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Sources:

CAS01S0008	CALIFORNIA ACADEMY OF SCIENCES - CAS HERPETOLOGY HOLDINGS (INCLUDES STANFORD UNIVERSITY COLLECTIONS) FOR AMBYSTOMA CALIFORNIENSE #218617 2001-02-19
ELY01F0004	ELY, E. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2001-02-19



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	63614	EO Index:	63709
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	702	Occurrence Last Updated:	2015-06-03

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2002-05-21	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2002-05-21	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
FROM ABOUT 0.15 TO 0.5 MILE WEST OF THE ALAMEDA/SAN JOAQUIN COUNTY LINE & 2.4 MILES NORTH OF CORRAL HOLLOW.

Detailed Location:
1996 DETECTION LOCATION GIVEN ONLY AS T3S, R4E, SEC 16 (SITE 300, FEDERAL RESERVATION), "AMBROSINO POOL." MAPPED BASED ON COORDINATES PROVIDED FOR 1994 DETECTIONS AT W-MOST 3 POLYGONS & 2002 DETECTIONS AT E- AND W- MOST POLYGONS.

Ecological:
ANNUAL GRASSLAND WITH MODIFIED VERNAL POOLS IN AREA USED AS WIND FARM.

Threats:
General:
20 BREEDING ADULTS OBSERVED ON 19 JAN 1994. 1 FEMALE CAPTURED & RELEASED ON 17 JAN 1996. 1 FEMALE CAPTURED & RELEASED ON 27 JAN 2000. 2 ADULTS (1 DEAD) OBSERVED IN MAR, AND 50+ LARVAE OBSERVED ON 21 MAY, 2002.

PLSS:	T03S, R04E, Sec. 17, SW (M)	Accuracy:	specific area	Area (acres):	23
UTM:	Zone-10 N4170193 E626691	Latitude/Longitude:	37.67019 / -121.56344	Elevation (feet):	1,565

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

VAN02F0024	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2002-05-21
WOO04U0001	WOOLLETT, J.S. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002987] 2004-03-23
WOO94F0014	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1994-01-19
WOO94F0015	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1994-01-19
WOO94F0016	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1994-01-19
WOO97R0001	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002407] NEAR LAWRENCE LIVERMORE NATIONAL LAB SITE 300, 1996-1997. 1997-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66748	EO Index:	66898
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	737	Occurrence Last Updated:	2009-06-04

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2000-01-27	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2000-01-27	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
LAWRENCE LIVERMORE NATIONAL LABORATORY, ABOUT 2.3 MI SSE OF MIDWAY SIDING, 0.5 MI EAST OF SJQ/ALAMEDA CO. LINE.

Detailed Location:
SITE 300.

Ecological:
A DRAINAGE WITH A FIRE TRAIL BERM FORMING POND.

Threats:

General:
8 ADULTS OBSERVED ON 21 FEB 1995. 1 FEMALE CAPTURED BY JIM WOOLLETT ON 27 JAN 2000.

PLSS:	T03S, R04E, Sec. 16, NE (M)	Accuracy:	specific area	Area (acres):	9
UTM:	Zone-10 N4170776 E627964	Latitude/Longitude:	37.67526 / -121.54891	Elevation (feet):	1,130

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

WOO04U0001	WOOLLETT, J.S. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002987] 2004-03-23
WOO95F0010	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-02-21



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66749	EO Index:	66899
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	738	Occurrence Last Updated:	2006-10-16

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2000-02-18	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2000-02-18	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
LAWRENCE LIVERMORE NATIONAL LABORATORY, ABOUT 1.1 MI WEST OF CASTLE ROCK.

Detailed Location:
MAPPED ACCORDING TO THE LAT/LONG COORDINATES GIVEN.

Ecological:

Threats:

General:
1 MALE CAPTURED & RELEASED BY JIM WOOLLETT ON 18 FEB 2000.

PLSS:	T03S, R04E, Sec. 26, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4166574 E631341	Latitude/Longitude:	37.63692 / -121.51138	Elevation (feet):	760

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
W0004U0001 WOOLLETT, J.S. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002987] 2004-03-23



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	71628	EO Index:	72531
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	828	Occurrence Last Updated:	2008-07-02

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2008-04-15	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2008-04-15	Occurrence Rank:	Good
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
2.3 MILES SSW OF BENCH MARK 830, SOUTH OF COUNTY HWY J2 (CORAL HOLLOW RD/TESLA RD), LIVERMORE.

Detailed Location:
DPR SITE NAME TESLA STOCK POND (POND #3). MAPPED TO PROVIDED COORDINATES.

Ecological:
SPRING-FED POND SURROUNDED BY BLUE OAK WOODLAND AND ANNUAL GRASSLAND. NON-RIDING PORTION OF STATE VEHICULAR RECREATION AREA.

Threats:
POSSIBLY THREATENED BY CATTLE GRAZING.

General:
1 ADULT AND 6 EGG MASSES OBS 21 MAR 2007. 5 LARVAE OBS 15 APR 2008.

PLSS:	T03S, R03E, Sec. 25, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4166492 E624178	Latitude/Longitude:	37.63718 / -121.59256	Elevation (feet):	1,050

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

SWO07F0007	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2007-03-21
SWO08F0002	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2008-04-15



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	75407	EO Index:	76411
Key Quad:	Tracy (3712164)	Element Code:	AAAAA01181
Occurrence Number:	897	Occurrence Last Updated:	2014-08-26

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2013-04-11	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2013-04-11	Occurrence Rank:	Fair
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ALONG CORRAL HOLLOW ROAD, 0.25 MILE WEST OF CASTLE ROCK AND 0.75 MILE EAST OF BM 539.

Detailed Location:
SITE 300. MAPPED ACCORDING TO PROVIDED COORDINATES, THOUGH ROB11D0001 COORDINATES DO NOT APPEAR TO MATCH HABITAT DESCRIPTION.

Ecological:
OVERFLOW POND FOR SEWAGE LAGOON. POND ALSO SOMETIMES RECEIVES UPWELLING OF GROUNDWATER. DECEASED INDIVIDUAL FOUND IN RIDGE-TOP GRASSLAND. CTS LIKELY IN UPLAND HABITAT SURROUNDING THIS SITE DURING MOST OF THE YEAR; MAMMAL BURROWS IN AREA.

Threats:
POSSIBLE THREATS ARE EXPLOSIVE TESTING AND VEHICLE ACTIVITY.

General:
3 ADULTS OBSERVED ON 21 FEB 1995. 1 FEMALE CAPTURED/RELEASED ON 17 JAN 1996. 3 LARVAE OBSERVED ON 2 APR 2010 WITH USE OF DIP NET AND REVISITED ON 16 APR. 1 ADULT FOUND DEAD AND COLLECTED ON 11 APR 2013.

PLSS:	T03S, R04E, Sec. 26, SE (M)	Accuracy:	specific area	Area (acres):	15
UTM:	Zone-10 N4166474 E632770	Latitude/Longitude:	37.63581 / -121.49522	Elevation (feet):	540

County Summary:	Quad Summary:
San Joaquin	Tracy (3712164)

Sources:

ROB11D0001	ROBERTSON, T. (CONDOR COUNTRY CONSULTING) - EXCEL TABLE OF OBSERVATIONS MADE DURING 2010 AND 2011 IN CENTRAL CALIFORNIA 2011-11-XX
WOO13F0002	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2013-04-11
WOO95F0011	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 1995-02-21
WOO97R0001	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002407] NEAR LAWRENCE LIVERMORE NATIONAL LAB SITE 300, 1996-1997. 1997-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	96286	EO Index:	97458
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1003	Occurrence Last Updated:	2015-06-03

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2012-06-14	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2012-06-14	Occurrence Rank:	Good
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
SE SIDE OF PATTERSON PASS RD, ABOUT 2.3 MILES SW OF MIDWAY [GNIS] AND 2.3 MILES ENE OF PATTERSON PASS.

Detailed Location:
MULQUEENEY RANCH PROPERTY. MAPPED TO GIVEN COORDINATES.

Ecological:
GROUNDWATER-FED STOCK POND, 2' DEEP, VERY TURBID & GREEN, DRY IN SOME YEARS. NO FISH OR BULLFROGS OBSERVED. SEVERAL OPEN GOPHER BURROWS OBS IN UPLAND HABITAT; NONE RECENT. AREA USED FOR GRAZING, WIND FARMS. LOW TRAFFIC ON NEARBY DIRT ROADS.

Threats:
General:
AT LEAST 20 HEALTHY CTS LARVAE/METAMORPHS SEINED OR DIPNETTED AND RELEASED ON 14 JUN 2012. CALIFORNIA RED-LEGGED FROG ALSO DETECTED IN POND.

PLSS:	T03S, R03E, Sec. 12, NE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4172470 E624475	Latitude/Longitude:	37.69101 / -121.58817	Elevation (feet):	900

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
ACO12F0007 ACORD, B. & A. CHANG (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-CALIFORNIA NATURAL DIVERSITY DATABASE) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2012-06-14



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	99330	EO Index:	100881
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1016	Occurrence Last Updated:	2016-03-01

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2015-08-18	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2015-08-18	Occurrence Rank:	Unknown
Owner/Manager:	CALTRANS	Trend:	Unknown
Presence:	Presumed Extant		

Location:
MOUNTAIN HOUSE CREEK, SOUTH SIDE OF I-580, ABOUT 2.3 MI NE OF THE CARROLL RD OVERPASS & 2.1 MILES SE OF ALTAMONT PASS.

Detailed Location:
MAPPED TO PROVIDED COORDINATES.

Ecological:
SALAMANDER THAT WAS RESCUED FROM CONSTRUCTION SITE ABOUT 1.5 MI TO SW (OCCURRENCE #1223) WAS RELOCATED HERE INTO COMPLEX OF GROUND SQUIRREL BURROWS ABOUT 175 FEET NORTH OF A STOCK POND.

Threats:
FREEWAY TRAFFIC.

General:
1 SUBADULT RELOCATED INTO BURROW HERE FROM CALTRANS WORKSITE ON 18 AUG 2015.

PLSS:	T02S, R03E, Sec. 26, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4177135 E621408	Latitude/Longitude:	37.73345 / -121.62218	Elevation (feet):	500

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

CAR15R0001	CARSON, R. ET AL. - I-580 EB TRUCK CLIMBING LANE PROJECT 04-4A07U CALIFORNIA TIGER SALAMANDER OBSERVATION REPORT 2015-08-18
TER15F0003	TERRY, D. (GARCIA AND ASSOCIATES) - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2015-08-18



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6374	EO Index:	119429
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1166	Occurrence Last Updated:	2020-10-30

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2019-04-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2019-04-24	Occurrence Rank:	Excellent
Owner/Manager:	PVT-WILDLANDS INC	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.3 MILES SOUTH OF PATTERSON PASS, EAST OF LIVERMORE.

Detailed Location:
ON VIEIRA RANCH PROPERTY.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:

General:
JUVENILES DETECTED ON 24 APR 2019.

PLSS:	T03S, R03E, Sec. 15, SE (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4169915 E621196	Latitude/Longitude:	37.66842 / -121.62579	Elevation (feet):	1,743

County Summary:	Quad Summary:
Alameda	Midway (3712165), Altamont (3712166)

Sources:
ROP19F0004 ROPER, B. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2019-04-24



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6629	EO Index:	119689
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1202	Occurrence Last Updated:	2020-12-04

Scientific Name:	<i>Ambystoma californiense</i> pop. 1			Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal:	Threatened	Rare Plant Rank:		
	State:	Threatened	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable	
CNDDDB Element Ranks:	Global:	G2G3			
	State:	S2S3			

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2019-04-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2019-04-24	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.2 MILES SE OF PATTERSON PASS, 2.6 MILES ESE OF CROSS RD AT PATTERSON PASS RD, EAST OF LIVERMORE.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:

General:
DETECTED BETWEEN 9 MAR AND 15 JUN 2017. JUVENILES DETECTED ON 24 APR 2019.

PLSS:	T03S, R03E, Sec. 14, N (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4170693 E622251	Latitude/Longitude:	37.67529 / -121.61371	Elevation (feet):	1,935

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

ROP19F0004	ROPER, B. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2019-04-24
WIL17R0002	WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6630	EO Index:	119691
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1203	Occurrence Last Updated:	2020-12-04

Scientific Name:	<i>Ambystoma californiense</i> pop. 1			Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal:	Threatened	Rare Plant Rank:		
	State:	Threatened	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable	
CNDDB Element Ranks:	Global:	G2G3			
	State:	S2S3			

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2019-04-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2019-04-24	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.4 MILES SE OF PATTERSON PASS, 2.9 MILES ESE OF CROSS RD AT PATTERSON PASS RD, EAST OF LIVERMORE.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:
General:
DETECTED BETWEEN 9 MAR AND 15 JUN 2017. JUVENILES DETECTED ON 24 APR 2019.

PLSS:	T03S, R03E, Sec. 14, NW (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4170888 E622820	Latitude/Longitude:	37.67698 / -121.60722	Elevation (feet):	1,603

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

ROP19F0004	ROPER, B. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2019-04-24
WIL17R0002	WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6632	EO Index:	119692
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1204	Occurrence Last Updated:	2020-12-04

Scientific Name:	<i>Ambystoma californiense</i> pop. 1			Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal:	Threatened	Rare Plant Rank:		
	State:	Threatened	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable	
CNDDB Element Ranks:	Global:	G2G3			
	State:	S2S3			

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2019-04-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2019-04-24	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.7 MILES SE OF PATTERSON PASS, 3.25 MILES ESE OF CROSS RD AT PATTERSON PASS RD, EAST OF LIVERMORE.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:
General:
DETECTED BETWEEN 9 MAR AND 15 JUN 2017. JUVENILES DETECTED ON 24 APR 2019.

PLSS:	T03S, R03E, Sec. 13, NW (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4170852 E623375	Latitude/Longitude:	37.67658 / -121.60094	Elevation (feet):	1,457

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

ROP19F0004	ROPER, B. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2019-04-24
WIL17R0002	WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6633	EO Index:	119694
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1205	Occurrence Last Updated:	2020-12-04

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2019-04-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2019-04-24	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.75 MILES N OF CORRAL HOLLOW/TESLA RD, 3.3 MILES SE OF PATTERSON PASS, EAST OF LIVERMORE.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:
General:
JUVENILES DETECTED BETWEEN 9 MAR AND 15 JUN 2017. JUVENILES DETECTED ON 24 APR 2019.

PLSS:	T03S, R04E, Sec. 19, N (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4169411 E625595	Latitude/Longitude:	37.66329 / -121.57602	Elevation (feet):	1,404

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

ROP19F0004	ROPER, B. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2019-04-24
WIL17R0002	WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6634	EO Index:	119695
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1206	Occurrence Last Updated:	2020-12-04

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2017-06-15	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2017-06-15	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1 MILE SE OF PATTERSON PASS, 2.3 MILES ESE OF CROSS RD AT PATTERSON PASS RD, EAST OF LIVERMORE.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:
General:
JUVENILES DETECTED BETWEEN 9 MAR AND 15 JUN 2017.

PLSS:	T03S, R03E, Sec. 14, NW (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4170551 E621796	Latitude/Longitude:	37.67407 / -121.61889	Elevation (feet):	1,897

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
WIL17R0002 WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6635	EO Index:	119696
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1207	Occurrence Last Updated:	2020-12-04

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2017-06-15	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2017-06-15	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.5 MILES SOUTHEAST OF PATTERSON PASS, 2.75 MILES ESE OF CROSS RD AT PATTERSON PASS RD, EAST OF LIVERMORE.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:

General:
JUVENILES DETECTED BETWEEN 9 MAR AND 15 JUN 2017.

PLSS:	T03S, R03E, Sec. 14, SW (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4169792 E622161	Latitude/Longitude:	37.66718 / -121.61487	Elevation (feet):	1,938

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
WIL17R0002 WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6636	EO Index:	119697
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1208	Occurrence Last Updated:	2020-12-04

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2017-06-15	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2017-06-15	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
2 MILES SSE OF PATTERSON PASS, 3.2 MILES SE OF CROSS RD AT PATTERSON PASS RD, EAST OF LIVERMORE.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:

General:
JUVENILES DETECTED BETWEEN 9 MAR AND 15 JUN 2017.

PLSS:	T03S, R03E, Sec. 23, NE (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4169433 E622711	Latitude/Longitude:	37.66388 / -121.6087	Elevation (feet):	1,839

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
WIL17R0002 WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B6637	EO Index:	119698
Key Quad:	Midway (3712165)	Element Code:	AAAAA01181
Occurrence Number:	1209	Occurrence Last Updated:	2020-12-07

Scientific Name:	<i>Ambystoma californiense pop. 1</i>	Common Name:	California tiger salamander - central California DPS
Listing Status:	Federal: Threatened State: Threatened	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_WL-Watch List IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LIVES IN VACANT OR MAMMAL-OCCUPIED BURROWS THROUGHOUT MOST OF THE YEAR; IN GRASSLAND, SAVANNA, OR OPEN WOODLAND HABITATS.	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2017-06-15	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2017-06-15	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ON NORTH SIDE OF PATTERSON PASS RD, ABOUT 4.5 MILES EAST OF GREENVILLE RD INTERSECTION, JUST EAST OF PATTERSON PASS.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED.

Ecological:
STOCK POND IN ANNUAL GRASSLAND.

Threats:
General:
JUVENILES DETECTED BETWEEN 9 MAR AND 15 JUN 2017.

PLSS:	T03S, R03E, Sec. 11, NW (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4172026 E621643	Latitude/Longitude:	37.68738 / -121.62037	Elevation (feet):	1,310

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
WIL17R0002 WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	23074	EO Index:	20427
Key Quad:	Midway (3712165)	Element Code:	AAABF02020
Occurrence Number:	31	Occurrence Last Updated:	2020-05-08

Scientific Name:	<i>Spea hammondi</i>	Common Name:	western spadefoot
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened

General Habitat:	Micro Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2020-04-12	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2020-04-12	Occurrence Rank:	Good
Owner/Manager:	DPR-CARNEGIE SVRA, UNK	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ALONG CORRAL HOLLOW RD, 5.0 TO 6.2 MILES SW OF I-580 JUNCTION, CARNEGIE STATE VEHICULAR RECREATION AREA, SW OF TRACY.

Detailed Location:
1992: POND NORTH OF CORRAL HOLLOW ROAD. SPECIMENS COLLECTED ALONG ROAD: 1.5 MI E (1956), 1.6 MI E (1983), & 1.7 MI E (2003) OF ALA-SJQ COUNTY LINE; & 1.6 ROAD MILES W OF CASTLE ROCK FIRE STATION (2001). 2015: MAPPED TO GIVEN LOCATIONS.

Ecological:
1992: SMALL POND ALONG CORRAL HOLLOW CREEK IN RIPARIAN HABITAT; CONSIDERED A BREEDING SITE. 2001: AGRICULTURE/HORSE FARMS, WITH SHORT GRASSES, GRAVELLY AREAS NEAR ROADSIDE DITCHES, & OAKS. 2015: IN CLOSED & OPEN AREAS OF SVRA.

Threats:
OHV USE, TRAFFIC ALONG ROAD.

General:
1 COLLECTED IN 1956 & 1 IN 1983. 2 ADULTS OBSERVED IN 1992. 1 DOR COLL FEB 2001. 1 AOR IN MAR 2001. 1 DOR COLL DEC 2003. ADULTS & EGG MASSES/LARV OBS FEB-APR 2015. ALL AGE CLASSES OBS IN 2017. 1 ADULT ON 3 MAY 2019. 1 JUV ON 12 APR 2020.

PLSS:	T03S, R04E, Sec. 34, NW (M)	Accuracy:	non-specific area	Area (acres):	95
UTM:	Zone-10 N4165632 E629947	Latitude/Longitude:	37.62863 / -121.52735	Elevation (feet):	609

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Sources:

COO56S0003	COOK, S. - MVZ #64605, COLLECTED FROM "CORRAL HOLLOW, 1.5 MI E COUNTY LINE." 1956-06-02
DES15F0001	DE SILVA, T. ET AL. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2015-02-17
DES17F0009	DE SILVA, T. - FIELD SURVEY FORM FOR SPEA HAMMONDII [SC-013528] 2017-03-04
ELY01F0001	ELY, E. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2001-02-19
ELY01S0002	ELY, F. ET AL. - CAS #218618 COLLECTED FROM CORRAL HOLLOW RD, 1.6 MI W (BY RD) OF CASTLE ROCK FIRE STATION/CASTLE ROCK 2001-02-19
ELY03F0001	ELY, E. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2003-12-29
ELY03S0001	ELY, F. & E. ELY - CAS HERP #250104, COLLECTED FROM "CORRAL HOLLOW RD, 1.7 MI E (BY RD) OF ALAMEDA/SAN JOAQUIN CO. LINE, 37 37 44.56 N, 121 31 45.51 W." 2003-12-29
MAC83S0002	MACEY, J.R. - MVZ #182573 COLLECTED FROM CORRAL HOLLOW RD, 1.6 MI E ALAMEDA COUNTY LINE 1983-06-06
MOR19F0016	MORALES, N. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2019-05-03
MOR20F0031	MORALES, N. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2020-04-12
MUL92F0001	MULLEN, D. & G. BEEMAN - FIELD SURVEY FORM FOR SPEA HAMMONDII 1992-11-14
TAY01F0004	TAYLOR, D.J. - FIELD SURVEY FORM FOR RANA DRAYTONII, AMBYSTOMA CALIFORNIENSE & SPEA HAMMONDII 2001-03-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	32321	EO Index:	2701
Key Quad:	Tracy (3712164)	Element Code:	AAABF02020
Occurrence Number:	52	Occurrence Last Updated:	2020-05-06

Scientific Name:	<i>Spea hammondi</i>	Common Name:	western spadefoot
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDDB Element Ranks:	Global: G2G3 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened

General Habitat:	Micro Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2020-04-12	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2020-04-12	Occurrence Rank:	Excellent
Owner/Manager:	DFG, DOE	Trend:	Stable
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW IN THE VICINITY OF CASTLE ROCK AND CASTLE ROCK FIRE STATION, SSW OF TRACY.

Detailed Location:
SPECIMENS W/ GENERAL LOCALITY LIKE "CORRAL HOLLOW" ATTRIBUTED HERE; ALSO THOSE FROM CORRAL HOLLOW RD, 3-4 MI E OF THE COUNTY LINE. 1992 DETECTIONS AT CORRAL HOLLOW ECOLOGICAL RESERVE. 2010 DETECTION ON LAWRENCE LIVERMORE NAT'L LAB PROPERTY.

Ecological:
AREA NOT OPEN FOR PUBLIC ACCESS. VALLEY FOOTHILL RIPARIAN SURROUNDED BY GRASSLAND. BUFO BOREAS, HYLIA REGILLA, AND RANA DRAYTONI TADPOLES ALSO FOUND AT THIS SITE IN 1992.

Threats:
THREATENED BY SILTATION FROM NEARBY SVRA & ROAD MORTALITY.

General:
COLLECTED IN 1956, '59, '62, '68, '70, '77, '81, '83, '85, '87, '88, '89 '96, & UNK DATE. LARVAE & JUVENILES OBS IN 1992. 7 ADULTS & 300+ LARV IN 1995. 3 IN 1999. 1 DOR IN 2001. FOUND IN 2010. 1 DOR IN 2016. 2 JUV ON ROAD IN 2020.

PLSS:	T03S, R04E, Sec. 25 (M)	Accuracy:	3/5 mile	Area (acres):	0
UTM:	Zone-10 N4167186 E633070	Latitude/Longitude:	37.64219 / -121.49169	Elevation (feet):	475

County Summary:	Quad Summary:
San Joaquin	Tracy (3712164), Midway (3712165)



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Sources:

AND56S0009	ANDERSON, J. - MVZ #65641, 65642, & 65643, COLLECTED FROM "CORRAL HOLLOW." 1956-04-30
AND59S0001	ANDERSON, J. - MVZ #68255, COLLECTED FROM "CORRAL HOLLOW." 1959-04-29
BOU87S0003	BOUNDY, J. & A. FORD - SJSU #188110, COLLECTED FROM "CENT. CORRAL HOLLOW, SAN JOAQUIN CO., CA." 1987-05-15
BRA59S0002	BRADFORD, C. - CAS HERP #86190, COLLECTED FROM "CORRAL HOLLOW." 1959-XX-XX
BRO92F0027	BRODE, J. & M. WORKMAN (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR SPEA HAMMONDII 1992-03-26
BUC96S0001	BUCHHOLZ, D. - MVZ #234174, COLLECTED FROM "CORRAL HOLLOW." 1996-11-17
CRI59S0002	CRIPPEN, R. & C. DONOVAN - MVZ #68138, 68139, 68140, & 68141, COLLECTED FROM "CORRAL HOLLOW." 1959-04-11
EDW85R0001	EDWARDS, K. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002296]. 1985-XX-XX
ELY01F0002	ELY, E. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2001-02-19
ELY01S0003	ELY, F. & E. ELY - CAS #218644 COLLECTED FROM CORRAL HOLLOW RD AT THE CASTLE ROCK FIRE STATION 2001-03-04
ELY95F0003	ELY, E. - FIELD SURVEY FORM FOR SPEA HAMMONDII 1995-05-11
FIS89U0001	FISHER, R. ET AL. - REPTILES AND AMPHIBIANS COLLECTED IN 1989 BY ROBERT FISHER, CHRISTOPHER AUSTIN AND DR. H. BRADLEY SHAFFER 1989-XX-XX
HER16D0001	HERP, INC. - HERPETOLOGICAL EDUCATION AND RESEARCH PROJECT (HERP) DATABASE. FORMERLY A PROJECT OF THE NORTH AMERICAN FIELD HERPING ASSOCIATION. 2016-10-11
HER88S0001	HERLOCKER, D. - CAS HERP #174099, COLLECTED FROM "CORRAL HOLLOW RD, 12.3 MI E OF GREENVILLE RD." 1988-04-08
INA16U0033	INATURALIST - OBSERVATION 2750060 FROM HTTP://WWW.INATURALIST.ORG . ACCESSED 2019-12-20. 2016-03-05
JOH68S0003	JOHNSON, A. - MVZ #84588, COLLECTED FROM CORRAL HOLLOW RD, ATOMIC RESEARCH CENTER AREA, CORRAL HOLLOW 1968-05-14
KAR56S0004	KARLSTROM, E. - MVZ #68055, COLLECTED FROM "CORRAL HOLLOW." 1956-05-01
MAC87S0003	MACEY, J.R. - MVZ #227643 & 227644, COLLECTED FROM "CORRAL HOLLOW RD., 3.1 MI E ALAMEDA COUNTY LINE." 1987-05-06
MOR20F0024	MORALES, N. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2020-03-28
MOR20F0032	MORALES, N. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2020-04-12
ROB11D0001	ROBERTSON, T. (CONDOR COUNTRY CONSULTING) - EXCEL TABLE OF OBSERVATIONS MADE DURING 2010 AND 2011 IN CENTRAL CALIFORNIA 2011-11-XX
RUT70S0003	RUTH, S. - MVZ #88578, COLLECTED FROM "CORRAL HOLLOW, 4.0 MI E SAN JOAQUIN AND ALAMEDA COUNTY LINE." 1970-01-13
RUT70S0004	RUTH, S. - MVZ #88579, COLLECTED FROM "CORRAL HOLLOW, 4.0 MI E SAN JOAQUIN AND ALAMEDA COUNTY LINE." 1970-01-13
SEI81S0001	SEIB, R. - MVZ #176788 & 176789, COLLECTED FROM "CORRAL HOLLOW RD." 1981-12-18
SEI83S0001	SEIB, R. - MVZ #191466, COLLECTED FROM "CORRAL HOLLOW RD." 1983-09-08
SWE77S0003	SWEET, S. & J. CADLE - MVZ #145187, COLLECTED FROM "CORRAL HOLLOW, 3 MI E SAN JOAQUIN COUNTY LINE." 1977-03-15
TEB62S0001	TEBERG, E. - MVZ #229915, COLLECTED FROM "CA. 14 MI E LIVERMORE." 1962-06-05
WOO04U0001	WOOLLETT, J.S. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002987] 2004-03-23
WOO95F0008	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR SPEA HAMMONDII 1995-03-22
WOO95F0009	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR SPEA HAMMONDII 1995-03-22
WOR92F0006	WORKMAN, M. & T. KING - FIELD SURVEY FORM FOR SPEA HAMMONDII 1992-05-18
WOR92F0007	WORKMAN, M. & T. KING - FIELD SURVEY FORM FOR SPEA HAMMONDII 1992-04-13
WOR92F0008	WORKMAN, M. & T. KING - FIELD SURVEY FORM FOR SPEA HAMMONDII 1992-04-29



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	38749	EO Index:	33756
Key Quad:	Midway (3712165)	Element Code:	AAABF02020
Occurrence Number:	152	Occurrence Last Updated:	2020-05-08

Scientific Name:	<i>Spea hammondi</i>	Common Name:	western spadefoot
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened

General Habitat:	Micro Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2020-04-15	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2020-04-15	Occurrence Rank:	Fair
Owner/Manager:	DPR, UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW RD, ON E & W SIDES OF THE ALA-SJQ COUNTY LINE; ON THE N BORDER OF CARNEGIE SVRA BETWEEN LIVERMORE & TRACY.

Detailed Location:
1960 & '62 SPECIMENS FROM CORRAL HOLLOW "10 MI SW TRACY" & "10 MI E LIVERMORE," '77, '80 & '87 SPECIMENS FROM CORRAL HOLLOW RD NEAR THE ALA/SJQ COUNTY LINE ATTRIBUTED HERE. MAPPED TO LOCATIONS GIVEN FOR 1998, 2006 & 2015 DETECTIONS.

Ecological:
1998: VERNAL POOLS IN GRASSLAND/CHAPARRAL. 2001: BRAIDED, MOSTLY DENUDED GRAVEL STREAM CHANNEL; BREEDING PONDS FENCED TO EXCLUDE RECREATION ACCESS. 2006: MUDDY POOL IN OHV TRAIL; RIPARIAN, ANNUAL GRASSLAND & BLUE OAK SAVANNA UPLAND NEARBY.

Threats:
TRAFFIC ALONG ROAD, OHVS CRUSHING BURROWS AND CAUSING SILTATION OF POOLS (1998).

General:
COLLECTED IN 1960, '62, '77, '80, '87, & '98. 25 JUVENILES IN APR 2001. 4 LARVAE IN APR 2006. ADULTS & LARV FEB-APR 2015. 12 JUV & 200+ LARV IN APR 2016. 94 ADULTS, 400 JUV/LARV, 1000 EGGS FEB-MAR 2017. 5 IN MAR 2018. 1 JUV AOR 15 APR 2020.

PLSS:	T03S, R04E, Sec. 32, NE (M)	Accuracy:	specific area	Area (acres):	53
UTM:	Zone-10 N4166310 E627480	Latitude/Longitude:	37.63508 / -121.55519	Elevation (feet):	693

County Summary:	Quad Summary:
Alameda, San Joaquin	Midway (3712165)



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Sources:

ALV17D0001	ALVAREZ, J. (THE WILDLIFE PROJECT) - EXCEL TABLE OF SPECIAL STATUS SPECIES, 2014-2017 [SC-000040] 2017-01-20
ANO87S0002	ANONYMOUS - USNM 279202 COLLECTED "0.7 MI W OF ALAMEDA - SAN JOAQUIN COUNTY LINE, ON TESLA (CORRAL HOLLOW) ROAD." 1987-04-21
BOU87S0004	BOUNDY, J. & A. FORD - CAS HERP #188107, COLLECTED FROM "CORRAL HOLLOW, 0.4 MI E OF ALAMEDA-SAN JOAQUIN COUNTY LINE." 1987-01-03
CRI60S0001	CRIPPEN, R. - MVZ #70439, 70440, 70441, & 70442, COLLECTED FROM "CORRAL HOLLOW RD., 10 MI SW TRACY" 1960-06-04
CUL01F0001	CULL, R. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2001-04-01
DES15F0001	DE SILVA, T. ET AL. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2015-02-17
DES17F0009	DE SILVA, T. - FIELD SURVEY FORM FOR SPEA HAMMONDII [SC-013528] 2017-03-04
DES18F0002	DE SILVA, T. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2018-03-28
DES19R0001	DE SILVA, T. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - SCIENTIFIC COLLECTED PERMIT ANNUAL REPORT: AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN, 2018 [SC-013528] 2019-02-XX
ELY80S0001	ELY, F. - CAS HERP #154371, COLLECTED FROM "CORRAL HOLLOW RD, ALAMEDA-SAN JOAQUIN COUNTY LINE." 1980-05-01
JEN98F0014	JENNINGS, M.R. - FIELD SURVEY FORM FOR SPEA HAMMONDII 1998-01-26
JEN98S0001	JENNINGS, M. - CAS #207127 COLLECTED FROM CORRAL HOLLOW ROAD, 0.2 MILES WEST OF THE ALAMEDA/SAN JOAQUIN COUNTY LINE 1998-01-26
MAC87S0004	MACEY, J.R. - MVZ #227641 & 227642, COLLECTED FROM "0.2 MI E OF THE ALAMEDA CO. LINE ON CORRAL HOLLOW RD." 1987-05-06
MOR20F0033	MORALES, N. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2020-04-15
SAG77S0001	SAGE, R. & B. SHAFFER - MVZ #145214, 145191, 145192, & 145215, COLLECTED "CA. 5 MI W TO 5 MI E ALAMEDA-SAN JOAQUIN COUNTY LINE, CORRAL HOLLOW RD." 1977-04-21
SAG77S0003	SAGE, R. - MVZ #149995, COLLECTED "CA. 5 MI W TO 5 MI E ALAMEDA-SAN JOAQUIN COUNTY LINE, CORRAL HOLLOW RD." 1977-07-01
SWO06F0002	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2006-04-24
TEB62S0002	TEBERG, E. - MVZ #187452, 187453, 187454, 187455, 187456, & 187457, COLLECTED FROM "CORRAL HOLLOW CREEK, 10 MI E LIVERMORE." 1962-03-17



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	47307	EO Index:	47307
Key Quad:	Midway (3712165)	Element Code:	AAABF02020
Occurrence Number:	217	Occurrence Last Updated:	2020-01-28

Scientific Name:	<i>Spea hammondi</i>	Common Name:	western spadefoot
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened

General Habitat:	Micro Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2001-03-04	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2001-03-04	Occurrence Rank:	Fair
Owner/Manager:	DPR, PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
SOUTH SIDE OF TESLA ROAD, NEAR THE MOUTH OF MITCHELL RAVINE, CORRAL HOLLOW, CARNEGIE STATE VEHICULAR RECREATION AREA.

Detailed Location:
1977 SPECIMEN W/ LOCALITY "CORRAL HOLLOW, 1.3 MI W SAN JOAQUIN CO LINE" AND 1987 SPECIMEN W/ LOCALITY "CORRAL HOLLOW RD, 1.05 MI W OF ALAMEDA-SAN JOAQUIN COUNTY LINE" ATTRIBUTED HERE. 2001: MAPPED TO TAY01F0004 & NEA19U0001 GIVEN LOCATIONS.

Ecological:
2001: HABITAT CONSISTED OF AGRICULTURAL AREAS / HORSE FARMS, WITH VARIOUS EMERGENT SHORT GRASSES, GRAVELLY AREAS NEAR ROADSIDE DITCHES, AND VARIOUS OAKS. CALIFORNIA TIGER SALAMANDER ALSO OBSERVED ALONG ROADWAY.

Threats:
THREATENED BY TRAFFIC DURING MIGRATION.

General:
1 COLLECTED ON 15 MAR 1977. COLLECTED ON 17 MAY 1988 AND 24 APR 1989. 1 COLLECTED DEAD ON ROAD ON 10 FEB 1987. 1 INDIVIDUAL OBSERVED ON THE ROADWAY, 4 MAR 2001.

PLSS:	T03S, R04E, Sec. 30, SE (M)	Accuracy:	specific area	Area (acres):	10
UTM:	Zone-10 N4166615 E625747	Latitude/Longitude:	37.63808 / -121.57477	Elevation (feet):	771

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

NEA19U0001	NEAL, K. - AN INTEGRATIVE POPULATION AND LANDSCAPE GENOMIC APPROACH TO CONSERVATION OF A THREATENED CALIFORNIA AMPHIBIAN AT MULTIPLE SPATIAL SCALES. PHD DISSERTATION, UCLA. 2019-XX-XX
SWE77S0002	SWEET, S. & J. CADLE - MVZ #145188, COLLECTED FROM "CORRAL HOLLOW, 1.3 MI W SAN JOAQUIN COUNTY LINE." 1977-03-15
TAY01F0004	TAYLOR, D.J. - FIELD SURVEY FORM FOR RANA DRAYTONII, AMBYSTOMA CALIFORNIENSE & SPEA HAMMONDII 2001-03-04
VIN87S0005	VINDUM, J. - CAS HERP #162108, COLLECTED FROM "CORRAL HOLLOW RD, 1.05 MI W OF ALAMEDA-SAN JOAQUIN COUNTY LINE (7.75 MI E OF CROSS RD)." 1987-02-10



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	70006	EO Index:	70848
Key Quad:	Midway (3712165)	Element Code:	AAABF02020
Occurrence Number:	395	Occurrence Last Updated:	2020-05-08

Scientific Name:	<i>Spea hammondi</i>	Common Name:	western spadefoot
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened

General Habitat:	Micro Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2020-03-28	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2020-03-28	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ADJACENT TO (NORTH OF) CORRAL HOLLOW ROAD, VICINITY OF CARNEGIE, 5.5 MILES SW OF TRACY MUNICIPAL AIRPORT.

Detailed Location:
1977 & 1983 SPECIMENS WITH LOCALITY "CORRAL HOLLOW RD, 2.8 MI E SAN JOAQUIN [-ALA] COUNTY LINE" ATTRIBUTED HERE. MAPPED TO COORDINATES GIVEN FOR 1995 DETECTION.

Ecological:
1995: HABITAT CONSISTED OF AN EPHEMERAL POND. SURROUNDING LAND USE: CATTLE GRAZING, WEAPONS TESTING FACILITY.

Threats:
ROAD MORTALITY

General:
2 COLLECTED 15 MAR 1977 (MVZ #145189 & 145190). 1 COLLECTED 6 JUN 1983 (MVZ #182574). 8 ADULTS OBSERVED ON 22 MAR 1995. 1 ADULT AND 1 JUVENILE OBSERVED ON ROAD ON 28 MAR 2020.

PLSS:	T03S, R04E, Sec. 35, NW (M)	Accuracy:	1/5 mile	Area (acres):	0
UTM:	Zone-10 N4165867 E631310	Latitude/Longitude:	37.63056 / -121.51186	Elevation (feet):	573

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

MAC83S0004	MACEY, J.R. - MVZ #182574 COLLECTED FROM CORRAL HOLLOW RD, 2.8 MI E ALAMEDA COUNTY LINE 1983-06-06
MOR20F0025	MORALES, N. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2020-03-28
SWE77S0004	SWEET, S. & J. CADLE - MVZ #145189 & 145190, COLLECTED FROM "CORRAL HOLLOW RD., 2.8 MI E SAN JOAQUIN COUNTY LINE." 1977-03-15
WOO95F0007	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR SPEA HAMMONDII 1995-03-22



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	96354	EO Index:	97515
Key Quad:	Midway (3712165)	Element Code:	AAABF02020
Occurrence Number:	440	Occurrence Last Updated:	2020-05-07

Scientific Name:	<i>Spea hammondi</i>	Common Name:	western spadefoot
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened

General Habitat:	Micro Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	1998-05-29	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1998-05-29	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA, UNK	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ALONG TESLA RD (CORRAL HOLLOW RD) FROM 1.4-2.4 MI W OF THE SJQ-ALA COUNTY LINE, ON THE N BOUNDARY OF CARNEGIE SVRA.

Detailed Location:
1959 W/LOCALITY: "TESLA RD, ALONG CORRAL HOLLOW CREEK," 1982: "8.5-9.0 MI W I-580 ON CORRAL HOLLOW RD," AND 1989: "CARNEGIE SVRA, TESLA" ATTRIBUTED HERE. 1983 LOCALITY: "2.4 MI W SAN JOAQUIN COUNTY LINE ON CORRAL HOLLOW RD."

Ecological:
Threats:
General:

7 COLLECTED ON 21 MAR 1959. 4 COLLECTED ON 15 FEB 1982. 1 COLLECTED ON 6 JUN 1983 (MVZ #182531). 1 DETECTED FROM FROM THE VICINITY BETWEEN 12 MAY AND 29 MAY 1998.

PLSS:	T03S, R03E, Sec. 25 (M)	Accuracy:	non-specific area	Area (acres):	134
UTM:	Zone-10 N4166909 E624067	Latitude/Longitude:	37.64095 / -121.59375	Elevation (feet):	950

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

BRO59S0002	BROWN, D. & J. HODGEN - CAS SUA #20226, 20227, 20228, 20229, 20230, 20231 & 20232, COLLECTED FROM TESLA RD, ALONG CORRAL HOLLOW CREEK. 1959-03-21
DAV98U0002	DAVIDSON, C. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED. PERMIT 803084-02. 1998-XX-XX
MAC83S0003	MACEY, J.R. - MVZ #182531 COLLECTED 2.4 MI W SAN JOAQUIN COUNTY LINE ON CORRAL HOLLOW RD 1983-06-06
SEI82S0001	SEIB, R. - MVZ #176782, 176783, 176784, 176785, 176786, & 176787 COLLECTED FROM 8.5-9.0 MI W I-580 ON CORRAL HOLLOW RD. 1982-02-15



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	96355	EO Index:	97516
Key Quad:	Cedar Mtn. (3712155)	Element Code:	AAABF02020
Occurrence Number:	441	Occurrence Last Updated:	2015-06-19

Scientific Name:	<i>Spea hammondi</i>	Common Name:	western spadefoot
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened

General Habitat:	Micro Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2006-06-02	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2006-06-02	Occurrence Rank:	Poor
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CARNEGIE SVRA, S OF CORRAL HOLLOW RD ABOUT 1.2 MI SE OF THE ALA/SJQ COUNTY LINE CROSSING, 0.8 MI SW OF CARNEGIE (SITE).

Detailed Location:
MAPPED TO GIVEN COORDINATES.

Ecological:
POOL IN MIDDLE OF HEAVILY-TRAFFICKED TRAIL. MULEFAT & COTTONWOOD ALONG CREEK BED WITH ANNUAL GRASSLAND & BLUE OAK SAVANNA UPLAND.

Threats:
OHV TRAFFIC.

General:
8 TADPOLES OBSERVED ON 2 JUN 2006.

PLSS:	T03S, R04E, Sec. 33, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4165154 E628736	Latitude/Longitude:	37.62450 / -121.54115	Elevation (feet):	1,160

County Summary:	Quad Summary:
San Joaquin	Cedar Mtn. (3712155), Midway (3712165)

Sources:
SWO06F0003 SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2006-06-02



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	B1986	EO Index:	113909
Key Quad:	Midway (3712165)	Element Code:	AAABF02020
Occurrence Number:	630	Occurrence Last Updated:	2019-01-15

Scientific Name:	<i>Spea hammondi</i>	Common Name:	western spadefoot
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened

General Habitat:	Micro Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2017-05-05	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2017-05-05	Occurrence Rank:	Excellent
Owner/Manager:	PVT-WILDLANDS INC	Trend:	Unknown
Presence:	Presumed Extant		

Location:
2.8 MI ENE OF TESLA RD AT REUSS RD, 5.7 MI SW OF I-580 AT MIDWAY RD, NEAR PATTERSON PASS E OF LIVERMORE.

Detailed Location:
MAPPED ACCORDING TO THE PROVIDED MAP LOCATION AT THE VIEIRA RANCH PROPERTY.

Ecological:
ANNUAL GRASSLAND WITH STOCK PONDS.

Threats:

General:
17 JUVENILES OBSERVED ON 5 MAY 2017.

PLSS:	T03S, R03E, Sec. 15, NE (M)	Accuracy:	80 meters	Area (acres):	5
UTM:	Zone-10 N4170879 E621295	Latitude/Longitude:	37.67709 / -121.62451	Elevation (feet):	1,785

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
WIL17R0002 WILDLANDS, INC. - VERNAL POOL LARGE BRANCHIOPOD AND CALIFORNIA TIGER SALAMANDER SURVEY 2017 ANNUAL REPORT - SECTION 10(A)(1)(A) PERMIT NO. TE-11271B-0 & USFWS FILE NO. 2012-TA-0241 2017-08-03



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 17126
Key Quad: Tracy (3712164)
Occurrence Number: 26

EO Index: 9603
Element Code: AAABH01022
Occurrence Last Updated: 2009-04-23

Scientific Name: *Rana draytonii*

Common Name: California red-legged frog

Listing Status: **Federal:** Threatened
State: None
CNDDDB Element Ranks: **Global:** G2G3
State: S2S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable

General Habitat:

LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro Habitat:

REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed: 2008-02-12
Last Survey Date: 2008-02-12
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:

CORRAL HOLLOW CREEK AT 4TH BRIDGE UPSTREAM FROM HWY 580. SITE IS ABOUT 0.5 MI DOWNSTREAM FROM CORRAL HOLLOW ECO RESERVE.

Detailed Location:

Ecological:

MIXED RIPARIAN & EMERGENT HERBACEOUS VEGETATION. INTERMITTENT STREAM; PARTIALLY SILTED POND W/ CATTAILS & ALGAE. WATER <2 FT DEEP. ONLY STANDING WATER WAS THIS POND & ONE ON DOWNSTREAM SIDE OF BRIDGE IN 10/90.

Threats:

LIVESTOCK GRAZING. INTRODUCED FISH (GAMBUSIA).

General:

1 SUBADULT SIGHTED AMONG VEGETATION IN SHADE OF DOWNED TREE LIMB ON 10/09/90. 1 OBSERVED 3/12/93, 3 OBSERVED 4/20/93 & 3 SEEN 5/10/93. A. MARMORATA ALSO FOUND HERE. 1 CAPTURED & RELEASED ON 9 MAR 2000. 1 LARGE JUVENILE OBS 12 FEB 2008.

PLSS: T03S, R04E, Sec. 24, SW (M)

Accuracy: non-specific area

Area (acres): 64

UTM: Zone-10 N4168732 E633410

Latitude/Longitude: 37.65607 / -121.48755

Elevation (feet): 400

County Summary:

San Joaquin

Quad Summary:

Tracy (3712164)

Sources:

BRO90F0001 BRODE, J.M. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR RED-LEGGED FROG 1990-10-09
CRO08F0003 CROUCH, K. (PADRE ASSOCIATES, INC.) - FIELD SURVEY FORM FOR RANA DRAYTONII 2008-02-12
ELY93F0033 ELY, E. - FIELD SURVEY FORM FOR RANA DRAYTONII 1993-03-12
ELY93F0034 ELY, E. - FIELD SURVEY FORM FOR RANA DRAYTONII 1993-04-20
ELY93F0052 ELY, E. - FIELD SURVEY FORM FOR CLEMMYS MARMORATA (2 SITES) & RANA DRAYTONII 1993-05-10
WOO04U0001 WOOLLETT, J.S. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002987] 2004-03-23



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	17147	EO Index:	12133
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	35	Occurrence Last Updated:	1991-04-09

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	1989-10-17	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1989-10-17	Occurrence Rank:	Unknown
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
APPROXIMATELY 4 MI WNW OF INTERSECTION OF HWY 580 & CORRAL HOLLOW RD, N OF LAWRENCE RADIATION LAB SITE 300, SW OF TRACY.

Detailed Location:
3 ADULTS FOUND IN SMALL SUNKEN SPRING.

Ecological:
SPRING ABOUT 8 SQUARE FEET IN INTRODUCED GRASSLAND. THE NEAREST STREAM IS CORRAL HOLLOW CREEK, APPROX 3 MI SE, AND THE NEAREST STOCK PONDS ARE 1 MI TO THE NORTH, AND NEITHER HELD WATER AT THE TIME OF THIS OBSERVATION.

Threats:
CATTLE AND SHEEP GRAZING. POTENTIAL PLANS TO DEVELOP THIS SITE.

General:
SITE IS REMARKABLE IN ITS SMALL SIZE AND ISOLATION.

PLSS:	T03S, R04E, Sec. 10, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4171963 E629541	Latitude/Longitude:	37.68574 / -121.53083	Elevation (feet):	800

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
LSA89F0003 LARRY SEEMAN & ASSOCIATES, INC. - FIELD SURVEY FORM FOR RED-LEGGED FROGS 1989-10-17



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	23078	EO Index:	19169
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	43	Occurrence Last Updated:	1993-04-22

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	1992-06-29	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1992-06-29	Occurrence Rank:	Fair
Owner/Manager:	PVT-YROZ RANCH	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ONE MILE NORTH OF THE LAWRENCE RADIATION LABORATORY BOUNDARY, 7 MILES SW OF TRACY.

Detailed Location:

Ecological:
HABITAT CONSISTS OF TWO SMALL CATTLE WATERING PONDS, LOCATED ABOUT ONE MILE APART.

Threats:

General:
50 ADULTS AND MANY TADPOLES OBSERVED IN THE WESTERN-MOST POND; JUST A FEW FROGS FOUND IN THE EASTERN POND.

PLSS:	T03S, R04E, Sec. 09 (M)	Accuracy:	non-specific area	Area (acres):	190
UTM:	Zone-10 N4172644 E629874	Latitude/Longitude:	37.69183 / -121.52693	Elevation (feet):	500

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
MUL92F0005 MULLEN, D.A. & G.A. BEEMAN - FIELD SURVEY FORM FOR RANA DRAYTONII 1992-06-29



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 23734 Key Quad: Midway (3712165) Occurrence Number: 44	EO Index: 19960 Element Code: AAABH01022 Occurrence Last Updated: 1994-01-24
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Scientific Name: <i>Rana draytonii</i> Listing Status: <table border="0" style="width: 100%;"><tr><td style="width: 33%;">Federal:</td><td>Threatened</td></tr><tr><td>State:</td><td>None</td></tr></table> CNDDB Element Ranks: <table border="0" style="width: 100%;"><tr><td style="width: 33%;">Global:</td><td>G2G3</td></tr><tr><td>State:</td><td>S2S3</td></tr></table>	Federal:	Threatened	State:	None	Global:	G2G3	State:	S2S3	Common Name: California red-legged frog Rare Plant Rank: Other Lists: CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
Federal:	Threatened								
State:	None								
Global:	G2G3								
State:	S2S3								

General Habitat: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	Micro Habitat: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.
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Last Date Observed: 1993-04-14 Last Survey Date: 1993-04-14 Owner/Manager: PVT Presence: Presumed Extant Location: 1.5 MILES NW OF PATTERSON PASS ROAD (STONE CORRAL), 11 MILES SE OF LIVERMORE. Detailed Location: Ecological: HABITAT CONSISTS OF TWO STOCK PONDS WITHIN A DRAINAGE SWALE; DOMINATED BY ABUNDANT TYPHA, CAREX, ELODEA, AND CELERY. WATER WAS 4 INCHES DEEP AND TEA-COLORED. POND MARGINS VEGETATED BY DENSE GRASS/RUSH COVER. SURROUNDING GRASSLAND IS GRAZED. Threats: THREATENED BY PROPOSED USE OF SITE AS A LANDFILL. General: 6 ADULTS AND LARVAE TOO NUMEROUS TO COUNT OBSERVED. WET MEADOW BELOW PONDS ALSO SUPPORTED BOTH LARVAE AND ADULTS, ALTHOUGH STANDING WATER WAS CONFINED TO A NARROW CHANNEL. SURROUNDING LAND USE INCLUDES WINDFARMS.	Occurrence Type: Natural/Native occurrence Occurrence Rank: Good Trend: Unknown
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PLSS: T02S, R03E, Sec. 35, SE (M)	Accuracy: specific area	Area (acres): 12
UTM: Zone-10 N4174694 E622866	Latitude/Longitude: 37.71126 / -121.60605	Elevation (feet): 550

County Summary: Alameda	Quad Summary: Midway (3712165)
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Sources:
MOR93F0001 MORI, B. - FIELD SURVEY FORM FOR RANA DRAYTONII 1993-04-14



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 25036 Key Quad: Midway (3712165) Occurrence Number: 45	EO Index: 21976 Element Code: AAABH01022 Occurrence Last Updated: 1994-02-18
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Scientific Name: <i>Rana draytonii</i> Listing Status: <table border="0" style="width: 100%;"><tr><td style="width: 33%;">Federal:</td><td>Threatened</td></tr><tr><td>State:</td><td>None</td></tr></table> CNDDB Element Ranks: <table border="0" style="width: 100%;"><tr><td style="width: 33%;">Global:</td><td>G2G3</td></tr><tr><td>State:</td><td>S2S3</td></tr></table>	Federal:	Threatened	State:	None	Global:	G2G3	State:	S2S3	Common Name: California red-legged frog Rare Plant Rank: Other Lists: CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
Federal:	Threatened								
State:	None								
Global:	G2G3								
State:	S2S3								

General Habitat: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	Micro Habitat: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.
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Last Date Observed: 1993-04-14 Last Survey Date: 1993-04-14 Owner/Manager: PVT Presence: Presumed Extant	Occurrence Type: Natural/Native occurrence Occurrence Rank: Excellent Trend: Unknown
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Location:
2.7 AIR MILES ESE OF THE JUNCTION OF NORTH FLYNN ROAD AND INTERSTATE 580, EAST OF LIVERMORE

Detailed Location:

Ecological:
HABITAT CONSISTS OF A BERMED RESERVOIR LOCATED A SUB-VALLEY FLOOR. WATER IS ABOUT 4 FEET DEEP AND CLEAR; 50% COVER OF TYPHA, CAREX, AND ELODEA. MARGIN OF POND WITH DENSE GRASS COVER; ADJACENT UPLAND IS GRAZED ANNUAL GRASSLAND.

Threats:
THREATENED BY A PROPOSAL TO USE THIS SITE FOR LANDFILL.

General:
SEVERAL LARVAE OBSERVED ON 14 APRIL 1993. AMBYSTOMA CALIFORNIENSE LARVAE AND HYLAE ADULTS AND LARVAE ALSO FOUND HERE.

PLSS: T02S, R03E, Sec. 35, SE (M)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-10 N4175031 E622456	Latitude/Longitude: 37.71436 / -121.61064	Elevation (feet): 500

County Summary: Alameda	Quad Summary: Midway (3712165)
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Sources:
MOR93F0027 MORI, B.M. - FIELD SURVEY FORM FOR RANA DRAYTONII 1993-04-14



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 24869
Key Quad: Tracy (3712164)
Occurrence Number: 72

EO Index: 20823
Element Code: AAABH01022
Occurrence Last Updated: 2009-04-23

Scientific Name: *Rana draytonii*

Common Name: California red-legged frog

Listing Status:
Federal: Threatened
State: None
CNDDDB Element Ranks:
Global: G2G3
State: S2S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable

General Habitat:

LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro Habitat:

REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed: 2001-03-04
Last Survey Date: 2001-03-04
Owner/Manager: DFG-CORRAL HOLLOW ER
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Decreasing

Location:

CORRAL HOLLOW CREEK, JUST WEST OF CORRAL HOLLOW ROAD, CORRAL HOLLOW ECOLOGICAL RESERVE, 18 MILES EAST OF LIVERMORE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COTTONWOODS AND WILLOWS ALONG THE CREEK; SURROUNDING AREA IS GRASSLAND.

Threats:

THREATENED BY SILTATION CREATED BY AN ORV PARK UPSTREAM AND ROAD MORTALITY.

General:

1976: MANY CRLF RESIDENT HERE. 3 MAY 1989: CREEK DRY FROM HEADWATERS TO ABOUT 0.5 MI BELOW ECO RESERVE. 4 VISITS 26 MAR-18 MAY 1992 YIELDED ONLY 1 ADULT FROG. 7 ADULTS OBS 22 MAR 1995. 1 ADULT DOR COLLECTED (CAS#218643) AT NIGHT 4 MAR 2001.

PLSS: T03S, R04E, Sec. 25, W (M)

Accuracy: non-specific area

Area (acres): 38

UTM: Zone-10 N4167296 E633062

Latitude/Longitude: 37.64318 / -121.49176

Elevation (feet): 500

County Summary:

San Joaquin

Quad Summary:

Tracy (3712164)

Sources:

BRO89F0002 BRODE, J.M. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR RANA DRAYTONII 1989-05-03
BRO92F0005 BRODE, J. & M. WORKMAN (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR RANA DRAYTONII 1992-03-26
ELY01F0008 ELY, E. - FIELD SURVEY FORM FOR RANA DRAYTONII 2001-03-04
KIN92F0001 KING, J.T. & M. WORKMAN (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR RANA DRAYTONII 1992-05-18
WOO95F0015 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22
WOO95F0016 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22
WOR92F0004 WORKMAN, M. & T. KING (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR RANA DRAYTONII 1992-03-26
WOR92F0005 WORKMAN, M. & T. KING (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR RANA DRAYTONII 1992-04-29



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 23735	EO Index: 7649
Key Quad: Midway (3712165)	Element Code: AAABH01022
Occurrence Number: 82	Occurrence Last Updated: 1994-02-18

Scientific Name: <i>Rana draytonii</i>	Common Name: California red-legged frog
Listing Status: Federal: Threatened State: None	Rare Plant Rank:
CNDDB Element Ranks: Global: G2G3 State: S2S3	Other Lists: CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	Micro Habitat: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.
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Last Date Observed: 1993-04-14	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1993-04-14	Occurrence Rank: Excellent
Owner/Manager: PVT	Trend: Unknown
Presence: Presumed Extant	

Location:
2.6 AIR MILES ESE OF THE JUNCTION OF NORTH FLYNN ROAD AND INTERSTATE 580, EAST OF LIVERMORE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF A 40 X 100' POND ON A NW-FACING SLOPE. POND DEPTH UP TO 4', WITH CLEAR WATER, AND 25% TYPHA AND 25% CAREX COVER. DENSE GRASS COVER ALONG POND MARGIN; ADJACENT UPLAND OF GRAZED GRASSLAND. CTS ALSO FOUND AT THIS SITE.

Threats:
THREATENED BY A PROPOSED EXPANSION OF A LANDFILL SITE.

General:
5 ADULTS AND 5+ LARVAE OBSERVED ON 14 APRIL 1993.

PLSS: T02S, R03E, Sec. 35, SE (M)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-10 N4174593 E622168	Latitude/Longitude: 37.71045 / -121.61398	Elevation (feet): 650

County Summary: Alameda	Quad Summary: Midway (3712165)
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Sources:
MOR93F0029 MORI, B.M. - FIELD SURVEY FORM FOR RANA DRAYTONII 1993-04-14



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	25526	EO Index:	5672
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	98	Occurrence Last Updated:	2015-06-12

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2014-05-23	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2014-05-23	Occurrence Rank:	Fair
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
NORTH & SOUTH SIDE OF CORRAL HOLLOW RD, 0.75 MILE EAST OF THE ALAMEDA/SAN JOAQUIN COUNTY LINE, CARNEGIE SVRA.

Detailed Location:
FROGS ARE FOUND AROUND SEASONAL PONDS AND CATCHMENT BASINS IN THE PARK. 1989: PONDS SOUTH OF ROAD. 1994-2014 DETECTIONS IN POND NORTH OF ROAD (FELLERS SITE Y-781, "MOBILE HOME POND").

Ecological:
1989: POND HABITAT IS FAIRLY DEVOID OF VEGETATION; IN ANNUAL GRASSLAND, W/SOME COASTAL SCRUB & BLUE OAK WOODLAND. 1994: 4-6' DEEP, STEEP-SIDED CIRCULAR POND, ORIGINALLY USED TO HOLD WATER FOR ROAD WETTING. 2014: MARSHY SEDIMENT POND.

Threats:
1989: HEAVY DISTURBANCE FROM OHV ACTIVITY. 2014: "THIS SITE IS NOT USED FOR RIDING. DIRECT THREAT IS MINIMAL."

General:
MANY OBSERVED 15 MAY 1989. 100S OF ADULTS/JUVENILES/LARVAE/EGG MASSES OBSERVED 16 MAR 1994. 15 ADULTS OBS 12 MAY 1998. 75 ADULTS OBS 7 MAR 2001. 80 ADULTS OBS 13 FEB 2002. 12 ADULTS OBS 28 APR, 3 ADULTS & 4 JUVENILES OBS 23 MAY 2014.

PLSS:	T03S, R04E, Sec. 33, W (M)	Accuracy:	specific area	Area (acres):	42
UTM:	Zone-10 N4165708 E628510	Latitude/Longitude:	37.62952 / -121.54361	Elevation (feet):	750

County Summary:	Quad Summary:
San Joaquin	Cedar Mtn. (3712155), Midway (3712165)

Sources:

AND89F0001	ANDERSON, K. - FIELD SURVEY FORM FOR RANA DRAYTONII 1989-05-15
FEL08D0001	FELLERS, G. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - MULTI-SPECIES EXCEL DATABASE OF AMPHIBIAN OCCURRENCES FROM 1992-2008 2008-09-29
SWO14F0006	SWOLGAARD, C. - FIELD SURVEY FORM FOR RANA DRAYTONII 2014-04-28
SWO14F0020	SWOLGAARD, C. - FIELD SURVEY FORM FOR RANA DRAYTONII 2014-05-23
WOO94F0017	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1994-03-16



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	25525	EO Index:	5673
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	99	Occurrence Last Updated:	2015-06-11

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2014-04-29	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2014-04-29	Occurrence Rank:	Fair
Owner/Manager:	DPR-CARNEGIE SVRA, DOE-LLNL	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW, IN THE VICINITY OF THE ALAMEDA/SAN JOAQUIN COUNTY LINE, CARNEGIE SVRA.

Detailed Location:
1975 SPECIMEN WITH LOCALITY "CORRAL HOLLOW, ALAMEDA COUNTY" ATTRIBUTED HERE. 2014 SITE KNOWN AS "TYSON'S BASIN."

Ecological:
ROADWAY & CATCHMENT BASIN IN OHV PARK. 1989: POND LARGELY UNVEGETATED; SURROUNDED BY ANNUAL GRASSLAND, SOME COASTAL SCRUB & BLUE OAK WOODLAND (MAYBE SAME AS 2014). 2001: AGRICULTURE, HORSE FARMS. 2014: SEDIMENT BASIN IN SVRA.

Threats:
ROADWAY TRAFFIC. OHV ACTIVITY & THE RESULTING HABITAT DISTURBANCE.

General:
1 COLLECTED 6 FEB 1975. MANY WERE OBSERVED ON 15 MAY 1989. 1 OBSERVED ON ROADWAY, 4 MAR 2001. DETECTED ON 29 APR 2014.

PLSS:	T03S, R04E, Sec. 32 (M)	Accuracy:	specific area	Area (acres):	15
UTM:	Zone-10 N4166194 E627298	Latitude/Longitude:	37.63406 / -121.55726	Elevation (feet):	800

County Summary:	Quad Summary:
Alameda, San Joaquin	Midway (3712165)

Sources:

AND89F0001	ANDERSON, K. - FIELD SURVEY FORM FOR RANA DRAYTONII 1989-05-15
STE75S0004	STEBBINS, R. - MVZ #129925 COLLECTED FROM CORRAL HOLLOW 1975-02-06
SWO14F0004	SWOLGAARD, C. - FIELD SURVEY FORM FOR RANA DRAYTONII 2014-04-29
TAY01F0004	TAYLOR, D.J. - FIELD SURVEY FORM FOR RANA DRAYTONII, AMBYSTOMA CALIFORNIENSE & SPEA HAMMONDII 2001-03-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	33111	EO Index:	12841
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	131	Occurrence Last Updated:	1995-04-20

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	1994-04-27	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1994-04-27	Occurrence Rank:	Good
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
SOUTH OF MOUNTAIN HOUSE CREEK, ABOUT 2.4 MILES WSW OF MOUNTAIN HOUSE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF A STOCK POND SURROUNDED BY ANNUAL GRASSLAND. CALIFORNIA TIGER SALAMANDER LARVAE WERE ALSO PRESENT AT THIS SITE.

Threats:
POSSIBLE THREAT FROM CATTLE GRAZING.

General:
>100 LARVAE OBSERVED ON 27 APRIL 1994.

PLSS:	T02S, R03E, Sec. 26, NE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4177145 E622487	Latitude/Longitude:	37.73340 / -121.60994	Elevation (feet):	460

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
ALL94F0008 ALLABACK, M. (BIOSEARCH WILDLIFE SURVEYS) - FIELD SURVEY FORM FOR RANA DRAYTONII 1994-04-27



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	33112	EO Index:	12403
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	132	Occurrence Last Updated:	1995-08-02

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	1994-04-27	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1994-04-27	Occurrence Rank:	Good
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
MOUNTAIN HOUSE CREEK, 2.2 MILES WSW OF MOUNTAIN HOUSE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF A PONDED SECTION OF MOUNTAIN HOUSE CREEK.

Threats:
POSSIBLE THREAT FROM CATTLE GRAZING.

General:
<10 LARVAE OBSERVED ON 27 APRIL 1994.

PLSS:	T02S, R03E, Sec. 26, NE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4177324 E622658	Latitude/Longitude:	37.73499 / -121.60796	Elevation (feet):	400

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
ALL94F0009 ALLABACK, M. (BIOSEARCH WILDLIFE SURVEYS) - FIELD SURVEY FORM FOR RANA DRAYTONII 1994-04-27



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	33113	EO Index:	6272
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	133	Occurrence Last Updated:	2019-08-19

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2017-10-31	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2017-10-31	Occurrence Rank:	Good
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
MOUNTAIN HOUSE CREEK, 3 MILES WSW OF MOUNTAIN HOUSE.

Detailed Location:
MAPPED TO LOCATION GIVEN FOR 1994 DETECTION; POND IS VISIBLE ON USGS TOPOS AND AERIAL PHOTOS.

Ecological:
1994: STOCK POND IN ANNUAL GRASSLAND. 2017: INDIVIDUALS FOUND IN DRAINAGE ADJACENT TO STOCK POND AND IN POND, IN ANNUAL GRASSLAND USED FOR GRAZING. ADJACENT TO INTERSTATE HIGHWAY.

Threats:
POSSIBLE THREAT FROM CATTLE GRAZING (1994, 2017).

General:
>1000 LARVAE OBSERVED ON 27 APR 1994. AT LEAST 10 ADULTS DETECTED ON 31 OCT 2017.

PLSS:	T02S, R03E, Sec. 26, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4177066 E621413	Latitude/Longitude:	37.73283 / -121.62214	Elevation (feet):	500

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

ELL17F0007	ELLWOOD, T. ET AL. - FIELD SURVEY FORM FOR RANA DRAYTONII 2017-10-31
LAA94F0005	LAABS, D. (BIOSEARCH WILDLIFE SURVEYS) - FIELD SURVEY FORM FOR RANA DRAYTONII 1994-04-27



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	40431	EO Index:	35438
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	275	Occurrence Last Updated:	2015-06-12

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2014-05-22	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2014-05-22	Occurrence Rank:	Good
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CARNEGIE SVRA, ABOUT 1 MILE S OF TESLA (SITE) AND 1.7 MILES WNW OF MITCHELL SHAFT.

Detailed Location:
2 PONDS FOUND AT THIS LOCATION. 1A: SMALL POND SW OF LARGER POND. 1B: LARGE POND, NE OF SMALLER POND. 2014 DETECTIONS AT "SMALL POND."

Ecological:
BLUE OAK WOODLAND / NON-NATIVE GRASSLAND. SURROUNDING LAND USED FOR CATTLE GRAZING. "BEING SLATED FOR AN OHV RIDING AREA" IN 2014.

Threats:
ORV PARK.

General:
2 ADULTS & MANY JUVENILES OBSERVED AT BOTH PONDS, 30 SEP 1998. 5 ADULTS (1A) & 20 LARVAE (1B) OBSERVED 12 MAY 2006. 4 ADULTS/12 LARVAE (1A) & 1 ADULT (1B) OBSERVED 23 MAY 2008. ADULTS, JUVS, & LARVAE OBS 28 APR; 4 ADULTS OBS 22 MAY 2014.

PLSS:	T03S, R03E, Sec. 36, SW (M)	Accuracy:	specific area	Area (acres):	8
UTM:	Zone-10 N4165149 E623529	Latitude/Longitude:	37.62517 / -121.60014	Elevation (feet):	1,900

County Summary:	Quad Summary:
Alameda	Cedar Mtn. (3712155), Midway (3712165)

Sources:

BRI98F0014	BRIDEN, L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-BAY DELTA DIVISION) - FIELD SURVEY FORM FOR RANA DRAYTONII 1998-09-30
SWO06F0005	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2006-05-12
SWO06F0006	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2006-05-12
SWO08F0008	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2008-05-23
SWO08F0009	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2008-05-23
SWO14F0009	SWOLGAARD, C. - FIELD SURVEY FORM FOR RANA DRAYTONII 2014-04-28
SWO14F0017	SWOLGAARD, C. - FIELD SURVEY FORM FOR RANA DRAYTONII 2014-05-22



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 47188
Key Quad: Tracy (3712164)
Occurrence Number: 487

EO Index: 47188
Element Code: AAABH01022
Occurrence Last Updated: 2002-02-06

Scientific Name: *Rana draytonii*

Common Name: California red-legged frog

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S2S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable

General Habitat:

LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro Habitat:

REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed: 2001-03-04
Last Survey Date: 2001-03-04
Owner/Manager: PVT-GALLO RANCH
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:

CORRAL HOLLOW CREEK, 0.5 MILE SW OF CASTLE ROCK, SW OF TRACY.

Detailed Location:

Ecological:

HABITAT CONSISTS OF AGRICULTURAL AREAS / HORSE FARMS, WITH VARIOUS EMERGENT SHORT GRASSES, GRAVELLY AREAS NEAR ROADSIDE DITCHES, AND VARIOUS OAKS.

Threats:

THREATENED BY TRAFFIC DURING MIGRATION.

General:

1 INDIVIDUAL OBSERVED ON 4 MAR 2001 ON THE ROADWAY.

PLSS: T03S, R04E, Sec. 35, SE (M)
UTM: Zone-10 N4166163 E632393

Accuracy: 80 meters
Latitude/Longitude: 37.63307 / -121.49955

Area (acres): 0
Elevation (feet): 680

County Summary:

San Joaquin

Quad Summary:

Tracy (3712164)

Sources:

TAY01F0004 TAYLOR, D.J. - FIELD SURVEY FORM FOR RANA DRAYTONII, AMBYSTOMA CALIFORNIENSE & SPEA HAMMONDII 2001-03-04



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 47189	EO Index: 47189
Key Quad: Midway (3712165)	Element Code: AAABH01022
Occurrence Number: 488	Occurrence Last Updated: 2002-02-06

Scientific Name: <i>Rana draytonii</i>	Common Name: California red-legged frog
Listing Status: Federal: Threatened State: None	Rare Plant Rank:
CNDDB Element Ranks: Global: G2G3 State: S2S3	Other Lists: CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	Micro Habitat: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.
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Last Date Observed: 2001-03-04	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-03-04	Occurrence Rank: Fair
Owner/Manager: DPR-CARNEGIE SVRA	Trend: Unknown
Presence: Presumed Extant	

Location:
CORRAL HOLLOW CREEK, NEAR SITE OF CARNEGIE, SW OF TRACY.

Detailed Location:

Ecological:
HABITAT CONSISTS OF AGRICULTURAL AREAS / HORSE FARMS, WITH VARIOUS EMERGENT SHORT GRASSES, GRAVELLY AREAS NEAR ROADSIDE DITCHES, AND VARIOUS OAKS.

Threats:
THREATENED BY TRAFFIC DURING MIGRATION.

General:
2 INDIVIDUALS OBSERVED ON 4 MAR 2001 ON THE ROADWAY.

PLSS: T03S, R04E, Sec. 34, W (M)	Accuracy: specific area	Area (acres): 24
UTM: Zone-10 N4165478 E629844	Latitude/Longitude: 37.62726 / -121.52854	Elevation (feet): 605

County Summary: San Joaquin	Quad Summary: Midway (3712165)
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Sources:
TAY01F0004 TAYLOR, D.J. - FIELD SURVEY FORM FOR RANA DRAYTONII, AMBYSTOMA CALIFORNIENSE & SPEA HAMMONDII 2001-03-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	33868	EO Index:	51850
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	655	Occurrence Last Updated:	2009-10-21

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2007-04-23	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2007-04-23	Occurrence Rank:	Good
Owner/Manager:	DPR	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW CREEK, 0.8 MILE SOUTH OF TESLA ROAD, 9 MILES ESE OF LIVERMORE.

Detailed Location:
STOCK POND IS LOCATED 75' SOUTH OF CORRAL HOLLOW CREEK. SITE RANKED BY OBSERVERS AS EXCELLENT IN 2003, ONLY AS FAIR IN 2005 AND GOOD IN 2007.

Ecological:
HABITAT IS A DEEP (7 FT IN 2005) 20' X 20' STOCK POND LOCATED WITHIN RIPARIAN ZONE ALONG CORRAL HOLLOW CREEK. POND HAS NO EMERGENT VEGETATION; SURROUNDED BY SEVERAL CALIFORNIA SAGEBRUSH SHRUBS, GRAZED ANNUAL GRASSLAND, & BLUE OAK WOODLAND.

Threats:
General:
1 ADULT OBSERVED DURING A SPOTLIGHTING SURVEY ON 21 JUL 2003. 2 JUVENILES OBSERVED ON 5 JUN 2005. 1 ADULT OBSERVED ON 21 MAR & 2 JUVENILES OBSERVED UPSTREAM FROM TESLA STOCK POND ON 23 APR 2007.

PLSS:	T03S, R03E, Sec. 26, SE (M)	Accuracy:	specific area	Area (acres):	10
UTM:	Zone-10 N4166455 E622754	Latitude/Longitude:	37.63704 / -121.60870	Elevation (feet):	920

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

CHE03F0001	CHEATWOOD, R. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2003-07-21
SWO05F0002	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2005-06-05
SWO07F0010	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2007-03-21
SWO07F0013	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2007-04-23



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	51851	EO Index:	51851
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	656	Occurrence Last Updated:	2009-05-05

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2007-03-21	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2007-03-21	Occurrence Rank:	Good
Owner/Manager:	DPR	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW CREEK, 0.7 MILE WEST OF THE MITCHELL RAVINE CONFLUENCE, 9.5 MILES ESE OF LIVERMORE.

Detailed Location:
SITE IS LOCATED ABOUT 300 FEET SOUTH OF TESLA ROAD, NEAR THE PARK OFFICE HEADQUARTERS. CALLED "SECTOR OFFICE POND" IN DPR REPORTS.

Ecological:
HABITAT CONSISTS OF A 50' X 30' STOCK POND LOCATED WITHIN THE RIPARIAN ZONE ALONG CORRAL HOLLOW CREEK. POND HEAVILY VEGETATED WITH CATTAILS AND MULEFAT; SURROUNDED BY GRAZED ANNUAL GRASSLAND AND BLUE OAK WOODLAND.

Threats:
General:
1 ADULT OBSERVED DURING A SPOTLIGHTING SURVEY ON 21 JUL 2003. 1 ADULT OBSERVED ON 21 MAR 2007.

PLSS:	T03S, R03E, Sec. 25, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4166756 E624510	Latitude/Longitude:	37.63951 / -121.58875	Elevation (feet):	800

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

CHE03F0002	CHEATWOOD, R. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2003-07-21
SWO07F0011	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2007-03-21



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	52706	EO Index:	52706
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	667	Occurrence Last Updated:	2004-05-24

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2004-03-02	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2004-03-02	Occurrence Rank:	Poor
Owner/Manager:	DWR	Trend:	Decreasing
Presence:	Possibly Extirpated		

Location:
BETWEEN THE CALIFORNIA AQUEDUCT AND DELTA-MENDOTA CANAL, 0.4 MILE NORTH OF I-205, 7 MILES WEST OF TRACY

Detailed Location:
WETLAND WAS RELATIVELY DRY UNTIL PLANT MATERIAL WAS REMOVED IN SEP 2002, CREATING A DEEPER WATER CHANNEL.

Ecological:
HABITAT CONSISTED OF A WETLAND/DRAINAGE VEGETATED BY CATTAILS. THIS APRON HAS SINCE BEEN CLEARED OF MOST OF THE SEDIMENT AND ALL OF THE WEEDS.

Threats:
General:

1 ADULT OBSERVED ON 7 AUG 2003. SINCE CLEARING OF THE VEGETATION, SUBSEQUENT VISITS MADE TO THIS SITE ON 14 AUG AND 19 AUG 2003, AND ON 9 FEB AND 2 MAR 2004, FOUND NO FROGS.

PLSS:	T02S, R04E, Sec. 20, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4178718 E626830	Latitude/Longitude:	37.74698 / -121.56038	Elevation (feet):	220

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

HOG03F0002	HOGAN, J. (CALIFORNIA DEPARTMENT OF WATER RESOURCES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2003-08-07
HOG03F0003	HOGAN, J. (CALIFORNIA DEPARTMENT OF WATER RESOURCES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2003-08-07



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	56892	EO Index:	56908
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	758	Occurrence Last Updated:	2005-05-10

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2004-10-28	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2004-10-28	Occurrence Rank:	Good
Owner/Manager:	DWR	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ALONG THE CALIFORNIA AQUEDUCT, MILE POST 10.75 EAST, 0.6 MILE WEST OF PATTERSON PASS ROAD, 1.5 MILES NE OF MIDWAY.

Detailed Location:
THE PONDED AREA WAS CREATED IN 2003, WHEN SEDIMENT WAS REMOVED FROM 75% OF THE CONCRETE APRON STRUCTURE, CREATING BREEDING HABITAT WHERE NONE HAD EXISTED FOR OVER A DECADE; VEGETATION REMOVAL PLANNED (2004) TO FURTHER INCREASE CRLF HABITAT.

Ecological:
HABITAT CONSISTS OF A DEEP, PONDED AREA OF THE CONCRETE APRON AT THE CALIFORNIA AQUEDUCT. VEGETATED BY CATTAILS, MIMULUS SP, AND WATERCRESS IN THE SHALLOW AREAS.

Threats:

General:
2 CRLF TADPOLES CAPTURED FOR ID PURPOSES, 28 JUL 2004; MANY MORE TADPOLES OBSERVED. 162 JUVENILES OBSERVED, 21 OCT 2004; 8 JUVENILES OBSERVED, 22 OCT 2004; 40 JUVENILES OBSERVED, 25 OCT 2004; 39 JUVENILES OBSERVED, 28 OCT 2004.

PLSS:	T02S, R04E, Sec. 28, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4176999 E628495	Latitude/Longitude:	37.73126 / -121.54180	Elevation (feet):	210

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

HOG04F0001	HOGAN, J. (CALIFORNIA DEPARTMENT OF WATER RESOURCES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2004-07-28
HOG04F0014	HOGAN, J. (CALIFORNIA DEPARTMENT OF WATER RESOURCES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2004-10-21
HOG04F0015	HOGAN, J. (CALIFORNIA DEPARTMENT OF WATER RESOURCES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2004-10-22
HOG04F0016	HOGAN, J. (CALIFORNIA DEPARTMENT OF WATER RESOURCES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2004-10-25
HOG04F0017	HOGAN, J. (CALIFORNIA DEPARTMENT OF WATER RESOURCES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2004-10-28



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	61525	EO Index:	61561
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	821	Occurrence Last Updated:	2015-06-11

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2001-03-04	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2001-03-04	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
GRANT LINE ROAD, 0.2 MILE NORTH OF I-580, 0.9 MILE SW OF MOUNTAIN HOUSE.

Detailed Location:

Ecological:

Threats:

General:

1 DOR ADULT COLLECTED (CAS #218641) AT NIGHT FROM GRANT LINE ROAD ON 4 MAR 2001.

PLSS:	T02S, R04E, Sec. 19, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4178346 E624697	Latitude/Longitude:	37.74392 / -121.58465	Elevation (feet):	300

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

ELY01F0006	ELY, E. - FIELD SURVEY FORM FOR RANA DRAYTONII 2001-03-04
ELY01S0004	ELY, F. & E. ELY - CAS #218641 COLLECTED FROM GRANT LINE ROAD, 0.2 ROAD MILE NORTH OF INTERSTATE 580 2001-03-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	61526	EO Index:	61562
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	822	Occurrence Last Updated:	2015-06-11

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2001-03-04	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2001-03-04	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
PATTERSON PASS ROAD, 0.7 MILE WEST (BY ROAD) OF I-580, 6 MILES WSW OF TRACY.

Detailed Location:

Ecological:

Threats:

General:

1 DOR GRAVID, ADULT FEMALE COLLECTED (CAS #218642) AT NIGHT FROM PATTERSON PASS ROAD ON 4 MAR 2001.

PLSS:	T02S, R04E, Sec. 33, SW (M)	Accuracy:	1/10 mile	Area (acres):	0
UTM:	Zone-10 N4174981 E628701	Latitude/Longitude:	37.71305 / -121.53981	Elevation (feet):	300

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

ELY01F0007	ELY, E. - FIELD SURVEY FORM FOR RANA DRAYTONII 2001-03-04
ELY01S0005	ELY, F. & E. ELY - CAS HERP #218642, COLLECTED FROM "PATTERSON PASS RD, 0.7 MI W (BY RD) OF HWY 580." 2001-03-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	61541	EO Index:	61577
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	825	Occurrence Last Updated:	2009-05-04

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2002-10-31	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2002-10-31	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
UNNAMED DRAINAGE, 1 MILE UPSTREAM (NORTH) OF THE CORRAL HOLLOW CREEK CONFLUENCE, 9 MILES SW OF TRACY.

Detailed Location:

Ecological:
HABITAT SURROUNDING STREAM / POOLS CONSISTS OF RIPARIAN, GRASSLAND, SAGESCRUB, AND OAK SAVANNAH. SURROUNDING AREA IS USED AS AN EXPLOSIVES TEST SITE (SITE 300).

Threats:

General:
11 ADULTS / 6 JUVENILES / NUMEROUS LARVAE OBSERVED ON 22 MAR 1995. 17 ADULTS AND 1 METAMORPH OBSERVED BETWEEN 21 MAY AND 31 OCT 2002.

PLSS:	T03S, R04E, Sec. 20 (M)	Accuracy:	non-specific area	Area (acres):	38
UTM:	Zone-10 N4168364 E626711	Latitude/Longitude:	37.65370 / -121.56354	Elevation (feet):	1,020

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

VAN02F0022	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 2002-10-31
WOO95F0019	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22
WOO95F0020	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	61542	EO Index:	61578
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	826	Occurrence Last Updated:	2009-05-04

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2002-10-31	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2002-10-31	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
UNNAMED DRAINAGE, 0.5 MILE UPSTREAM (NORTH) OF THE CORRAL HOLLOW CREEK CONFLUENCE, 9 MILES SW OF TRACY.

Detailed Location:
Ecological:
HABITAT SURROUNDING STREAM / POOLS CONSISTS OF RIPARIAN, GRASSLAND, SAGE SCRUB, AND OAK SAVANNAH. SURROUNDING AREA IS USED AS AN EXPLOSIVES TEST SITE (SITE 300).

Threats:
General:
6 ADULTS OBSERVED ON 22 MAR 1995. 5 ADULTS OBSERVED ON 12 MAR 1998. 12 ADULTS OBSERVED BETWEEN 21 MAY AND 31 OCT 2002.

PLSS:	T03S, R04E, Sec. 29, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4167160 E627215	Latitude/Longitude:	37.64279 / -121.55803	Elevation (feet):	860

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

VAN02F0022	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 2002-10-31
WOO95F0022	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22
WOO98F0010	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1998-03-12



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	61543	EO Index:	61579
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	827	Occurrence Last Updated:	2009-04-23

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2002-10-31	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2002-10-31	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ELK RAVINE CREEK, ABOUT 4 MILES UPSTREAM (NW) OF THE CORRAL HOLLOW CREEK CONFLUENCE, 7.5 MILES SW OF TRACY.

Detailed Location:
1997 LOCATION GIVEN AS; T3S, R4E, SEC 16 (SITE 300, FEDERAL RESERVATION), "DANGER POND".

Ecological:
HABITAT SURROUNDING STREAM / POOLS CONSISTS OF RIPARIAN, GRASSLAND, SAGESCRUB, AND OAK SAVANNAH. SURROUNDING AREA IS USED AS AN EXPLOSIVES TEST SITE (SITE 300).

Threats:
General:

3 ADULTS OBSERVED ON 22 MAR 1995. 1 INDIVIDUAL WAS CAPTURED AND RELEASED ON 15 JAN 1997 BY J. WOOLLETT. 1 FEMALE CAPTURED AND RELEASED ON 25 FEB 2000. 12 ADULTS OBSERVED BETWEEN 21 MAY AND 31 OCT 2002.

PLSS:	T03S, R04E, Sec. 16, SW (M)	Accuracy:	specific area	Area (acres):	35
UTM:	Zone-10 N4170267 E628440	Latitude/Longitude:	37.67061 / -121.54361	Elevation (feet):	1,075

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

VAN02F0022	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 2002-10-31
WOO04U0001	WOOLLETT, J.S. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002987] 2004-03-23
WOO95F0018	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22
WOO97R0001	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002407] NEAR LAWRENCE LIVERMORE NATIONAL LAB SITE 300, 1996-1997. 1997-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 61553
Key Quad: Tracy (3712164)
Occurrence Number: 828

EO Index: 61589
Element Code: AAABH01022
Occurrence Last Updated: 2005-06-09

Scientific Name: *Rana draytonii*

Common Name: California red-legged frog

Listing Status:
Federal: Threatened
State: None
CNDDB Element Ranks:
Global: G2G3
State: S2S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable

General Habitat:

LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro Habitat:

REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed: 2002-05-05
Last Survey Date: 2002-05-05
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

CORRAL HOLLOW ROAD, 1.4 ROAD MILES WEST OF I-580.

Detailed Location:

Ecological:

Threats:

General:

1 DOR ADULT COLLECTED (CAS #223880) AT NIGHT FROM CORRAL HOLLOW ROAD ON 5 MAY 2002.

PLSS: T03S, R04E, Sec. 24, NE (M)

Accuracy: 1/10 mile

Area (acres): 0

UTM: Zone-10 N4168982 E634402

Latitude/Longitude: 37.65818 / -121.47625

Elevation (feet): 325

County Summary:

Quad Summary:

San Joaquin

Tracy (3712164)

Sources:

ELY02F0002 ELY, E. - FIELD SURVEY FORM FOR RANA DRAYTONII 2002-05-05



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	64732	EO Index:	64811
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	876	Occurrence Last Updated:	2006-06-15

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2006-05-10	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2006-05-10	Occurrence Rank:	Good
Owner/Manager:	PVT-MOUNTAIN HOUSE GOLF COURSE	Trend:	Unknown
Presence:	Presumed Extant		

Location:
MOUNTAIN HOUSE GOLF COURSE, 0.3 MILE NORTH OF ALTAMONT PASS ROAD, 10 MILES NE OF LIVERMORE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF A NEWLY-CREATED STOCKPOND (MITIGATION SITE) SURROUNDED BY ROLLING HILLS / NON-NATIVE GRASSLAND; POND WAS OVER 5 FEET IN DEPTH AT THE TIME OF THE SURVEY.

Threats:

General:
1 JUVENILE OBSERVED ON 10 MAY 2006.

PLSS:	T02S, R03E, Sec. 24, NW (M)	Accuracy:	1/10 mile	Area (acres):	0
UTM:	Zone-10 N4178738 E622988	Latitude/Longitude:	37.74768 / -121.60398	Elevation (feet):	360

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
KHO06F0001 KHOSLA, M. - FIELD SURVEY FORM FOR RANA DRAYTONII 2006-05-10



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 64753	EO Index: 64832
Key Quad: Midway (3712165)	Element Code: AAABH01022
Occurrence Number: 877	Occurrence Last Updated: 2006-05-30

Scientific Name: <i>Rana draytonii</i>	Common Name: California red-legged frog
Listing Status: Federal: Threatened State: None	Rare Plant Rank:
CNDDB Element Ranks: Global: G2G3 State: S2S3	Other Lists: CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	Micro Habitat: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.
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Last Date Observed: 2005-07-20	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-07-20	Occurrence Rank: Good
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
1.35 MILES NE OF PATTERSON PASS, ABOUT 8 MILES EAST OF LIVERMORE.

Detailed Location:
LOCATED IN POND VISIBLE ON TOPO MAP IN NW 1/4 OF SE 1/4 OF SECTION 2.

Ecological:
HABITAT CONSISTS OF GRAZED ROLLING GRASSLAND, INTERSPERSED WITH STOCK PONDS. ALTHOUGH CATTLE CAUSE SOME POND EROSION, THEY ALSO KEEP THE POND FROM BECOMING CHOKED BY VEGETATION.

Threats:
General:
1+ OBSERVED (ONLY PRESENCE / ABSENCE NOTED) ON 20 JUL 2005.

PLSS: T03S, R03E, Sec. 02, SE (M)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-10 N4173478 E622353	Latitude/Longitude: 37.70037 / -121.61207	Elevation (feet): 870

County Summary: Alameda	Quad Summary: Midway (3712165)
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Sources:
WEI05F0002 WEINAND, M. (ENVIRONMENTAL SCIENCE ASSOCIATES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2005-07-20



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 64754

Key Quad: Midway (3712165)

Occurrence Number: 878

EO Index: 64833

Element Code: AAABH01022

Occurrence Last Updated: 2006-05-30

Scientific Name: *Rana draytonii*

Common Name: California red-legged frog

Listing Status: **Federal:** Threatened

Rare Plant Rank:

State: None

Other Lists: CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G2G3

State: S2S3

General Habitat:

LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro Habitat:

REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed: 2005-07-20

Occurrence Type: Natural/Native occurrence

Last Survey Date: 2005-07-20

Occurrence Rank: Good

Owner/Manager: UNKNOWN

Trend: Unknown

Presence: Presumed Extant

Location:

0.8 MILE NE OF PATTERSON PASS, ABOUT 8 MILES EAST OF LIVERMORE.

Detailed Location:

IN STOCK POND IN SW 1/4 OF SW 1/4 OF SECTION 2.

Ecological:

HABITAT CONSISTS OF GRAZED ROLLING GRASSLAND, INTERSPERSED WITH STOCK PONDS. ALTHOUGH CATTLE CAUSE SOME POND EROSION, THEY ALSO KEEP THE POND FROM BECOMING CHOKED BY VEGETATION.

Threats:

General:

1+ OBSERVED (ONLY PRESENCE / ABSENCE NOTED) ON 20 JUL 2005.

PLSS: T03S, R03E, Sec. 02, SW (M)

Accuracy: 80 meters

Area (acres): 0

UTM: Zone-10 N4172955 E621691

Latitude/Longitude: 37.69575 / -121.61966

Elevation (feet): 870

County Summary:

Quad Summary:

Alameda

Midway (3712165)

Sources:

WEI05F0002 WEINAND, M. (ENVIRONMENTAL SCIENCE ASSOCIATES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2005-07-20



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 64755	EO Index: 64834
Key Quad: Midway (3712165)	Element Code: AAABH01022
Occurrence Number: 879	Occurrence Last Updated: 2006-05-30

Scientific Name: <i>Rana draytonii</i>	Common Name: California red-legged frog
Listing Status: Federal: Threatened State: None	Rare Plant Rank:
CNDDB Element Ranks: Global: G2G3 State: S2S3	Other Lists: CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	Micro Habitat: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.
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Last Date Observed: 2005-07-20	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-07-20	Occurrence Rank: Good
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
1.2 MILES NE OF PATTERSON PASS, ABOUT 8 MILES EAST OF LIVERMORE.

Detailed Location:
MAPPED IN STOCK POND IN SW 1/4 OF SE 1/4 OF SECTION 2.

Ecological:
HABITAT CONSISTS OF GRAZED ROLLING GRASSLAND, INTERSPERSED WITH STOCK PONDS. ALTHOUGH CATTLE CAUSE SOME POND EROSION, THEY ALSO KEEP THE POND FROM BECOMING CHOKED BY VEGETATION.

Threats:
General:
1+ OBSERVED (ONLY PRESENCE / ABSENCE NOTED) ON 20 JUL 2005.

PLSS: T03S, R03E, Sec. 02, SE (M)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-10 N4173047 E622320	Latitude/Longitude: 37.69649 / -121.61252	Elevation (feet): 870

County Summary: Alameda	Quad Summary: Midway (3712165)
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Sources:
WEI05F0002 WEINAND, M. (ENVIRONMENTAL SCIENCE ASSOCIATES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2005-07-20



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 64756	EO Index: 64835
Key Quad: Midway (3712165)	Element Code: AAABH01022
Occurrence Number: 880	Occurrence Last Updated: 2006-05-30

Scientific Name: <i>Rana draytonii</i>	Common Name: California red-legged frog
Listing Status: Federal: Threatened State: None	Rare Plant Rank:
CNDDB Element Ranks: Global: G2G3 State: S2S3	Other Lists: CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	Micro Habitat: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.
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Last Date Observed: 2005-07-20	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-07-20	Occurrence Rank: Good
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
1.7 MILES NE OF PATTERSON PASS, ABOUT 8 MILES EAST OF LIVERMORE.

Detailed Location:
MAPPED IN STOCK POND IN NW 1/4 OF SW 1/4 OF SECTION 1.

Ecological:
HABITAT CONSISTS OF GRAZED ROLLING GRASSLAND, INTERSPERSED WITH STOCK PONDS. ALTHOUGH CATTLE CAUSE SOME POND EROSION, THEY ALSO KEEP THE POND FROM BECOMING CHOKED BY VEGETATION.

Threats:
General:
1+ OBSERVED (ONLY PRESENCE / ABSENCE NOTED) ON 20 JUL 2005.

PLSS: T03S, R03E, Sec. 01, SE (M)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-10 N4173415 E623064	Latitude/Longitude: 37.69971 / -121.60401	Elevation (feet): 870

County Summary: Alameda	Quad Summary: Midway (3712165)
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Sources:
WEI05F0002 WEINAND, M. (ENVIRONMENTAL SCIENCE ASSOCIATES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2005-07-20



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 64757	EO Index: 64836
Key Quad: Midway (3712165)	Element Code: AAABH01022
Occurrence Number: 881	Occurrence Last Updated: 2006-05-30

Scientific Name: <i>Rana draytonii</i>	Common Name: California red-legged frog
Listing Status: Federal: Threatened State: None	Rare Plant Rank:
CNDDB Element Ranks: Global: G2G3 State: S2S3	Other Lists: CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	Micro Habitat: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.
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Last Date Observed: 2005-07-20	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-07-20	Occurrence Rank: Good
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
1.7 MILES ENE OF PATTERSON PASS, ABOUT 8 MILES EAST OF LIVERMORE.

Detailed Location:
IN STOCK POND IN NW 1/4 OF NW 1/4 OF SECTION 12.

Ecological:
HABITAT CONSISTS OF GRAZED ROLLING GRASSLAND, INTERSPERSED WITH STOCK PONDS. ALTHOUGH CATTLE CAUSE SOME POND EROSION, THEY ALSO KEEP THE POND FROM BECOMING CHOKED BY VEGETATION.

Threats:
General:
1+ OBSERVED (ONLY PRESENCE / ABSENCE NOTED) ON 20 JUL 2005.

PLSS: T03S, R03E, Sec. 12, NW (M)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-10 N4172577 E623427	Latitude/Longitude: 37.69211 / -121.60004	Elevation (feet): 870

County Summary: Alameda	Quad Summary: Midway (3712165)
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Sources:
WEI05F0002 WEINAND, M. (ENVIRONMENTAL SCIENCE ASSOCIATES) - FIELD SURVEY FORM FOR RANA DRAYTONII 2005-07-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	63615	EO Index:	66903
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	902	Occurrence Last Updated:	2009-06-04

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2000-01-27	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2000-01-27	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
LAWRENCE LIVERMORE NATIONAL LAB (SITE 300), ABOUT 2.5 MI NNW OF WHERE SJQ/ALAMEDA CO. LINE CROSSES CORRAL HOLLOW RD.

Detailed Location:
MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN. 1996 LOCATION GIVEN AS; T3S, R4E, SEC 16 (SITE 300, FEDERAL RESERVATION), "AMBROSIO POOL".

Ecological:
GRASSLAND WITH A LARGE SEASONAL POOL WITH A BERM FOR WATER RETENTION. OTHER SOURCES DESCRIBED AS A "MODIFIED VERNAL POOL."

Threats:
General:

8 ADULTS/ 4 JUVENILES OBSERVED ON 19 JUL 1994. 3 JUVENILES WERE CAPTURED & RELEASED ON 8 FEB 1996 BY J. WOOLLETT. 1 MALE CAPTURED AND RELEASED BY JIM WOOLLETT ON 27 JAN 2000.

PLSS:	T03S, R04E, Sec. 17, W (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4170369 E626456	Latitude/Longitude:	37.67180 / -121.56608	Elevation (feet):	1,480

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

WOO04U0001	WOOLLETT, J.S. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002987] 2004-03-23
WOO94F0020	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1994-07-19
WOO97R0001	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002407] NEAR LAWRENCE LIVERMORE NATIONAL LAB SITE 300, 1996-1997. 1997-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	74451	EO Index:	75191
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	1031	Occurrence Last Updated:	2009-07-22

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	1994-05-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1994-05-24	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
LAWRENCE LIVERMORE NATIONAL LABORATORY SITE 300, 0.5 AIR MI ENE OF SJQ/ALAMEDA CO. LINE & 0.21 MI N OF CORRAL HOLLOW RD.

Detailed Location:
ADJACENT TO DIRT ACCESS ROAD. MAPPED WITH RESPECT TO PROVIDED COORDINATES AND STATED DESCRIPTION OF GROUNDWATER SPRING.

Ecological:

Threats:

General:

2 ADULTS WERE OBSERVED IN A FREASHWATER SPRING.

PLSS:	T03S, R04E, Sec. 28, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4166647 E628044	Latitude/Longitude:	37.63804 / -121.54873	Elevation (feet):	860

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
WOO94F0018 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1994-05-24



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	74459	EO Index:	75455
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	1052	Occurrence Last Updated:	2009-04-09

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	1994-05-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1994-05-24	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
0.70 AIR MI E OF SJQ/ALAMEDA CO. LINE, JUST N OF CORRAL HOLLOW RD, LAWRENCE LIVERMORE NATIONAL LABORATORY SITE 300.

Detailed Location:
MAPPED TO PROVIDED COORDINATES.

Ecological:
GROUNDWATER SEEP.

Threats:
General:
1 ADULT WAS OBSERVED IN A GROUNDWATER SEEP.

PLSS:	T03S, R04E, Sec. 33, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4166283 E628451	Latitude/Longitude:	37.63471 / -121.54418	Elevation (feet):	700

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
W0094F0019 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1994-05-24



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 74472
Key Quad: Tracy (3712164)
Occurrence Number: 1053

EO Index: 75468
Element Code: AAABH01022
Occurrence Last Updated: 2009-04-09

Scientific Name: *Rana draytonii*

Common Name: California red-legged frog

Listing Status:
Federal: Threatened
State: None
CNDDB Element Ranks:
Global: G2G3
State: S2S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable

General Habitat:

LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro Habitat:

REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed: 1997-01-29
Last Survey Date: 1997-01-29
Owner/Manager: DOE-LAWRENCE LIVERMORE LAB
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

0.33 AIR MI WSW OF CASTLE ROCK, JUST N OF CORRAL HOLLOW RD, LAWRENCE LIVERMORE NATIONAL LABORATORY SITE 300.

Detailed Location:

Ecological:

OVERFLOW POND FOR SEWAGE POND. ALSO RECEIVES GROUNDWATER UPWELLING ON OCCASION.

Threats:

General:

5 BREEDING ADULTS WERE OBSERVED ON 22 MAR 1994. 1 FEMALE WAS CAPTURED AND RELEASED ON 29 JAN 1997.

PLSS: T03S, R04E, Sec. 26, SE (M)

Accuracy: 80 meters

Area (acres): 0

UTM: Zone-10 N4166403 E632724

Latitude/Longitude: 37.63518 / -121.49574

Elevation (feet): 540

County Summary:

Quad Summary:

San Joaquin

Tracy (3712164)

Sources:

WOO95F0014 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22

WOO97R0001 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002407] NEAR LAWRENCE LIVERMORE NATIONAL LAB SITE 300, 1996-1997. 1997-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	74480	EO Index:	75477
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	1054	Occurrence Last Updated:	2009-04-13

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	1996-03-21	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1996-03-21	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.20 AIR MI WSW OF CASTLE ROCK, JUST S OF CORRAL HOLLOW RD, LAWRENCE LIVERMORE NATIONAL LABORATORY SITE 300.

Detailed Location:
1996 LOCATION GIVEN AS; T3S, R4E, SEC 35 (SITE 300, FEDERAL RESERVATION) "SONG POND".

Ecological:
Threats:

General:
5 BREEDING ADULTS WERE OBSERVED ON 22 MAR 1995. 1 FEMALE WAS CAPTURED AND RELEASED ON 21 MAR 1996.

PLSS:	T03S, R04E, Sec. 35, NW (M)	Accuracy:	1/10 mile	Area (acres):	0
UTM:	Zone-10 N4165845 E631422	Latitude/Longitude:	37.63034 / -121.51060	Elevation (feet):	550

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

WOO95F0013	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22
WOO97R0001	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002407] NEAR LAWRENCE LIVERMORE NATIONAL LAB SITE 300, 1996-1997. 1997-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	74481	EO Index:	75478
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	1055	Occurrence Last Updated:	2009-07-23

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	1995-03-22	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1995-03-22	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ELK RAVINE, 2.3 MILES NW OF CASTLE ROCK, LAWRENCE LIVERMORE NATIONAL LABORATORY SITE 300.

Detailed Location:
NE1/4 OF THE SW1/4. MAPPED TO PROVIDED COORDINATES.

Ecological:
RIPARIAN AREA. CULVERT POOL.

Threats:
General:
2 ADULTS OBSERVED ON 22 MAR 1995.

PLSS:	T03S, R04E, Sec. 22, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4168644 E630088	Latitude/Longitude:	37.65575 / -121.52521	Elevation (feet):	970

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
W0095F0017 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR RANA DRAYTONII 1995-03-22



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	74936	EO Index:	75941
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	1074	Occurrence Last Updated:	2009-04-30

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable
CNDDB Element Ranks:	Global: G2G3		
	State: S2S3		

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2006-04-17	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2006-04-17	Occurrence Rank:	Good
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
STOCK POND ALONG CORRAL HOLLOW CREEK AT THE MOUTH OF MITCHEL RAVINE, CARNEGIE SVRA.

Detailed Location:
Ecological:
DEEP POND FED BY WATER TABLE OF CORRAL HOLLOW CREEK, CATTAILS PRESENT. COTTONWOOD, MULEFAT, RIPARIAN SCRUB SURROUNDING. NON-RIDING SECTION OF ORV PARK.

Threats:
General:
2 ADULTS OBSERVED ON 17 APR 2006. BULLFORGS AND MOSQUITO FISH ALSO FOUND IN POND. CRLF HAVE BEEN FOUND IN POND BEFORE.

PLSS:	T03S, R04E, Sec. 30, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4166485 E625768	Latitude/Longitude:	37.63690 / -121.57454	Elevation (feet):	750

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
SWO06F0004 SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR RANA DRAYTONII 2006-04-17



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	74974	EO Index:	75983
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	1079	Occurrence Last Updated:	2009-05-29

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2008-11-20	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2008-11-20	Occurrence Rank:	Excellent
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
0.40 MILE EAST OF THE ALAMEDA/SAN JOAQUIN COUNTY LINE, 2 MILES SOUTH OF MIDWAY.

Detailed Location:
COORDINATES FOR THE SPECIFIC CRLF POND TAKEN FROM CTS FORM. POND IS LOCATED 1.80 MILES SE OF THE JCT OF PATTERSON PASS RD & RR TRACKS (BM 473).

Ecological:
ANNUAL GRASSLAND & SAGE SCRUB ON ROLLING HILLS MADE UP OF WILD OATS, ITALIAN RYE GRASS, & SOFT CHESS. MANY SEASONAL, SPRING FED, DRAINAGE CHANNELS ON PROPERTY. DOMINANT VEG IN DRAINAGES & POOLS; CATTAIL, WATER CRESS, RABBIT'S FOOT-GRASS.

Threats:
CATTLE GRAZING. WINDMILLS ON PROPERTY.

General:
50 JUVENILES OBSERVED ON 20 NOV 2008. POSSIBLY 100S OF FROGS AT THIS SITE. THIS LAND WILL BE SET ASIDE AND PROTECTED AS PART OF A MITIGATION BANK. OPEN SPACE OCCURS TO THE WEST AND SOUTH OF THE RANCH.

PLSS:	T03S, R04E, Sec. 08, NE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4172034 E627383	Latitude/Longitude:	37.68668 / -121.55527	Elevation (feet):	880

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
SIM08F0017 SIMI, D. (OLBERDING ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR RANA DRAYTONII 2008-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	74993	EO Index:	75998
Key Quad:	Midway (3712165)	Element Code:	AAABH01022
Occurrence Number:	1083	Occurrence Last Updated:	2009-08-05

Scientific Name:	<i>Rana draytonii</i>	Common Name:	California red-legged frog
Listing Status:	Federal: Threatened State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G2G3 State: S2S3	Other Lists:	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable

General Habitat:	Micro Habitat:
LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Last Date Observed:	2008-06-10	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2008-06-10	Occurrence Rank:	Unknown
Owner/Manager:	PVT-VIEIRA PROPERTY	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.13 MI EAST OF JOHNSON CAMP, WEST OF LAWRENCE LIVERMORE LAB.

Detailed Location:

Ecological:
PONDS AND ANNUAL GRASSLANDS. AREA USED FOR CATTLE RANCHING.

Threats:

General:
10 ADULTS AND 20 LARVAE WERE OBSERVED ON 10 JUN 2008. NUMBERS CAPTURED ARE APPROXIMATE AND REPRESENT SAMPLES TAKEN FROM SEVERAL DIFFERENT PONDS ON THE PROPERTY.

PLSS:	T03S, R04E, Sec. 18, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4169590 E625420	Latitude/Longitude:	37.66493 / -121.57796	Elevation (feet):	1,490

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
SWA08F0025 SWAIM, K. (SWAIM BIOLOGICAL, INC.) - FIELD SURVEY FORM FOR RANA DRAYTONII 2008-06-10



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 75065
Key Quad: Tracy (3712164)
Occurrence Number: 786

EO Index: 76064
Element Code: AAABH01050
Occurrence Last Updated: 2018-08-21

Scientific Name: *Rana boylei*

Common Name: foothill yellow-legged frog

Listing Status:
Federal: None
State: Endangered
CNDDB Element Ranks:
Global: G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
USFS_S-Sensitive

General Habitat:

PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.

Micro Habitat:

NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Last Date Observed: 1977-06-16
Last Survey Date: 1977-06-16
Owner/Manager: PVT, DFG-CORRAL HOLLOW ER
Presence: Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
ALONG CORRAL HOLLOW CREEK AND CORRAL HOLLOW ROAD, FROM CASTLE ROCK TO BLACK BUTTE, ABOUT 7 MILES SW OF TRACY.

Detailed Location:
INCLUDES LOCALITIES DESCRIBED AS "CORRAL HOLLOW CREEK, 4.0 MI E ALAMEDA CO LINE," "CORRAL HOLLOW CRK AT 2ND BRIDGE W OF I-580," "CORRAL HOLLOW CREEK AT T3S, R4E, NE 1/4 OF THE SW 1/4 OF SECTION 24," AND "CONWALY RANCH, CORRAL HOLLOW"

Ecological:
BOTH RANA BOYLII AND RANA DRAYTONII WERE FOUND ALONG THIS STRETCH OF CREEK IN 1977.

Threats:
General:
COLLECTIONS WERE MADE IN THIS VICINITY IN 1911, 1943, 1970, AND 1971. FOUND ON 27 APR 1972, 8 OCT 1974, 23 OCT 1974, AND 16 JUN 1977. ACCORDING TO JENNINGS & LIND, RANA BOYLII IS EXTIRPATED FROM THIS AREA.

PLSS: T03S, R04E, Sec. 24 (M)	Accuracy: non-specific area	Area (acres): 125
UTM: Zone-10 N4168077 E633318	Latitude/Longitude: 37.65018 / -121.48871	Elevation (feet): 390

County Summary: San Joaquin	Quad Summary: Tracy (3712164)
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Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Sources:

BRO80U0001	BRODE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GEOGRAPHIC REFERENCE CARD CATALOG OF SPECIMENS AND FIELD NOTE RECORDS COMPILED BY JOHN BRODE (DFG) 1980-XX-XX
ELY77F0002	ELY, E. - FIELD SURVEY FORM FOR RANA BOYLII 1977-06-16
FEL70S0006	FELLERS, G. - CM #55787 & 55788 COLLECTED FROM CORRAL HOLLOW, 4.1 MI E OF ALAMEDA COUNTY LINE 1970-02-13
JEN94R0001	JENNINGS, M. & M. HAYES - AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN IN CALIFORNIA. FINAL REPORT SUBMITTED TO DFG, INLAND FISHERIES DIVISION, RANCHO CORDOVA. 255 PP. 1994-11-01
LIN05U0001	LIND, A. (UNIVERSITY OF CALIFORNIA, DAVIS) - REINTRODUCTION OF A DECLINING AMPHIBIAN: DETERMINING AN ECOLOGICALLY FEASIBLE APPROACH FOR THE FOOTHILL YELLOW-LEGGED FROG. PHD DISSERTATION, UC DAVIS 2005-XX-XX
ROD43S0004	RODGERS, T. - MVZ #38993 COLLECTED AT CORRAL HOLLOW, 7 MI SSW TRACY 1943-04-03
SWE71S0021	SWEET, S. - MVZ #98194 COLLECTED FROM CORRAL HOLLOW CREEK, 4.0 MI E ALAMEDA COUNTY LINE 1971-05-15
SWE71S0022	SWEET, S. - MVZ #98191 COLLECTED FROM CORRAL HOLLOW CREEK, 4.0 MI E ALAMEDA COUNTY LINE 1971-05-29
SWE71S0023	SWEET, S. - MVZ #99240 COLLECTED FROM CORRAL HOLLOW, 5.3 MI E ALAMEDA COUNTY LINE 1971-04-24
TAY11S0022	TAYLOR, W. - MVZ #2566 COLLECTED AT CORRAL HOLLOW 1911-03-14
TAY11S0023	TAYLOR, W. - MVZ #2567 COLLECTED AT CORRAL HOLLOW 1911-03-15
TAY11S0024	TAYLOR, W. - MVZ #2568 COLLECTED AT CORRAL HOLLOW, 8 MI SW TRACY 1911-03-15
TAY11S0025	TAYLOR, W. - MVZ #2569 COLLECTED AT CORRAL HOLLOW, 8 MI SW TRACY 1911-03-16
TAY11S0026	TAYLOR, W. - MVZ #2570, 2571 & 2572 COLLECTED AT CORRAL HOLLOW 1911-03-16
TAY11S0027	TAYLOR, W. - MVZ #2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581 & 2582 COLLECTED AT CORRAL HOLLOW, 8 MI SW TRACY 1911-03-17



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 96425	EO Index: 97585
Key Quad: Midway (3712165)	Element Code: AAABH01050
Occurrence Number: 835	Occurrence Last Updated: 2015-06-19

Scientific Name: <i>Rana boylei</i>	Common Name: foothill yellow-legged frog
Listing Status: Federal: None State: Endangered	Rare Plant Rank:
CNDDB Element Ranks: Global: G3 State: S3	Other Lists: BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive

General Habitat: PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.	Micro Habitat: NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.
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Last Date Observed: 2014-04-28	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2014-04-28	Occurrence Rank: Unknown
Owner/Manager: DPR-CARNEGIE SVRA	Trend: Unknown
Presence: Presumed Extant	

Location:
CARNEGIE SVRA, ON CORRAL HOLLOW CREEK ABOUT 0.5 MILE WSW OF TESLA (SITE) & 2.5 MILES NW OF MITCHELL SHAFT.

Detailed Location:
MAPPED TO GIVEN COORDINATES.

Ecological:
POOL IN CORRAL HOLLOW CREEK, NEAR COTTONWOOD AND MULEFAT. SURROUNDED BY GRAZED ANNUAL GRASSLAND. SURVEYOR CALLED IT THE FIRST OCCURRENCE OF YELLOW-LEGGED FROG IN THIS CREEK IN SEVERAL DECADES.

Threats:
OHV RECREATION.

General:
1 ADULT OBSERVED ON 28 APR 2014.

PLSS: T03S, R03E, Sec. 26, SE (M)	Accuracy: specific area	Area (acres): 8
UTM: Zone-10 N4166539 E622569	Latitude/Longitude: 37.63782 / -121.61078	Elevation (feet): 900

County Summary: Alameda	Quad Summary: Midway (3712165)
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Sources:
SWO14F0003 SWOLGAARD, C. - FIELD SURVEY FORM FOR RANA BOYLII 2014-04-28



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: B0078 **EO Index:** 111937
Key Quad: Midway (3712165) **Element Code:** AAABH01050
Occurrence Number: 2134 **Occurrence Last Updated:** 2018-08-17

Scientific Name: *Rana boylei* **Common Name:** foothill yellow-legged frog
Listing Status: **Federal:** None **Rare Plant Rank:**
State: Endangered **Other Lists:** BLM_S-Sensitive
CNDDB Element Ranks: **Global:** G3 CDFW_SSC-Species of Special Concern
State: S3 IUCN_NT-Near Threatened
USFS_S-Sensitive

General Habitat: PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.
Micro Habitat: NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Last Date Observed: 1974-10-10 **Occurrence Type:** Natural/Native occurrence
Last Survey Date: 1974-10-10 **Occurrence Rank:** None
Owner/Manager: UNKNOWN **Trend:** Unknown
Presence: Extirpated

Location:
W CORRAL HOLLOW RD, ABOUT 3 ROAD MILES E OF ALAMEDA-SAN JOAQUIN COUNTY LINE, CORRAL HOLLOW.
Detailed Location:
GIVEN LOCALITIES: "CORRAL HOLLOW 3 MI E ALAMEDA CO," "CORRAL HOLLOW- LAWRENCE LIVERMORE LAB," AND "CORRAL HOLLOW NEAR LIVERMORE."

Ecological:

Threats:

General:

1 COLLECTED ON 11 MAY 1967. DETECTED ON 6 AUG 1974 & 10 OCT 1974. ACCORDING TO JENNINGS & HAYES (1994) AND LIND (2005), RANA BOYLII IS EXTIRPATED FROM THIS AREA.

PLSS: T03S, R04E, Sec. 35, N (M) **Accuracy:** 2/5 mile **Area (acres):** 280
UTM: Zone-10 N4166178 E631982 **Latitude/Longitude:** 37.63326 / -121.50421 **Elevation (feet):** 534

County Summary: San Joaquin
Quad Summary: Tracy (3712164), Midway (3712165)

Sources:
BRO80U0001 BRODE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GEOGRAPHIC REFERENCE CARD CATALOG OF SPECIMENS AND FIELD NOTE RECORDS COMPILED BY JOHN BRODE (DFG) 1980-XX-XX
JEN94R0001 JENNINGS, M. & M. HAYES - AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN IN CALIFORNIA. FINAL REPORT SUBMITTED TO DFG, INLAND FISHERIES DIVISION, RANCHO CORDOVA. 255 PP. 1994-11-01
LIN05U0001 LIND, A. (UNIVERSITY OF CALIFORNIA, DAVIS) - REINTRODUCTION OF A DECLINING AMPHIBIAN: DETERMINING AN ECOLOGICALLY FEASIBLE APPROACH FOR THE FOOTHILL YELLOW-LEGGED FROG. PHD DISSERTATION, UC DAVIS 2005-XX-XX
SWI67S0001 SWITAK, K. - CM #62729 COLLECTED FROM CORRAL HOLLOW, NEAR LIVERMORE 1967-05-11



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 34683
Key Quad: Tracy (3712164)
Occurrence Number: 113

EO Index: 29199
Element Code: ARAAD02030
Occurrence Last Updated: 1996-02-28

Scientific Name: *Emys marmorata*

Common Name: western pond turtle

Listing Status: **Federal:** None

Rare Plant Rank:

State: None

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3G4

State: S3

General Habitat:

A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:

NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 1993-05-10

Occurrence Type: Natural/Native occurrence

Last Survey Date: 1993-05-10

Occurrence Rank: Excellent

Owner/Manager: UNKNOWN

Trend: Unknown

Presence: Presumed Extant

Location:

CORRAL HOLLOW CREEK; 2.0 ROAD MILES WEST OF INTERSTATE 580 ON CORRAL HOLLOW ROAD.

Detailed Location:

2 SITES: ONE AT 1.8 ROAD MILES WEST OF I-580 ON CORRAL HOLLOW ROAD, OTHER SITE UNDER THIRD BRIDGE CROSSING CORRAL HOLLOW CREEK ALONG CORRAL HOLLOW ROAD WEST OF I-580.

Ecological:

RIPARIAN WITH DENSE WILLOW.

Threats:

CATTLE AND SHEEP GRAZING IN UPLAND HABITAT.

General:

2 JUVENILES OBSERVED BASKING (1 AT EACH SITE) BY E. ELY; 3 RANA AURORA DRAYTONI PRESENT.

PLSS: T03S, R04E, Sec. 24, SE (M)

Accuracy: specific area

Area (acres): 13

UTM: Zone-10 N4168784 E633802

Latitude/Longitude: 37.65648 / -121.48310

Elevation (feet): 330

County Summary:

Quad Summary:

San Joaquin

Tracy (3712164)

Sources:

ELY93F0052 ELY, E. - FIELD SURVEY FORM FOR CLEMMYS MARMORATA (2 SITES) & RANA DRAYTONII 1993-05-10



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	61542	EO Index:	70904
Key Quad:	Midway (3712165)	Element Code:	ARAAD02030
Occurrence Number:	337	Occurrence Last Updated:	2007-09-26

Scientific Name:	<i>Emys marmorata</i>	Common Name:	western pond turtle
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive

General Habitat:	Micro Habitat:
A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.	NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed:	1998-03-12	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1998-03-12	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
UNNAMED DRAINAGE, 0.5 MILE UPSTREAM (NORTH) OF THE CORRAL HOLLOW CREEK CONFLUENCE, 9 MILES SW OF TRACY.

Detailed Location:
SITE IS FOUND WITHIN LAWRENCE LIVERMORE NATIONAL LAB'S SITE 300.

Ecological:
HABITAT CONSISTS OF A LANDSLIDE POOL FORMED WITHIN A PERENNIAL DRAINAGE.

Threats:

General:
1 ADULT OBSERVED ON 12 MAR 1998.

PLSS:	T03S, R04E, Sec. 29, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4167160 E627215	Latitude/Longitude:	37.64279 / -121.55803	Elevation (feet):	860

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
WOO98F0007 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR ACTINEMYS MARMORATA 1998-03-12



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	70762	EO Index:	71673
Key Quad:	Midway (3712165)	Element Code:	ARAAD02030
Occurrence Number:	359	Occurrence Last Updated:	2015-06-17

Scientific Name:	<i>Emys marmorata</i>	Common Name:	western pond turtle
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive

General Habitat:	Micro Habitat:
A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.	NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed:	2015-03-29	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2015-03-29	Occurrence Rank:	Fair
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW CREEK, 0.8 MILE SOUTH OF TESLA ROAD, 9 MILES ESE OF LIVERMORE.

Detailed Location:
MAPPED TO PROVIDED COORDINATES.

Ecological:
2005: VEGETATION SPARSE & OPEN; MULEFAT, A FEW COTTONWOODS, RUSHES & GRASSES; CREEK DOWNSTREAM INTERMITTENT & DISAPPEARS BY THE END OF APR OR MAY; SURROUNDING HILLS VERY STEEP. 2014: BREEDING SITE. 2015: EPHEMERAL CREEK & OLD STOCK POND.

Threats:
AREA WAS BEING SLATED FOR OHV RIDING IN 2014.

General:
2 ADULTS & 1 JUVENILE OBSERVED IN THE PERMANENT POOLS OF CORRAL HOLLOW CREEK, 15 JUN 2005. 1 JUVENILE OBSERVED ON 28 APR 2014. 2 ADULTS & 1 JUVENILE OBSERVED BASKING AND FORAGING ON 29 MAR 2015.

PLSS:	T03S, R03E, Sec. 26 (M)	Accuracy:	specific area	Area (acres):	13
UTM:	Zone-10 N4166523 E622611	Latitude/Longitude:	37.63767 / -121.61031	Elevation (feet):	890

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

DES15F0003	DE SILVA, T. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR EMYS MARMORATA 2015-03-29
SWO05F0004	SWOLGAARD, C. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR ACTINEMYS MARMORATA 2005-06-15
SWO14F0002	SWOLGAARD, C. - FIELD SURVEY FORM FOR EMYS MARMORATA 2014-04-28



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	96397	EO Index:	97557
Key Quad:	Midway (3712165)	Element Code:	ARAAD02030
Occurrence Number:	1255	Occurrence Last Updated:	2015-06-17

Scientific Name:	<i>Emys marmorata</i>	Common Name:	western pond turtle
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive

General Habitat:	Micro Habitat:
A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.	NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed:	2014-04-29	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2014-04-29	Occurrence Rank:	Poor
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CARNEGIE SVRA, ABOUT 0.25 MILE SW OF CARNEGIE (SITE) AND 2.4 MILES SW OF CASTLE ROCK.

Detailed Location:
MAPPED TO PROVIDED COORDINATES.

Ecological:
SEDIMENT BASIN SURROUNDED BY ANNUAL GRASSLAND AND COASTAL SCRUB, IN DRAINAGE CONNECTED TO CORRAL HOLLOW CREEK (USUALLY DRY). USED FOR GRAZING AND AS OHV RIDING AREA.

Threats:
OHV RECREATION.

General:
DETECTED IN 2009. 1 JUVENILE DETECTED ON 29 APR 2014.

PLSS:	T03S, R04E, Sec. 33, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4165253 E629548	Latitude/Longitude:	37.62527 / -121.53193	Elevation (feet):	810

County Summary:	Quad Summary:
San Joaquin	Cedar Mtn. (3712155), Midway (3712165)

Sources:
SWO14F0001 SWOLGAARD, C. - FIELD SURVEY FORM FOR EMYS MARMORATA 2014-04-29



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	96398	EO Index:	97558
Key Quad:	Midway (3712165)	Element Code:	ARAAD02030
Occurrence Number:	1256	Occurrence Last Updated:	2015-06-17

Scientific Name:	<i>Emys marmorata</i>	Common Name:	western pond turtle
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive

General Habitat:	Micro Habitat:
A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.	NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed:	2014-05-02	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2014-05-02	Occurrence Rank:	Good
Owner/Manager:	DPR- CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW CREEK, ABOUT 1.1 MILES SW OF TESLA (SITE) & 1.5 MILES SE OF TESLA RD AT EAGLES RUN RD, CARNEGIE SVRA.

Detailed Location:
MAPPED TO PROVIDED COORDINATES.

Ecological:
CREEK SURROUNDED BY BLUE OAK WOODLAND AND COASTAL SCRUB. POTENTIAL THREAT OF OHV USE, THOUGH SURVEYOR THOUGHT THIS PART OF RAVINE WOULD LIKELY BE INACCESSIBLE TO OHVS.

Threats:
AREA SLATED TO BE OPENED TO OHV USE (2014).

General:
1 ADULT OBSERVED ON 2 MAY 2014.

PLSS:	T03S, R03E, Sec. 35, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4165359 E622313	Latitude/Longitude:	37.62722 / -121.61388	Elevation (feet):	1,070

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
SWO14F0016 SWOLGAARD, C. - FIELD SURVEY FORM FOR EMYS MARMORATA 2014-05-02



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	50218	EO Index:	50218
Key Quad:	Midway (3712165)	Element Code:	ARACC01020
Occurrence Number:	11	Occurrence Last Updated:	2009-02-17

Scientific Name:	<i>Anniella pulchra</i>	Common Name:	Northern California legless lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3 State: S3	Other Lists:	CDFW_SSC-Species of Special Concern USFS_S-Sensitive

General Habitat:	Micro Habitat:
SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION.	SOIL MOISTURE IS ESSENTIAL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2004-05-05	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2004-05-05	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
0.8 MI NNE OF CORRAL HOLLOW RD AT THE ALA/SJQ COUNTY LINE, 1.2 MI NNE OF THE MAIN PUBLIC ACCESS TO CARNEGIE SVRA.

Detailed Location:
LAWRENCE LIVERMORE NATIONAL LAB SITE 300. FORMERLY A. P. PULCHRA EO #18.

Ecological:
HABITAT CONSISTED OF GRASSLAND AND SCRUB WITH A FEW SCATTERED OAKS; SURROUNDED BY OPEN SPACE AND PRIVATE RANCHLAND.

Threats:
General:

ONE EACH FOUND ON 12 MAY 1998, 12 MAY 2002, AND 5 MAY 2004. PRESUMED TO BE A. PULCHRA WITH RESPECT TO NEWLY DESCRIBED SPECIES CONCEPTS.

PLSS:	T03S, R04E, Sec. 29, NE (M)	Accuracy:	specific area	Area (acres):	11
UTM:	Zone-10 N4167833 E627497	Latitude/Longitude:	37.64881 / -121.55472	Elevation (feet):	1,400

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

SWA02F0007	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - FIELD SURVEY FORM FOR ANNIELLA PULCHRA PULCHRA 2002-05-12
SWA04F0001	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - FIELD SURVEY FORM FOR ANNIELLA PULCHRA (PULCHRA) 2004-05-05
WOO98F0006	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR ANNIELLA PULCHRA PULCHRA 1998-05-12



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	54801	EO Index:	54801
Key Quad:	Midway (3712165)	Element Code:	ARACC01020
Occurrence Number:	12	Occurrence Last Updated:	2004-03-24

Scientific Name:	<i>Anniella pulchra</i>	Common Name:	Northern California legless lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3 State: S3	Other Lists:	CDFW_SSC-Species of Special Concern USFS_S-Sensitive

General Habitat:	Micro Habitat:
SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION.	SOIL MOISTURE IS ESSENTIAL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2003-04-01	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2003-04-01	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
0.7 MI NNE OF CORRAL HOLLOW RD AT THE ALA/SJQ COUNTY LINE, 0.8 MI NNE OF THE MAIN PUBLIC ACCESS TO CARNEGIE SVRA.

Detailed Location:
LAWRENCE LIVERMORE NATIONAL LABORATORY, SITE 300. FORMERLY A. P. PULCHRA EO #28.

Ecological:
HABITAT CONSISTED OF GRASSLAND AND SCRUB, WITH A FEW SCATTERED OAKS. SITE IS SURROUNDED BY OPEN SPACE AND PRIVATE RANCH LAND.

Threats:
General:
ONE ADULT OBSERVED ON 1 APR 2003. PRESUMED TO BE A. PULCHRA WITH RESPECT TO NEWLY DESCRIBED SPECIES CONCEPTS.

PLSS:	T03S, R04E, Sec. 29, NE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4167401 E627903	Latitude/Longitude:	37.64486 / -121.55020	Elevation (feet):	1,300

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
SWA03F0002 SWAIM, K. (SWAIM BIOLOGICAL, INC.) - FIELD SURVEY FORM FOR ANNIELLA PULCHRA (PULCHRA) 2003-04-01



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A5337	EO Index:	107072
Key Quad:	Midway (3712165)	Element Code:	ARACC01020
Occurrence Number:	128	Occurrence Last Updated:	2017-07-17

Scientific Name:	<i>Anniella pulchra</i>	Common Name:	Northern California legless lizard
Listing Status:	Federal: None	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern USFS_S-Sensitive
CNDDB Element Ranks:	Global: G3		
	State: S3		

General Habitat:	Micro Habitat:
SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION.	SOIL MOISTURE IS ESSENTIAL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2000-04-08	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2000-04-08	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
TESLA RD (CORRAL HOLLOW RD) 3.4 RD MI W OF THE COUNTY LINE, 0.75 MI N OF THE HISTORIC TESLA SITE, 9 MI ESE OF LIVERMORE.

Detailed Location:

Ecological:

Threats:

General:

ONE COLLECTED ON 8 APR 2000 AND USED AS A GENETIC VOUCHER FOR A. PULCHRA WITH RESEPECT TO NEWLY DESCRIBED SPECIES CONCEPTS.

PLSS:	T03S, R03E, Sec. 24, SW (M)	Accuracy:	1/5 mile	Area (acres):	70
UTM:	Zone-10 N4168007 E623238	Latitude/Longitude:	37.65095 / -121.60297	Elevation (feet):	1,302

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

PAP00S0018	PAPENFUSS, T. - MVZ #230659 COLLECTED ALONG CORRAL HOLLOW RD., 3.4 MI W OF SAN JOAQUIN COUNTY LINE 2000-04-08
PAR09A0001	PARHAM, J. & T. PAPENFUSS - EVIDENCE FOR HIGH GENETIC DIVERSITY AMONG FOSSORIAL LIZARD POPULATIONS (ANNIELLA PULCHRA) IN A RAPIDLY DEVELOPING LANDSCAPE. CONSERVATION GENETICS 10: 169-176. 2009-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	23073	EO Index:	16914
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	574	Occurrence Last Updated:	1993-04-22

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1992-04-13	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1992-04-13	Occurrence Rank:	Good
Owner/Manager:	PVT-CREDO RANCH	Trend:	Unknown
Presence:	Presumed Extant		

Location:
0.5 MILE EAST OF ALTAMONT SPEEDWAY, JUST NORTH OF I-580.

Detailed Location:

Ecological:
HABITAT CONSISTS OF GRAZED NON-NATIVE GRASSLANDS.

Threats:

General:
ONE JUVENILE OBSERVED.

PLSS:	T02S, R04E, Sec. 20, SE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4177691 E627551	Latitude/Longitude:	37.73763 / -121.55238	Elevation (feet):	200

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
MUL92F0003 MULLEN, D.A. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 1992-04-13



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	23076	EO Index:	16915
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	575	Occurrence Last Updated:	1993-04-22

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1992-06-29	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1992-06-29	Occurrence Rank:	Good
Owner/Manager:	PVT-YROZ RANCH	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.6 MILES NORTH OF THE LAWRENCE RADIATION LABORATORY BOUNDARY, 7 MILES WSW OF TRACY.

Detailed Location:

Ecological:
HABITAT CONSISTS OF GRAZED NON-NATIVE GRASSLAND.

Threats:

General:
ONE ADULT MALE FOUND ON A ROADWAY.

PLSS:	T03S, R04E, Sec. 04, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4173643 E628404	Latitude/Longitude:	37.70104 / -121.54343	Elevation (feet):	400

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
MUL92F0004 MULLEN, D.A. & G.A. BEEMAN - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 1992-06-29



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	23072	EO Index:	7953
Key Quad:	Tracy (3712164)	Element Code:	ARACF12100
Occurrence Number:	576	Occurrence Last Updated:	1993-06-03

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1991-06-22	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1991-06-22	Occurrence Rank:	Poor
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
1.25 MILES SW OF I-580, 2.7 MILES SOUTH OF THE TRACY AIRPORT.

Detailed Location:

Ecological:
HABITAT CONSISTS OF SPARSE, GRAZED GRASSLAND.

Threats:

General:
3 JUVENILES OBSERVED.

PLSS:	T03S, R05E, Sec. 29, SW (M)	Accuracy:	1/5 mile	Area (acres):	0
UTM:	Zone-10 N4167435 E636889	Latitude/Longitude:	37.64387 / -121.44837	Elevation (feet):	450

County Summary:	Quad Summary:
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San Joaquin	Tracy (3712164)
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Sources:
MUL91F0002 MULLEN, D.A. & G.A. BEEMAN - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 1991-06-22



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	39895	EO Index:	34897
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	601	Occurrence Last Updated:	1998-10-05

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1990-06-07	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1990-06-07	Occurrence Rank:	Unknown
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
2.5 MILES WEST OF I-580 & CORRAL HOLLOW ROAD JUNCTION, 2.3 MILES SOUTH OF CROSSING OF WESTERN PACIFIC RAILWAY & I-580.

Detailed Location:
AREA SEVERAL MILES SOUTHWEST OF TRACY.

Ecological:
HEAVILY GRAZED, INTRODUCED ANNUAL GRASSLAND, IN LOW HILLS.

Threats:
GRAZING, PLANNED FOR DEVELOPMENT, LOCATION WHERE THE LIZARD WAS FOUND IS PLANNED FOR DEVELOPMENT OF AN ARTIFICIAL LAKE.

General:
1 FOUND 7 JUNE 1990. MEASUREMENTS: TOTAL LENGTH 5"; NOSE TO BASE OF TAIL 3.5"; WIDTH AT WIDEST POINT, 2".

PLSS:	T03S, R04E, Sec. 14, SE (M)	Accuracy:	1/5 mile	Area (acres):	0
UTM:	Zone-10 N4170239 E632163	Latitude/Longitude:	37.66983 / -121.50141	Elevation (feet):	700

County Summary:	Quad Summary:
San Joaquin	Tracy (3712164), Midway (3712165)

Sources:
SCH90F0017 SCHMOLDT, D.E. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION, CALIFORNIA HORNED LIZARD) 1990-07-06



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66062	EO Index:	66141
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	648	Occurrence Last Updated:	2006-09-15

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2003-06-02	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2003-06-02	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ABOUT 2.3 MI SSE OF PATTERSON PASS RD & WESTERN PACIFIC RAILROAD JCT, ON ALAMEDA/SAN JOAQUIN COUNTY LINE.

Detailed Location:
MAPPED ACCORDING TO COORDINATES GIVEN IN SOURCE IN NW1/4 OF NE1/4 SEC 17.

Ecological:
GRASSLANDS, SAGE SCRUB.

Threats:
SURROUNDING LAND USE IS EXPLOSIVES TEST SITE.

General:
1 FEMALE OBSERVED BETWEEN 8 APR AND 2 JUN 2003.

PLSS:	T03S, R04E, Sec. 17, NE (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4170915 E627293	Latitude/Longitude:	37.67661 / -121.55650	Elevation (feet):	1,230

County Summary:	Quad Summary:
Alameda, San Joaquin	Midway (3712165)

Sources:

VAN03F0008	VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2003-04-08
VAN03U0001	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - 2002-2003 SCIENTIFIC COLLECTING PERMIT REPORT 2003-08-21



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66063	EO Index:	66142
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	649	Occurrence Last Updated:	2006-08-25

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2003-04-09	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2003-04-09	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
NW LAWRENCE RADIATION LABORATORY, ABOUT 2.1 MI EAST OF JOHNSON CAMP, ON ALAMEDA/SAN JOAQUIN COUNTY LINE.

Detailed Location:
MAPPED ACCORDING TO COORDINATES GIVEN IN SOURCE.

Ecological:
GRASSLANDS, SAGE SCRUB.

Threats:
SURROUNDING AREA USED AS EXPLOSIVES TEST SITE.

General:
6 INDIVIDUALS OBSERVED BETWEEN 30 FEB AND 10 MAR 2002. 1 FEMALE OBSERVED ON 9 APR 2003.

PLSS:	T03S, R04E, Sec. 17, S (M)	Accuracy:	specific area	Area (acres):	35
UTM:	Zone-10 N4169636 E627056	Latitude/Longitude:	37.66512 / -121.55941	Elevation (feet):	1,520

County Summary:	Quad Summary:
Alameda, San Joaquin	Midway (3712165)

Sources:

VAN02F0035	VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2002-03-10
VAN03F0008	VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2003-04-08
VAN03U0001	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - 2002-2003 SCIENTIFIC COLLECTING PERMIT REPORT 2003-08-21



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number: 66064	EO Index: 66143
Key Quad: Midway (3712165)	Element Code: ARACF12100
Occurrence Number: 650	Occurrence Last Updated: 2006-08-25

Scientific Name: <i>Phrynosoma blainvillii</i>	Common Name: coast horned lizard
Listing Status: Federal: None State: None	Rare Plant Rank:
CNDDB Element Ranks: Global: G3G4 State: S3S4	Other Lists: BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat: FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	Micro Habitat: OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.
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Last Date Observed: 2002-03-10	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-03-10	Occurrence Rank: Good
Owner/Manager: DOE-LAWRENCE LIVERMORE LAB	Trend: Unknown
Presence: Presumed Extant	

Location:
LAWRENCE RADIATION LABORATORY, ABOUT 1.1 MI NORTH OF CORRAL HOLLOW ON ALAMEDA/SAN JOAQUIN COUNTY LINE.

Detailed Location:
MAPPED ACCORDING TO COORDINATES GIVEN IN SOURCE IN SW1/4 OF SE1/4 SEC 20.

Ecological:
GRASSLANDS, SAGE SCRUB.

Threats:
SURROUNDING AREA USED AS EXPLOSIVES TEST SITE.

General:
1 INDIVIDUAL OBSERVED BETWEEN 30 FEB AND 10 MAR 2002.

PLSS: T03S, R04E, Sec. 20, SE (M)	Accuracy: 80 meters	Area (acres): 0
UTM: Zone-10 N4168305 E627325	Latitude/Longitude: 37.65308 / -121.55659	Elevation (feet): 1,430

County Summary: Alameda, San Joaquin	Quad Summary: Midway (3712165)
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Sources:
VAN02F0035 VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2002-03-10



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66065	EO Index:	66144
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	651	Occurrence Last Updated:	2006-08-25

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2003-05-12	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2003-05-12	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
LAWRENCE RADIATION LABORATORY, ABOUT 2 MI NNE OF ALAMEDA/SAN JOAQUIN COUNTY LINE & CORRAL HOLLOW JUNCTION.

Detailed Location:
MAPPED ACCORDING TO COORDINATES GIVEN IN SOURCE IN E1/2 OF NW1/4 SEC 21.

Ecological:
GRASSLANDS, SAGE SCRUB.

Threats:
SURROUNDING AREA USED AS EXPLOSIVES TEST SITE.

General:
1 MALE OBSERVED ON 6 MAY 2003. 1 MALE OBSERVED ON 12 MAY 2003.

PLSS:	T03S, R04E, Sec. 21, NW (M)	Accuracy:	specific area	Area (acres):	10
UTM:	Zone-10 N4169208 E628555	Latitude/Longitude:	37.66104 / -121.54249	Elevation (feet):	1,480

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

VAN03F0008	VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2003-04-08
VAN03U0001	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - 2002-2003 SCIENTIFIC COLLECTING PERMIT REPORT 2003-08-21



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66066	EO Index:	66145
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	652	Occurrence Last Updated:	2009-08-28

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2003-04-10	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2003-04-10	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
2 MI W OF BLACK BUTTE & N OF ELK RAVINE, 2 MI N OF BM539 ON CORRAL HOLLOW RD, LAWRENCE LIVERMORE NAT'L LAB SITE 300.

Detailed Location:
MAPPED TO PROVIDED COORDINATES IN THE NE 1/4 OF SEC 22.

Ecological:
GRASSLAND, SAGE SCRUB.

Threats:
SURROUNDING AREA IS EXPLOSIVES TEST SITE.

General:
TWO ADULTS SEEN 04 MAY 1995 ON FIRE TRAIL. 1 INDIVIDUAL OBSERVED BETWEEN 30 FEB & 10 MAR 2002. 1 JUVENILE & 5 ADULT MALES OBSERVED ON 10 APR 2003.

PLSS:	T03S, R04E, Sec. 22, NE (M)	Accuracy:	specific area	Area (acres):	30
UTM:	Zone-10 N4169063 E630955	Latitude/Longitude:	37.65941 / -121.51531	Elevation (feet):	1,010

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

VAN02F0035	VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2002-03-10
VAN03F0008	VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2003-04-08
VAN03U0001	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - 2002-2003 SCIENTIFIC COLLECTING PERMIT REPORT 2003-08-21
WOO95F0027	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 1995-05-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66067	EO Index:	66146
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	653	Occurrence Last Updated:	2006-08-25

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2002-03-10	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2002-03-10	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
LAWRENCE LIVERMORE NAT'L LAB/SITE 300, 1.6 MI EAST OF ALAMEDA/SAN JOAQUIN COUNTY LINE, 1.1 MI NORTH OF CORRAL HOLLOW.

Detailed Location:

Ecological:
GRASSLANDS, SAGE SCRUB.

Threats:
SURROUNDING AREA IS USED AS EXPLOSIVES TEST SITE.

General:
1 INDIVIDUAL OBSERVED BETWEEN 30 FEB AND 10 MAR 2002.

PLSS:	T03S, R04E, Sec. 27, NW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4167293 E629928	Latitude/Longitude:	37.64360 / -121.52727	Elevation (feet):	990

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
VAN02F0035 VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2002-03-10



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66068	EO Index:	66147
Key Quad:	Tracy (3712164)	Element Code:	ARACF12100
Occurrence Number:	654	Occurrence Last Updated:	2009-08-26

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2003-05-30	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2003-05-30	Occurrence Rank:	Good
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
LAWRENCE LIVERMORE NATIONAL LABORATORY, ABOUT 0.4 MI NW OF CASTLE ROCK.

Detailed Location:
MAPPED ACCORDING TO COORDINATES GIVEN IN SOURCE, IN E1/2 OF E1/2 SEC 26.

Ecological:
GRASSLANDS, SAGE SCRUB.

Threats:
SURROUNDING LAND USE IS AN EXPLOSIVES TEST SITE.

General:
1 OBSERVED 04 MAY 1995. 1 INDIVIDUAL CAPTURED & RELEASED ON 14 APR 1999. 2 INDIVIDUALS OBSERVED BETWEEN 30 FEB AND 10 MAR 2002. 3 MALES, 8 FEMALES & 2 JUVENILES OBSERVED ON 8 APR 2003. 1 FEMALE, 1 MALE OBSERVED ON 30 MAY 2003.

PLSS:	T03S, R04E, Sec. 26, E (M)	Accuracy:	specific area	Area (acres):	41
UTM:	Zone-10 N4167247 E632658	Latitude/Longitude:	37.64280 / -121.49634	Elevation (feet):	830

County Summary:	Quad Summary:
San Joaquin	Tracy (3712164)

Sources:

VAN02F0035	VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2002-03-10
VAN03F0008	VAN HATTEM, M. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 2003-04-08
VAN03U0001	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - 2002-2003 SCIENTIFIC COLLECTING PERMIT REPORT 2003-08-21
WOO04U0001	WOOLLETT, J.S. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002987] 2004-03-23
WOO95F0025	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 1995-05-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	76270	EO Index:	77249
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	691	Occurrence Last Updated:	2009-08-28

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1995-05-04	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1995-05-04	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
2.8 MILES W OF BLACK BUTTE AND 1.7 MILES NW OF BM539 ALONG CORRAL HOLLOW RD, LAWRENCE LIVERMORE NAT'L LAB SITE 300.

Detailed Location:
VICINITY OF UN-NAMED PAVED SERVICE ROADS. MAPPED PROVIDED COORDINATES.

Ecological:
ROCKY OUTCROP WITH COASTAL SAGE SCRUB.

Threats:
General:
ONE JUVENILE OBSERVED 4 MAY 1995.

PLSS:	T03S, R04E, Sec. 22, SW (M)	Accuracy:	1/10 mile	Area (acres):	0
UTM:	Zone-10 N4168028 E629727	Latitude/Longitude:	37.65025 / -121.52941	Elevation (feet):	1,200

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:
WOO95F0026 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (FRONTALE POPULATION) 1995-05-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	96417	EO Index:	97576
Key Quad:	Midway (3712165)	Element Code:	ARACF12100
Occurrence Number:	856	Occurrence Last Updated:	2015-06-18

Scientific Name:	<i>Phrynosoma blainvillii</i>	Common Name:	coast horned lizard
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G3G4 State: S3S4	Other Lists:	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern

General Habitat:	Micro Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2015-03-21	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2015-03-21	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CARNEGIE SVRA, IN THE VICINITY OF TESLA (SITE), 0.5 MI W - 0.5 MI NW OF MCLAUGHLIN RD AT TESLA RD.

Detailed Location:
SW POLYGON MAPPED TO GIVEN COORDINATES. NW POLYGON MAPPED TO REPRESENT INDIVIDUAL FOUND "APPROXIMATELY 1/4 MI NNE" OF INITIAL DETECTION.

Ecological:
MIXED SCRUB ON HISTORIC MINING SITE.

Threats:
General:
2 ADULTS OBSERVED BASKING IN ROAD ON 21 MAR 2015. AN ADDITIONAL LIZARD DETECTED TO THE NORTHEAST.

PLSS:	T03S, R03E, Sec. 25, SW (M)	Accuracy:	specific area	Area (acres):	10
UTM:	Zone-10 N4166791 E623230	Latitude/Longitude:	37.64000 / -121.60325	Elevation (feet):	1,100

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
DES15F0004 DE SILVA, T. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM FOR PHRYNOSOMA BLAINVILLII 2015-03-21



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3220	EO Index:	104851
Key Quad:	Midway (3712165)	Element Code:	ARADB01017
Occurrence Number:	6	Occurrence Last Updated:	2017-01-03

Scientific Name:	<i>Arizona elegans occidentalis</i>			Common Name:	California glossy snake
Listing Status:	Federal:	None	Rare Plant Rank:		
	State:	None	Other Lists:	CDFW_SSC-Species of Special Concern	
CNDDB Element Ranks:	Global:	G5T2			
	State:	S2			

General Habitat:	Micro Habitat:
PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.	GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	1984-05-28	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1984-05-28	Occurrence Rank:	Unknown
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ALONG PATTERSON PASS ROAD, ABOUT 1.3 MI SW OF INTERSECTION WITH MIDWAY ROAD, BETWEEN TRACY AND LIVERMORE.

Detailed Location:

Ecological:

Threats:

General:

SPECIMENS COLLECTED ON 16 MAY 1980 AND 28 MAY 1984.

PLSS:	T03S, R04E, Sec. 6, N (M)	Accuracy:	2/5 mile	Area (acres):	280
UTM:	Zone-10 N4174041 E625295	Latitude/Longitude:	37.70505 / -121.57861	Elevation (feet):	500

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:

BOU84S0003	BOUNDY, J. & A. FORD - CAS #192056 COLLECTED 1 MI SW OF MIDWAY 1984-05-28
GRE80S0027	GREENE, H. & D. PETERSON - GREENE #961 MVZ #193366 COLLECTED 3 MI W HWY 5 ON PATTERSON PASS RD 1980-05-16



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3221	EO Index:	104852
Key Quad:	Midway (3712165)	Element Code:	ARADB01017
Occurrence Number:	7	Occurrence Last Updated:	2016-12-29

Scientific Name:	<i>Arizona elegans occidentalis</i>	Common Name:	California glossy snake
Listing Status:	Federal: None	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern
CNDDB Element Ranks:	Global: G5T2		
	State: S2		

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	2010-06-03	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2010-06-03	Occurrence Rank:	Unknown
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:

PATTERSON PASS ROAD ABOUT 2.5 MILES SW OF INTERSECTION WITH MIDWAY ROAD, EAST OF LIVERMORE.

Detailed Location:

Ecological:

HABITAT WAS GRASSLANDS, FOOTHILLS.

Threats:

General:

SPECIMENS COLLECTED ON 22 JUN 1995 AND 21 MAY 2000. 1 ADULT FOUND ON 30 JUL 2007 AND 3 JUN 2010.

PLSS:	T03S, R03E, Sec. 12, NE (M)	Accuracy:	1/5 mile	Area (acres):	70
UTM:	Zone-10 N4172691 E624124	Latitude/Longitude:	37.69304 / -121.59213	Elevation (feet):	800

County Summary:

Alameda

Quad Summary:

Midway (3712165)

Sources:

ELY00S0001	ELY, F. - ELY #560 CAS #214263 COLLECTED FROM PATTERSON PASS ROAD, 2.8 ROAD MILES WEST OF THE ALAMEDA-SAN JOAQUIN COUNTY LINE 2000-05-21
ELY95S0001	ELY, F. - ELY #166 CAS #198824 COLLECTED FROM PATTERSON PASS ROAD, 2.6 ROAD MILES WEST OF THE ALAMEDA-SAN JOAQUIN COUNTY LINE 1995-06-22
HER16D0001	HERP, INC. - HERPETOLOGICAL EDUCATION AND RESEARCH PROJECT (HERP) DATABASE. FORMERLY A PROJECT OF THE NORTH AMERICAN FIELD HERPING ASSOCIATION. 2016-10-11



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3223	EO Index:	104854
Key Quad:	Midway (3712165)	Element Code:	ARADB01017
Occurrence Number:	8	Occurrence Last Updated:	2016-12-29

Scientific Name:	<i>Arizona elegans occidentalis</i>	Common Name:	California glossy snake
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G5T2 State: S2	Other Lists:	CDFW_SSC-Species of Special Concern

General Habitat:	Micro Habitat:
PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.	GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	1956-06-02	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1956-06-02	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA, PVT	Trend:	Unknown
Presence:	Presumed Extant		
Location:	CORRAL HOLLOW, 2 MILES WEST OF ALAMEDA / SAN JOAQUIN COUNTY LINE, ABOUT 10 MILES EAST OF LIVERMORE.		
Detailed Location:			
Ecological:			
Threats:			
General:	COLLECTED ON 2 JUN 1956.		
PLSS:	T03S, R03E, Sec. 25, SE (M)	Accuracy:	1/5 mile
UTM:	Zone-10 N4166987 E624283	Latitude/Longitude:	37.64162 / -121.5913
Area (acres):			70
Elevation (feet):			850

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
COO56S0004 COOK, S. - COOK #458 MVZ #64580 COLLECTED FROM CORRALL HOLLOW, 2 MI W COUNTY LINE 1956-06-02



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3224	EO Index:	104855
Key Quad:	Midway (3712165)	Element Code:	ARADB01017
Occurrence Number:	9	Occurrence Last Updated:	2017-03-02

Scientific Name:	<i>Arizona elegans occidentalis</i>	Common Name:	California glossy snake
Listing Status:	Federal: None	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern
CNDDB Element Ranks:	Global: G5T2		
	State: S2		

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	1974-10-04	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1974-10-04	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA	Trend:	Unknown
Presence:	Presumed Extant		

Location:

TESLA ROAD, 1.3 MILES WEST OF ALAMEDA / SAN JOAQUIN COUNTY LINE, CORRAL HOLLOW, ABOUT 11 MILES EAST OF LIVERMORE.

Detailed Location:

Ecological:

Threats:

General:

1 COLLECTED ON 3 JUN 1960, 1 ON 11 MAY 1964, AND 1 ON 4 OCT 1974.

PLSS:	T03S, R04E, Sec. 30, SW (M)	Accuracy:	1/5 mile	Area (acres):	70
UTM:	Zone-10 N4166632 E625301	Latitude/Longitude:	37.63829 / -121.57983	Elevation (feet):	800

County Summary:

Alameda

Quad Summary:

Midway (3712165)

Sources:

KLA46A0001	KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29
LIP60S0001	LIPPMANN, G. - MVZ #71097 COLLECTED FROM TESLA RD, 13.37 MI E (BY ROAD) LIVERMORE 1960-06-03
LIP64S0001	LIPPMANN, G. - MVZ #77080 COLLECTED FROM TESLA RD, 13.3 MI E (BY ROAD) LIVERMORE 1964-05-11
PAP74S0001	PAPENFUSS, T. - PAPENFUSS #11074 MVZ #134126 COLLECTED FROM CORRAL HOLLOW, 1.3 MI W (BY ROAD) ALAMEDA COUNTY LINE 1974-10-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3225	EO Index:	104856
Key Quad:	Midway (3712165)	Element Code:	ARADB01017
Occurrence Number:	10	Occurrence Last Updated:	2017-01-03

Scientific Name:	<i>Arizona elegans occidentalis</i>	Common Name:	California glossy snake
Listing Status:	Federal: None	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern
CNDDB Element Ranks:	Global: G5T2		
	State: S2		

General Habitat:	Micro Habitat:
PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.	GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	2006-08-21	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2006-08-21	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
TESLA ROAD NEAR ALAMEDA / SAN JOAQUIN COUNTY LINE, CORRAL HOLLOW, ABOUT 12 MILES EAST OF LIVERMORE.

Detailed Location:
COLLECTED IN 1966 FROM CORRAL HOLLOW NEAR THE COUNTY LINE. OTHER COLLECTIONS WITH LOCALITIES GIVEN ONLY AS CORRAL HOLLOW ARE ALSO ATTRIBUTED HERE.

Ecological:

Threats:

General:
SPECIMENS COLLECTED IN 1956, 1957, 1959, 1966, AND 2006.

PLSS:	T03S, R04E, Sec. 29, S (M)	Accuracy:	1/5 mile	Area (acres):	70
UTM:	Zone-10 N4166411 E627320	Latitude/Longitude:	37.63602 / -121.55699	Elevation (feet):	700

County Summary:	Quad Summary:
Alameda, San Joaquin	Midway (3712165)

Sources:

AND06S0041	ANDERSON, S. & D. FLETCHER - CAS #238535 COLLECTED FROM CORRAL HOLLOW 2006-08-21
AND59S0008	ANDERSON, J. - ANDERSON #2340 MVZ #68319 COLLECTED FROM CORRAL HOLLOW 1959-04-29
BUR57S0001	BURNS, J. - MVZ #66388, 66389, 72261 COLLECTED FROM CORRAL HOLLOW 1957-05-26
BUR57S0002	BURNS, J. - MVZ #68221 COLLECTED FROM CORRAL HOLLOW 1957-05-04
COO56S0005	COOK, S. - COOK #461 MVZ #66734 COLLECTED FROM CORRAL HOLLOW 1956-05-XX
COO56S0006	COOK, S. - COOK #462 & 463 MVZ #64875 & 64876 COLLECTED FROM CORRAL HOLLOW 1956-06-XX
FER59S0001	FERRELL, W. - NCSM #9123 COLLECTED FROM WEST OF LIVERMORE (CORRAL HOLLOW) 1959-09-16
LAW66S0001	LAWSON, R. - CAS-SU #25543 COLLECTED NEAR ALAMEDA-SAN JOAQUIN COUNTY LINE, CORRAL HOLLOW 1966-05-16
LAW66S0002	LAWSON, R. - CAS-SU #25541 & 25542 COLLECTED NEAR ALAMEDA-SAN JOAQUIN COUNTY LINE, CORRAL HOLLOW 1966-05-16
WIL57S0003	WILHOFT, D. - WILHOFT #531 MVZ #66378 COLLECTED FROM CORRAL HOLLOW 1957-05-25



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3226	EO Index:	104857
Key Quad:	Midway (3712165)	Element Code:	ARADB01017
Occurrence Number:	11	Occurrence Last Updated:	2017-03-02

Scientific Name:	<i>Arizona elegans occidentalis</i>	Common Name:	California glossy snake
Listing Status:	Federal: None	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern
CNDDDB Element Ranks:	Global: G5T2		
	State: S2		

General Habitat:	Micro Habitat:
PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.	GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	1986-04-XX	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1986-04-XX	Occurrence Rank:	Unknown
Owner/Manager:	DPR-CARNEGIE SVRA, UNK	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW RD, ABOUT 1 MILE EAST OF ALAMEDA / SAN JOAQUIN COUNTY LINE, ABOUT 9 MILES SW OF TRACY.

Detailed Location:
ATTRIBUTED SPECIMEN COLLECTED FROM "VIC CARNEGIE RECREATION AREA," EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:

SPECIMENS COLLECTED ON 19 JUL 1943, 3 JUN 1955, 6 NOV 1964, 7 JUN 1975, IN SEP AND JUL 1983, AND APR 1986.

PLSS:	T03S, R04E, Sec. 33, N (M)	Accuracy:	2/5 mile	Area (acres):	280
UTM:	Zone-10 N4166111 E628670	Latitude/Longitude:	37.63313 / -121.54174	Elevation (feet):	700

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

DAL43S0006	DALQUEST, W. - MVZ #41019 COLLECTED 3 MI E TESLA 1943-07-19
HOM64S0001	HOM, K. ET AL. - MVZ #80043 COLLECTED FROM CARNEGIE MONUMENT, CORRAL HOLLOW 1964-11-06
KLA46A0001	KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29
PAP75S0003	PAPENFUSS, T. - PAPENFUSS #11513 MVZ #128482 COLLECTED 0.7 MI E ALAMEDA CO LINE ON CORRAL HOLLOW RD 1975-06-07
SEI83S0004	SEIB, R. - SEIB #9726 MVZ #191381 COLLECTED FROM CORRAL HOLLOW RD, 6.1 MI W I-580 1983-09-04
SEI83S0005	SEIB, R. - SEIB #9679 MVZ #191353 COLLECTED FROM CORRAL HOLLOW RD, 6.4 MI W I-580 1983-07-04
SEI83S0006	SEIB, R. - SEIB #9701 MVZ #191358 COLLECTED FROM CORRAL HOLLOW RD, 6.5 MI W I-580 1983-07-10
STE55S0015	STEBBINS, R. & M. LARSON - STEBBINS #7494 MVZ #64114 COLLECTED FROM CORRAL HOLLOW, 6 MI W AND 6 MI S TRACY 1955-06-03
WIL86S0003	WILSON, B. - CAS #161915 COLLECTED FROM VICINITY OF CARNEGIE RECREATION AREA 1986-04-01



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3235	EO Index:	104866
Key Quad:	Midway (3712165)	Element Code:	ARADB01017
Occurrence Number:	12	Occurrence Last Updated:	2017-01-03

Scientific Name:	<i>Arizona elegans occidentalis</i>	Common Name:	California glossy snake
Listing Status:	Federal: None	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern
CNDDB Element Ranks:	Global: G5T2		
	State: S2		

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	1983-06-12	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1983-06-12	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:

CORRAL HOLLOW ROAD, ABOUT 5 ROAD MILES SW OF INTERSECTION WITH INTERSTATE 580, CORRAL HOLLOW, SW OF TRACY.

Detailed Location:

Ecological:

Threats:

General:

COLLECTED ON 15 MAY 1982, 24 MAY 1982, AND 12 JUN 1983.

PLSS:	T03S, R04E, Sec. 34, E (M)	Accuracy:	2/5 mile	Area (acres):	280
UTM:	Zone-10 N4165728 E630770	Latitude/Longitude:	37.62938 / -121.51802	Elevation (feet):	600

County Summary:

San Joaquin

Quad Summary:

Cedar Mtn. (3712155), Midway (3712165)

Sources:

GRE82S0007	GREENE, H. - GREENE #1165 MVZ #193372 COLLECTED 2.0 MI E ALAMEDA CO LINE ON CORRAL HOLLOW RD 1982-05-15
MAC82S0001	MACEY, J.R. - MACEY #397 MVZ #179946 COLLECTED 2.2 MI E ALAMEDA COUNTY LINE, CORAL HOLLOW RD 1982-05-24
SEI83S0003	SEIB, R. - SEIB #9655 MVZ #191330 COLLECTED FROM CORRAL HOLLOW RD, 4.8 MI W I-580 1983-06-12



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: A3236
Key Quad: Tracy (3712164)
Occurrence Number: 13

EO Index: 104867
Element Code: ARADB01017
Occurrence Last Updated: 2017-01-05

Scientific Name: *Arizona elegans occidentalis*

Common Name: California glossy snake

Listing Status:
Federal: None
State: None
CNDDDB Element Ranks:
Global: G5T2
State: S2

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1987-09-24

Occurrence Type: Natural/Native occurrence

Last Survey Date: 1987-09-24

Occurrence Rank: Unknown

Owner/Manager: DOE-LAWRENCE LIVERMORE LAB

Trend: Unknown

Presence: Presumed Extant

Location:

CORRAL HOLLOW ROAD, ABOUT 4 ROAD MILES SW OF INTERSECTION WITH INTERSTATE 580, SW OF TRACY.

Detailed Location:

IN VICINITY OF ENTRANCE TO LAWRENCE LIVERMORE NATIONAL LABORATORY SITE 300.

Ecological:

Threats:

General:

SPECIMENS COLLECTED ON 19 MAY 1965, 25 MAY 1979, AND 24 SEP 1987.

PLSS: T03S, R04E, Sec. 35, N (M)

Accuracy: 2/5 mile

Area (acres): 280

UTM: Zone-10 N4166223 E632295

Latitude/Longitude: 37.63363 / -121.50065

Elevation (feet): 550

County Summary:

Quad Summary:

San Joaquin

Tracy (3712164), Midway (3712165)

Sources:

BEN65S0003 BENSON, S. - MVZ #79100 COLLECTED FROM CORRAL HOLLOW, NEAR RADIATION LAB 1965-05-19

BOU87S0020 BOUNDY, J. & A. FORD - CAS #192049 COLLECTED FROM CORRAL HOLLOW, 3 MI E OF THE COUNTY LINE 1987-09-24

SUL79S0001 SULLIVAN, B. - SULLIVAN #67 MVZ #170803 COLLECTED FROM LAWRENCE SITE 300 ON CORRAL HOLLOW RD 1979-05-25



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3237	EO Index:	104868
Key Quad:	Tracy (3712164)	Element Code:	ARADB01017
Occurrence Number:	14	Occurrence Last Updated:	2017-01-03

Scientific Name:	<i>Arizona elegans occidentalis</i>			Common Name:	California glossy snake
Listing Status:	Federal:	None	Rare Plant Rank:		
	State:	None	Other Lists:	CDFW_SSC-Species of Special Concern	
CNDDB Element Ranks:	Global:	G5T2			
	State:	S2			

General Habitat:	Micro Habitat:
PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.	GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	1983-06-12	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1983-06-12	Occurrence Rank:	Unknown
Owner/Manager:	DFG-CORRAL HOLLOW ER, PVT	Trend:	Unknown

Presence: Presumed Extant

Location:

CORRAL HOLLOW ROAD, ABOUT 3 ROAD MILES SW OF INTERSECTION WITH INTERSTATE 580, SW OF TRACY.

Detailed Location:

Ecological:

Threats:

General:

SPECIMENS COLLECTED ON 3 APR 1943, 17 JUN 1961, 20 MAY 1973, AND 12 JUN 1983.

PLSS:	T03S, R04E, Sec. 25, W (M)	Accuracy:	1/5 mile	Area (acres):	70
UTM:	Zone-10 N4167232 E633101	Latitude/Longitude:	37.6426 / -121.49133	Elevation (feet):	500

County Summary:	Quad Summary:
San Joaquin	Tracy (3712164)

Sources:

MCI61S0001	MCINTYRE, T. & G. LIPPMAN - MCINTYRE #52 MVZ #72487 COLLECTED FROM CORRAL HOLLOW RD, 4.2 MI E (BY ROAD) SAN JOAQUIN-ALAMEDA COUNTY LINE 1961-06-17
ROD43S0003	RODGERS, T. - RODGERS #3701 MVZ #39012 COLLECTED FROM CORRAL HOLLOW, 7 MI SSW TRACY 1943-04-03
SEI83S0002	SEIB, R. - SEIB #9651 MVZ #191326 COLLECTED FROM CORRAL HOLLOW RD, 3.1 MI W I-580 1983-06-12
SUL73S0001	SULLIVAN, B. & D. PETERS - MVZ #171760 COLLECTED FROM CORRAL HOLLOW RD, 1 MI E RADIATION LAB 1973-05-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: A3238
Key Quad: Tracy (3712164)
Occurrence Number: 15

EO Index: 104870
Element Code: ARADB01017
Occurrence Last Updated: 2017-01-03

Scientific Name: *Arizona elegans occidentalis*

Common Name: California glossy snake

Listing Status:
Federal: None
State: None
CNDDDB Element Ranks:
Global: G5T2
State: S2

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1995-03-12
Last Survey Date: 1995-03-12
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ABOUT 1 MILE EAST OF ENTRANCE TO LAWRENCE LIVERMORE NATIONAL LAB SITE 300, EAST OF CASTLE ROCK, SW OF TRACY.

Detailed Location:

MAPPED ACCORDING TO TRS INFORMATION PROVIDED: T3S, R4E, SE 1/4 OF SE 1/4 OF SECTION 25.

Ecological:

Threats:

General:

JUVENILE COLLECTED ON 12 MAR 1995.

PLSS: T03S, R04E, Sec. 25, SE (M)

UTM: Zone-10 N4166540 E634267

Accuracy: 1/5 mile

Latitude/Longitude: 37.63619 / -121.47825

Area (acres): 70

Elevation (feet): 800

County Summary:

San Joaquin

Quad Summary:

Tracy (3712164)

Sources:

ELY95S0002 ELY, F. - ELY #159 CAS #199130 COLLECTED CA 3/4 AIR MILE NORTHEAST OF THE CONNOLLY RANCH HEADQUARTERS IN T3S, R4E, SE 1/4 OF THE SE 1/4 OF SECTION 25 1995-03-12



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	A3239	EO Index:	104871
Key Quad:	Tracy (3712164)	Element Code:	ARADB01017
Occurrence Number:	16	Occurrence Last Updated:	2017-01-03

Scientific Name:	<i>Arizona elegans occidentalis</i>	Common Name:	California glossy snake
Listing Status:	Federal: None	Rare Plant Rank:	
	State: None	Other Lists:	CDFW_SSC-Species of Special Concern
CNDDB Element Ranks:	Global: G5T2		
	State: S2		

General Habitat:	Micro Habitat:
PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.	GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	1982-05-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1982-05-24	Occurrence Rank:	Unknown
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW ROAD, ABOUT 2.3 MILES SW OF INTERSECTION WITH INTERSTATE 580, 1 MILE NORTH OF CASTLE ROCK, SW OF TRACY.

Detailed Location:
ATTRIBUTED SPECIMEN COLLECTED FROM "CORRAL HOLLOW, 1 MI E CASTLE ROCK RANGER STATION," CANNOT LOCATE RANGER STATION.

Ecological:

Threats:

General:
1 COLLECTED ON 8 JUN 1961, AND 1 ON 24 MAY 1982.

PLSS:	T03S, R04E, Sec. 24, SW (M)	Accuracy:	1/5 mile	Area (acres):	70
UTM:	Zone-10 N4168476 E633472	Latitude/Longitude:	37.65375 / -121.4869	Elevation (feet):	450

County Summary:	Quad Summary:
San Joaquin	Tracy (3712164)

Sources:

MAC82S0002	MACEY, J.R. - MACEY #398 MVZ #179947 COLLECTED 5.0 MI E ALAMEDA COUNTY LINE, CORAL HOLLOW RD 1982-05-24
PAP61S0004	PAPENFUSS, T. - MVZ #72486 COLLECTED FROM CORRAL HOLLOW, 1 MI E (BY ROAD) CASTLE ROCK RANGER STATION 1961-06-08



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: A3240
Key Quad: Tracy (3712164)
Occurrence Number: 17

EO Index: 104872
Element Code: ARADB01017
Occurrence Last Updated: 2017-01-03

Scientific Name: *Arizona elegans occidentalis*

Common Name: California glossy snake

Listing Status:
Federal: None
State: None
CNDDDB Element Ranks:
Global: G5T2
State: S2

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1986-05-30
Last Survey Date: 1986-05-30
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

CORRAL HOLLOW ROAD, ABOUT 1.5 MILES SW OF INTERSECTION WITH INTERSTATE 580, NORTH SIDE OF BLACK BUTTE, SW OF TRACY.

Detailed Location:

Ecological:

Threats:

General:

1 COLLECTED IN SPRING 1956. JUVENILE COLLECTED ON 30 MAY 1986.

PLSS: T03S, R04E, Sec. 24, NE (M)

Accuracy: 1/5 mile

Area (acres): 70

UTM: Zone-10 N4168982 E634404

Latitude/Longitude: 37.65817 / -121.47625

Elevation (feet): 350

County Summary:

Quad Summary:

San Joaquin

Tracy (3712164)

Sources:

FOR86S0003 FORD, A. & T. HEATH - CAS #192047 COLLECTED FROM CORRAL HOLLOW, 1 1/2 MI W OF HWY 580 1986-05-30

PAP56S0001 PAPENFUSS, T. - MVZ #65451 COLLECTED FROM CORRAL HOLLOW, 5 MI W TRACY 1956-0X-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	33715	EO Index:	30702
Key Quad:	Tracy (3712164)	Element Code:	ARADB21021
Occurrence Number:	2	Occurrence Last Updated:	2006-08-29

Scientific Name:	<i>Masticophis flagellum ruddocki</i>	Common Name:	San Joaquin coachwhip
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G5T2T3 State: S2?	Other Lists:	CDFW_SSC-Species of Special Concern

General Habitat:	Micro Habitat:
OPEN, DRY HABITATS WITH LITTLE OR NO TREE COVER. FOUND IN VALLEY GRASSLAND AND SALTBUSH SCRUB IN THE SAN JOAQUIN VALLEY.	NEEDS MAMMAL BURROWS FOR REFUGE AND OVIPOSITION SITES.

Last Date Observed:	1991-05-19	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1991-05-19	Occurrence Rank:	Good
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CORRAL HOLLOW ROAD, NEAR THE MOUTH OF CORRAL HOLLOW, 6 MILES SSW OF TRACY.

Detailed Location:
SPECIFIC LOCATION FOUND AT LAT/LONG 373921/1212859 ON 19 MAY 1991. COLLECTIONS AT "CORRAL HOLLOW, 2 MI W OF HWY 580" & "CORRAL HOLLOW RD, 3 MI W OF HWY 580" IN 1981 & 1989, INCLUDED HERE.

Ecological:
HABITAT ADJACENT TO CORRAL HOLLOW ROAD CONSISTS OF RIPARIAN.

Threats:
POSSIBLY THREATENED BY CATTLE GRAZING.

General:
1 MALE SPECIMEN COLLECTED BY F.E. ELY 29 MAY 1981, CAS #153489. 1 MALE SPECIMEN COLLECTED BY J.P. O'BRIEN 6 APR 1989, CAS #173198. 1 DOR SPECIMEN COLLECTED (FOR ID ONLY, THEN DISCARDED) 19 MAY 1991.

PLSS:	T03S, R04E, Sec. 24, E (M)	Accuracy:	non-specific area	Area (acres):	64
UTM:	Zone-10 N4168690 E634028	Latitude/Longitude:	37.65560 / -121.48055	Elevation (feet):	500

County Summary:	Quad Summary:
San Joaquin	Tracy (3712164)

Sources:

CAS02S0004	CALIFORNIA ACADEMY OF SCIENCES - CAS HERPETOLOGY HOLDINGS (INCLUDES STANFORD UNIVERSITY COLLECTIONS) FOR MASTICOPHIS FLAGELLUM RUDDOCKI 2002-07-30
MUL91F0016	MULLEN, D.A. & G.A. BEEMAN - FIELD SURVEY FORM FOR MASTICOPHIS FLAGELLUM RUDDOCKI 1991-05-19



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	40665	EO Index:	35672
Key Quad:	Midway (3712165)	Element Code:	ARADB21021
Occurrence Number:	20	Occurrence Last Updated:	2010-07-07

Scientific Name:	<i>Masticophis flagellum ruddocki</i>	Common Name:	San Joaquin coachwhip
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDDB Element Ranks:	Global: G5T2T3 State: S2?	Other Lists:	CDFW_SSC-Species of Special Concern

General Habitat:	Micro Habitat:
OPEN, DRY HABITATS WITH LITTLE OR NO TREE COVER. FOUND IN VALLEY GRASSLAND AND SALTBUSH SCRUB IN THE SAN JOAQUIN VALLEY.	NEEDS MAMMAL BURROWS FOR REFUGE AND OVIPOSITION SITES.

Last Date Observed:	2004-09-15	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	2004-09-15	Occurrence Rank:	Excellent
Owner/Manager:	UC-BERKELEY, DOE-LLNL	Trend:	Unknown
Presence:	Presumed Extant		

Location:
NORTH OF CORRAL HOLLOW RD, LAWRENCE LIVERMORE NATIONAL LABORATORY SITE 300, BETWEEN LIVERMORE AND TRACY.

Detailed Location:
MAPPED TO INCLUDE MANY SECTIONS BASED ON SWA03R01. GENERAL LOCATION "CORRAL HOLLOW, NEAR CASTLE ROCK" & SPECIFIC LOCATIONS IN SWA02F08, SWA02R01, SWA98R0003 & VAN02F0019 ALSO INC HERE. T3S R4E SECTIONS 15-17, 20-22, 26-29, PARTS 25, 33-36.

Ecological:
HABITAT CONSISTS OF GRASSLAND & OPEN-CANOPY SCRUB, DOMINATED BY BLACK SAGE (SALVIA MELLIFERA) WITH A FEW SCATTERED OAKS. FRESHWATER EMERGENT WETLANDS & SEEPS. SURROUNDING AREA USED AS EXPLOSIVES TEST SITE.

Threats:
General:
1 MALE COLLECTED BY F.E. ELY ON 29 MAY 1981, CAS #153490. 1 ADULT OBS MAY 1993. 1 ADULT OBS MAY 1998. 9 ADULTS CAPTURED 17 APR-8 JUL 1998. 14 CAPTURED 21 APR-7 OCT & 4 OBS MAY 2002. 2 CAPTURED IN 2003. 8 OBSERVED 25 APR-15 SEP 2004.

PLSS:	T03S, R04E, Sec. 27 (M)	Accuracy:	non-specific area	Area (acres):	7,202
UTM:	Zone-10 N4167327 E629693	Latitude/Longitude:	37.64394 / -121.52992	Elevation (feet):	1,300

County Summary:	Quad Summary:
Alameda, San Joaquin	Tracy (3712164), Midway (3712165)



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Sources:

CAS02S0004	CALIFORNIA ACADEMY OF SCIENCES - CAS HERPETOLOGY HOLDINGS (INCLUDES STANFORD UNIVERSITY COLLECTIONS) FOR MASTICOPHIS FLAGELLUM RUDDOCKI 2002-07-30
SWA02F0008	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - FIELD SURVEY FORM FOR MASTICOPHIS FLAGELLUM RUDDOCKI 2002-10-07
SWA02R0001	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - 2002 ANNUAL REPORT - SCIENTIFIC COLLECTING PERMITS 2002-XX-XX
SWA03R0001	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - 2003 ANNUAL REPORT OF SPECIMENS 2003-XX-XX
SWA04F0015	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - FIELD SURVEY FORM FOR MASTICOPHIS FLAGELLUM RUDDOCKI 2004-09-15
SWA98F0001	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - FIELD SURVEY FORM FOR MASTICOPHIS FLAGELLUM RUDDOCKI 1998-07-08
SWA98R0002	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - RESULTS OF A LIVE-TRAPPING SURVEY FOR THE ALAMEDA WHIPSNAKE AT THE SITE 300 FACILITIES OF LAWRENCE LIVERMORE NATIONAL LABORATORY. INCLUDES LOCATION INFO FOR SAN JOAQUIN WHIPSNAKE. 1998-12-14
SWA98R0003	SWAIM, K.E. (SWAIM BIOLOGICAL, INC.) - 1998 ANNUAL REPORT, SCIENTIFIC COLLECTING PERMIT #80159-01 1998-XX-XX
VAN02F0019	VAN HATTEM, M. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR MASTICOPHIS FLAGELLUM RUDDOCKI 2002-05-26
WOO93F0006	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR MASTICOPHIS FLAGELLUM RUDDOCKI 1993-05-07
WOO98F0008	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR MASTICOPHIS FLAGELLUM RUDDOCKI 1998-05-01



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	66195	EO Index:	66275
Key Quad:	Midway (3712165)	Element Code:	ARADB21021
Occurrence Number:	61	Occurrence Last Updated:	2006-09-12

Scientific Name:	<i>Masticophis flagellum ruddocki</i>	Common Name:	San Joaquin coachwhip
Listing Status:	Federal: None State: None	Rare Plant Rank:	
CNDDB Element Ranks:	Global: G5T2T3 State: S2?	Other Lists:	CDFW_SSC-Species of Special Concern

General Habitat:	Micro Habitat:
OPEN, DRY HABITATS WITH LITTLE OR NO TREE COVER. FOUND IN VALLEY GRASSLAND AND SALTBUSH SCRUB IN THE SAN JOAQUIN VALLEY.	NEEDS MAMMAL BURROWS FOR REFUGE AND OVIPOSITION SITES.

Last Date Observed:	1996-05-25	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1996-05-25	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
MIDWAY ROAD, 0.5 ROAD MILE NORTH OF ITS JUNCTION WITH PATTERSON PASS ROAD.

Detailed Location:

Ecological:

Threats:

General:
1 ADULT COLLECTED BY F.E. ELY ON 25 MAY 1996, CAS #201354. STOMACH CONTAINS EUMECES GILBERTI AND RODENT FUR.

PLSS:	T02S, R04E, Sec. 32, NW (M)	Accuracy:	non-specific area	Area (acres):	33
UTM:	Zone-10 N4175885 E626539	Latitude/Longitude:	37.72149 / -121.56418	Elevation (feet):	380

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
CAS02S0004 CALIFORNIA ACADEMY OF SCIENCES - CAS HERPETOLOGY HOLDINGS (INCLUDES STANFORD UNIVERSITY COLLECTIONS) FOR MASTICOPHIS FLAGELLUM RUDDOCKI 2002-07-30



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 73078 **EO Index:** 74008
Key Quad: Midway (3712165) **Element Code:** ARADB21031
Occurrence Number: 93 **Occurrence Last Updated:** 2010-05-27

Scientific Name: *Masticophis lateralis euryxanthus* **Common Name:** Alameda whipsnake
Listing Status: **Federal:** Threatened **Rare Plant Rank:**
State: Threatened **Other Lists:**
CNDDDB Element Ranks: **Global:** G4T2
State: S2

General Habitat:

TYPICALLY FOUND IN CHAPARRAL AND SCRUB HABITATS BUT WILL ALSO USE ADJACENT GRASSLAND, OAK SAVANNA AND WOODLAND HABITATS.

Micro Habitat:

MOSTLY SOUTH-FACING SLOPES AND RAVINES, WITH ROCK OUTCROPS, DEEP CREVICES OR ABUNDANT RODENT BURROWS, WHERE SHRUBS FORM A VEGETATIVE MOSAIC WITH OAK TREES AND GRASSES.

Last Date Observed: 1998-05-01 **Occurrence Type:** Natural/Native occurrence
Last Survey Date: 1998-05-01 **Occurrence Rank:** Unknown
Owner/Manager: DOE-LAWRENCE LIVERMORE LAB **Trend:** Unknown
Presence: Presumed Extant

Location:

VICINITY OF LAWRENCE RADIATION LABORATORY (SITE 300) ALONG UN-NAMED ROAD BETWEEN ELK RAVINE & CORRAL HOLLOW.

Detailed Location:

MAPPED TO PROVIDED COORDINATES, 1.2 MILES NE OF BM 700 ALONG CORRAL HOLLOW RD.

Ecological:

HABITAT DESCRIBED AS GRASSLAND/COASTAL SAGE SCRUB MATRIX.

Threats:

General:

1 ADULT OBSERVED ON 1 MAY 1998. SUBSPECIES TAXONOMY OF MASTICOPHIS LATERALIS IS NOT CLEAR IN THIS AREA; FURTHER RESEARCH IS NEEDED REGARDING M. L. EURYXANTHUS X M. L. LATERALIS INTERCROSSES.

PLSS: T03S, R04E, Sec. 28, NW (M) **Accuracy:** 80 meters **Area (acres):** 0
UTM: Zone-10 N4167833 E628663 **Latitude/Longitude:** 37.64865 / -121.54151 **Elevation (feet):** 1,200

County Summary:

San Joaquin

Quad Summary:

Midway (3712165)

Sources:

WOO98F0009 WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - FIELD SURVEY FORM FOR MASTICOPHIS LATERALIS EURYXANTHUS 1998-05-01



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	78955	EO Index:	79915
Key Quad:	Midway (3712165)	Element Code:	ARADB21031
Occurrence Number:	114	Occurrence Last Updated:	2010-05-27

Scientific Name:	<i>Masticophis lateralis euryxanthus</i>			Common Name:	Alameda whipsnake
Listing Status:	Federal:	Threatened	Rare Plant Rank:		
	State:	Threatened	Other Lists:		
CNDDDB Element Ranks:	Global:	G4T2			
	State:	S2			

General Habitat:	Micro Habitat:
TYPICALLY FOUND IN CHAPARRAL AND SCRUB HABITATS BUT WILL ALSO USE ADJACENT GRASSLAND, OAK SAVANNA AND WOODLAND HABITATS.	MOSTLY SOUTH-FACING SLOPES AND RAVINES, WITH ROCK OUTCROPS, DEEP CREVICES OR ABUNDANT RODENT BURROWS, WHERE SHRUBS FORM A VEGETATIVE MOSAIC WITH OAK TREES AND GRASSES.

Last Date Observed:	198X-XX-XX	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	198X-XX-XX	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown

Presence: Presumed Extant

Location:

0.72 MI UPSTREAM (N) IN UN-NAMED TRIBUTARY TO CORRAL HOLLOW CREEK IN CENTER OF SECTION 28, ABOUT 1 AIR MI NE OF BM700.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

Threats:

General:

1 INDIVIDUAL OBSERVED SOMETIME AFTER 1986 AND NOTED AS A M. L. EURYXANTHUS X M. L. LATERALIS INTERCROSS.

PLSS:	T03S, R04E, Sec. 28 (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4167169 E628837	Latitude/Longitude:	37.64264 / -121.53965	Elevation (feet):	830

County Summary:	Quad Summary:
San Joaquin	Midway (3712165)

Sources:

SWA08D0002 SWAIM, K. (SWAIM BIOLOGICAL, INC.) - SHAPEFILE & ATTRIBUTE TABLE OF POINT LOCATIONS (650+) OF VARIOUS ALAMEDA WHIPSNAKE OCCURRENCES COMPILED BY SWAIM BIOLOGICAL INC, 1913-2008 2008-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 78959 **EO Index:** 79919
Key Quad: Midway (3712165) **Element Code:** ARADB21031
Occurrence Number: 115 **Occurrence Last Updated:** 2010-05-27

Scientific Name: *Masticophis lateralis euryxanthus* **Common Name:** Alameda whipsnake
Listing Status: **Federal:** Threatened **Rare Plant Rank:**
State: Threatened **Other Lists:**
CNDDDB Element Ranks: **Global:** G4T2
State: S2

General Habitat:

TYPICALLY FOUND IN CHAPARRAL AND SCRUB HABITATS BUT WILL ALSO USE ADJACENT GRASSLAND, OAK SAVANNA AND WOODLAND HABITATS.

Micro Habitat:

MOSTLY SOUTH-FACING SLOPES AND RAVINES, WITH ROCK OUTCROPS, DEEP CREVICES OR ABUNDANT RODENT BURROWS, WHERE SHRUBS FORM A VEGETATIVE MOSAIC WITH OAK TREES AND GRASSES.

Last Date Observed: 1998-06-27 **Occurrence Type:** Natural/Native occurrence
Last Survey Date: 1998-06-27 **Occurrence Rank:** Unknown
Owner/Manager: DOE-LAWRENCE LIVERMORE LAB **Trend:** Unknown
Presence: Presumed Extant

Location:

JUST E OF ALAMEDA/SAN JOAQUIN COUNTY LINE AND 0.8 MI N OF BM 700 ON CORRAL HOLLOW RD, LLNL SITE 300.

Detailed Location:

MAPPED TO PROVIDED COORDINATES IN SWA08D0002.

Ecological:

Threats:

General:

14 CAPTURED AND RELEASED BETWEEN 22 APR - 27 JUN 1998. ALL IDENTIFIED BY K. SWAIM AS M. L. EURYXANTHUS X M. L. LATERALIS INTERCROSSES, WITH 1 SHOWING MORE TRAITS OF M. L. E. THAN M. L. L.

PLSS: T03S, R04E, Sec. 29, NE (M) **Accuracy:** specific area **Area (acres):** 16
UTM: Zone-10 N4167738 E627499 **Latitude/Longitude:** 37.64795 / -121.55471 **Elevation (feet):** 1,270

County Summary:

San Joaquin

Quad Summary:

Midway (3712165)

Sources:

SWA08D0002 SWAIM, K. (SWAIM BIOLOGICAL, INC.) - SHAPEFILE & ATTRIBUTE TABLE OF POINT LOCATIONS (650+) OF VARIOUS ALAMEDA WHIPSNAKE OCCURRENCES COMPILED BY SWAIM BIOLOGICAL INC, 1913-2008 2008-XX-XX
SWA98R0002 SWAIM, K. (SWAIM BIOLOGICAL, INC.) - RESULTS OF A LIVE-TRAPPING SURVEY FOR THE ALAMEDA WHIPSNAKE AT THE SITE 300 FACILITIES OF LAWRENCE LIVERMORE NATIONAL LABORATORY. INCLUDES LOCATION INFO FOR SAN JOAQUIN WHIPSNAKE. 1998-12-14



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 78975 **EO Index:** 79930
Key Quad: Midway (3712165) **Element Code:** ARADB21031
Occurrence Number: 116 **Occurrence Last Updated:** 2016-07-19

Scientific Name: *Masticophis lateralis euryxanthus* **Common Name:** Alameda whipsnake
Listing Status: **Federal:** Threatened **Rare Plant Rank:**
State: Threatened **Other Lists:**
CNDDB Element Ranks: **Global:** G4T2
State: S2

General Habitat:

TYPICALLY FOUND IN CHAPARRAL AND SCRUB HABITATS BUT WILL ALSO USE ADJACENT GRASSLAND, OAK SAVANNA AND WOODLAND HABITATS.

Micro Habitat:

MOSTLY SOUTH-FACING SLOPES AND RAVINES, WITH ROCK OUTCROPS, DEEP CREVICES OR ABUNDANT RODENT BURROWS, WHERE SHRUBS FORM A VEGETATIVE MOSAIC WITH OAK TREES AND GRASSES.

Last Date Observed: 1978-05-16 **Occurrence Type:** Natural/Native occurrence
Last Survey Date: 1978-05-16 **Occurrence Rank:** Unknown
Owner/Manager: UNKNOWN **Trend:** Unknown
Presence: Presumed Extant

Location:

ON TESLA RD (CORRAL HOLLOW RD) ABOUT 2.45 ROAD MI WEST OF THE ALAMEDA - SAN JOAQUIN COUNTY LINE.

Detailed Location:

CENTER OF SECTION 25 ON ROAD. VERBATIM MVZ LOCATION: "CORRAL HOLLOW RD, 2.45 MI W OF CO. SIGNS."

Ecological:

COLLECTED DURING ROAD SURVEY STUDY OF SNAKES DURING THE LATE 1970S (SUL81A0001). FURTHER RESEARCH IS NEEDED REGARDING INTERCROSS M. L. EURYXANTHUS X M. L. LATERALIS. ONLY M.L.L. & INTERCROSSES IDED ON TESLA/CORRAL HOLLOW RD; NO M.L.E.

Threats:

General:

2 M. LATERALIS WERE COLLECTED BY SULLIVAN ON 16 MAY 1978 DURING ROAD SURVEYS. MVZ #150310 WAS IDED AS M. L. LATERALIS BY JEN94U & SWA08D. MVZ #150311 WAS IDED AS AN INTERCROSS M.L.L. X M. L. EURYXANTHUS BY JEN94U & SWA08D. RESEARCH NEEDED.

PLSS: T03S, R03E, Sec. 25 (M) **Accuracy:** 1/10 mile **Area (acres):** 0
UTM: Zone-10 N4167177 E623808 **Latitude/Longitude:** 37.64340 / -121.59663 **Elevation (feet):** 920

County Summary:

Alameda

Quad Summary:

Midway (3712165)

Sources:

JEN94U0002 JENNINGS, M. - LETTER FROM MARK JENNINGS TO CHRIS NAGANO (USFWS) REGARDING LOCALITY INFO FOR M. L. EURYXANTHUS, M. L. LATERALIS, AND INTERCROSSES OF THE TWO IN ALAMEDA & CONTRA COSTA COUNTIES. 1994-03-27
MVZ78S0003 MUSEUM OF VERTEBRATE ZOOLOGY (UNIVERSITY OF CALIFORNIA, BERKELEY) - MVZ MASTICOPHIS LATERALIS SPECIMEN #150311 COLLECTED BY B. K. SULLIVAN ON 16 MAY 1978 ON TESLA RD, CORRAL HOLLOW. 1978-05-16
SUL81A0001 SULLIVAN, B. (ARIZONA STATE UNIVERSITY) - DISTRIBUTION AND RELATIVE ABUNDANCE OF SNAKES ALONG A TRANSECT IN CALIFORNIA. J. HERPETOLOGY 15(2):247-248. 1981-04-30
SUL95U0001 SULLIVAN, B. - B. SULLIVAN'S PERSONAL FIELD NOTES FOR MASTICOPHIS LATERALIS INDIVIDUALS (1972-1995) REFERENCED IN PUBLISHED ARTICLES. 1995-06-12
SWA08D0002 SWAIM, K. (SWAIM BIOLOGICAL, INC.) - SHAPEFILE & ATTRIBUTE TABLE OF POINT LOCATIONS (650+) OF VARIOUS ALAMEDA WHIPSNAKE OCCURRENCES COMPILED BY SWAIM BIOLOGICAL INC, 1913-2008 2008-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number: 78973 **EO Index:** 79933
Key Quad: Midway (3712165) **Element Code:** ARADB21031
Occurrence Number: 117 **Occurrence Last Updated:** 2010-07-09

Scientific Name: *Masticophis lateralis euryxanthus* **Common Name:** Alameda whipsnake
Listing Status: **Federal:** Threatened **Rare Plant Rank:**
State: Threatened **Other Lists:**
CNDDB Element Ranks: **Global:** G4T2
State: S2

General Habitat:

TYPICALLY FOUND IN CHAPARRAL AND SCRUB HABITATS BUT WILL ALSO USE ADJACENT GRASSLAND, OAK SAVANNA AND WOODLAND HABITATS.

Micro Habitat:

MOSTLY SOUTH-FACING SLOPES AND RAVINES, WITH ROCK OUTCROPS, DEEP CREVICES OR ABUNDANT RODENT BURROWS, WHERE SHRUBS FORM A VEGETATIVE MOSAIC WITH OAK TREES AND GRASSES.

Last Date Observed: 1996-XX-XX **Occurrence Type:** Natural/Native occurrence
Last Survey Date: 1996-XX-XX **Occurrence Rank:** Unknown
Owner/Manager: UNKNOWN **Trend:** Unknown
Presence: Presumed Extant

Location:

ON TESLA RD (CORRAL HOLLOW RD) ABOUT 3 ROAD MI WEST OF THE ALAMEDA - SAN JOAQUIN COUNTY LINE, VICINITY OF BM 1148.

Detailed Location:

MAPPED GENERALLY TO SWAIM'S INTERPRETATION OF MVZ AND SULLIVAN RECORDS. SULLIVAN CONDUCTED ROAD SURVEYS IN THE LATE 1970S, 1995, & 1997. MVZ SPECIMENS FOUND DEAD-ON-ROAD.

Ecological:

FURTHER RESEARCH IS NEEDED REGARDING INTERCROSS M. L. EURYXANTHUS X M. L. LATERALIS. ONLY M. L. L. & INTERCROSSES IDENTIFIED ON TESLA/CORRAL HOLLOW RD; NO PURE M. L. EURYXANTHUS.

Threats:

THREATENED BY BEING RUN OVER BY VEHICLES.

General:

1 OBSERVED BY SULLIVAN WITH "WIDE LATERAL STIPES" ON 3 MAY 1978 ALIVE. MVZ #230734 COLLECTED BY T. PAPENFUSS ET AL DOR ON 4 AUG 1995 AND MVZ #230735 COLLECTED BY PAPENFUSS ET AL DOR IN 1996; BOTH IDED BY SWAIM AS INTERCROSS M.L.L X M.L.E.

PLSS: T03S, R03E, Sec. 25, NW (M) **Accuracy:** non-specific area **Area (acres):** 47
UTM: Zone-10 N4167918 E623354 **Latitude/Longitude:** 37.65014 / -121.60166 **Elevation (feet):** 1,210

County Summary:

Alameda

Quad Summary:

Midway (3712165)

Sources:

MVZ95S0004 MUSEUM OF VERTEBRATE ZOOLOGY (UNIVERSITY OF CALIFORNIA, BERKELEY) - MVZ MASTICOPHIS LATERALIS SPECIMEN #230734 COLLECTED BY T. PAPENFUSS, K. SWAIM, & J. WOOLLETT ON 4 AUG 1995, TESLA RD, CORRAL HOLLOW. 1995-08-04
MVZ96S0002 MUSEUM OF VERTEBRATE ZOOLOGY (UNIVERSITY OF CALIFORNIA, BERKELEY) - MVZ HERPETOLOGY SPECIMEN #230735, COLLECTED BY T. J. PAPENFUSS, K. SWAIM, & J. S. WOOLLETT. 1996-XX-XX
SUL81A0001 SULLIVAN, B. (ARIZONA STATE UNIVERSITY) - DISTRIBUTION AND RELATIVE ABUNDANCE OF SNAKES ALONG A TRANSECT IN CALIFORNIA. J. HERPETOLOGY 15(2):247-248. 1981-04-30
SUL95U0001 SULLIVAN, B. - B. SULLIVAN'S PERSONAL FIELD NOTES FOR MASTICOPHIS LATERALIS INDIVIDUALS (1972-1995) REFERENCED IN PUBLISHED ARTICLES. 1995-06-12
SWA08D0002 SWAIM, K. (SWAIM BIOLOGICAL, INC.) - SHAPEFILE & ATTRIBUTE TABLE OF POINT LOCATIONS (650+) OF VARIOUS ALAMEDA WHIPSNAKE OCCURRENCES COMPILED BY SWAIM BIOLOGICAL INC, 1913-2008 2008-XX-XX



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Map Index Number:	78976	EO Index:	79935
Key Quad:	Midway (3712165)	Element Code:	ARADB21031
Occurrence Number:	118	Occurrence Last Updated:	2010-06-01

Scientific Name:	<i>Masticophis lateralis euryxanthus</i>			Common Name:	Alameda whipsnake
Listing Status:	Federal:	Threatened	Rare Plant Rank:		
	State:	Threatened	Other Lists:		
CNDDDB Element Ranks:	Global:	G4T2			
	State:	S2			

General Habitat:

TYPICALLY FOUND IN CHAPARRAL AND SCRUB HABITATS BUT WILL ALSO USE ADJACENT GRASSLAND, OAK SAVANNA AND WOODLAND HABITATS.

Micro Habitat:

MOSTLY SOUTH-FACING SLOPES AND RAVINES, WITH ROCK OUTCROPS, DEEP CREVICES OR ABUNDANT RODENT BURROWS, WHERE SHRUBS FORM A VEGETATIVE MOSAIC WITH OAK TREES AND GRASSES.

Last Date Observed:	1996-07-24	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1996-07-24	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:

ON TESLA RD (CORRAL HOLLOW RD) ABOUT 4.6 ROAD MI WEST OF ALAMEDA - SAN JOAQUIN COUNTY LINE, JUST EAST OF BM 1320.

Detailed Location:

MVZ VERBATIM LOCATION, "4.6 ROAD MILES W. OF ALAMEDA COUNTY LINE, ON TESLA RD, T3S R3E NW1/4 SEC 26."

Ecological:

FURTHER RESEARCH IS NEEDED REGARDING INTERCROSS M. L. EURYXANTHUS X M. L. LATERALIS. ONLY M. L. L. & INTERCROSSES IDENTIFIED ON TESLA/CORRAL HOLLOW RD; NO PURE M. L. EURYXANTHUS.

Threats:

THREATENED BY BEING RUN OVER BY VEHICLES.

General:

MVZ #230736 COLLECTED DEAD-ON-ROAD BY J. WOOLLETT (LLNL), T. PAPENFUSS, & K. SWAIM ON 24 JUL 1996. SWAIM IDENTIFIED THIS SPECIMEN AS AN INTERCROSS M. LATERALIS LATERALIS X M. L. EURYXANTHUS.

PLSS:	T03S, R03E, Sec. 26, NW (M)	Accuracy:	1/10 mile	Area (acres):	0
UTM:	Zone-10 N4167624 E621745	Latitude/Longitude:	37.64770 / -121.61994	Elevation (feet):	1,400

County Summary:

Alameda

Quad Summary:

Midway (3712165)

Sources:

MVZ96S0003	MUSEUM OF VERTEBRATE ZOOLOGY (UNIVERSITY OF CALIFORNIA, BERKELEY) - MVZ HERPETOLOGY SPECIMEN #230736, COLLECTED BY T. J. PAPENFUSS, K. SWAIM, & J. S. WOOLLETT. 1996-07-24
SWA08D0002	SWAIM, K. (SWAIM BIOLOGICAL, INC.) - SHAPEFILE & ATTRIBUTE TABLE OF POINT LOCATIONS (650+) OF VARIOUS ALAMEDA WHIPSNAKE OCCURRENCES COMPILED BY SWAIM BIOLOGICAL INC, 1913-2008 2008-XX-XX
WOO97R0001	WOOLLETT, J. (LAWRENCE LIVERMORE NATIONAL LABORATORY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002407] NEAR LAWRENCE LIVERMORE NATIONAL LAB SITE 300, 1996-1997. 1997-11-20



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Map Index Number:	78977	EO Index:	79936
Key Quad:	Midway (3712165)	Element Code:	ARADB21031
Occurrence Number:	119	Occurrence Last Updated:	2010-06-01

Scientific Name:	<i>Masticophis lateralis euryxanthus</i>			Common Name:	Alameda whipsnake
Listing Status:	Federal:	Threatened	Rare Plant Rank:		
	State:	Threatened	Other Lists:		
CNDDDB Element Ranks:	Global:	G4T2			
	State:	S2			

General Habitat:	Micro Habitat:
TYPICALLY FOUND IN CHAPARRAL AND SCRUB HABITATS BUT WILL ALSO USE ADJACENT GRASSLAND, OAK SAVANNA AND WOODLAND HABITATS.	MOSTLY SOUTH-FACING SLOPES AND RAVINES, WITH ROCK OUTCROPS, DEEP CREVICES OR ABUNDANT RODENT BURROWS, WHERE SHRUBS FORM A VEGETATIVE MOSAIC WITH OAK TREES AND GRASSES.

Last Date Observed:	XXXX-XX-XX	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	XXXX-XX-XX	Occurrence Rank:	Unknown
Owner/Manager:	DOE-LAWRENCE LIVERMORE LAB	Trend:	Unknown
Presence:	Presumed Extant		

Location:
ABOUT 1.2 MI NNW OF BM 693 ON TESLA RD, AND ABOUT 0.5 MI WEST OF ALAMEDA - SAN JOAQUIN COUNTY LINE, LLNL SITE 300.

Detailed Location:
MAPPED TO PROVIDED LOCATION.

Ecological:
FURTHER RESEARCH IS NEEDED REGARDING INTERCROSS M. L. EURYXANTHUS X M. L. LATERALIS. ONLY M. L. L. & INTERCROSSES IDENTIFIED IN THE VICINITY OF TESLA/CORRAL HOLLOW RD; NO PURE M. L. EURYXANTHUS.

Threats:
General:
SWAIM REPORTS 1 INTERCROSS M. L. LATERALIS X M. L. EURYXANTHUS FROM LLNL SITE 300 POST 1986.

PLSS:	T03S, R04E, Sec. 20, SW (M)	Accuracy:	80 meters	Area (acres):	0
UTM:	Zone-10 N4168287 E626439	Latitude/Longitude:	37.65304 / -121.56663	Elevation (feet):	1,245

County Summary:	Quad Summary:
Alameda	Midway (3712165)

Sources:
SWA08D0002 SWAIM, K. (SWAIM BIOLOGICAL, INC.) - SHAPEFILE & ATTRIBUTE TABLE OF POINT LOCATIONS (650+) OF VARIOUS ALAMEDA WHIPSNAKE OCCURRENCES COMPILED BY SWAIM BIOLOGICAL INC, 1913-2008 2008-XX-XX

ATTACHMENT D

Field Data Sheets

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 3/31/21 Biologist Name(s) Wong, Stitt
 Site name/Location P114 Coordinates (UTM/UPS WGS 84) 630791X4168389

Start time 1040 End time 1210 T_a °C 21.7 T_g °C 25.7
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) UTA Time of capture N/C Time of release —
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # —

* Dead K-Rat in plot

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) — Tail Length (mm) — Mass (g) —

Marked? ☐ Marking method/specifics —

Diagnostic markings/scars —

Health/behavior —

Habitat/microhabitat —

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Aristida purpurea / Glycyrrhiza elaeagnifolia grassland - Fire within 1-2 yrs
High diversity of forbs, hard packed soil w/ soft, moss hummocks
in areas - encompasses part of dirt road
 E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 3/31/21 Biologist Name(s) Wong, Stitt
 Site name/Location P116 Coordinates (UTM/UPS WGS 84) 630773 X 468375

Start time 1320 End time 1420 T_a °C 23.3 T_b °C 30.4
 Wind (mph) 5.6 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) None Time of capture 0 Time of release —
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # —

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) — Tail Length (mm) — Mass (g) —
 Marked? ☐ Marking method/specifics —

Diagnostic markings/scars —Health/behavior —Habitat/microhabitat —

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

40% slope, lots of consolidated rock, cobble, pebble,
very thin soil layer, hardpan underneath - Rock outcrops
@ western edge - Erodium & grasses dominate - burned recently
 E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 3/31/21 Biologist Name(s) Wong, Stitt
 Site name/Location P-120 Coordinates (UTM/UPS WGS 84) 630 847 X 416 8503
Moved west to avoid topography (NW corner)
 Start time 1500 End time 1537 T_a °C 23.2 T_b °C 38
 Wind (mph) 0-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) None Time of capture 0 Time of release —
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # —

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) — Tail Length (mm) — Mass (g) —
 Marked? ☐ Marking method/specifics —

Diagnostic markings/scars —
 Health/behavior —
 Habitat/microhabitat —

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Kill side with lots of small Rock/pebble, constrained by Rock
outcrop to west. Burned recently, dense, short-stature Erodium
throughout - w/ small Avena, few Forbs
 E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/1/21 Biologist Name(s) Wong, Stitt
 Site name/Location P182 Coordinates (UTM/UPS WGS 84) 631001x4169221
NE corner

Start time 0936 End time 1023 T_a °C 23.0 T_b °C 14.4
 Wind (mph) 2 Cloud cover % 0 Precip (hours/days ago) 0 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture — Time of release —
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # —

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) — Tail Length (mm) — Mass (g) —
 Marked? ☐ Marking method/specifics —

Diagnostic markings/scars —
 Health/behavior —
 Habitat/microhabitat —

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

* 2 native harvester ant colonies within plot - plot has low growth
 of *Erodium*, grasses, bare ground, and rock outcrops. Road goes
 through it. Wild Boar damage in places
 E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 9/1/21 Biologist Name(s) _____

Site name/Location P183 Coordinates (UTM/UPS WGS 84) 631001 x 4169206
SW corner

Start time 1100 End time 1137 T_a °C 23.3 T_g °C 17.6
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 6 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 6 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Hillside - 50% slope, clay soils, burned recently. Rock outcrops -
Avena fatua & Erodium dominate. Soil cracks present. Encompasses
part of road.

E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 9/1/21 Biologist Name(s) Wong, Stitt
 Site name/Location P181 Coordinates (UTM/UPS WGS 84) 630966X4169204
NE corner
 Start time 1245 End time 1320 T_a °C 25.6 T_g °C 27.6
 Wind (mph) 5 Cloud cover % 0 Precip (hours/days ago) 6 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) UTA Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Annual grassland w/ Rook overtops - dirt road bisects
the plot. Grasses, Erodium, few forbs. 50% slope E & W edges

E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/1/21 Biologist Name(s) Wong, StittSite name/Location P174 Coordinates (UTM/UPS WGS 84) _____Start time 1354 End time 1420 T_a °C 27.0 T_e °C 36.1Wind (mph) 5 Cloud cover % 0 Precip (hours/days ago) 0 Amount —CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐Other species (indicate) UTA Time of capture _____ Time of release _____Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Bare, Rocky site - low Erodium & grasses, much bare ground, recent gopher activity. 2 Harvestman ant colonies in plot.

E. Stitt LLNL survey data sheet Vers. 1

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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

2410

SURVEY: Date 4/14/21 Biologist Name(s) Wong, Stitt
 Site name/Location 9168 Coordinates (UTM/UPS WGS 84) 630903 X4/69064
NW corner
 Start time 1500 300 End time 1535 T_a °C 28.1 T_g °C 48.3
 Wind (mph) 8-10 Cloud cover % 0 Precip (hours/days ago) 0 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 6 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifc _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Rocky hillside - burned recently - Very Rocky/cobble soils.
thin and low gradient grasses. small outcrops. one harvester
ant colony within site.
 E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/13/21 Biologist Name(s) Stitt, Zitt
 Site name/Location The Oasis 946 Coordinates (UTM/UPS WGS 84) 627143 x 4167139
NE corner

Start time 0950 ^(-10 mins) End time 1115 T_a °C 15.4 T_g °C 22.8
 Wind (mph) 15-35 Cloud cover % 0% Precip (hours/days ago) 0 Amount —
Windy! T_a end = 18.6 T_g end = 23.9

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture — Time of release —
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # —

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) — Tail Length (mm) — Mass (g) —
 Marked? ☐ Marking method/specifics —

Diagnostic markings/scars —
 Health/behavior —

Habitat/microhabitat Riparian canyon, steep topography, 2 large Q lobelia,
Salix lasiolepis - very loose soils, high silt/sand, good
Anurella habitat, very steep though

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

—

—



Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/13/21 Biologist Name(s) Stitt, Beth
 Site name/Location Oasis #2 LLNL Coordinates (UTM/UPS WGS 84) 627131 X 4167075
P36 NE corner
 Start time 1152 End time 1310 T_a °C 19.9 T_g °C 26.1
 Wind (mph) 10-15 Cloud cover % 0 Precip (hours/days ago) 0 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) H₂O Tox Time of capture 1215 Time of release —
 Captured during survey? ☒ Captured under coverboard? ☐ Coverboard # —

Sex (if determinable): Male ☐ Female ☐ NA ☒ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) 90-220 Tail Length (mm) 40 Mass (g) 12.5 w/ bag
 Marked? ☒ Marking method/specifics Bag = 6.5

Diagnostic markings/scars —
 Health/behavior —
 Habitat/microhabitat —

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Riparian Canyon Valley oaks overhead, some Salix,
Junipers & some sage?

E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/13/21 Biologist Name(s) Stitt, E.H.
 Site name/Location Oasis #3 335 Coordinates (UTM/UPS WGS 84) 627131X4167003
NE corner
 Start time 1400 End time 1445 T_a °C 19.6 T_g °C 29.2
 Wind (mph) 15-20 Cloud cover % 0 Precip (hours/days ago) 6 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) _____ Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Riparian, Very steep slope > 50%, Dominated by Salix,
Serp willow, grasses, juncus, hardpacked streambed
& very good Legless lizard habitat
 E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/15/21 Biologist Name(s) Stitt, Z.H., Valler
 Site name/Location P7 Coordinates (UTM/UPS WGS 84) 630233 X 4166470
SW corner
 Start time 0750 End time 1116 T_a °C 20.7 T_g °C 20.5
 Wind (mph) 3.5 Cloud cover % 0 Precip (hours/days ago) 6 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) Elgaria (1) Time of capture — Time of release —
UTA 3
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # —

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) — Tail Length (mm) — Mass (g) —
 Marked? ☐ Marking method/specifics —

Diagnostic markings/scars —
 Health/behavior —
 Habitat/microhabitat —

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

501. Slope, Redbrome, Avenue, bare ground, Artemisia California

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630201 corner
 X 4166488
 630202 X 4166470
 630225 X 4166451

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/15/21 Biologist Name(s) Stitt, Zett, Valler
 Site name/Location 69 Coordinates (UTM/UPS WGS 84) 630290 x 4166428

Start time 1140 End time 1238 T_a °C 22.2 T_r °C 35.3
 Wind (mph) 5-8 Cloud cover % 6 Precip (hours/days ago) 8 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) N/A Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

steep slope, Artemisia californica, Bromus, Rock outcrops
loose soils - Decent Anniella habitat

E. Stitt LLNL survey data sheet Vers. 1



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630271 x 4166407 corner
 630242 x 4166421 corner

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/16/24 Biologist Name(s) Stitt, Zitt
Site name/Location P105 ish Coordinates (UTM/UPS WGS 84) 627655X 4167962
NE corner

Start time 1020 End time 1105 T_a °C 20.2 T_r °C 21.7
Wind (mph) 5-8 Cloud cover % 6 Precip (hours/days ago) 0 Amount —

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
Other species (indicate) — Time of capture — Time of release —
Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # —

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
SVL Length (mm) — Tail Length (mm) — Mass (g) —
Marked? ☐ Marking method/specifics —

Diagnostic markings/scars —
Health/behavior —

Habitat/microhabitat Half of site is great Anemella habitat. Deep sandy soils, dead Salvia & Juniper, grass cover, etc. Half is very shallow soil w/ scattered Lupine & Salvia growing over bedrock.

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

627668X 4167933 corner
627636X 4167926 corner
627630X 4167955 corner



Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/16/21 Biologist Name(s) Stitt, Zitt

Site name/Location 299 Coordinates (UTM/UPS WGS 84) 627719 X 4167869

Start time 1205 End time 1320 T_a °C 20.5 T_e °C 19.8

Wind (mph) 10-15 Cloud cover % 6 Precip (hours/days ago) 6 Amount

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) Elgaria (1) skin Time of capture Time of release

Captured during survey? ☒ Eumeces sp (1) Captured under coverboard? ☐ Coverboard #

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) Tail Length (mm) Mass (g)

Marked? ☐ Marking method/specifics

Diagnostic markings/scars

Health/behavior

Habitat/microhabitat

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Grass, lupine (bush), Inc. dead lupine, California sage,
Some sandy soils, but mostly clay - some fragmented Rock.
20-30% slope

E. Stitt LLNL survey data sheet Vers. 1



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627739 X 4167895 corner
627713 X 4167912 corner
627697 X 4167884 corner

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/16/21 Biologist Name(s) Stitt, Zitt
 Site name/Location 999B Coordinates (UTM/UPS WGS 84) 627490 X 4167867
 Start time 1435 End time 1535 T_a °C 32.0 T_e °C 51.0
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐Other species (indicate) Time of capture Time of release Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐SVL Length (mm) Tail Length (mm) Mass (g) Marked? ☐ Marking method/specifics Diagnostic markings/scars Health/behavior Habitat/microhabitat

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

40% slope, 30% bare ground, Black Sage, California
Gagebrush, lupine, mostly rocky soils, sandy in very few places

E. Stitt LLNL survey data sheet Vers. 1



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627482 X 4167837
627502 X 4167818
627515 X 4167845

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/27/2021 Biologist Name(s) Z. H. Stitt
 Site name/Location Site 300 SZ09 Coordinates (UTM/UPS WGS 84) 626718 X 4171006
NW corner
 Start time 0745 End time 0830 T_a °C 11.0 T_g °C 13.6
 Wind (mph) 10-15 Cloud cover % 0 Precip (hours/days ago) 24 Amount Trace

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) WFLI Z Time of capture 0815 Time of release 0815
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

Habitat/microhabitat Rocky @ Facing hillside, brush lupine dominates -
Sandy soils, sometimes thin over rock. Rock outcrops, some mammal
burrows.

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization



NE = 626745 X 4171014
 SE = 626753 X 4170985
 SW = 626725 X 4170978

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/27/21 Biologist Name(s) Bill, Stitt
 Site name/Location Site 300 S 215 Coordinates (UTM/UPS WGS 84) 626737x4171017
SW corner
 Start time 0850 End time 0954 T_a °C 12.2 T_g °C 12.3
 Wind (mph) 10-15 Cloud cover % 0 Precip (hours/days ago) 24 Amount Trace

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) WFLI Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Bush Lupine, Non-native grasses on gentle (5%) slope -
Good Anniella habitat - Sandy soils over rock

E. Stitt LLNL survey data sheet Vers. 1



ECORP Consulting, Inc.
 ENVIRONMENTAL CONSULTANTS

NW 626729x4171045
 NE 626757x4171058
 SE 626763x4171028

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/27/21 Biologist Name(s) B. H. Smith
 Site name/Location Site 300 5197 Coordinates (UTM/UPS WGS 84) 626667 x 4170560
SW corner
 Start time 10:44 End time 11:15 T_a °C 18.2 T_b °C 28.7
 Wind (mph) 10-15 Cloud cover % 0 Precip (hours/days ago) 24 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Rolling grassland, sandy soils, bare ground, some Purple Needlegrass. Much boar damage - good HL Habitat

E. Stitt LLNL survey data sheet Vers. 1



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 ENVIRONMENTAL CONSULTANTS

626635 x 4170565
 626841 x 4170594
 626674 x 4170588

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/27/21 Biologist Name(s) Zitt, Stitt
 Site name/Location site 300 5197 Coordinates (UTM/UPS WGS 84) 626666 x 4170561
NW corner
 Start time 1128 End time 1200 T_a °C 18.1 T_g °C 33.4
 Wind (mph) 10-15 Cloud cover % 8 Precip (hours/days ago) 24 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Rolling grassland - little bare ground. Eriogonum dominates.
A few ant colonies within grid. pit. HL Habitat

E. Stitt LLNL survey data sheet Vers. 1



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626670 x 4170590
 626679 x 4170586
 626694 x 4170559

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/27/21 Biologist Name(s) E. Stitt
 Site name/Location Site 300 P248 & P249 Coordinates (UTM/UPS WGS 84) 628991
Y 4171088
 Start time 1332 End time 1500 T_a °C 21.5 T_g °C 44.3
 Wind (mph) 15-18 Cloud cover % 0 Precip (hours/days ago) 24/6 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) Z. crocalus Time of capture _____ Time of release _____
720 uTA Z WFLIZ
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Very complex Rock outcrops, cracks, nooks, crannies -
Many lizards, good Mastigophis habitat

E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 9/28/21 Biologist Name(s) E. Stitt
 Site name/Location Site 300 ~~P93~~ P93 Coordinates (UTM/UPS WGS 84) 631514 x 4167858

Start time 0837 End time 0937 T_a °C 20.2 T_s °C 19.4
 Wind (mph) 45 Cloud cover % 0 Precip (hours/days ago) 44 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

10-20% slopes, Sandy/Rocky soils, Eriogonum & California Sagebrush
dominated - Good Anniella habitat (& macrophils)

E. Stitt LLNL survey data sheet Vers. 1



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 ENVIRONMENTAL CONSULTANTS

631514 x 4167889
631481 x 4167889
631480 x 4167859

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/28/21 Biologist Name(s) ZH, Stitt
 Site name/Location 7936 Coordinates (UTM/UPS WGS 84) 631518 X 4167868
SW corner
 Start time 1010 End time 1115 T_a °C 22.4 T_e °C 36.6
 Wind (mph) 3-5 Cloud cover % 0 Precip (hours/days ago) 48 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) YTA ① Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

210 slope hillside, Sandy soils, Eriogonum dominated, Annual grasses, Many Rocky outcrops - Great Anniella habitat (Anastiscophis)

E. Stitt LLNL survey data sheet Vers. 1



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 ENVIRONMENTAL CONSULTANTS

631517 X 4167905
 631549 X 4167899
 631544 X 4167871

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/24/21 Biologist Name(s) Britt, Stitt
 Site name/Location Site 300 Coordinates (UTM/UPS WGS 84) 631550 x 416 7896

Start time 1240 End time 1405 T_a °C 29.7 T_e °C 39.6
 Wind (mph) 5-8 Cloud cover % 6 Precip (hours/days ago) 48 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

35% Slope, Rocky, 30% cover of Eriogonum - shallow
Sandy Soils - Good Annelida Habitat, Masticophis -

One Shaker skin collected
 E. Stitt LLNL survey data sheet Vers. 1



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631579 x 4167897
631579 x 4167926
631550 x 4167929

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/28/21 Biologist Name(s) Zutt / Sutt
 Site name/Location Site 300 P98 Coordinates (UTM/UPS WGS 84) 631654 x 4167960

Start time 1440 End time 1530 T_a °C 29.2 T_e °C 51.5
 Wind (mph) 8-10 Cloud cover % 0 Precip (hours/days ago) 48 Amount JR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) DCR OF DUTH Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

20% slope, Rock shelves/outcrops, Eriogonum & Artemisia -
Grass (thick) understory - clay soils - heavy & hard -

E. Stitt LLNL survey data sheet Vers. 1



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631678 x 4167958
 631673 x 4167928
 631643 x 4167934

TC linear survey

Page 1 of 4

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/29/21 Biologist Name(s) Zitt, Stitt
Site name/Location Site 300 Spring Coordinates (UTM/UPS WGS 84) 631025 x 4166276
Start time 1040 End time 1100 T_a °C 26.4 T_g °C 28.0 630986 x 4166347 ^{Start}
Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 92 Amount TR ^{End}

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
Other species (indicate) WFL13 (2) UTAID Time of capture _____ Time of release _____
Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
Health/behavior _____

Habitat/microhabitat Riparian linear survey
Dry spring - a water, extremely weedy, lots of Thistle, Nettle, Tree tobacco,
poor habitat -

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/29/21 Biologist Name(s) Zeit, Stitt
 Site name/Location Site 300 P4 Coordinates (UTM/UPS WGS 84) 630968 x 4166293

Start time 1110 End time 1250 T_a °C 30.2 T_g °C 31.8
 Wind (mph) 3-5 Cloud cover % 0 Precip (hours/days ago) 72 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) ① WFL Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

Habitat/microhabitat Oak grassland - 2 blue oaks within grid - much
duff/leaf litter, extensive use by pigs - 30% slope,
loose, clay soils

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization



630937 x 4166292
 630940 x 4166264
 630972 x 4166267

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 9/29/21 Biologist Name(s) Zeit, Stitt
 Site name/Location site 300 P5 Coordinates (UTM/UPS WGS 84) 630828 x 4166266 NW corner
 Start time 1255 End time 1320 T_a °C 31.9 T_g °C 31.7
 Wind (mph) 5-8 Cloud cover % 8 Precip (hours/days ago) 72 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) _____ Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

Habitat/microhabitat oak grassland w/ dead snag & much downed wood
20% + slope, dense grass, much snail use

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization



Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/29/21 Biologist Name(s) Zutt, Stitt
 Site name/Location Site 300 P1 Coordinates (UTM/UPS WGS 84) 630800 X 4165982

Start time 1350 End time 1417 T_a °C 30-7 T_g °C 42-6
 Wind (mph) 3-5 Cloud cover % 0 Precip (hours/days ago) 72 Amount TR

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Burn site - very little ground cover - E. loganum & Alnus
@ low % coverage - Clay soil, high shrink-swell potential

E. Stitt LLNL survey data sheet Vers. 1



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630 782 X 4166009
 630 757 X 4165992
 630 777 X 4165983

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/30/21 Biologist Name(s) Zett, Stitt

Site name/Location Site 300 p84 Coordinates (UTM/UPS WGS 84) 628188 x 4167728

Start time 0810 End time 0947 T_a °C 22.0 T_g °C 19.0

Wind (mph) 58 Cloud cover % 50% Precip (hours/days ago) 96 Amount 7R
High/Thin

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) ① UTA ① SALIZ Time of capture _____ Time of release _____

Captured during survey? ☐ **Captured under coverboard?** ☐ **Coverboard #** _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ **Age class:** Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ **Marking method/specifics** _____

Diagnostic markings/scars _____

Health/behavior_____

Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right

Anterolateral ☐ **Injuries** ☐

Notes/additional habitat characterization

90% flat w/ 10% steep slope, 80% coverage of *E. rostratum*
facilitation, great to some soils under dead mats of shrub
thin annual grasses underneath

E. Stitt LLNL survey data sheet Vers. 1



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628179 x 4167698

028158 R 4167733

628 155 X 416 7702

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/30/21 Biologist Name(s) B. H. SHUTT
 Site name/Location Site 300 P846 Coordinates (UTM/UPS WGS 84) 628177X4167668

Start time 1020 End time 1200 T_a °C 30.5 T_g °C 40.1
 Wind (mph) 5.8 Cloud cover % 10/0 Precip (hours/days ago) 96 Amount TR
high/4mm

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) ① NWFLIZ ② UTA Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

90% shrub cover, Eriogonum & Baccharis - Sandy soils on Flats
Clay on slope under shrubs - 20% slope on 10% of grid

E. Stitt LLNL survey data sheet Vers. 1



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628184 X 4167698
 628155 X 4167702
 628147 X 4167673

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 4/30/21 Biologist Name(s) Z. H. StittSite name/Location Site 300 p84C Coordinates (UTM/UPS WGS 84) _____Start time 1200 End time 1330 T_a °C 31.0 T_e °C 42.5Wind (mph) 3-6 Cloud cover % 0 Precip (hours/days ago) 96 Amount trCAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) _____ Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ RightAnterolateral ☐ Injuries ☐

Notes/additional habitat characterization

E. Stitt LLNL survey data sheet Vers. 1


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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 8/3/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location Site 300 XX1 Coordinates (UTM/UPS WGS 84) 631565 x 4167868
564

Start time 0935 End time 1021 T_a °C 25.5 T_s °C 31.5
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

30% slope, sandy soils, Eriogonum dominated, Annual
grasses

E. Stitt LLNL survey data sheet Vers. 1



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631562 x 4167865
 631593 x 4167878
 631581 x 4167907
 631556 x 4167894

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/3/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location Site 300 xx2 Coordinates (UTM/UPS WGS 84) 631593 x 4167876
S65
 Start time 1050 End time 1200 T_a °C 27.3 T_b °C 32.5
 Wind (mph) 8.5 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 0 Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

30% slope on W/SW facing hillside - Eriogonum dominated,
Sandy soils, Annual grasses

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631625 x 4167883
 631612 x 4167912
 631585 x 4167901

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/5/21 Biologist Name(s) Stitt, Wong, A. H. S. M.
 Site name/Location Site 300 999 (2) Coordinates (UTM/UPS WGS 84) 627740 X 4167887

Start time 0915 End time 1000 T_a °C 25.2 T_s °C 24.8 27/10 RH
 Wind (mph) 10-15 Cloud cover % 0 Precip (hours/days ago) _____ Amount _____

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) _____ Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

(W) Facing slope 40% grade, California Sagebrush / Annual
grasses

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627700 X 4167884
 627699 X 4167854
 627727 X 4167853

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/5/21 Biologist Name(s) Stitt, Artisan, Wong
 Site name/Location _____ Coordinates (UTM/UPS WGS 84) 627717 x 4167862

Start time 1040 End time 1124 T_a °C 27.9 T_b °C 29.3
 Wind (mph) 5.6 Cloud cover % 8 Precip (hours/days ago) 8 Amount 8

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) Galbani's skink Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured juv under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization _____



627697 x 4167851
627698 x 4167822
627724 x 4167821

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/5/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location Site 300 Coordinates (UTM/UPS WGS 84) 627577 x 4167792
 Start time 1144 End time 1233 T_a °C 31.5 T_b °C 41.2 32% RH
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) UTA (1) WF (2) Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat Rocky, Sandy soils 30-40% slope, Sagebrush & black sage, Dead Junipers, Good Anniella & Mastigophis habitat

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization _____

E. Stitt LLNL survey data sheet Vers. 1



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627561 x 4167818
 627576 x 4167835
 627598 x 4167816

Handwritten signatures and initials

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/5/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location 999d Coordinates (UTM/UPS WGS 84) 627614 x 4167809

Start time 1355 End time 1425 T_a °C 30.2 T_b °C 42.7 21% RH
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) UTA ① Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Rocky Hillside 30% slope, Black Sage, Sagebrush

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627623 x 4167837
 627595 x 4167851
 627576 x 4167831

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/5/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location site 300 Coordinates (UTM/UPS WGS 84) 627578 X 4167830
P99E
 Start time 1435 End time 1506 T_a °C 32-5 T_e °C 55-4
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) (1) NA Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Rocky hillside, shallow sandy soils, Black sage dominated

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627551 X 4167847
 627536 X 4167822
 627557 X 4167816

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/6/21 Biologist Name(s) Stitt, Wong, Aghasani
 Site name/Location Site 300 P57b Coordinates (UTM/UPS WGS 84) 627236 X 4167245
Oasis slope
 Start time 0855 End time 0930 ¹⁰⁰⁵ T_a °C 21.5 T_b °C 22.8
 Wind (mph) 15-20 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☒ San Joaquin Coachwhip ☐ ⁽¹²⁾

Other species (indicate) _____ Time of capture 0930 Time of release _____

Captured during survey? ☒ Captured under coverboard? ☐ Coverboard # _____

Amniote Captured during Survey utm = 627214 X 4167237

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) 125 Tot Length Tail Length (mm) _____ Mass (g) 1.32
100 tot length 0.92

Marked? ☐ Marking method/specifics Not marked

Diagnostic markings/scars ⁽¹⁾ Broken tail ~ 0.5cm, larger Adult ⁽²⁾ smaller adult tail entire

Health/behavior Active, Alert, Surprised

Habitat/microhabitat in deep sand and leaf litter under black sage. Approx
1 ft deep, both captured under same shrub

PHOTOS: Dorsum ☒ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

steep, 50% slope (and s), Very sandy, deep soils in places,
black sage dominated.

E. Stitt LLNL survey data sheet Vers. 1



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627207 X 4167256
 627196 X 4167227
 627223 X 4167219

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/6/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location Site 300 P57c Coordinates (UTM/UPS WGS 84) 627201 X 4167226
Oasis 2 adjacent to previous plot
shared side
 Start time 1040 End time 1115 T_a °C 22.5 T_b °C 35.9
 Wind (mph) 10-15 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) YTA ② Croted Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifc _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Rocky and steep, little soil layer, Black sage dominated -
a few caines used by snails

E. Stitt LLNL survey data sheet Vers. 1



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Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/6/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location Site 300 P57 NW of Oasis Coordinates (UTM/UPS WGS 84) 627177X 4167333
 Start time 1145 End time 1226 T_a °C 24.1 T_s °C 30.6
 Wind (mph) 10-15 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) B Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

60% slope (steep!), Rocky, Thin sandy soils w/ Rock/puddle
Cal. sagebrush & black sage dominate. 8 Anemella habitat

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627170 x 4167362
 627149 x 4167351
 627164 x 4167324

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/6/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location Site 300 957d Coordinates (UTM/UPS WGS 84) 627368X 4167489
upstream of oasis
 Start time 1345 End time 1445 T_a °C 22.9 T_b °C 41.2
 Wind (mph) 20-25 Cloud cover % 0 Precip (hours/days ago) 0 Amount 6

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) Outa Owl Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

10-20% slope, hardpan w/ thin sand/silt layer, pockets
of deep sand. Black Sage dominates. Good Anniella habitat
50% bare ground
 E. Stitt LLNL survey data sheet Vers. 1



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10F2

627376 X 4167464
 627410 X 4167475
 627395 X 4167508

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/6/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location Site 800 p57e Coordinates (UTM/UPS WGS 84) 627368 X
upstream oaks 4167489
 Start time 1345 End time 1445 T_a °C 22.9 T_s °C 41.2
 Wind (mph) 20-25 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) UTA ① whiptail ① Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

See 1 of 2

E. Stitt LLNL survey data sheet Vers. 1



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2 of 2

627395 X 4167508
627355 X 4167512
627379 X 4167533

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/7/21 Biologist Name(s) Stitt, Wang, Attisani
 Site name/Location Site 300 957F Coordinates (UTM/UPS WGS 84) 627287 x 4167619
Khare oasis
 Start time 0945 End time 1015 T_a °C 17.7 T_b °C 24.7 28% RH
 Wind (mph) 3-5 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) ① WFLZ Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifc _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

30% slope, bedrock w/ thin sand substrate. 15% bare
ground, ① Juniper, Black Sage,

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627292 x 4167585
 627320 x 4167589
 627318 x 4167619

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/7/21 Biologist Name(s) Stitt, Wong, Attisani
 Site name/Location Site 300 P57g Coordinates (UTM/UPS WGS 84) 627319 x 4167617
Phone Oasis
 Start time 1030 End time 1115 T_a °C 20.7 T_b °C 32.6
 Wind (mph) 5-10 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) ① UTA Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

40% slope, SW facing, sandy soils / bedrock w/ grasses,
Juniper, black sage (dominant). Deep pockets of sand / loam
provide good Anniella habitat
 E. Stitt LLNL survey data sheet Vers. 1



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627287 x 4167618
 627314 x 4167646
 627290 x 416747

Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 5/9/21 Biologist Name(s) Stitt, Wong, Attasani
 Site name/Location Site 300 85th upslope of oasis Coordinates (UTM/UPS WGS 84) 627294 x 4167681
 Start time 1145 End time 1232 T_a °C 23.3 T_b °C 40.7
 Wind (mph) 8-15 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) _____ Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____
 Habitat/microhabitat _____

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

Rocky hillside, 10% slope, Black sage dominated, one juniper,
White oak on site - pockets of great soil - sandy/loamy/organic -
Good Anniella habitat
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627313 x 4167720
 627321 x 4167687
 627284 x 4167709

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/1/21 Biologist Name(s) Stitt/WongSite name/Location Rio Reserve 3-b Coordinates (UTM/UPS WGS 84) 633098 x 4167713
P-76Start time 0750 End time 0850 T_a °C 24.5 T_g °C 24.5Wind (mph) 0-3 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐Other species (indicate) 2 WFLI Time of capture _____ Time of release _____Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat Riparian - Cottonwood dominated - Cany c - much
leaf litter, open understory - Very compacted clay. Go!s through
Much of site - Salix Goodii as understory - Very Dry -PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ RightAnterolateral ☐ Injuries ☐

Notes/additional habitat characterization

633097 x 4167738

633075 x 4167731

633071 x 4167703



Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/1/21 Biologist Name(s) Stitt/Wang
 Site name/Location Bio Reserve P72 Coordinates (UTM/UPS WGS 84) 633041 x 4167671

Start time 0920 End time 1036 T_a °C 28.1 T_r °C 29.5 RH = 36.0
 Wind (mph) 3-5 Cloud cover % 0 Precip (hours/days ago) 6 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) 3 WFLCZ Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifcs _____

Diagnostic markings/scars _____
 Health/behavior _____

Habitat/microhabitat Riparian cottonwood/willow dominated - seep willow
understory - small drainages through here - cobble lined -
much leaf litter/downed material - clay soils primarily.

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

633015 x 4167663
 633014 x 4167632
 633038 x 4167635



3 mammal traps 633026 x 4167630

Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/1/21 Biologist Name(s) Stitt/Wong
 Site name/Location Bio Reserve #926 Coordinates (UTM/UPS WGS 84) 633031 X 4167595

Start time 1127 End time 1225 T_a °C 33.6 T_g °C 35.4 RH = 26.1
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) SALIZ 2 WFLIE 8 Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat Deep shale, Riparian, Cottonwood/willow.

Deep leaf litter - Many downed limbs

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right

Anterolateral ☐ Injuries ☐

633008 X 4167597
633014 X 4167585

Notes/additional habitat characterization



Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/1/21 Biologist Name(s) _____
 Site name/Location Bio Reserve P55 Coordinates (UTM/UPS WGS 84) 633009X 4167484

Start time 1250 End time 1345 T_a °C 40.2 T_e °C 48.3
 Wind (mph) 35 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) WFL ③ CROT ① Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifcs _____

Diagnostic markings/scars _____
 Health/behavior Good
 Habitat/microhabitat Riparian - Cottonwood dominated - Sandy Soils -
Good Anniella habitat

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

633047 X 4167471
 633040 X 4167497
 633016 X 4167502



Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/2/21 Biologist Name(s) Stitt/Wong
 Site name/Location ECO preserve P50 Coordinates (UTM/UPS WGS 84) 632990 X 4167397
NW
 Start time 0815 End time 0923 T_a °C 23.1 T_e °C 20.8 RH = 43.5
 Wind (mph) 0 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) NFL (5) SALICID Time of capture _____ Time of release _____
NA (1)
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifcs _____

Diagnostic markings/scars _____
 Health/behavior _____

Habitat/microhabitat Peanut Riparian w/ cottonwood overstory - grassy
underneath, sandy soils - dry! Sandy wash through site -

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

632992 X 4167383
 633025 X 4167362
 633629 X 4167388



Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/2/21 Biologist Name(s) Stitt/Wong
 Site name/Location 310 Reserve #506 Coordinates (UTM/UPS WGS 84) 633003 K4167399

Start time 0940 End time 1040 T_a °C 25.4 T_b °C 25.6 RH = 42
 Wind (mph) 3.5 Cloud cover % 8 Precip (hours/days ago) 8 Amount 8

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) (3) WFLIZ Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat Riparian w/ Cottonwood Overstory - Good Anacardium habitat -
Sandy soils, dense understory - Bachard's Salicifolia etc. Complex!
lots of leaf litter -

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right

Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

633027 x 4167388
 633038 x 4167420
 633012 x 4167428



Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/2/21 Biologist Name(s) Stitt/Wong
 Site name/Location BioReserve p24 Coordinates (UTM/UPS WGS 84) 633055 x 4166939

Start time 1155 End time 1220 T_a °C 32.6 T_b °C 44.6 RH = 27.6
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) NFLIZ (5) ALLIZO Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat Riparian within basin - Very dense Pepperweed.
throughout - Very dense downed woody debris - Floods & ponds
occasionally -

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right

Anterolateral ☐ Injuries ☐

633059 x 4166907
633081 x 4166908

Notes/additional habitat characterization



Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/2/21 Biologist Name(s) Stitt/Wong
 Site name/Location Bio preserve P26 Coordinates (UTM/UPS WGS 84) 633065x4166941

Start time 1205 End time 1310 T_a °C 36.2 T_g °C 53 RH 28.6
 Wind (mph) 5.8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) WFLIE (6) Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifcs _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat Extremely dense understory - Downed wood throughout
Lepidium dense-

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right

Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

~~633059x4166902~~
 633052x4166963
 633079x4166967
 633091x4166937



Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/3/21 Biologist Name(s) Stitt / Wong
Site name/Location Site 300 964 Coordinates (UTM/UPS WGS 84) 627043 X 4167387
SE

Start time 1000 End time 1035 T_a °C 31.8 T_r °C 52.6
Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
Other species (indicate) Scroto Time of capture Time of release
Captured during survey? ☐ Captured under coverboard? ☐ Coverboard #

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
SVL Length (mm) Tail Length (mm) Mass (g)
Marked? ☐ Marking method/specifcs

Diagnostic markings/scars
Health/behavior

Habitat/microhabitat Juniper/grassland - 6-10 large Junipers on slope -
30% - Annual grassland underneath - Adjacent to dry drainage

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

627045 X 4167414
627018 X 4167392
627020 X 4167415



Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/4/21 Biologist Name(s) Stitt/Wong
 Site name/Location Bio Reserve P29 Coordinates (UTM/UPS WGS 84) 633054 X 4167028

Start time 0720 End time 0800 T_a °C 26.0 T_e °C 25-3 RH = 31.6
 Wind (mph) 3-5 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐

Other species (indicate) DWFLIZ Time of capture _____ Time of release _____

Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐

SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____

Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____

Health/behavior _____

Habitat/microhabitat Open canopy Riparian - cobble/sand substrate -
Downed wood - lots of Lythrum & Baccharis salicifolia - Red & Annella
habitat in places

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right

Anterolateral ☐ Injuries ☐

633048 X 4167058
633076 X 4167057

Notes/additional habitat characterization



Area-Constrained Herpetofauna Survey

Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/4/21 Biologist Name(s) Stitt/Wong
 Site name/Location Bio Reserve P27 Coordinates (UTM/UPS WGS 84) 633054X4167028
NW
 Start time 0810 End time 0840 T_a °C 26.4 T_e °C 28.2 RH = 29.8
 Wind (mph) 5-8 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) DWFLIZ Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifcs _____

Diagnostic markings/scars _____
 Health/behavior _____

Habitat/microhabitat Open Riparian - Sandy & Cobble substrate, willow,
Cottonwood - Good Anniella habitat -

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

633079 X 4167032
633076 X 4166992
633047 X 4167000



Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/4/21 Biologist Name(s) Stitt/Wong
 Site name/Location Bio Reserve 931 Coordinates (UTM/UPS WGS 84) 633062X4167060
 SW

Start time 0910 End time 1000 T_a °C 27.9 T_b °C 17.2 RH = 29.8
 Wind (mph) 8-12 Cloud cover % 0 Precip (hours/days ago) 6 Amount 6

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☒ shed skin - collected
 Other species (indicate) (3) WFLIZ Time of capture _____ Time of release _____
 Captured during survey? ☒ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
 Health/behavior _____

Habitat/microhabitat Open Riparian - cottonwoods but much sunlight -
Sandy / gravelly soils - good Anniella habitat

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

633059 X4167091
 633089 X4167091
 633091 4167060

Notes/additional habitat characterization



Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/4/21 Biologist Name(s) Stitt/Wong
Site name/Location Bio Reserve P34 Coordinates (UTM/UPS WGS 84) 633064X 4167138
SW

Start time 1015 End time 1050 T_a °C 31.5 T_b °C 28.6
Wind (mph) 8-15 Cloud cover % 0 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
Other species (indicate) 0 Time of capture _____ Time of release _____
Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
Marked? ☐ Marking method/specifics _____

Diagnostic markings/scars _____
Health/behavior _____

Habitat/microhabitat Open flood plain - one cottonwood, sand/gravel
lots of downed debris 70% sun

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

633094X 4167133
633086X 4167166
633057X 4167167



Area-Constrained Herpetofauna Survey
Lawrence Livermore National Laboratory 2021

SURVEY: Date 6/4/21 Biologist Name(s) Stitt/Wong
 Site name/Location Bw Reserve P37 Coordinates (UTM/UPS WGS 84) 633058 x 4167191

Start time 1105 End time 1135 T_a °C 31.6 T_b °C 37.9
 Wind (mph) 8-15 Cloud cover % 8 Precip (hours/days ago) 0 Amount 0

CAPTURE: Blainville's Horned Lizard ☐ Legless Lizard ☐ San Joaquin Coachwhip ☐
 Other species (indicate) ① WFLIZ Time of capture _____ Time of release _____
 Captured during survey? ☐ Captured under coverboard? ☐ Coverboard # _____

Sex (if determinable): Male ☐ Female ☐ NA ☐ Age class: Adult ☐ Juvenile ☐ Neonate ☐
 SVL Length (mm) _____ Tail Length (mm) _____ Mass (g) _____
 Marked? ☐ Marking method/specifc _____

Diagnostic markings/scars _____
 Health/behavior _____

Habitat/microhabitat wide open - sandy/gravelly - No canopy -
Tree tobacco, Lepidium Dominate

PHOTOS: Dorsum ☐ Venter ☐ Left Lateral ☐ Right Lateral ☐ Left Anterolateral ☐ Right
 Anterolateral ☐ Injuries ☐

Notes/additional habitat characterization

633058 x 4167220
633088 x 4167218
633087 x 4167186



ATTACHMENT E

Survey Data Spreadsheet (MS Excel)

**This file is attached to the PDF using the Adobe Attachment function.
Click the paperclip icon on the left edge of the screen to open and
view the file.**